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# CAROLINA UNDERGRADUATE BULLETIN 

## 2015-2016 Recoral




# THE UNIVERSITY of NORTH CAROLINA ${ }_{a t}$ CHAPEL HILL 

UNDERGRADUATE BULLETIN

## 2015-2016 Record

on the web:
WWW.UNC.EDU/UGRADBULLETIN

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The University of North Carolina at Chapel Hill is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools to award bachelor's, master's, doctoral, and professional degrees. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, GA 30033-4097 or call (404) 679-4500 for questions about the accreditation of the University of North Carolina at Chapel Hill.

## Summary of the University's Policy on Prohibited Discrimination, Harassment, and Related Misconduct, Including Sexual and GenderBased Harassment, Sexual Violence, Interpersonal Violence, and Stalking

The University's Policy on Prohibited Discrimination, Harassment, and Related Misconduct prohibits all forms of discrimination and harassment based on protected status: age, color, creed, disability, gender, gender expression, gender identity, genetic information, national origin, race, religion, sex, sexual orientation, or veteran status. It expressly, therefore, also prohibits sexual violence and sexual exploitation, which by definition involve conduct of a sexual nature and are prohibited forms of sexual or gender-based harassment. This policy further prohibits stalking and interpersonal violence, which need not be based on an individual's protected status. Finally, this policy prohibits complicity for knowingly assisting in an act that violates this policy and retaliation against an individual because of their good faith participation in the reporting, investigation, or adjudication of violations of this policy.
For more information about the policy and procedures, visit sexualassaultanddiscriminationpolicy.unc.edu or contact the Equal Opportunity and Compliance Office.

Equal Opportunity and Compliance Office
100 East Franklin Street, Unit 110, Campus Box 9160
Chapel Hill, NC 27599-9160
Telephone: (919) 966-3576
Fax: (919) 962-2562
Email: eoc@unc.edu

## Policy Statement on Nondiscrimination

The University is committed to providing an inclusive and welcoming environment for all members of our community and to ensuring that educational and employment decisions are based on individuals' abilities and qualifications. Consistent with this principle and applicable laws, it is therefore the University's policy not to discriminate in offering access to its educational programs and activities or with respect to employment terms and conditions on the basis of race, color, gender, national origin, age, religion, creed, genetic information, disability, veteran status, sexual orientation, gender identity, or gender expression. Such a policy ensures that only relevant factors are considered and that equitable and consistent standards of conduct and performance are applied.

## Resources for Information and Assistance

Individuals are encouraged to report incidents of prohibited conduct to the Equal Opportunity and Compliance Office, the Title IX Compliance

Coordinator, the Student Complaint/Deputy Title IX Coordinator, the Office of the Dean of Students, or the UNC Department of Public Safety. As an alternative, an individual can also seek confidential assistance that does not involve notice to the University. If the conduct you have experienced is sexual violence or other criminal activity, including interpersonal (relationship) violence or stalking, you are also encouraged to report the incident to local law enforcement. Visit sexualassaultanddiscriminationpolicy.unc.edu for a comprehensive list of support and reporting options.

## Reporting Options

UNC Department of Public Safety
dps.unc.edu
(919) 962-8100

Equal Opportunity and
Compliance Office
eoc.unc.edu
100 East Franklin Street, Unit 110
(919) 966-3576

Interim Title IX
Compliance Coordinator
Katie Nolan
100 East Franklin St., Unit 110
(919) 445-1577
kbnolan@unc.edu

## Confidential Resources

Campus Health Services
campushealth.unc.edu
(919) 966-3650

After hours: (919) 966-2281
UNC Hospital Emergency Room www.med.unc.edu/emergmed (919) 966-4721

Counseling and
Psychological Services campushealth.unc.edu/caps
(919) 966-3658

## The Honor Code

The Honor System forms a bond of trust among students, faculty, and administrators. The University of North Carolina at Chapel Hill operates under a system of self-governance, as students are responsible for governing themselves. As such, our University is transformed into a powerful community of inquiry and learning. The Honor Code embodies the ideals of academic honesty, integrity, and responsible citizenship, and governs the performance of all academic work a student conducts at the University. Acceptance of an offer of admission to Carolina presupposes a commitment to the principles embodied in our century-old tradition of honor and integrity.

## Student Right-to-Know Act

Pursuant to the federal Student Right-to-Know Act, we report that, in 2014-2015, the completion or graduation rate for undergraduates who entered the University of North Carolina at Chapel Hill in 2008 on a full-time basis was 90 percent.

Cover photo: Dan Sears

Deputy Title IX Coordinator/ Student Complaint Coordinator Ew Quimbaya-Winship 1125 Student and Academic Services Building
(919) 843-3878
eqw@unc.edu
The Office of the Dean of Students
deanofstudents.unc.edu
1106 Student and Academic Services Building North (919) 966-4042
dos@unc.edu

University Ombuds Office
www.ombuds.unc.edu
(919) 843-8204

Orange County Rape Crisis Center
www.ocrcc.org
(919) 968-4647; 1-866-WE-

LISTEN (1-866-935-4783)
Gender Violence Services
Coordinator
Cassidy Johnson
(919) 962-1343
cassidyjohnson@unc.edu

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## The University of North Carolina at Chapel Hill: An Introduction

Visitors are always welcome at the University of North Carolina at Chapel Hill.

If you are a prospective student and want information about admission to the University, contact the Undergraduate Admissions Office at (919) 966-3621 or go to www.admissions. unc.edu.

The UNC-Chapel Hill Visitors' Center offers tours, maps, and information about the University and the Carolina community. Its interactive touchscreen can direct visitors to anywhere they need to go on campus. Located inside the Morehead Planetarium Building at 250 East Franklin Street, the center is open Monday through Friday, 9:00 a.m. to 5:00 p.m.

Campus visitors can learn about the University's stories, legends, and realities on a walking tour that highlights the past, present, and future of Carolina. This is an informative, 55-minute stroll through the heart of the historic campus, down the treelined brick pathways of the nation's oldest state university and one of its premier institutions in teaching, research, and public service. Specialized tours for prospective graduate students and school groups also are offered, led by enthusiastic students with a wealth of knowledge about UNC-Chapel Hill. Call the Visitors' Center at (919) 962-1630 for tour times.

Parking information and a campus map are available at the Visitors' Center or on the Web at www.unc.edu/visitors/gettinghere.

Overnight accommodations are usually available (except on football weekends, Commencement weekend, and other special occasions) at the Carolina Inn, near the center of the University. Call the Carolina Inn at (919) 933-2001 for overnight reservations. People planning to visit campus should seek reservations well in advance. The Carolina Inn supports the North Carolina Collection at Wilson Library on campus.

Numerous other hotels are located in the Chapel Hill vicinity. Contact the UNC-Chapel Hill Visitors' Center at (919) 9621630 or visit the Chapel Hill/Orange County Visitors' Bureau at www.visitchapelhill.org.

## Using the Undergraduate Bulletin

The Undergraduate Bulletin is a valuable resource that prospective and enrolled students can use throughout their days at the University of North Carolina at Chapel Hill. The Bulletin supplies general information about the University to prospective students and their parents. It includes information about application procedures and about orientation and matriculation for students who have been accepted.

Academic regulations, University facilities, and college life also are described. Departmental degree requirements and course offerings are included, but students in some specialized curricula will be referred to other publications for additional information. Enrolled students are encouraged to use the Bulletin in addition to talking with faculty advisors and consulting their Tar Heel Tracker for undergraduate degree requirements.

This bulletin is concerned primarily with prospective students and with undergraduates enrolled in the General College, the College of Arts and Sciences, and the Schools of Business, Dentistry, Education, Information and Library Science, Media and Journalism, Medicine, Nursing, Pharmacy, and Public Health, as well as Summer School.

The following catalogs and admissions brochures are published by the University of North Carolina at Chapel Hill, in print form and/or on the Web: Kenan-Flagler Business School, School of Dentistry, School of Education, School of Government, The Graduate School, School of Information and Library Science, School of Media and Journalism, School of Law, School of Medicine, School of Nursing, Gillings School of Global Public Health, School of Social Work, and Summer School. Part-Time Classroom Studies and Self-Paced Courses also publish course catalogs.

## Corresponding with the University

Prospective students are welcome to contact the University's Office of Undergraduate Admissions for more information about the University and to schedule a campus tour. Campus visitors can find the office in Jackson Hall on Country Club Road. The mailing address is Undergraduate Admissions, CB\# 2200, Jackson Hall, University of North Carolina at Chapel Hill, Chapel Hill, NC 27599-2200.
After being formally accepted, students may have questions about housing and accommodations. If so, students can contact the Department of Housing and Residential Education in the Student and Academic Services Building (SASB), CB\# 5500, 450 Ridge Rd., or call (919) 962-5401 or (800) UNC-5502. The housing Web site is located at housing.unc.edu.

Students with questions about their proposed program of study should establish contact with the academic dean in that area. The General College, telephone (919) 966-5116, is responsible for all first-year students, except those in dental hygiene, who should communicate directly with their department. The Office of Scholarships and Student Aid, CB\# 2300, 300 Vance Hall, telephone (919) 962-8396, Web studentaid.unc.edu, has general charge of scholarships, grants, job opportunities, and loans.

Telephone calls to any office or person in the University system can be completed through the University operator in Chapel Hill when the caller does not know the direct number. The operator's number is (919) 962-2211.

Lost and found items are held at the information desk on the second floor of the Frank Porter Graham Student Union. All items, except credit cards and IDs, are taken daily to the Alpha Phi Omega Lost and Found, which can be reached at (919) 9621044.

## Campus Tours for Prospective Students

Tours for prospective students are available Monday through Friday year round, except during some holidays and semester
breaks. Tours begin at the Office of Undergraduate Admissions and are led by Carolina students. To make reservations, call (919) 966-3621, visit www.admissions.unc.edu, e-mail unchelp@ admissions.unc.edu, or write Undergraduate Admissions, CB\# 2200, Jackson Hall, Chapel Hill, NC 27599-2200.

## Obtaining an Undergraduate Bulletin

Admitted first-year students will be given the opportunity to obtain a free printed Undergraduate Bulletin during their new student orientation visit to campus. Thereafter, students can refer to new printed editions of the Bulletin by purchasing one from Student Stores in person or via the Web. For information about purchasing the Bulletin, visit store.unc.edu and click on "Academics" and then "School Bulletins."

Printed reference copies of the Bulletin are available at campus libraries and with each student's faculty advisor. The Bulletin is also available on the Web at www.unc.edu/ugradbulletin.

## Reaching the Office of Undergraduate Admissions

The starting point for most prospective students is the University's Office of Undergraduate Admissions. Knowledgeable staff members help prospective students understand the requirements and procedures of applying for admission to UNC-Chapel Hill. Admissions staff can be reached at Undergraduate Admissions, CB\# 2200, Jackson Hall, The University of North Carolina at Chapel Hill, Chapel Hill, NC 27599-2200, by telephone at (919) 966-3621, or at www.admissions.unc.edu.

## The Mission Statement of the University of North Carolina at Chapel Hill

The University of North Carolina at Chapel Hill, the nation's first public university, serves North Carolina, the United States, and the world through teaching, research, and public service. We embrace an unwavering commitment to excellence as one of the world's great research universities.

Our mission is to serve as a center for research, scholarship, and creativity and to teach a diverse community of undergraduate, graduate, and professional students to become the next generation of leaders. Through the efforts of our exceptional faculty and staff, and with generous support from North Carolina's citizens, we invest our knowledge and resources to enhance access to learning and to foster the success and prosperity of each rising generation. We also extend knowledge-based services and other resources of the University to the citizens of North Carolina and their institutions to enhance the quality of life for all people in the State.

With lux, libertas—light and liberty—as its founding principles, the University has charted a bold course of leading change to improve society and to help solve the world's greatest problems.

## A Look at the University of North Carolina at Chapel Hill

The University of North Carolina was anticipated by a section of the first state constitution drawn up in 1776 directing the establishment of "one or more universities" in which "all useful learning shall be duly encouraged and promoted." State support, it directed, should be provided so that instruction might be available "at low prices." The American Revolution intervened, and it was not until 1789, the year that George Washington became president of the new nation, that the University was chartered by the General Assembly. Despite constitutional instructions to the contrary, no state appropriations were made, and the trustees were left to secure land and money themselves. On October 12, 1793, the cornerstone was laid for a brick building on a hilltop near the center of the state amidst the colorful fall foliage of dogwood, oak, and tulip trees.

The site, lying at the crossing of north-south and east-west roads, was marked only by a small Anglican chapel that soon shared part of its name-New Hope Chapel Hill—with the community that developed there. Legislator and trustee William R. Davie, who had been instrumental in securing passage of the charter, took the lead in organizing the University. Davie presided over the Masonic ritual of the laying of the cornerstone. In time he came to be called "the Father of the University." Many years later a large poplar or tulip tree, first mentioned in 1818 and still standing near the center of the old campus, was called Davie Poplar in his honor.

The first building and, indeed, the only building for two years, was a two-story brick structure that came to be called Old East. It is now a National Historic Landmark, the oldest state university building in America. Opened to students on January 15, 1795, the University of North Carolina received its first student, Hinton James of New Hanover County, on February 12. By March there were two professors and 41 students present.

The second state university did not begin classes until 1801, when a few students from nearby academies assembled under a large tree at Athens, Georgia, for instruction. By then four classes had already been graduated at Chapel Hill, and there were to be three more before the first diplomas were issued in Georgia. The next building on the Carolina campus was Person Hall, begun in 1796 and long used as the chapel. The cornerstone of Main or South Building was laid in 1798. All three are older than any other American state university building.

## The Young University

During the early 19th century the trustees began a period of strong support in the development of the young University. Even though their proclaimed initial goal for the University had been to provide trained leadership for the state, the curriculum followed the customary classical trend. In 1815, however, the natural sciences were given equal place, and in the 1820 s Professors Denison Olmstead and Elisha Mitchell prepared the nation's first geological survey. In 1831 the first astronomical observatory at a state university was built under the direction of President Joseph

Caldwell. Student enrollment increased steadily, and by 1860 only Harvard, Yale, and the University of Virginia had more students.

Young men from many states came to Chapel Hill for their education, particularly those from families who had recently left North Carolina to settle elsewhere in the South. The University of North Carolina provided governors not only for North Carolina but also for many other states; countless professions and occupations were represented among its graduates, including cabinet members, clergymen, diplomats, engineers, geologists, judges, legislators, surveyors, teachers, and a president and a vice president of the United States.
Though the Civil War closed many colleges and universities, the University at Chapel Hill remained open throughout the war, though its students were few. During Reconstruction, however, it was closed from 1870 until 1875 . When it reopened, the University's leadership began to inaugurate programs that once again marked it as a leading university.
The General Assembly in 1931 consolidated the University with the Woman's College at Greensboro and North Carolina State College at Raleigh under a single board of trustees. As an economy measure during the Depression and as a means of eliminating duplication, the trustees allocated each unit specific roles in higher education for the state. The offices of the Consolidated University were established on the Chapel Hill campus and University President Frank Porter Graham became the Consolidated University's first president.
The period of the Depression in the 1930s saw a great deal of new construction on the campus as federal funds became available to create jobs for the unemployed. New dormitories, classroom buildings, a gymnasium, and other buildings and improvements were built in part from this source. World War II also resulted in some new construction and alterations on campus as the University's facilities were used to train military personnel.

Expansion continued throughout the 20th century, and today UNC-Chapel Hill ranks among the great institutions of higher education in the nation. Beginning with one building, 41 students, and two professors, the University has now grown to more than 300 buildings, more than 29,000 students annually, and more than 3,600 faculty members.

## Facilities for a 21st-Century Education

The campus underwent an unprecedented physical transformation made possible in part by North Carolinians' overwhelming approval in November 2000 of a $\$ 3.1$ billion bond referendum for higher education. Through 49 projects, the bonds provided more than $\$ 515$ million for renovations and new buildings at Carolina. Also guided by a visionary campus master plan for growth, the University leveraged state appropriations from the General Assembly with investments from nonstate sources, including private gifts raised during the Carolina First Campaign. The resulting capital construction program exceeded $\$ 2.3$ billion. More than 100 projects were completed.

Designed mainly around the principle of enhancing the University's mission of teaching, research, and public service, the campus master plan shows where and how to place new buildings over the next several decades. While providing a blueprint for expansion in a modern era, its design also ensures that the most cherished physical features of the historic campus-including the sense of place-will remain in harmonious balance with the new growth.

## Commitment to Diversity

The University of North Carolina at Chapel Hill strives for excellence both in academic engagement and cocurricular support. Sustaining a diverse and inclusive community is critical to achieving educational excellence.

## Framework for Understanding Diversity at UNC-Chapel Hill

The work of the University in the 21st century functions in a global context. The historical, political, economic, and educational backgrounds of the University, the state, and the nation shape our present circumstances and inform the measures we must take to accomplish our highest aspirations. We acknowledge that we face an ongoing challenge to overcome the effects and influences of adverse historical, social, political, and economic factors. The University engages in teaching, research, and service to expand and discover knowledge, promote educational enlightenment, and improve understanding with the ultimate end of uplifting humankind. Education takes place most productively among persons with differing social backgrounds, economic circumstances, personal characteristics, philosophical outlooks, life experiences, perspectives, beliefs, and expectations. The University works to assure that we have a complement of students, faculty, and staff that broadly reflects the ways in which people differ. We believe that "diversity matters" within and beyond the campus community.

The University of North Carolina at Chapel Hill makes a commitment to certain core values with respect to diversity:

- Supporting intellectual freedom, personal integrity and justice, and improving conditions of human life
- Creating and sustaining an environment for students, faculty, and staff that represents the diversity of our state and our nation
- Promoting intellectual growth and educational benefits of diversity through interactions and dialogue among members of the community
UNC-Chapel Hill's commitment to diversity excellence began in the 1960s through the support of minority programming and continues today through the establishment of UNC Diversity and Multicultural Affairs (DMA).

The vision of DMA is to build and sustain an inclusive campus community and to foster a welcoming climate that values and respects all members of the University community. The associate vice chancellor for diversity and multicultural affairs serves as the University's chief diversity officer and advises the University community on diversity policies and issues.

DMA collaborates with University officers and campus units to identify and implement strategies and initiatives for
achieving the goals of increased diversity, with the ultimate goal of building an inclusive environment that values and respects the contributions of students, faculty, and staff. DMA provides diversity education, opportunities, and development for faculty, staff, students, and community members; develops, implements, and supports recruitment and leadership programs that facilitate access and retention and promote inclusive excellence across institutional segments (e.g., student enrollment, faculty hiring, staff development); conducts diversity research, assessment, and reporting to generate and inform the campus and beyond on diversity-related issues; and provides consultation and project management to promote and enhance diversity and community engagement. To accomplish these tasks, DMA relies on its four major reporting areas: Carolina Latina/o Collaborative; Diversity Education and Initiatives; Inclusive Student Excellence and Multicultural Programs; and Research, Assessment, and Analytics.

Partnerships and collaborations with vice chancellors, deans, and other unit heads are leveraged to accomplish the University's goals for establishing diversity within the faculty, staff, and student cohorts and for fulfilling the public university mission of service, outreach, and engagement. Additional information can be found at diversity.unc.edu.

## Top Rankings

The University has been recognized for the quality of its undergraduate and graduate programs in every national survey conducted in the last third of the 20th century and into the 21st. U.S. News and World Report's survey of American colleges and universities consistently ranks the University among the best colleges in the nation and among the top research universities.

These accolades reflect the quality of the curriculum and of the faculty, whose research orientation allows them to share with their students not only the thrill of discovery but also the latest advancements and new knowledge. Another asset that contributes to this reputation is UNC-Chapel Hill's superb library system containing more than seven million volumes. It is ranked among the top research libraries in the United States and Canada by the Association of Research Libraries.

## Research

Carolina ranks among the top public universities in the United States in research support. Research funding totaled $\$ 792.7$ million in fiscal 2014, compared with $\$ 773$ million the previous year. On a year-to-year average, UNC-Chapel Hill's research awards comprise more than half of the total research awards for all UNC system campuses.

The steady growth of research funding over the past 16 years is a great tribute to the success of the faculty and a multidisciplinary approach to advancing knowledge and science. UNC-Chapel Hill faculty members are part of an internationally recognized research enterprise that draws from five health sciences schools (dentistry, medicine, nursing, pharmacy, and public health), UNC Health Care and its teaching hospitals, as well as basic and social science units in the College of Arts and Sciences.

At UNC-Chapel Hill research is not limited to just faculty and graduate students. Through the Office for Undergraduate Research in the College of Arts and Sciences, first-year students through seniors have opportunities to work one-on-one with faculty mentors to design and carry out research projects to help them find new answers to complex questions. Undergraduate research can be conducted through coursework, internships, creative performances, and mentored independent study at home and abroad.

## Public Service

As the first public university in the nation, the University of North Carolina at Chapel Hill has a long and proud history of engagement. The University's public service and engagement activities extend to every region of North Carolina, helping communities promote public health, improve their schools, deliver better medical services, stimulate economic development, understand their heritage, and enrich the quality of life. Dozens of UNC-Chapel Hill faculty members share their expertise on state commissions, licensing and regulatory boards, task forces, and committees to benefit North Carolinians. Many of the University's student organizations help nonprofit agencies throughout the year. Since its establishment in 1859 the Campus Y has been one of the most vibrant student organizations at the University. The Y is a leader in on-campus dialogue and offcampus service related to social justice and activism. To learn more, go to campus-y.unc.edu.

The Carolina Center for Public Service offers a variety of programs that support public service and engagement, providing students, faculty, and staff with various ways to explore service opportunities, learn new skills, and link their academic endeavors to making a difference in communities across North Carolina and throughout the world. Through a variety of programs including Buckley Public Service Scholars (BPSS), APPLES Service-Learning, and Thorp Faculty Engaged Scholars, the Carolina Center for Public Service uses scholarship and service to connect Carolina and communities. The BPSS program is open to all undergraduates and encourages participants to complete a required number of service hours, a service-learning class, four skills training sessions, and reflective exercises in order to receive official University recognition on their transcripts.

Since the program's launch in 2003, 7,103 students have logged 1,344,645.7 hours of service. Other opportunities available through BPSS include the Arts in Public Service Fellows, Outward Bound scholarships, and enrollment in courses such as Philanthropy as a Tool for Social Change and SMART Mentoring. The APPLES Service-Learning program provides opportunities for undergraduate students to serve with community-based organizations through service-learning courses and internships, alternative breaks, fellowships, and the ServiceLearning Initiative. Since 2000, more than 25,000 students have participated in APPLES programs, offering more than 980,000 service hours to the community. The center also offers funding and public service awards that provide opportunities for undergraduate and graduate students to further their involvement and community engagement through innovative service projects.
For more information about the Carolina Center for Public Service, visit ccps.unc.edu. Students who want to stay informed about program deadlines and information can sign up for the center's weekly Public Service News at ccps.unc.edu/news-events/ public-service-news-listserv.

## Into the Future

The University is the most comprehensive institution in North Carolina, both in the range of its programs at all levels and in the breadth of its specialized research and public service programs. Its 14 schools and the College of Arts and Sciences provide instruction in more than 100 fields, offering bachelor's, master's, doctoral, and professional degrees, as well as certificates, in academic areas critical to North Carolina's future: business, dentistry, education, information and library science, media and journalism, government, law, medicine, nursing, pharmacy, public health, and social work, among others.

Since 1795 , when its doors first opened to students, the University has remained faithful to its founders' charge to duly encourage and promote all useful learning for the betterment of humanity.

## Adapted from an article by William S. Powell.

## Academic Calendar 2015-2016

| University Registrar calendars can be obtained on the University Registrar's Web site: <br> registrar.unc.edu. For more information on Maymester, visit summer.unc.edu. <br> Summer Session I (SSI) and Maymester (MM) 2015 <br> Classes begin MM and SSI <br> Last day for late registration MM <br> Last day for late registration SSI <br> Holiday (Memorial Day) <br> MM Classes EndWednesday, May 13 <br> MM Final Exams | Monday, May 25 |
| :--- | :--- |
| SSI Classes End | Thursday, May 28 |
| SSI Reading Day | Friday, May 29 |
| SSI Exam Days | Monday, June 15 |

Summer Session II (SSII) 2015

| Classes begin for SSII | Monday, June 22 |
| :--- | :--- |
| Last day for late registration SSII | Tuesday, June 23 |
| Holiday (Independence Day) | Friday, July 3 |
| SSII Classes End | Thursday, July 23 |
| SSII Reading Day | Friday, July 24 |
| SSII Exam days | Monday, July 27 <br> Tuesday, July 28 |

Fall Semester 2015

| Residence halls open | Saturday, August 15 |
| :--- | :--- |
| New student convocation | Sunday, August 16 |
| Summer reading program | Monday, August 17 |
| Classes begin | Tuesday, August 18 |
| Last day for late registration | Monday, August $\mathbf{2 4}$ |
| Holiday (Labor Day) | Monday, September 7 |
| Holiday (University Day) | Monday, October 12 |
| Class cancelled 10:00 a.m. until 1:00 p.m. | Wednesday, October 14 |
| Fall break begins 5:00 p.m. | Monday, October 19 |
| Classes resume 8:00 a.m. | Wednesday, November 25 |
| Thanksgiving recess. No classes | Thursday, November 26 |
| University holiday | Friday, November 27 |
| Classes resume 8:00 a.m. | Monday, November 30 |
| Classes end | Wednesday, December 2 |


| Reading days | Thursday, December 3 |
| :---: | :---: |
|  | Wednesday, December 9 |
| Exam days | Friday, December 4 |
|  | Saturday, December 5 |
|  | Monday, December 7 |
|  | Tuesday, December 8 |
|  | Thursday, December 10 |
|  | Friday, December 11 |
| Fall Commencement | Sunday, December 13 |
| The fall semester includes 42 class periods of 50 minutes each on MWF and 29 class periods of 75 minutes each on TTH for a total of 71 days. |  |
| Days of Instruction |  |
| 13 - Mondays | 16 - Tuesdays |
| 15 - Wednesdays | 14 - Thursdays |
| 14 - Fridays |  |
| 42 | 30 |
| $(2,100$ minutes +180 exam $=2,280)$ | $(2,175$ minutes +180 exam $=2,355)$ |

Spring Semester 2016


Summer Session I (SSI) and Maymester (MM) 2016
Classes begin SSI and MM

Last day for late registration MM
Last day for late registration SSI
MM classes end
MM exams
Holiday (Memorial Day). No classes
SSI classes end
SSI reading day
SSI exam days

Wednesday, May 11
Wednesday, May 11
Thursday, May 12
Thursday, May 26
Friday, May 27
Monday, May 30
Monday, June 13
Tuesday, June 14
Wednesday, June 15
Thursday, June 16

Summer Session II (SSII) 2016

| Classes begin | Monday, June 20 |
| :--- | :--- |
| Last day for late registration | Tuesday, June 21 |
| Holiday (Independence Day). No classes | Monday, July 4 |
| SSII classes end | Thursday, July 21 |
| SSII reading day | Friday, July 22 |
| SSII exam days | Monday, July 25 <br> Tuesday, July 26 |

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Dwayne Pinkney, Ph.D., Secretary of the University

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## Admissions

## The University of North Carolina at Chapel Hill: Admissions Policy

I. All qualified persons are welcome to seek admission to the University of North Carolina at Chapel Hill, and all persons may apply for and accept admission confident that the policy and regular practice of the institution are not to discriminate in offering access to its educational programs and activities on the basis of age, gender, race, color, national origin, religion, creed, disability, veteran's status, sexual orientation, gender identity, or gender expression. (See policies.unc.edu/ policies/nondiscrim).
II. Projections of the number of students to be admitted and enrolled in any year shall be determined a) by the capacity of the institution to meet the instructional and other needs of students in the colleges, schools, departments, curricula, or other programs to which applicants seek admission and b) by enrollment levels approved for budgetary or other appropriate purposes.
III. When at any time the number of qualified applicants for admission exceeds the number of persons who can be admitted and enrolled (as determined by the criteria specified in II above), those to be offered admission shall be selected on the basis of a) recognition of the institution's special responsibility to residents of North Carolina and b) the institution's judgment of the applicant's relative qualifications for satisfactory performance in the specific college, school, department, curriculum, or other program to which the applicant seeks admission.
Provided that the criteria set forth hereinafter are met, this policy of competitive admissions shall not prevent the admission of selected applicants a) who give evidence of possessing special talents for University programs requiring such special talents, b) whose admission is designed to help achieve variety within the total number of students admitted and enrolled, or c) who seek educational programs not readily available at other institutions.

In seeking variety within the total number of students admitted and enrolled, the University shall affirm its commitment to achieve excellence, to provide for the leadership of the educational, governmental, scientific, business, humanistic, artistic, and professional institutions of the state and nation, and to enrich the lives of all the people of North Carolina.

In the application of this policy of competitive admissions to nonresident students, preference for admission may be given to nonresident applicants who are children of alumni of the institution.
IV. Admission of persons to the specific colleges, schools, curricula, or other programs of the institution shall be governed by the provisions set forth below.

## Undergraduate Admissions

Admission of undergraduate students to colleges or schools to pursue programs leading to a baccalaureate degree shall be the responsibility of the Office of Undergraduate Admissions. The Admissions Office shall apply policies and procedures that, not inconsistent with policies adopted by the Board of Trustees, are approved by the Advisory Committee on Undergraduate Admissions.

In the application of the provisions set forth in III above, preference for admission shall be given to qualified residents of North Carolina; however, in recognition of the educational and other values accruing to North Carolina students, to the institution, and to the state from participation of nonresident students in the programs of the institution, nonresidents may be admitted in the entering first-year class in numbers likely to result in no more than 18 percent nonresident enrollment in the entering first-year class.
Admission of undergraduates shall be to the first-year class, to other classes by transfer after satisfactory completion of one or more years of acceptable college-level work in some other institution(s) of higher education, or to Part-Time Classroom Studies.
Admission and enrollment of persons who are candidates for financial aid for which athletic ability is a consideration shall be conditional upon compliance with applicable regulations of the Atlantic Coast Conference and the National Collegiate Athletic Association.

## Admission to the First-Year Class

Admission to and enrollment in the first-year class shall be conditional upon graduation from secondary school with such units of secondary school academic course credit as may be specified by the Office of Undergraduate Admissions; however, if all other criteria are met, the Admissions Office may make exceptions to the secondary school graduation and course credit requirements in accordance with procedures approved by the Advisory Committee on Undergraduate Admissions.

Criteria employed for determination of each applicant's qualifications for admission shall include a) satisfactory evidence of scholastic promise based upon the applicant's previous academic record, recommendations from schools previously attended, scores on selected tests of scholastic aptitude or achievement, and the applicant's written application for admission, and b) satisfactory evidence of the applicant's capacity to cope with the demands of University life.

## Admission by Transfer

Admission and enrollment by transfer from another institution shall be conditional upon a satisfactory academic record on work undertaken in all other institutions attended, satisfactory recommendations from institutions previously attended, and eligibility to return to all previously attended institutions of higher education.

## Part-Time Classroom Studies Admissions

Eligibility for admission to Part-Time Classroom Studies shall normally be limited to adult individuals living within commuting distance of Chapel Hill.

Admission to Part-Time Classroom Studies of an applicant who does not hold a baccalaureate degree shall be the responsibility of the Office of Undergraduate Admissions. Such admissions shall be either

- For full credit, applicable toward fulfillment of degree requirements, in which case the minimum requirements shall be the same as those for admission to degree programs and in which case the Office of Undergraduate Admissions shall review each applicant using the same admissions criteria as for comparable full-time, degree-seeking students applying to the University; OR
- For personal benefit and enjoyment, in which case the applicant may be exempted from the qualitative requirements for admission to degree programs. Notwithstanding this exemption from qualitative requirements, the applicant must have graduated from an approved or accredited secondary school and must demonstrate the capacity to cope with the demands of University life.
Admission to Part-Time Classroom Studies of an applicant who is currently enrolled in high school shall be the responsibility of the Office of Undergraduate Admissions. Such admissions shall be considered only when an applicant a) seeks to enroll in a University course for which there is no comparable course at the student's secondary school and b) demonstrates adequate preparation for the course in which the student seeks to enroll.
Admission to Part-Time Classroom Studies of an applicant who holds a baccalaureate degree shall be the responsibility of the William and Ida Friday Center for Continuing Education. Such admissions shall be for personal benefit and enjoyment, for the satisfaction of prerequisite requirements for professional or graduate programs, or for transfer of credit to a postbaccalaureate degree program, in which case the applicant may be exempted from the qualitative requirements for admission to degree programs.


## Graduate School Admissions

With recognition of the institution's special responsibility to residents of North Carolina but without restrictions based on residence status, admission to The Graduate School shall be a selective process with the objective of enrolling from the pool of applicants for each discipline those students who, in the judgment of the institution, are best qualified to pursue graduate degrees in their chosen academic fields. Admission of graduate students shall be the responsibility of the dean of The Graduate School with the advice and assistance of the Administrative Board of The Graduate School and of the graduate faculties of the departments, schools, and curricula authorized to offer graduate degree programs.
For admission to The Graduate School, the applicant must

- Hold a baccalaureate degree from an accredited college or university in the United States or its equivalent from an institution abroad
- Present a strong overall record of academic achievement
- Be in good standing in the last-attended institution where graduate work has been or is being taken, and
- Be admitted as a degree student unless there are exceptional circumstances justifying admission for nondegree study with the approval of the dean of The Graduate School.
The graduate student enrollment level for each school, department, or curriculum shall be determined for each academic year by the dean of The Graduate School following consultation with each of the schools, departments, and curricula concerned.


## Professional School Admissions

Admission of students to the professional degree programs in schools other than The Graduate School and to nondegree programs in the schools of the Division of Health Affairs shall be, in each of these schools, the responsibility of its established committee on admissions, which shall apply policies, procedures, and requirements, not inconsistent with the provisions of this policy, adopted by the faculty of the school and approved by the chancellor or his delegate.

## Summer Admissions

Admission of applicants to any summer session shall be the responsibility

- Of the Office of Undergraduate Admissions with respect to those who wish to begin in the summer an undergraduate program of study that will continue into the following academic year or that is intended to lead to a baccalaureate degree from the University of North Carolina at Chapel Hill, as well as those undergraduates already enrolled in this institution who wish to return for undergraduate work in the summer
- Of The Graduate School with respect to those who wish to begin a degree program of graduate study in the summer, as well as those graduate students already enrolled in this institution who wish to return for graduate study in the summer
- Of Part-Time Classroom Studies in the Friday Center for Continuing Education with respect to those who wish to begin in the summer on a part-time basis as a postbaccalaureate nondegree student, as well as those already enrolled in the University of North Carolina at Chapel Hill who wish to return for part-time study in the summer.
Admission to Summer School by the Office of Undergraduate Admissions, The Graduate School, and Part-Time Classroom Studies shall be in conformity with the provisions set forth in this policy for other undergraduate and graduate admissions.

Admission to Summer School by the dean of Summer School shall be in conformity with policies, procedures, and requirements adopted by the Administrative Board of Summer School. Each such admission shall terminate as of the last day of that summer term and shall include no commitment, stated or implied, for admission of the student to any subsequent semester or session of the University of North Carolina at Chapel Hill.
V. Appeals concerning individual admission, or admission rescission, decisions shall be governed by the admissions appeal procedure contained in Appendix A.

* This policy adopted by resolution of the Board of Trustees on September 3, 1976.
* Amended by Board of Trustees, August 24, 1984.
* Amended by Board of Governors, March 14, 1986.
* Amended by Board of Trustees, May 27, 1994.
* Amended by Board of Trustees, effective January 1, 2006.
* Amended by Board of Trustees, effective January 23, 2014.


## Appendix A: Admissions Appeal Procedure

This document sets forth the procedures to be followed with respect to the appeal of a negative admissions decision, including a decision to rescind an admission that has already been granted.
I. Appeal to Admissions Officer

Appeals concerning individual admission, or admission rescission, decisions may be had only if it is contended that a) a provision set forth in the University of North Carolina at Chapel Hill admissions policy ("admissions policy") has been violated or b ) the decision not to admit the individual or to rescind admission resulted from a material procedural error in the admissions process. Such an appeal shall be lodged by the applicant-appellant with the administrative officer (the director of undergraduate admissions, the dean of The Graduate School, the dean of the professional school concerned, or the dean of Summer School) whose office had responsibility for the admission in question (hereafter the "admissions officer") within 30 days after the University posts the appellant's online decision. The appeal shall be in writing and shall set forth the grounds for the appeal.

Upon receipt of the appeal, the admissions officer shall review the applicant-appellant's file and appeal letter and shall communicate his or her decision to the appellant in writing.
II. Appeal to Provost

The decision of the admissions officer may be appealed to the provost only if it is contended that a) a provision set forth in the admissions policy has been violated or b) the decision not to admit the individual or to rescind admission resulted from a material procedural error in the admissions, or appeal, process. Such an appeal shall be lodged with the provost by filing a letter of appeal specifying the grounds for the appeal within 15 days after the appellant has received the letter communicating the decision of the admissions officer.

The appeal shall be heard by the provost or the provost's designee, and the appellant, at his or her option, may appear
in person or conduct the appeal by telephone. Following the hearing, the provost or designee will communicate the decision to the appellant in writing.

## III. Appeal to the Board of Trustees

The decision of the provost or his or her designee may be appealed to the Board of Trustees only if it is contended that a) a provision set forth in the admissions policy has been violated or b ) the decision not to admit the individual or to rescind admission resulted from a material procedural error in the admissions, or appeal, process. The appellant shall file a letter of appeal specifying the grounds for the appeal and all supporting facts upon which the appellant bases his or her appeal within 15 days after receiving the letter communicating the decision of the provost. The appeal letter shall be sent to the Office of University Counsel for transmission to the Board of Trustees.
The Office of University Counsel shall review the appeal letter to determine if it states a valid ground for appeal. If the letter does not state a proper ground for appeal, the appeal will not go forward to the Board of Trustees, and the appellant will be notified to that effect. If the Office of University Counsel determines that the letter of appeal states a valid ground for appeal, it shall transmit the appeal to the Board of Trustees.
An appeal to the Board of Trustees shall be considered by a three-person panel of the Board of Trustees and shall be solely on the written record, unless the panel expressly requests the presence, in person or by phone, of both the appellant and the admissions officer or his or her designee. This three-person panel shall have full authority to act on behalf of the Board of Trustees, and the decision of the panel shall be deemed the decision of the Board of Trustees.
The Board of Trustees panel shall consider the record presented to the provost and all documents and other writings submitted by the appellant and the admissions officer. The trustee panel may reverse the decision of the provost only upon a showing by the appellant of clear and material error on the part of the provost in his or her decision. Otherwise, the panel shall sustain the provost's decision. If the trustee panel reverses the provost's decision, the panel shall remand the case to the appropriate admissions office for reconsideration in light of any guidance the trustee panel chooses to provide. The panel's decision will be communicated to the appellant in writing. There is no appeal from the decision of the trustee panel.

## Undergraduate Admissions

The Office of Undergraduate Admissions serves students interested in continuing their education at the University of North Carolina at Chapel Hill. Applications from all students are accepted and considered. Eighty-two percent of the first-year class will be from North Carolina, with 18 percent coming from outside the state.

## Admission Requirements

Admission to the University of North Carolina at Chapel Hill is competitive. Although all 16 public universities in North Carolina share the same minimum course and admission requirements, which are published at www.northcarolina.edu, these minimum credentials do not guarantee admission to UNC-Chapel Hill, and successful candidates typically exceed them.

In evaluating candidates for admission, the University seeks an entering class whose collective strengths will foster excellence within the University community; enhance the education of everyone within it; provide for the leadership of the educational, governmental, scientific, business, humanistic, artistic, and professional institution of the state, nation, and world; and enrich the lives of all the people of North Carolina.
The University evaluates individual candidates rigorously, holistically, and sympathetically. The admissions committee seeks to assess the ways in which each candidate will likely contribute to the campus community and enable the University to fulfill its mission. The qualities we seek include intellect, talent, curiosity, and creativity; leadership, kindness, and courage; honesty, perseverance, perspective, and diversity. Although we expect each successful candidate to demonstrate strength in many of these areas, we do not expect every candidate to be equally strong in all of them. Just as there is no formula for admission, there is no list of qualities or characteristics that every applicant must present.
In evaluating each candidate's academic record, the admissions committee considers not only the student's grades but also the difficulty of the courses attempted. Although each candidate's academic record and standardized test scores are important elements in the admissions decision, the candidate's essays, accomplishments outside the classroom, and personal qualities are also carefully considered.

By their anticipated date of enrollment, candidates for admission must have graduated from secondary school. In addition, the University asks that candidates present evidence of the capacity to cope with the demands of University life.

## Items Necessary for a Complete Application

## First-Year Admission

Students may apply for admission by following the instructions at www.admissions.unc.edu. In addition to the completed application, which includes the nonrefundable application fee (or fee-waiver request) and required essays, students are expected to submit the following materials:

- Official transcript(s) from all secondary schools and all colleges or universities attended
- Official results from the SAT Reasoning or the ACT Plus Writing examination
- Counselor statement and one teacher recommendation (if the candidate is in his or her first year at a new school, an additional recommendation from the previous school is suggested)
- Any additional items or information requested in the application or by the Office of Undergraduate Admissions.
In addition to the required information indicated above, applicants may submit information that will enhance the University's understanding of the student's background and preparation for college. The Office of Undergraduate Admissions, in its discretion, may deny admission to students who submit completed applications but who do not provide one or more of the materials listed above.


## Transfer Admission

A student is considered a transfer applicant if he/she has attended another postsecondary institution after graduating from high school. Such students may apply for transfer admission by following the instructions at www.admissions.unc.edu. In addition to the completed application, which includes the nonrefundable application fee (or fee-waiver request) and required essays, students are expected to submit the following materials:

- Official transcript from all colleges attended, including summer sessions and including any online or distance-education classes
- Official high school transcript (grades nine through 12)
- Official results from the SAT Reasoning or the ACT Plus Writing examination (sophomore transfers only)
- Any additional items or information requested in the application or by the Office of Undergraduate Admissions
- Community standards form or criminal background check (for all enrolling transfer students and for other candidates as requested by the Office of Undergraduate Admissions).
The Office of Undergraduate Admissions, in its discretion, may deny admission to students who submit completed applications but who do not provide one or more of the additional materials listed above.


## Standardized Testing

In accordance with University policy, as well as procedures approved by the Advisory Committee on Undergraduate Admissions, the admissions committee evaluates each candidate rigorously, holistically, and sympathetically, with an eye towards assessing the candidate's capacity to contribute to the kind of campus community that will enable the University to fulfill its mission. Although each evaluation includes the results of standardized testing, these results do not constitute the sole or main criterion for admission. There are no cutoff or threshold scores, no scores below which candidates are automatically denied admission, and no scores above which they are automatically offered admission. Instead, results from standardized testing represent one factor among many. For more about the role of tests in admissions, please see www. admissions.unc.edu.

## Fall/Winter Grades for Transfer Applicants

The fall and winter grades should be submitted to the Office of Undergraduate Admissions as soon as they become available. An application will be considered incomplete without them.

## High School Course Requirements

Students interested in attending the University should pursue a challenging high school curriculum. Such a curriculum will typically include at least five academic courses during each year of high school—preferably one each in the core disciplines of English, mathematics, social science, natural science, and foreign language. We also encourage our candidates to take at least five of the most rigorous courses available to them, including college-level courses offered through Advanced Placement, International Baccalaureate, or dual-enrollment programs. In evaluating academic performance in such a curriculum, we pay less attention to class rank and grade point average than we do to grades and to trends and patterns in grades.

To be considered for first-year admission, all applicants should meet the minimum high school (including the ninth grade) course requirements of the University of North Carolina system. These requirements are listed in the UNC Policy Manual (Chapter 700.1.1.1[R]).

Candidates who do not fulfill these course requirements may still apply for admission and be considered for an exception, although such exceptions are made rarely. Because admission to the University is competitive, candidates should normally enroll in courses beyond these minimum requirements.

Since admitted students will take placement exams in foreign language, candidates should continue in advanced foreign language courses during their final year in high school even if they have already met the minimum requirements.

Placement in courses during students' first semester at the University will be based on their performance on placement tests. Students may also receive credit for University courses based on dual-enrollment courses taken during high school. Although the student will take placement exams in some subjects at the University before the first semester begins, it is to the student's advantage to take placement tests in high school, especially those accepted by the University for placement purposes. For mathematics placement, the Department of Mathematics strongly recommends that enrolling students arrange to take the Mathematics 2 SAT Subject Test; although this test is not required for admission, many majors at Carolina require a quantitative reasoning course for which a mathematics placement score is necessary. Foreign language placement may be based on University placement exams, SAT Subject Tests, or College Board Advanced Placement tests. For English placement, students are required to take either English 105 at the University, or present an equivalent transferable course from another college or university. Students also are encouraged to take standardized tests that are recognized for placement in other subject areas.

## Dual Enrollment for High School Students

All courses attempted at UNC-Chapel Hill, including but not limited to summer session courses and dual-enrollment courses attempted while a student is still in secondary school, will be
included in the UNC grade point average.

## College Board Placement Tests

The University recognizes, for placement and degree credit, satisfactory scores on the College Board Advanced Placement, International Baccalaureate, and certain SAT Subject Tests. For more information, please visit www.admissions.unc.edu. Information about College Board tests and applications for specific tests may be obtained by visiting www.collegeboard. com; by writing the Educational Testing Service (Rosedale Road, Princeton, NJ 08541) or by contacting a high school counselor. Applicants should apply to take a test six to eight weeks in advance of the actual test date.

## Transfer Candidates

The requirements for transfer applicants are listed in the $U N C$ Policy Manual (Chapter 700.1.1.2[R]).Transfer applicants deficient in any of the minimum course or admission requirements will be eligible for transfer consideration only if one of the following two conditions is met:
A. The applicant has earned at least 24 transferrable undergraduate credits from one or more regionally accredited, postsecondary institutions. Undergraduate credits awarded for AP, IB, or other credit by exam shall not be included as part of these 24 hours. OR
B. The applicant is at least 21 years old.

To be considered for transfer admission, students must present at least a C average ( 2.0 on a 4.0 scale) in all courses attempted at other accredited colleges and universities. However, a much higher average is required to be competitive.

Except as otherwise noted, transfer students must satisfy the minimum course requirements of the University of North Carolina system, even if these requirements differ from the minimum requirements of their previous institutions.
Students also must be eligible to return to all institutions previously attended. Students who have less than a C average and who are, therefore, academically ineligible for consideration as transfer students may complete courses at another university in order to raise their grade point average to the point where they may be considered for transfer admission to the University. Coursework attempted through any academic program at UNCChapel Hill cannot be used to increase a student's grade point average for the purpose of establishing transfer eligibility.

The Office of Undergraduate Admissions evaluates candidates comprehensively and holistically based on both their high school and college records. We value strong performance in a challenging curriculum, including courses in English, mathematics, laboratory science, social science, and foreign language. All established academic records, as well as personal qualities and accomplishments, will be considered in the selection of the transfer class.

Once an applicant is admitted as a transfer student, all course credits taken at UNC-Chapel Hill become part of the student's official transcript, and grades received are included in the grade point average.
A transfer student' class standing upon admission is based on credit hours accepted by UNC-Chapel Hill for transfer, not
on the number of semesters enrolled at other colleges. Because students are allowed only eight undergraduate semesters to complete their degrees at the University, the number of semesters that a student completes before enrolling at Carolina determines the number of semesters available after enrolling. Because at least 15 credit hours are required to complete a semester, a student's class standing upon enrollment at UNC-Chapel Hill may differ from his or her class standing at the college or university previously attended. Students must earn at least 45 academic credit hours at UNC-Chapel Hill to earn a UNC-Chapel Hill degree.
A new transfer student with fewer than 30 hours of transfer credit accepted by UNC-Chapel Hill will have class standing as a first-year student upon admission to the University.

To enroll with sophomore class standing, a new transfer student must have at least 30 (and fewer than 59) credit hours accepted for transfer by UNC-Chapel Hill. Summer enrollment and AP/ IB Subject Test credit immediately prior to the first semester of UNC-Chapel Hill enrollment will not be counted in the hours needed to qualify as a sophomore.

To enroll with junior class standing, a new transfer student must have at least 60 credit hours accepted for transfer by UNCChapel Hill. Summer enrollment and AP/IB Subject Test credit immediately prior to the first semester of UNC-Chapel Hill enrollment will not be counted in the hours needed to qualify as a junior.
More specifically,

- A new transfer student with fewer than 15.0 transferable credit hours will be regarded as having completed no semesters and will have first-year standing upon enrollment at UNC-Chapel Hill.
- A new transfer student having between 15.0 and 29.9 transferable credit hours will be regarded as having completed one semester and will have first-year standing upon enrollment at UNC-Chapel Hill.
- A new transfer student having between 30.0 and 44.9 transferable credit hours will be regarded as having completed two semesters and will have sophomore standing upon enrollment at UNC-Chapel Hill.
- A new transfer student having between 45.0 and 59.9 transferable credit hours will be regarded as having completed three semesters and will have sophomore standing upon enrollment at UNC-Chapel Hill.
- A new transfer student having between 60.0 and 75.0 transferable credit hours will be regarded as having completed four semesters and will have junior standing upon enrollment at UNC-Chapel Hill.
Offers of admission typically are extended before an applicant's transfer credit can be fully evaluated. As a result, while transfer students are advised of their likely classification at the point of admission, this classification is provisional until confirmed by notification of transfer credits earned.


## Transfer of Credit

The University will award credit hours for courses from other accredited institutions when the student has made a satisfactory grade (a C or its equivalent) and when a similar course is offered by the University. If a passing grade of D is earned, the University will grant credit for the course but no hours will be awarded. If no passing grade is earned, no credit or hours will be granted. In most cases, professional courses and courses taken from nonaccredited institutions (including foreign institutions) will not transfer. The Office of Undergraduate Admissions may grant credit from foreign institutions to entering transfer students when the student provides an evaluation conducted by a professional evaluation service found at www.naces.org. For other institutions, the courses must be approved through the appropriate departments at this University, and the departments will determine if the course(s) may be applied toward requirements for the degree.

The Office of Undergraduate Admissions will not award any credit hours to currently enrolled UNC-Chapel Hill students for courses taken outside the Unites States, including study abroad courses offered by colleges and universities accredited within the United States. Credit will only be awarded for such courses if the UNC-Chapel Hill Study Abroad Office in the College of Arts and Sciences has approved them. If a student enrolls in a study abroad program offered through a UNC professional school and not the College of Arts and Sciences, the student must seek approval through that professional school.

The University honors the official Comprehensive Articulation Agreement with the North Carolina Community College System.

The University will consult two publications when settling questions that arise concerning the transfer of credit: Transfer Credit Practices, published by the American Association of Collegiate
Registrars and Admissions Officers, and Accredited Institutions of Post-Secondary Education, published by the American Council on Education.

A student may petition any University course credit evaluation provided by the Office of Undergraduate Admissions through the appropriate academic department. Additional information about having courses reevaluated is available at admissions.unc.edu. The academic department will determine how many, if any, credits can be awarded.

Students seeking transfer to the University may wish to plan their courses at their current institution in a way that will ensure the transfer of those courses. The University encourages such prior planning, and the Office of Undergraduate Admissions will assist prospective transfer students with it.

The University will award a maximum of 75 semester hours of transfer credit if the student's last attended institution was a fouryear institution. Students may transfer credit hours from a two-year institution only while they are earning their first 64 hours of college credit. For example, if a student has transferred fewer than 64 credit hours from two-year institutions but has earned 64 or more total credit hours (including hours from UNC-Chapel Hill or other four-year institutions), the student cannot transfer any additional credit hours from a two-year institution.

If a student enrolls in a course at a two-year institution concurrently with enrollment in courses at a four-year institution
(including UNC-Chapel Hill), transfer credit hours will not be awarded for the course taken at the two-year institution if the hours from the concurrent courses at the four-year institution bring the total earned hours to 64 or more.

For the calculations described herein, credit hours are tallied according to the chronological order in which the courses are taken, not according to the sequence in which documentation of the credits are submitted to the Office of Undergraduate Admissions.

## Military-Affiliated Students

We welcome applications from veterans of the United States military, active-duty servicemen and women, and their dependents. All persons who have completed a minimum of three years of active duty service will be considered transfer students with the branch of service functioning as the institution of transfer. Veterans and those who remain on active duty may earn as many as 18 hours of University credit, depending upon their experience. Those on active duty may qualify for the military tuition benefit, which allows them to attend the University at the in-state tuition rate. Students who are eligible for GI Bill or other veteran education benefits must apply directly to the U.S. Department of Veterans Affairs for these funds. For more information, please visit admissions.unc.edu/apply/militaryveterans.

## Application and Notification Deadlines

First-year applicants may apply for admission for their choice of one of two deadlines, neither of which is binding. Decisions will be posted online for all applicants through the ConnectCarolina Student Center. For the latest first-year admission deadlines and notification dates, please visit www.admissions.unc.edu.

The application deadline and notification dates for sophomore and junior admission to the College of Arts and Sciences and the School of Media and Journalism are available at www. admissions.unc.edu. The admission deadlines and notification dates for junior transfer applicants to the professional schools with programs in dental hygiene, clinical laboratory science, health policy and management, nursing, radiologic science, and biostatistics vary by department. Please contact the specific department for additional information.

## Appeals of Admissions Decisions

For information on appealing an admissions decision, refer to the "Admissions Appeal Procedure" in the "Admissions" section of this bulletin.

## Programs with Limited Admissions

Only a small number of transfer students will be admitted to the professional schools offering majors in media and journalism, and the allied health and public health programs. Junior transfer students planning to major in business administration, education, environmental health science, nutrition, or information and library science must enroll in the College of Arts and Sciences and complete at least one semester before applying for admission
to the professional schools offering these degree programs. Students interested in one of these fields may wish to consider another major as a second choice; however, even if admitted to an alternate program, students cannot be guaranteed subsequent admission to their first choice of major. In addition, notification of acceptance to these programs is generally later than for other programs.

## Health Program Majors

Early applications for these programs are encouraged. After completion of the fall semester, a transcript of that semester's work should be submitted. Applicants should also contact the specific department for additional application materials and specific program requirements.

Junior transfer applicants for the pharmacy program must apply directly to the School of Pharmacy. Junior transfer applicants also must provide Pharmacy College Admission Test scores as part of the application. Sophomore students must apply directly to the Office of Undergraduate Admissions.

## Music or Dramatic Art Majors

First-year and transfer students applying as music majors should contact the director of undergraduate studies in music at 101 Hill Hall to arrange an audition. Please indicate whether you wish to study voice or an instrument; if an instrument, please indicate which one. Students applying to major in the dramatic arts should contact the director of undergraduate studies in dramatic art at 222 Center for Dramatic Art.

## Confirmation of Acceptance

The University requires a nonrefundable enrollment deposit, due by May 1 for first-year admission or mid-May for transfer admission or within two weeks of receipt of the admission decision for students admitted after the deadline, whichever is later.

Degree-seeking students who wish to start their studies during the summer must notify the Office of Undergraduate Admissions of their plans and pay their summer fees as well as the fall term deposits to reserve a space for the fall term.

## Admission of International Students

International students are considered for admission on the same basis as other candidates and must provide the same information required of all other applicants. In addition, international students are required to submit results on the Test of English as a Foreign Language (TOEFL) (minimum score of 100), the International English Language Testing System (IELTS) (minimum band score of 7), or the Pearson Test of English (minimum score of 68) if English is not their native language. As a condition of enrollment, all entering students who have completed coursework from a foreign college or university that is not accredited within the United States must have their official transcripts evaluated by an accredited evaluation service such as the services available at www.naces.org.

United States immigration law requires proof of financial support for the student's entire program of study. Before enrollment, admitted students must provide documentation that they have sufficient funds in a bank to cover the first year of tuition and living expenses. See the section "Finances and Financial Aid" in this bulletin for information on expenses. The University will issue the necessary visa documentation to those students who are formally admitted to the University. International students should not leave their native country intending to enroll at the University until they have received a formal letter of acceptance and appropriate visa documents.

Questions concerning international student life on the UNCChapel Hill campus should be referred to the Foreign Student Advisor, CB\# 5240, Room 2004 FedEx Global Education Center, 301 Pittsboro Street, The University of North Carolina at Chapel Hill, Chapel Hill, NC 27599-5240.

## Readmission

Any student who withdraws or for any other reason fails to complete a semester must apply for readmission through the Office of Undergraduate Admissions. Students applying in this manner must submit a nonrefundable application fee or fee waiver request, as indicated in the application. Application for readmission should be made as early as possible and no later than the stated deadline found on the application for readmission. The readmission application is available at www.admissions.unc.edu.
A student leaving the University with an academic deficiency must restore his or her eligibility in order to be readmitted as a regular student. Restoration of eligibility can be accomplished only by enrolling in summer sessions or through distanceeducation instruction from the University (see below).

Students who have enrolled in courses at another college or university since their last enrollment at the University of North Carolina at Chapel Hill must submit transcripts of these courses and must have maintained a C average for all such courses attempted in order to be eligible for readmission. The grade point average required for readmission is based on all courses attempted on all campuses. (By contrast, a student's UNC-Chapel Hill grade point average is based on UNC-Chapel Hill courses only.)

Students leaving the University for medical or disciplinary reasons must be cleared by the appropriate office before being readmitted.

Because the University must adhere to enrollment projections, readmission cannot be guaranteed even if the student is academically eligible.

## Admission as a Summer School Visitor

Any student who has not been regularly enrolled or has not been admitted for a fall semester in any school in the University should send an application for admission as a visiting summer student to the Dean of Summer School, CB\# 3340, 134 E. Franklin Street. By contrast, those students who are in residence at the University will register for a summer session through their academic dean or advisor and need not make a separate application to the Dean of Summer School. A student who plans to restore academic
eligibility through work done in a summer session must apply for readmission through the Office of Undergraduate Admissions,
CB\# 2200, Jackson Hall.

## Admissions Confidentiality

The University of North Carolina at Chapel Hill will protect the privacy of all students seeking admission through the Office of Undergraduate Admissions by soliciting and receiving all academic and nonacademic records obtained for the purpose of admission on the condition that they be held in confidence by the University. No information obtained through the admissions process will be shared with individuals, internal or external to the University, other than the chancellor, the provost, and members of the Advisory Committee on Undergraduate Admissions and its subcommittees.

Though current federal legislation allows students enrolling at the University access to their files, students do not have access to their applications.

Exceptions to this confidentiality policy will be made only at the direction of the chancellor or the provost.

## Further Information

For additional information and services related to the admission of first-year and transfer students, please contact the Vice Provost for Enrollment and Undergraduate Admissions, CB\# 2200, Jackson Hall, The University of North Carolina at Chapel Hill, Chapel Hill, NC 27599-2200.

## Intra-University Transfer

Transfer from one school or college within the University is possible with the approval of both academic deans concerned.

## Other Credit Programs

## Carolina Courses Online

Carolina Courses Online is a distance-education program that offers UNC-Chapel Hill courses over the Internet. Class sessions are not required, but courses follow the semester schedule. Access to the World Wide Web and e-mail are required in order to enroll. The courses are administered through the Friday Center for Continuing Education, (919) 962-1134.

Undergraduate students in the College of Arts and Sciences are limited to 24 credit hours toward a degree at UNC-Chapel Hill through Carolina Courses Online.

See the section in this bulletin under "Distance-Learning Courses via the Friday Center for Continuing Education" for additional information.

## Self-Paced Courses

Many undergraduate distance-education opportunities are available through Self-Paced Courses, including online and printbased correspondence courses. Students can enroll at any time, work at their own pace, and take up to nine months to complete a course. Undergraduate students in the College of Arts and Sciences are not allowed to take Self-Paced Courses except in
unusual circumstances; written consent of the student's dean is required in order to enroll.

Students found academically ineligible to continue in resident study at the University should consider enrolling in Carolina Courses Online and/or Summer School. If extraordinary circumstances exist, a student may contact his or her dean to discuss using Self-Paced Courses to restore eligibility.

Application for Self-Paced Courses is made to the Friday Center for Continuing Education, CB\# 1020, (919) 962-1134. Application forms and a complete catalog of course listings may be obtained from the same office.

## Admission to Part-Time Classroom Studies

Part-Time Classroom Studies is the academic unit in the Friday Center for Continuing Education through which area adults (customarily students aged 24 and older) enroll in University courses part time. Both undergraduate and postbaccalaureate students are admitted without respect to race, color, national origin, religion, sex, age, or handicap.

Part-Time Classroom Studies students may register for a maximum course load of eight credit hours per semester. A small selection of courses is scheduled for the evening hours; the University's daytime courses are also open to Part-Time Classroom Studies students if space permits.
Undergraduate or high school students desiring to enroll through Part-Time Classroom Studies should file an admission application and nonrefundable application fee with the Office of Undergraduate Admissions, CB\# 2200, Jackson Hall, University of North Carolina at Chapel Hill, Chapel Hill, NC 27599-2200, or at www.admissions.unc.edu.

Admission is limited for both prospective degree candidates and for those seeking to take courses for personal benefit and enjoyment. To be eligible, students must have been away from a traditional school setting for at least 12 months and must have graduated from a secondary school. Admission is available to UNC-Chapel Hill faculty and staff employees. Traditional students who have been denied full-time admission to the University are not immediately eligible for enrollment through Part-Time Classroom Studies. All students admitted as prospective degree candidates must meet minimum University requirements for admission. In considering prospective degree candidates for admission, the Office of Undergraduate Admissions shall use the same admissions criteria that it uses to evaluate comparable full-time, degree-seeking students applying to the University. For information about those criteria, please see the sections on first-year and transfer admission above. Students who have a baccalaureate degree may apply online at fridaycenter.unc.edu.

Admission to Part-Time Classroom Studies does not constitute admission to a degree program at the University. Undergraduates wishing to pursue a degree must be accepted for transfer into one of the degree-granting schools or colleges of the University. For a bachelor's degree a minimum of 45 academic credit hours must be earned from UNC-Chapel Hill, and at least 24 of the last 30 academic credits must be earned from UNC-Chapel Hill courses. Beyond these minimum course requirements, students attempting to transfer from Part-Time Classroom Studies into one of the degree-seeking schools or colleges of the University must present evidence that they are prepared to make satisfactory progress towards the degree. Postbaccalaureate students must apply and be accepted to a graduate degree program.

Undergraduate students enrolled through Part-Time Classroom Studies for personal benefit and enjoyment may apply to convert to degree-seeking status. Such applications will be reviewed in light of the criteria for admission to Part-Time Classroom Studies for degree-seeking status.

## Orientation and New Student Registration

Summer orientation offers a range of programs intended to introduce new students and their parents to the University; to acquaint them with the academic opportunities available to undergraduates; to aid them in their adjustment to campus living; to offer other information, discussion, and academic advice; and to help them thrive when they join the Carolina community. New student orientation continues when students arrive in the fall with a variety of activities during the Week of Welcome.

## Transfer Student Orientation

All new undergraduate students admitted as sophomore or junior transfers are required to attend one of the summer orientation programs designed specifically for transfer students to learn about college life at Carolina.

During this one-day transfer orientation program, new transfer students meet and interact with faculty, staff, and other new transfer students. Students attend a formal welcome, learn about academic advising, learn about the services and educational opportunities, and, if applicable, complete a foreign language placement examination.
To help ensure the availability of preferred courses, transfer students should register for fall classes prior to summer orientation. Transfer students may enroll online to register for courses as soon as their deposit is paid and the personal identification number (PID number) is generated.

## Course Abbreviations

| Abbreviation | Full Name |
| :---: | :---: |
| AAAD | African, African American, and Diaspora Studies |
| AERO | Aerospace Studies |
| AHSC | Allied Health Sciences |
| AMST | American Studies |
| ANTH | Anthropology |
| APPL | Applied Sciences |
| ARAB | Arabic |
| ARCH | Archaeology |
| ARMY | Army |
| ARTH | Art History |
| ARTS | Studio Art |
| ASIA | Asian Studies |
| ASTR | Astronomy |
| BENG | Bengali |
| BIOC | Biochemistry |
| BIOL | Biology |
| BIOS | Biostatistics |
| BMME | Biomedical Engineering |
| BUSA | Business Study Abroad |
| BUSG | Global Scholars Program |
| BUSI | Business Administration |
| BUSS | Business Study Abroad |
| CATA | Catalan |
| CBIO | Cell and Developmental Biology |
| CHEM | Chemistry |
| CHER | Cherokee |
| CHIN | Chinese |
| CHWA | Chichewa |
| CLAR | Classical Archeology |
| CLAS | Classics |
| CLSC | Clinical Laboratory Science |
| CMPL | Comparative Literature |
| COMM | Communication Studies |
| COMP | Computer Science |
| CZCH | Czech |
| DHYG | Dental Hygiene |
| DPOP | Pharmaceutical Outcomes and Policy |
| DRAM | Dramatic Art |
| DTCH | Dutch |
| ECON | Economics |
| EDUC | Education |
| ENEC | Environment and Ecology |
| ENGL | English |
| ENVR | Environmental Sciences |
| EPID | Epidemiology |
| EURO | European Studies |
| EXSS | Exercise and Sport Science |
| FOLK | Folklore |
| FREN | French |
| GEOG | Geography |

Administrative Home<br>Department of African, African American, and Diaspora Studies<br>Department of Aerospace Studies<br>Department of Allied Health Sciences, UNC School of Medicine<br>Department of American Studies<br>Department of Anthropology<br>Department of Applied Physical Sciences<br>Department of Asian Studies<br>Curriculum in Archaeology<br>Department of Military Science<br>Department of Art<br>Department of Art<br>Department of Asian Studies<br>Department of Physics and Astronomy<br>Department of Asian Studies<br>Department of Biochemistry and Biophysics<br>Department of Biology<br>Gillings School of Global Public Health<br>Department of Biomedical Engineering<br>Kenan-Flagler Business School<br>Kenan-Flagler Business School<br>Kenan-Flagler Business School<br>Kenan-Flagler Business School<br>Department of Romance Studies<br>Department of Cell Biology and Physiology, UNC School of Medicine<br>Department of Chemistry<br>Department of American Studies<br>Department of Asian Studies<br>Department of African, African American, and Diaspora Studies<br>Department of Classics<br>Department of Classics<br>Division of Clinical Laboratory Science, UNC School of Medicine<br>Department of English and Comparative Literature<br>Department of Communication Studies<br>Department of Computer Science<br>Department of Germanic and Slavic Languages and Literatures<br>School of Dentistry<br>Eshelman School of Pharmacy<br>Department of Dramatic Art<br>Department of Germanic and Slavic Languages and Literatures<br>Department of Economics<br>School of Education<br>Curriculum for the Environment and Ecology<br>Department of English and Comparative Literature<br>Gillings School of Global Public Health<br>Gillings School of Global Public Health<br>Curriculum in Contemporary European Studies<br>Department of Exercise and Sport Science<br>Department of American Studies<br>Department of Romance Studies<br>Department of Geography

| GEOL | Geology | Department of Geology |
| :---: | :---: | :---: |
| GERM | German | Department of Germanic and Slavic Languages and Literatures |
| GLBL | Global Studies | Curriculum in Global Studies |
| GNET | Genetics and Molecular Biology | Department of Genetics, UNC School of Medicine |
| GREK | Greek | Department of Classics |
| GSLL | Germanic and Slavic Languages and Literatures | Department of Germanic and Slavic Languages and Literatures |
| HBEH | Health Behavior | Gillings School of Global Public Health |
| HEBR | Hebrew | Department of Asian Studies |
| HIST | History | Department of History |
| HNRS | Honors | Honors Carolina |
| HNUR | Hindi-Urdu | Department of Asian Studies |
| HPM | Health Policy and Management | Gillings School of Global Public Health |
| HUNG | Hungarian | Department of Germanic and Slavic Languages and Literatures |
| IDST | Interdisciplinary Studies | Office of Undergraduate Curricula |
| INLS | Information and Library Science | School of Information and Library Science |
| ISP | Exchange Program | Study Abroad Office |
| ITAL | Italian | Department of Romance Studies |
| JAPN | Japanese | Department of Asian Studies |
| JOMC | Media and Journalism | School of Media and Journalism |
| JWST | Jewish Studies | Department of Religious Studies |
| KOR | Korean | Department of Asian Studies |
| LATN | Latin | Department of Classics |
| LAW | Law | School of Law |
| LFIT | Lifetime Fitness | Department of Exercise and Sport Science |
| LGLA | Lingala | Department of African, African American, and Diaspora Studies |
| LING | Linguistics | Department of Linguistics |
| LTAM | Latin American Studies | Curriculum in Latin American Studies |
| MACD | Macedonian | Department of Germanic and Slavic Languages and Literatures |
| MASC | Marine Sciences | Department of Marine Sciences |
| MATH | Mathematics | Department of Mathematics |
| MAYA | Yucatec Maya | Department of Linguistics |
| MCRO | Microbiology | Department of Microbiology and Immunology, UNC School of Medicine |
| MNGT | Management and Society | Department of Sociology |
| MTSC | Materials Science | Department of Applied Physical Sciences |
| MUSC | Music | Department of Music |
| NAVS | Naval Science | Department of Naval Science |
| NBIO | Neurobiology | Curriculum in Neurobiology, UNC School of Medicine |
| NURS | Nursing | School of Nursing |
| NUTR | Nutrition | Gillings School of Global Public Health |
| PATH | Pathology | Department of Pathology and Laboratory Medicine, UNC School of Medicine |
| PHCO | Pharmacology | Department of Pharmacology, UNC School of Medicine |
| PHCY | Pharmacy | Eshelman School of Pharmacy |
| PHIL | Philosophy | Department of Philosophy |
| PHYA | Physical Activity | Department of Exercise and Sport Science |
| PHYI | Cell and Molecular Physiology | Department of Cell Biology and Physiology, UNC School of Medicine |
| PHYS | Physics | Department of Physics and Astronomy |
| PLAN | City and Regional Planning | Department of City and Regional Planning |
| PLCY | Public Policy | Department of Public Policy |
| PLSH | Polish | Department of Germanic and Slavic Languages and Literatures |
| POLI | Political Science | Department of Political Science |
| PORT | Portuguese | Department of Romance Studies |
| PRSN | Persian | Department of Asian Studies |
| PSYC | Psychology | Department of Psychology |
| PUBH | Public Health | Gillings School of Global Public Health |
| PWAD | Peace, War, and Defense | Curriculum in Peace, War, and Defense |


| RADI | Radiologic Science |
| :--- | :--- |
| RECR | Recreation Administration |
| RELI | Religious Studies |
| ROML | Romance Languages and Literatures |
| RUES | Russian and East European Studies |
| RUSS | Russian |
| SECR | Serbian and Croatian |
| SLAV | Slavic Languages |
| SOCI | Sociology |
| SOWO | Social Work |
| SPAN | Spanish |
| SPCL | Schocial Studies of Public Health General |
| SPHG | Speech and Hearing Sciences |
| SPHS | Short Term Abroad |
| STA | Statistics and Operations Research |
| STOR | Kiswahili |
| SWAH | Tamil |
| TAML | Toxicology |
| TOXC | Turkish |
| TURK | Vietnamese |
| VIET | Women's Studies |
| WMST | Wolof |
| WOLO | Study Abroad Program |
| YAP |  |

Division of Radiologic Science, UNC School of Medicine<br>Department of Exercise and Sport Science<br>Department of Religious Studies<br>Department of Romance Studies<br>Curriculum in Russian and East European Area Studies<br>Department of Germanic and Slavic Languages and Literatures<br>Department of Germanic and Slavic Languages and Literatures<br>Department of Germanic and Slavic Languages and Literatures<br>Department of Sociology<br>School of Social Work<br>Department of Romance Studies<br>Office of Undergraduate Curricula<br>Gillings School of Global Public Health<br>Division of Speech and Hearing Sciences, UNC School of Medicine Study Abroad Office<br>Department of Statistics and Operations Research<br>Department of African, African American, and Diaspora Studies<br>Department of Linguistics<br>Curriculum in Toxicology, UNC School of Medicine<br>Department of Asian Studies<br>Department of Asian Studies<br>Department of Women's and Gender Studies<br>Department of African, African American, and Diaspora Studies Study Abroad Office

## ACADEMIC FLOW CHART



# General Education Requirements 

# Office of Undergraduate Curricula 

curricula.unc.edu
JAMES THOMPSON, Associate Dean
NICK SIEDENTOP, Curriculum Director
The Office of Undergraduate Curricula has primary responsibility for monitoring all curricular changes in the General College and the College of Arts and Sciences. This office receives and reviews all requests for new courses, course revisions, changes to degree programs, and proposals for new minors, majors, and curricula.

## Making Connections: <br> The General Education Curriculum

The requirements of the Making Connections curriculum apply to students beginning undergraduate study in or after the fall semester of 2006. Because students are subject to the requirements in place when they were admitted to the University of North Carolina at Chapel Hill, the General Education requirements described in this section of the Undergraduate Bulletin particularly apply to students entering the University during the 2015-2016 academic year.

The University of North Carolina at Chapel Hill strives to cultivate the range of skills, knowledge, values, and habits that will allow graduates to lead personally enriching and socially responsible lives as effective citizens of rapidly changing, richly diverse, and increasingly interconnected local, national, and worldwide communities. To this end the General Education curriculum seeks to provide for all students 1) the fundamental skills that will facilitate future learning, 2) broad experience with the methods and results of the most widely employed approaches to knowledge, 3) a sense of how one might integrate these approaches to knowledge in ways that cross traditional disciplinary and spatial boundaries, and 4) a thorough grounding in one particular subject. The undergraduate major is dedicated to the last of these curricular objectives; the others fall under the purview of the General Education curriculum.

The Making Connections curriculum is divided into four broad categories that can be described in the chart on page 27 and the sections that follow.

## Foundations

General Education rests on certain foundational skills and knowledge, including the ability to communicate effectively both in English and another language and to apply quantitative reasoning skills in context. Consequently, the Foundations component of the curriculum includes courses in English composition and rhetoric, at least one foreign language, and quantitative reasoning. It also includes a lifetime fitness course that encourages the lifelong health of graduates. In most cases, students should be able to fulfill the Foundations requirements
by taking no more than 15 credit hours. They must maintain continuous enrollment, beginning in the first semester, in Foundations foreign language courses until the requirement is satisfied and must complete the composition and rhetoric course in the first or second semester.

## Note on the Importance of Communication Skills

The faculty of the General College and the College of Arts and Sciences expects students to write and speak effectively. Instructors should help students realize that there is a direct relationship between thinking clearly, writing clearly, and speaking clearly. Faculty members in all disciplines and professions should therefore develop the writing and speaking skills of their students. Students should expect to be graded on spelling, grammar, and style, as well as on the content and organization of their written work; in addition, students should expect to be graded on presentation, style, poise, and diction, as well as on the content and organization of their oral presentations.
Students who wish to improve their writing can make appointments with a tutor in the Writing Center. This free, noncredit service is available to any member of the University community.

## English Composition and Rhetoric (CR)

- One course (three hours)

All entering first-year, first-time students at the University must complete, or transfer in, ENGL 105 or 105I. ENGL 105 introduces students to several disciplinary contexts for written work and oral presentations required in college courses, whereas ENGL 105I introduces students to one specific disciplinary context-natural sciences, social sciences, humanities, law, business, or medicine-for such written and oral assignments. Exempting the course on the basis of nationally normed examinations is not possible. Students may prepare for ENGL 105 or 105I while in high school by taking courses in English composition and speech communication beyond the requirements for admission to the University.

Transfer students who have not completed the CR Foundations requirement are strongly urged to register for ENGL 105 during their first semester at Carolina. Transfer students have the option of completing a portfolio of written work that will be evaluated by instructors in the Department of English and Comparative Literature to receive credit for ENGL 105; for additional information, see writing.unc.edu/fyc/placement/transferstudents. If placement scores or the portfolio indicates a need for instruction and practice in preparation for ENGL 105, students will be required to pass ENGL 100 before taking 105.

Students must complete the CR requirement during the first academic year on campus. Any student whose native language is not English will be required, as all students are, to complete ENGL 105. However, such students may be permitted also to fulfill the Foundations foreign language requirement with ENGL 105, provided that an authorized representative of the appropriate University department has confirmed the student's native language proficiency up to or through level 4.

## UNC-Chapel Hill Making Connections Curriculum



> A thorough grounding in
> at least one (1) subject
> See the Undergraduate Bulletin for coursework, minimum grades, and related requirements
> A second major or one (1)
> or two (2) minors are also
> possible, for up to three fields of study.
> Coursework
> Requirements vary
> Approximately 8-10 courses (24-30 hours)
> Minimum Grades
> At least 18 hours of coursework must be graded
> "C" or better
> Limitations
> At most, two (2) credit-byexam (BE) courses may count toward a major, eight (8) hours maximum

Supplemental General Education*

Courses that add breadth beyond the major

## Three options:

Three (3) three-hour courses outside of major department numbered greater than 199. (These courses may also count in Connections but not in Approaches.)
A minor or second major
A concentration outside a professional school as part of the degree requirements for graduation from that school
*Required for students pursuing a Bachelor of Arts degree

## Foreign Languages (FL)

- Through level 3

The study of a foreign language enables students to see more clearly the nature and structure of their native language while gaining an understanding of a foreign culture. Students are required to complete courses or demonstrate proficiency in the study of a foreign language through level 3. Certain majors may require additional levels of foreign language study.

Students should improve their language preparation by continuing their foreign language study through the senior year of high school. It is preferable that they complete four years of one high school language rather than, for example, taking two years each of two different languages.

Placement in a foreign language is determined by the student's score on a College Board SAT Subject Test, the Advanced Placement Test in a foreign language (taken at the completion of language study in high school), or the appropriate placement test as determined by the UNC-Chapel Hill academic department offering foreign language instruction. Regardless of placement, continuous enrollment, beginning in the first semester, is required until the Foundations foreign language requirement is completed.

In the following paragraphs, "high school foreign language" refers to the foreign language in which students received the equivalent of at least two years of instruction in grades nine through 12.

Students whose placement in their high school foreign language is below level 4 and who wish to continue in this language are
required to take the number of courses that are needed to reach level 3 of that language. That number varies depending on the level into which a student places. Credit hours toward the 120-academic-hour graduation requirement are not awarded for level 1 of a student's high school foreign language (with the exceptions of Japanese and Modern Hebrew), even if students place by examination into level 1 . Grades earned in level 1 courses, however, are computed in the students' grade point average and are used in all academic eligibility and academic load considerations.

Students who enroll in a foreign language that they have not formally studied before are required to complete through level 3 . In this case, credit hours toward the 120-academic-credit-hour graduation requirement are awarded for successful completion of level 1.

Students who place into level 4 of their high school foreign language have satisfied the Foundations foreign language requirement and will receive placement (PL) but no credit hours for level 3. Note: Students who place into level 4 of Latin on the online diagnostic exam are required to take an additional on-campus test if they wish to receive placement (PL) credit for level 3 and thus fulfill the foreign language General Education requirement; see the Department of Classics for additional information. Students who place beyond level 4 of their high school language have fulfilled the Foundations foreign language requirement and are awarded placement (PL) but no credit hours for levels 3 and 4.

For information about foreign language placement for native and experiential speakers, see "Foreign Language Placement Credit" in the Undergraduate Education section of this bulletin.

## Quantitative Reasoning (QR)

- One course (three hours)

Through the study of quantitative reasoning and methods, students acquire and reinforce the ability to use analytic and quantitative ideas in both theoretical and applied contexts. In today's world of fast-paced scientific and technological advances, the importance of such skills cannot be overstated.
Students should prepare by taking precalculus and/or calculus in high school and by continuing their mathematical studies up through their senior year of high school. Not doing so may put them at a disadvantage when they arrive at the University.
Students may satisfy the quantitative reasoning requirement either by taking or receiving advanced placement for one of the courses listed below. Several of these courses have a prerequisite of MATH 110 (algebra) or a placement score beyond MATH 110 on the College Board SAT Subject Test in Mathematics, Level 1 or Level 2. Unless a particular major requires those specific courses, however, a student may fulfill the quantitative reasoning requirement with courses that do not require MATH 110 as a prerequisite. MATH 110 placement carries no credit hours, although students who place into MATH 110 and complete it successfully will earn credit hours towards graduation.

Students should be aware that some undergraduate degree programs require completion of specific mathematical sciences courses beyond those needed to fulfill General Education requirements.

## Lifetime Fitness (LFIT)

- One course (one hour)

Lifetime fitness (LFIT) courses combine the practice of a sport or physical activity that can be sustained in later life with broader instruction in lifelong health. These courses carry one hour of academic credit and may be declared Pass/D+/D/Fail. Students can enroll in only one, one-credit lifetime fitness course during their career at the University, and only one lifetime fitness course can be counted toward the 120 hours needed for graduation.

## Approaches

The Making Connections curriculum also acquaints students with six distinctive Approaches to knowledge, as represented by courses in the physical and life sciences, the social and behavioral sciences, historical analysis, philosophical and/or moral reasoning, literary arts, and the visual and performing arts. Students meet these requirements by taking courses worth a total of 25 credit hours.

## Physical and Life Sciences (PL, PX)

- Two courses (seven hours)

Students must take two courses, at least one of which has a required laboratory component. Science courses combining lecture and laboratory components normally constitute four hours of credit. Some lecture courses may be taken singly for three credit hours or combined with an optional matching laboratory for one additional credit hour. All courses in this category emphasize a
physical science, a life science, the scientific basis of technology, or a combination of these topics. Students who have exceeded minimum high school science requirements typically have an advantage in the University's science courses.

## Social and Behavioral Sciences (SS, HS)

- Three courses from at least two different academic units (nine hours)
Students must take three courses from at least two different departments; at least one of the three courses must be classified as a historical analysis (HS) course. Courses in social and behavioral sciences focus on the scientific study of individual or collective behavior, considering the various dimensions of individual behavior, the family, society, culture, politics, and the economy.


## Humanities and Fine Arts (PH, LA, VP)

- Three courses (nine hours)

The humanities and fine arts explore enduring issues of the human condition and develop and encourage the means of communicating, representing, and expressing the varieties of human experience. Students must take three courses, including one in philosophical and/or moral reasoning ( PH ), one in the literary arts (LA), and one in the visual and performing arts (VP).

## Connections

The Making Connections curriculum builds on previously acquired knowledge and establishes links between discrete forms of knowledge, both by encouraging interdisciplinary contact and conversation and by inviting students to develop and apply their academic expertise in environments beyond the University classroom. In addition to building directly on the Foundations, through communication intensive and quantitative intensive courses, the Connections requirement promotes an understanding of global issues, U.S. diversity, the world before 1750, the North Atlantic world, and people living beyond the North Atlantic world (see descriptions below).

The Connections category also incorporates a requirement in experiential education, one that can be satisfied either within the framework of a conventional academic course or in the form of some other credit-earning learning experience. Because Connections courses may meet multiple requirements at once (including Approaches requirements, other Connections requirements, major and/or minor requirements, or the Supplemental General Education requirement), most students should be able to fulfill the eight Connections requirements without taking credit hours in addition to those needed to fulfill Foundations, Approaches, and major/minor requirements.

## Communication Intensive (CI)

- One course

Communication intensive courses integrate written work, oral presentations, and processes of revision into the course subject matter in substantive and important ways. They build on and enhance skills acquired in English composition and rhetoric classes as well as foreign language classes by preparing students to write and speak effectively in disciplinary areas.

## Quantitative Intensive (QI)

- One course

Quantitative intensive courses focus especially on the ways that quantitative reasoning can be applied within particular fields. They involve modeling and problem solving, numerical reasoning, the collection and interpretation of quantitative data, mathematical analysis, the application of formal logic and proofs, or some combination of these. The requirement can be satisfied by taking one course from the list below or by taking a second quantitative reasoning $(\mathrm{QR})$ course from the list of approved courses in that category.

## Experiential Education (EE)

- One course or credit-bearing activity is required.

Experiential education courses connect academic inquiry with a structured, active learning experience in which students exercise initiative and apply academic knowledge in various real-world contexts (geographic, social, cultural, etc.). Students may satisfy the experiential education requirement in a number of ways. They may participate in specifically approved undergraduate research programs or approved service-learning courses, take an approved course with a substantial field work component, participate in a University-approved study abroad program, complete an approved internship or honors thesis administered through an academic unit, or participate in an approved community- or audience-oriented creative activity. Please see the Study Abroad Program Office (studyabroad.unc.edu) for additional experiential education opportunities.

## U.S. Diversity (US)

- One course

Courses in U.S. diversity help students develop a greater understanding of diverse peoples and cultures within the United States and thereby enhance their ability to fulfill the obligations of Unites States citizenship. These courses address in systematic fashion one or more aspects of diversity in the United States, whether arising from ethnic, generational, class, gender, sexual, regional, or religious differences.

## North Atlantic World (NA)

- One course

Courses that treat the North Atlantic world provide a grounding in the history, culture, geography, and social institutions of the region that is the place of origin and eventual home of most UNC-Chapel Hill students.

## Beyond the North Atlantic World (BN)

- One course

Courses in this category introduce students to the history, culture, geography, and social institutions of one or more regions that lie beyond the North Atlantic-specifically, Asia, Africa, Eastern Europe, Latin America, the Middle East, and the Pacific.

## World before 1750 (WB)

- One course

Courses in this category introduce students to periods and places that differ significantly from the modern world but whose histories influenced the shape of contemporary civilizations in ways both subtle and profound.

## Global Issues (GL)

- One course

Courses in global issues provide knowledge and understanding of transnational connections and global forces. Those forces involve interrelationships among cultures, societies, nations, and other social units, and they include processes such as migration, urbanization, trade, diplomacy, cultural adaptation, and information flow.

## Supplemental General Education

Students who pursue the bachelor of arts degree also must satisfy a Supplemental General Education requirement. The intent of this requirement is to broaden a student's perspective on the major by examining its relationship to work in at least one other field. Students may fulfill the Supplemental General Education requirement in three ways:

- By completing a second major or a minor; or
- By completing three courses (nine hours) above 199 that are offered outside the home department or curriculum of the first major. These three courses can neither be used to fulfill the requirements of the first major nor be cross-listed with courses that a student has used to satisfy major requirements; or
- By completing a concentration outside a professional school as part of the degree requirements for graduating from the school.


## Course Numbering System

In general, the system of course numbering works as follows:

- 50-99 First-year seminars and other courses reserved for special purposes
- 100-199 Introductory undergraduate courses
- 200-399 Undergraduate courses considered to be above the introductory level
- 400-699 Courses open to undergraduate and graduate students
- 700-899 Graduate courses (undergraduates may enroll with permission from the department)
- 900-999 Graduate courses for graduate students only

With the exception of the important groupings above, students generally should not assume that courses have been arranged in ascending order of difficulty or specialization (i.e., ENGL 420 is not "more difficult" than ENGL 340). The logic behind any department's or curriculum's numbering scheme is specific to that unit. Students should check the prerequisites and corequisites for any course prior to enrolling. Prerequisites represent courses that must be completed before enrolling in a particular course; corequisites are courses that must be taken in the same semester. Pre- and corequisites are indicated in the course descriptions under each academic department, curriculum, or school.

An honors course, indicated with an H suffix, fulfills the same General Education requirements as the nonhonors version of that course, as listed below. For example, PHIL 155H satisfies the same General Education requirement as PHIL 155.

Be advised that the list of courses included under each of the following General Education categories in this section of the Undergraduate Bulletin is not necessarily exhaustive. Courses may have been added to or removed from the lists after the present edition of the Undergraduate Bulletin went to press.

## General Education Course Lists (2015-2016 Academic Year)

The courses listed below satisfy the General Education requirements during the 2015-2016 academic year. Because the content and structure of a course may change, the requirements it fulfills also may change. To determine which courses will satisfy General Education requirements in future years, students should consult the Course Catalog in ConnectCarolina or subsequent issues of the Undergraduate Bulletin.

## English Composition and Rhetoric (CR)

ENGL 105
ENGL 105I

## Foreign Languages (FL)

The last digit of the course number indicates the course level. For example, CHIN 102 is a level 2 course and FREN 203 is a level 3 course; exceptions are noted in parenthesis.
ARAB 101, 102, 203, 204
CHER 101, 102, 203, 204
CHIN 101, 102, 111 (levels 1 and 2 combined), 203, 204, 212 (levels 3 and 4 combined)
CHWA 401, 402, 403
CZCH 401, 402, 403, 404
DTCH 402, 403, 404
FREN 101, 102, 105 (levels 1 and 2 combined), 111 (levels 1 and 2 combined), 203, 204, 212 (levels 3 and 4 combined)
GERM 101, 102, 105 (levels 1 and 2 combined), 203, 204, 206 (levels 3 and 4 combined)
GREK 101, 102, 203, 204
HEBR 101, 102, 203, 204
HNUR 101, 102, 203, 204
HUNG 401, 402, 403, 404
ITAL 101, 102, 203, 204
JAPN 101, 102, 203, 204
JWST 101, 102, 203, 204
KOR 101, 102, 203, 204
LATN 101, 102, 111 (levels 1 and 2 combined), 203, 204, 212 (levels 3 and 4 combined)
LGLA 401, 402, 403, 404
MACD 401, 402, 403, 404
PLSH 401, 402, 403, 404
PORT 101, 102, 111 (levels 1 and 2 combined), 203, 204, 212 (levels 3 and 4 combined)
PRSN 101, 102, 203, 204
RELI 401, 402, 403, 404
RUSS 101, 102, 203, 204
SECR 401, 402, 403, 404
SPAN 100, 101, 102, 105 (levels 1 and 2 combined), 111 (levels 1 and 2 combined), 203, 204, 212 (levels 3 and 4 combined)
SWAH 112 (levels 1 and 2 combined), 234 (levels 3 and 4 combined), 401, 402, 403, 404
TAML 101, 102, 203, 204
TURK 101, 102, 203, 204
WOLO 401, 402, 403, 404

## Quantitative Reasoning (QR)

COMP 101
COMP 110
COMP 116 (prerequisite, MATH 231)
COMP 401
COMP 416 (prerequisite, COMP 401)
LING 455
MATH 116
MATH 117
MATH 118
MATH 119
MATH 130 (prerequisite, MATH 110)
MATH 152 (prerequisite, MATH 110)
MATH 231 (prerequisites, MATH 110 and 130)
MATH 241 (prerequisite, MATH 130 or placement by department)
PHIL 155
PHIL 455
STOR 112 (prerequisite, MATH 110)
STOR 113 (prerequisite, MATH 110)
STOR 151 (prerequisite, MATH 110)
STOR 155 (prerequisite, MATH 110)
STOR 215 (prerequisite, MATH 110)
Lifetime Fitness (LFIT)

| LFIT 102 | LFIT 108 | LFIT 114 | LFIT 140 |
| :--- | :--- | :--- | :--- |
| LFIT 103 | LFIT 109 | LFIT 115 | LFIT 145 |
| LFIT 104 | LFIT 110 | LFIT 118 | LFIT 146 |
| LFIT 105 | LFIT 111 | LFIT 129 | LFIT 190 |
| LFIT 106 | LFIT 112 | LFIT 130 |  |
| LFIT 107 | LFIT 113 | LFIT 138 |  |

Physical and Life Sciences without Laboratory (PL)

| ANTH 143 | BIOL 202 | EXSS 175 | GEOL 109 |
| :--- | :--- | :--- | :--- |
| ANTH 148 | BIOL 251 | EXSS 276 | GEOL 110 |
| ANTH 298 | BIOL 277 | GEOG 50 | GEOL 159 |
| ANTH 315 | BIOL 278 | GEOG 53 | GEOL 202 |
| ANTH 318 | BIOL 279 | GEOG 54 | GEOL 204 |
| ANTH 412 | BIOL 290 | GEOG 65 | GEOL 450 |
| ANTH 414 | BIOL 457 | GEOG 110 | GEOL 503 |
| ANTH 423 | BIOL 462 | GEOG 111 | GEOL 505 |
| ANTH 437 | BIOL 474 | GEOG 212 | GEOL 506 |
| ASTR 61 | BIOL 657 | GEOG 269 | GEOL 550 |
| ASTR 63 | CHEM 70 | GEOG 416 | GEOL 552 |
| ASTR 101 | CHEM 71 | GEOL 70 | GEOL 563 |
| ASTR 102 | CHEM 72 | GEOL 71 | HNRS 351 |
| ASTR 205 | CHEM 73 | GEOL 72 | MASC 51 |
| BIOL 53 | CHEM 101 | GEOL 73 | MASC 52 |
| BIOL 55 | CHEM 102 | GEOL 74 | MASC 53 |
| BIOL 57 | COMP 65 | GEOL 75 | MASC 55 |
| BIOL 61 | ENEC 108 | GEOL 76 | MASC 57 |
| BIOL 62 | ENEC 220 | GEOL 77 | MASC 58 |
| BIOL 65 | ENEC 222 | GEOL 79 | MASC 59 |
| BIOL 101 | ENEC 450 | GEOL 101 | MASC 101 |
| BIOL 113 | ENVR 505 | GEOL 103 | MASC 108 |
| BIOL 159 | ENVR 520 | GEOL 105 | MASC 220 |
| BIOL 201 | ENVR 552 | GEOL 108 | MASC 310 |


| MASC 440 | MUSC 51 | PSYC 52 | PSYC 427 |
| :--- | :--- | :--- | :--- |
| MASC 442 | NBIO 400 | PSYC 53 | PSYC 428 |
| MASC 443 | NBIO 401 | PSYC 67 | PSYC 429 |
| MASC 450 | PHIL 352 | PSYC 101 | PSYC 430 |
| MASC 470 | PHIL 451 | PSYC 220 | PSYC 433 |
| MASC 472 | PHYI 50 | PSYC 222 | PSYC 434 |
| MASC 503 | PHYS 51 | PSYC 225 | PSYC 437 |
| MASC 504 | PHYS 53 | PSYC 230 | PSYC 461 |
| MASC 505 | PHYS 54 | PSYC 245 | PSYC 469 |
| MASC 506 | PHYS 61 | PSYC 315 | PSYC 470 |
| MASC 550 | PHYS 63 | PSYC 320 | PSYC 504 |
| MASC 552 | PHYS 100 | PSYC 330 | PSYC 507 |
| MASC 561 | PHYS 108 | PSYC 400 | PSYC 517 |
| MASC 562 | PHYS 131 | PSYC 401 | PSYC 530 |
| MASC 563 | PHYS 133 | PSYC 404 | PWAD 108 |
| MATH 63 | PSYC 50 | PSYC 425 |  |
| MCRO 50 | PSYC 51 | PSYC 426 |  |

## Physical and Life Sciences with Laboratory (PX)

| ANTH 413 + | BIOL 273 | PHYS 101 | PHYS 117 |
| :---: | :--- | :--- | :--- |
| 413L | BIOL 274 | PHYS 104 | PHYS 118 |
| BIOC 107 | BIOL 478 | PHYS 105 | PHYS 119 |
| BIOC 108 | ENEC 202 | PHYS 106 | PSYC 270 |
| BIOL 252 | GEOL 413 | PHYS 114 | PSYC 402 |
| BIOL 271 | GEOL 478 | PHYS 115 | PSYC 403 |
| BIOL 272 | NBIO 402 | PHYS 116 |  |

The courses listed below have an optional laboratory and may be used to satisfy the physical and life sciences with laboratory (PX) requirement.

Note: The lecture is either a pre- or corequisite to the laboratory; see course description. The student must take both the lecture and the associated laboratory in order to receive credit for the physical and life sciences with laboratory (PX) requirement. Without the associated optional laboratory, the lecture course counts as a physical and life sciences (PL) class.

ASTR 101 + ASTR 101L CHEM 200 + CHEM 101L
BIOL 101 + BIOL 101L ENEC 324 + ENEC 324L
BIOL 159 + GEOL 101L
BIOL 251 + BIOL 251L
BIOL 277 + BIOL 277L
BIOL 278 + BIOL 278L
BIOL 474 + BIOL 474L
CHEM 101 + CHEM 101L
CHEM 102 + CHEM 102L
CHEM 102H + CHEM 102L
Social and Behavioral Sciences (SS, HS)
Social Sciences (SS)

| AAAD 50 | AAAD 332 | AERO 446 | ANTH 51 |
| :--- | :--- | :--- | :--- |
| AAAD 200 | AAAD 333 | AMST 51 | ANTH 52 |
| AAAD 210 | AAAD 403 | AMST 57 | ANTH 53 |
| AAAD 214 | AAAD 460 | AMST 275 | ANTH 56 |
| AAAD 232 | AAAD 488 | AMST 285 | ANTH 57 |
| AAAD 278 | AAAD 491 | AMST 375 | ANTH 59 |
| AAAD 315 | AERO 301 | AMST 385 | ANTH 61 |
| AAAD 316 | AERO 302 | ANTH 50 | ANTH 62 |


| ANTH 63 | ANTH 502 | ECON 385 | GEOG 121 |
| :---: | :---: | :---: | :---: |
| ANTH 66H | ANTH 503 | ECON 434 | GEOG 123 |
| ANTH 92 | ANTH 525 | ECON 461 | GEOG 125 |
| ANTH 93 | ANTH 537 | ECON 465 | GEOG 130 |
| ANTH 101 | ANTH 539 | ECON 560 | GEOG 225 |
| ANTH 102 | ANTH 545 | ECON 570 | GEOG 228 |
| ANTH 103 | ANTH 559 | ECON 575 | GEOG 232 |
| ANTH 120 | ANTH 567 | EDUC 504 | GEOG 259 |
| ANTH 130 | ANTH 574 | EDUC 505 | GEOG 260 |
| ANTH 142 | ANTH 585 | EDUC 506 | GEOG 266 |
| ANTH 147 | ANTH 623 | EDUC 508 | GEOG 268 |
| ANTH 202 | ANTH 624 | EDUC 509 | GEOG 270 |
| ANTH 206 | ANTH 625 | EDUC 532 | GEOG 392 |
| ANTH 220 | ANTH 626 | EDUC 533 | GEOG 429 |
| ANTH 230 | ANTH 639 | ENEC 51 | GEOG 430 |
| ANTH 240 | ANTH 649 | ENEC 201 | GEOG 470 |
| ANTH 248 | ANTH 650 | ENEC 254 | GEOG 480 |
| ANTH 259 | ANTH 660 | ENEC 266 | GEOG 481 |
| ANTH 270 | ANTH 675 | ENEC 372 | GEOG 543 |
| ANTH 277 | ANTH 682 | ENEC 380 | GEOG 650 |
| ANTH 280 | ANTH 688 | ENEC 459 | HNRS 352 |
| ANTH 284 | ANTH 691H | ENEC 480 | IDST 301 |
| ANTH 291 | ARAB 350 | ENEC 510 | INLS 151 |
| ANTH 294 | ARAB 462 | ENEC 520 | INLS 201 |
| ANTH 297 | ASIA 150 | ENEC 686 | JAPN 258 |
| ANTH 312 | ASIA 243 | ENGL 202 | JAPN 381 |
| ANTH 317 | ASIA 429 | ENGL 269 | JAPN 482 |
| ANTH 319 | ASIA 453 | ENGL 364 | JAPN 563 |
| ANTH 320 | ASIA 545 | ENVR 686 | JOMC 101 |
| ANTH 325 | ASIA 574 | EURO 239 | JOMC 442 |
| ANTH 330 | ASIA 682 | EURO 442 | JOMC 445 |
| ANTH 331 | BUSI 50 | EXSS 50 | JWST 143 |
| ANTH 333 | CHIN 253 | EXSS 260 | KOR 150 |
| ANTH 340 | CHIN 342 | FOLK 130 | KOR 151 |
| ANTH 342 | CHIN 441 | FOLK 135 | LING 50 |
| ANTH 380 | CHIN 532 | FOLK 202 | LING 101 |
| ANTH 406 | CMPL 435 | FOLK 230 | LING 333 |
| ANTH 411 | COMM 51 | FOLK 340 | LING 409 |
| ANTH 415 | COMM 53 | FOLK 342 | LING 484 |
| ANTH 416 | COMM 82 | FOLK 375 | LING 563 |
| ANTH 417 | COMM 171 | FOLK 428 | MASC 312 |
| ANTH 422 | COMM 350 | FOLK 429 | MNGT 427 |
| ANTH 428 | COMM 436 | FOLK 435 | MUSC 53 |
| ANTH 429 | COMM 526 | FOLK 470 | MUSC 58 |
| ANTH 435 | COMM 577 | FOLK 473 | MUSC 61H |
| ANTH 439 | ECON 50 | FOLK 484 | MUSC 258 |
| ANTH 441 | ECON 51 | FOLK 525 | PHIL 63 |
| ANTH 445 | ECON 52 | FOLK 537 | PHIL 154 |
| ANTH 446 | ECON 53 | FOLK 675 | PHIL 345 |
| ANTH 447 | ECON 54 | FOLK 688 | PHIL 353 |
| ANTH 459 | ECON 56 | GEOG 55 | PHIL 453 |
| ANTH 466 | ECON 57H | GEOG 56 | PLAN 51 |
| ANTH 469 | ECON 101 | GEOG 57 | PLAN 52 |
| ANTH 470 | ECON 125 | GEOG 58 | PLAN 54 |
| ANTH 473 | ECON 285 | GEOG 60 | PLAN 55 |
| ANTH 474 | ECON 360 | GEOG 61 | PLAN 57 |
| ANTH 484 | ECON 363 | GEOG 120 | PLAN 58 |


| PLAN 246 | POLI 235 | PSYC 68 | RELI 76 | SOCI 301 | SOCI 431 | WMST 217 | WMST 410 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| PLAN 247 | POLI 236 | PSYC 242 | RELI 101 | SOCI 411 | SOCI 450 | WMST 218 | WMST 437 |
| PLAN 550 | POLI 237 | PSYC 250 | RELI 121 | SOCI 413 | SOCI 453 | WMST 225 | WMST 438 |
| PLAN 663 | POLI 238 | PSYC 260 | RELI 143 | SOCI 414 | SOCI 469 | WMST 260 | WMST 441 |
| PLAN 686 | POLI 239 | PSYC 310 | RELI 225 | SOCI 417 | SPAN 679 | WMST 266 | WMST 442 |
| PLCY 55 | POLI 252 | PSYC 415 | RELI 232 | SOCI 419 | SPAN 680 | WMST 277 | WMST 503 |
| PLCY 65 | POLI 253 | PSYC 463 | RELI 242 | SOCI 422 | SPAN 682 | WMST 281 | WMST 550 |
| PLCY 70 | POLI 254 | PSYC 465 | RELI 246 | SOCI 423 | WMST 51 | WMST 310 | WMST 610 |
| PLCY 75 | POLI 260 | PSYC 467 | RELI 342 | SOCI 426 | WMST 101 | WMST 368 | WMST 660 |
| PLCY 101 | POLI 281 | PSYC 468 | RELI 381 | SOCI 427 | WMST 111 | WMST 381 |  |
| PLCY 110 | POLI 285 | PSYC 472 | RELI 428 | SOCI 428 | WMST 124 | WMST 385 |  |
| PLCY 210 | POLI 287 | PSYC 475 | RELI 429 | SOCI 429 | WMST 200 | WMST 388 |  |
| PLCY 220 | POLI 288 | PSYC 500 | RELI 481 |  |  |  |  |
| PLCY 349 | POLI 333 | PSYC 501 | RELI 524 | Historical | ysis (HS) |  |  |
| PLCY 360 | POLI 400 | PSYC 502 | RELI 574 | AAAD 130 | AMST 317 | ANTH 538 | CLAR 464 |
| PLCY 361 | POLI 401 | PSYC 506 | RELI 586 | AAAD 202 | AMST 334 | ANTH 550 | CLAR 470 |
| PLCY 371 | POLI 404 | PSYC 509 | RELI 688 | AAAD 231 | AMST 337 | ARAB 321 | CLAR 475 |
| PLCY 372 | POLI 409 | PSYC 516 | ROML 50 | AAAD 240 | AMST 339 | ARTH 330 | CLAR 489 |
| PLCY 430 | POLI 410 | PSYC 531 | ROML 51 | AAAD 254 | AMST 350 | ARTH 464 | CLAR 491 |
| PLCY 480 | POLI 412 | PSYC 560 | ROML 52 | AAAD 258 | AMST 378 | ARTH 467 | CLAS 62 |
| PLCY 485 | POLI 416 | PSYC 561 | ROML 53 | AAAD 260 | AMST 384 | ARTH 514 | CLAS 71 |
| PLCY 520 | POLI 417 | PSYC 563 | ROML 61 | AAAD 284 | AMST 386 | ARTH 562 | CLAS 73 |
| PLCY 530 | POLI 418 | PSYC 564 | RUES 260 | AAAD 286 | AMST 387 | ASIA 63 | CLAS 122 |
| PLCY 686 | POLI 419 | PSYC 565 | RUES 469 | AAAD 300 | AMST 390 | ASIA 131 | CLAS 242 |
| POLI 50 | POLI 420 | PSYC 567 | SOCI 50 | AAAD 341 | AMST 410 | ASIA 132 | CLAS 391 |
| POLI 53 | POLI 421 | PSYC 568 | SOCI 51 | AAAD 385 | AMST 466 | ASIA 133 | CMPL 270 |
| POLI 58 | POLI 422 | PSYC 569 | SOCI 52 | AAAD 387 | AMST 482 | ASIA 134 | COMM 249 |
| POLI 60 | POLI 424 | PSYC 570 | SOCI 53 | AAAD 401 | AMST 486 | ASIA 135 | COMM 576 |
| POLI 61 | POLI 431 | PSYC 693H | SOCI 54 | AAAD 402 | ANTH 54 | ASIA 136 | DRAM 470 |
| POLI 62 | POLI 433 | PSYC 694H | SOCI 55 | AAAD 412 | ANTH 60 | ASIA 138 | DRAM 475 |
| POLI 63 | POLI 434 | PWAD 101 | SOCI 56 | AAAD 430 | ANTH 64 | ASIA 139 | EDUC 510 |
| POLI 65 | POLI 435 | PWAD 110 | SOCI 57 | AAAD 431 | ANTH 65 | ASIA 180 | ENEC 460 |
| POLI 66 | POLI 436 | PWAD 120 | SOCI 58 | AAAD 432 | ANTH 121 | ASIA 181 | ENEC 585 |
| POLI 67 | POLI 437 | PWAD 150 | SOCI 59 | AAAD 450 | ANTH 145 | ASIA 232 | ENGL 75 |
| POLI 70 | POLI 438 | PWAD 220 | SOCI 60 | AAAD 485 | ANTH 149 | ASIA 244 | ENGL 314 |
| POLI 71 | POLI 442 | PWAD 252 | SOCI 61 | AERO 213 | ANTH 151 | ASIA 276 | ENVR 585 |
| POLI 72 | POLI 443 | PWAD 253 | SOCI 62 | AMST 53 | ANTH 203 | ASIA 277 | EURO 159 |
| POLI 100 | POLI 444 | PWAD 260 | SOCI 63 | AMST 54 | ANTH 231 | ASIA 281 | EURO 252 |
| POLI 101 | POLI 446 | PWAD 280 | SOCI 64 | AMST 56 | ANTH 232 | ASIA 282 | FOLK 455 |
| POLI 130 | POLI 450 | PWAD 287 | SOCI 65 | AMST 58 | ANTH 234 | ASIA 286 | FOLK 560 |
| POLI 131 | POLI 457 | PWAD 416 | SOCI 66 | AMST 59 | ANTH 250 | ASIA 287 | FOLK 571 |
| POLI 150 | POLI 458 | PWAD 430 | SOCI 67 | AMST 60 | ANTH 252 | ASIA 288 | FOLK 610 |
| POLI 190 | POLI 469 | PWAD 443 | SOCI 68 | AMST 101 | ANTH 278 | ASIA 331 | FOLK 670 |
| POLI 200 | POLI 488 | PWAD 444 | SOCI 69 | AMST 110 | ANTH 306 | ASIA 350 | GEOG 64 |
| POLI 201 | POLI 630 | PWAD 446 | SOCI 70 | AMST 202 | ANTH 377 | ASIA 537 | GERM 51 |
| POLI 202 | POLI 631 | PWAD 457 | SOCI 71 | AMST 203 | ANTH 426 | ASIA 570 | GERM 53 |
| POLI 203 | POLI 632 | PWAD 469 | SOCI 101 | AMST 210 | ANTH 449 | ASIA 582 | GERM 55 |
| POLI 207 | POLI 633 | PWAD 481 | SOCI 111 | AMST 231 | ANTH 451 | ASIA 583 | GERM 56 |
| POLI 208 | PORT 530 | RECR 310 | SOCI 112 | AMST 233 | ANTH 452 | CHIN 346 | GERM 58 |
| POLI 209 | PSYC 54 | RECR 311 | SOCI 115 | AMST 234 | ANTH 453 | CLAR 110 | GERM 59 |
| POLI 215 | PSYC 55 | RECR 440 | SOCI 121 | AMST 235 | ANTH 454 | CLAR 120 | GERM 216 |
| POLI 216 | PSYC 56 | RECR 470 | SOCI 122 | AMST 253 | ANTH 455 | CLAR 241 | GERM 218 |
| POLI 217 | PSYC 58 | RECR 475 | SOCI 123 | AMST 255 | ANTH 456 | CLAR 242 | GERM 251 |
| POLI 218 | PSYC 62 | RELI 60 | SOCI 124 | AMST 259 | ANTH 458 | CLAR 243 | GERM 254 |
| POLI 230 | PSYC 64 | RELI 67 | SOCI 130 | AMST 269 | ANTH 460 | CLAR 244 | GERM 255 |
| POLI 231 | PSYC 65 | RELI 69 | SOCI 133 | AMST 277 | ANTH 461 | CLAR 245 | GERM 257 |
| POLI 232 | PSYC 66 | RELI 70 | SOCI 260 | AMST 292 | ANTH 468 | CLAR 375 | GERM 270 |


| GERM 311 | HIST 177H | HIST 311 | HIST 462 | ITAL 330 | MUSC 59 | RELI 61 | RELI 583 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| HIST 51 | HIST 178H | HIST 325 | HIST 463 | ITAL 331 | MUSC 62 | RELI 63 | RELI 662 |
| HIST 52 | HIST 179H | HIST 329 | HIST 466 | ITAL 343 | MUSC 255 | RELI 72 | ROML 62 |
| HIST 53 | HIST 202 | HIST 330 | HIST 467 | ITAL 365 | PLAN 585 | RELI 104 | SLAV 251 |
| HIST 54 | HIST 203 | HIST 331 | HIST 469 | JAPN 150 | PLCY 231 | RELI 105 | SOCI 257 |
| HIST 56 | HIST 205 | HIST 334 | HIST 471 | JAPN 165 | PLCY 585 | RELI 106 | WMST 144 |
| HIST 57 | HIST 206 | HIST 345 | HIST 472 | JAPN 231 | POLI 240 | RELI 107 | WMST 242 |
| HIST 60 | HIST 212 | HIST 347 | HIST 474 | JAPN 246 | POLI 257 | RELI 109 | WMST 244 |
| HIST 62 | HIST 213 | HIST 351 | HIST 475 | JAPN 333 | POLI 411 | RELI 110 | WMST 253 |
| HIST 64 | HIST 225 | HIST 354 | HIST 476 | JAPN 451 | POLI 474 | RELI 123 | WMST 259 |
| HIST 66 | HIST 226 | HIST 355 | HIST 477 | JOMC 242 | PORT 323 | RELI 140 | WMST 264 |
| HIST 68 | HIST 227 | HIST 356 | HIST 478 | JOMC 342 | PWAD 132 | RELI 141 | WMST 278 |
| HIST 72 | HIST 228 | HIST 357 | HIST 479 | JWST 100 | PWAD 134 | RELI 142 | WMST 280 |
| HIST 73 | HIST 231 | HIST 358 | HIST 480 | JWST 106 | PWAD 212 | RELI 151 | WMST 289 |
| HIST 74 | HIST 232 | HIST 360 | HIST 481 | JWST 107 | PWAD 213 | RELI 161 | WMST 337 |
| HIST 75 | HIST 233 | HIST 361 | HIST 482 | JWST 110 | PWAD 251 | RELI 163 | WMST 353 |
| HIST 76 | HIST 234 | HIST 362 | HIST 483 | JWST 153 | PWAD 254 | RELI 165 | WMST 360 |
| HIST 79 | HIST 235 | HIST 363 | HIST 484 | JWST 239 | PWAD 262 | RELI 180 | WMST 362 |
| HIST 83 | HIST 239 | HIST 364 | HIST 485 | JWST 253 | PWAD 268 | RELI 181 | WMST 375 |
| HIST 84 | HIST 240 | HIST 365 | HIST 490 | JWST 262 | PWAD 277 | RELI 208 | WMST 389 |
| HIST 85 | HIST 241 | HIST 366 | HIST 500 | JWST 308 | PWAD 281 | RELI 209 | WMST 458 |
| HIST 106 | HIST 242 | HIST 367 | HIST 501 | JWST 311 | PWAD 351 | RELI 217 | WMST 476 |
| HIST 107 | HIST 245 | HIST 368 | HIST 510 | JWST 330 | PWAD 354 | RELI 218 | WMST 479 |
| HIST 110 | HIST 246 | HIST 369 | HIST 514 | JWST 451 | PWAD 368 | RELI 239 | WMST 500 |
| HIST 120 | HIST 247 | HIST 371 | HIST 516 | JWST 476 | PWAD 369 | RELI 241 | WMST 501 |
| HIST 121 | HIST 249 | HIST 372 | HIST 517 | JWST 485 | PWAD 373 | RELI 244 | WMST 517 |
| HIST 124 | HIST 250 | HIST 373 | HIST 526 | JWST 486 | PWAD 421 | RELI 289 | WMST 537 |
| HIST 125 | HIST 251 | HIST 374 | HIST 527 | LATN 511 | PWAD 422 | RELI 340 | WMST 568 |
| HIST 127 | HIST 252 | HIST 375 | HIST 528 | LING 444 | PWAD 432 | RELI 362 | WMST 569 |
| HIST 128 | HIST 253 | HIST 376 | HIST 529 | LING 558 | PWAD 488 | RELI 375 | WMST 576 |
| HIST 130 | HIST 254 | HIST 377 | HIST 533 | LTAM 291 | PWAD 517 | RELI 446 | WMST 583 |
| HIST 131 | HIST 255 | HIST 378 | HIST 534 | MNGT 364 | PWAD 564 | RELI 565 |  |
| HIST 132 | HIST 256 | HIST 379 | HIST 535 | MNGT 365 | PWAD 570 | RELI 580 |  |
| HIST 133 | HIST 257 | HIST 380 | HIST 537 | MUSC 56 | PWAD 577 | RELI 582 |  |
| HIST 134 | HIST 259 | HIST 381 | HIST 550 | Philosophical and/or Moral Reasoning (PH) |  |  |  |
| HIST 135 | HIST 260 | HIST 389 | HIST 561 |  |  |  |  |
| HIST 136 | HIST 262 | HIST 420 | HIST 563 | AMST 55 | ECON 384 | PHIL 53 | PHIL 160 |
| HIST 138 | HIST 264 | HIST 421 | HIST 564 | AMST 220 | ENEC 325 | PHIL 54 | PHIL 163 |
| HIST 139 | HIST 268 | HIST 422 | HIST 566 | AMST 291 | ENEC 368 | PHIL 55 | PHIL 164 |
| HIST 140 | HIST 269 | HIST 423 | HIST 568 | AMST 392 | ENEC 375 | PHIL 56 | PHIL 165 |
| HIST 142 | HIST 271 | HIST 424 | HIST 569 | ANTH 146 | ENGL 611 | PHIL 58 | PHIL 170 |
| HIST 143 | HIST 274 | HIST 425 | HIST 570 | ASIA 55 | GEOG 62 | PHIL 66 | PHIL 180 |
| HIST 144 | HIST 276 | HIST 427 | HIST 571 | ASIA 65 | GEOG 63 | PHIL 67 | PHIL 185 |
| HIST 151 | HIST 277 | HIST 428 | HIST 574 | CHIN 356 | GERM 245 | PHIL 68 | PHIL 210 |
| HIST 152 | HIST 278 | HIST 431 | HIST 576 | CHIN 463 | GERM 246 | PHIL 75 | PHIL 213 |
| HIST 153 | HIST 279 | HIST 432 | HIST 577 | CHIN 525 | GERM 280 | PHIL 76 | PHIL 215 |
| HIST 156 | HIST 280 | HIST 433 | HIST 578 | CLAR 51 | GERM 283 | PHIL 77 | PHIL 220 |
| HIST 157 | HIST 281 | HIST 435 | HIST 581 | COMM 170 | GERM 370 | PHIL 78 | PHIL 224 |
| HIST 158 | HIST 282 | HIST 436 | HIST 582 | COMM 374 | GSLL 284 | PHIL 79 | PHIL 230 |
| HIST 159 | HIST 284 | HIST 437 | HIST 586 | COMM 375 | HNRS 354 | PHIL 85 | PHIL 261 |
| HIST 162 | HIST 285 | HIST 438 | HIST 589 | COMM 450 | INLS 384 | PHIL 101 | PHIL 266 |
| HIST 163 | HIST 286 | HIST 451 | HIST 625 | COMM 470 | LING 145 | PHIL 105 | PHIL 272 |
| HIST 164 | HIST 287 | HIST 452 | HIST 670 | COMP 380 | LING 545 | PHIL 110 | PHIL 273 |
| HIST 165 | HIST 288 | HIST 453 | HIST 671 | COMP 381 | NAVS 402 | PHIL 112 | PHIL 274 |
| HIST 174H | HIST 308 | HIST 459 | HIST 692H | COMP 382 | PHCY 432 | PHIL 134 | PHIL 275 |
| HIST 175H | HIST 309 | HIST 460 | HIST 697 | COMP 388 | PHIL 51 | PHIL 145 | PHIL 280 |
| HIST 176H | HIST 310 | HIST 461 | HNRS 353 | ECON 234 | PHIL 52 | PHIL 150 | PHIL 282 |


| PHIL 330 | POLI 51 | PWAD 272 | RELI 266 | CMPL 489 | ENGL 131 | ENGL 322 | ENGL 462 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| PHIL 335 | POLI 56 | PWAD 283 | RELI 322 | CMPL 492 | ENGL 132H | ENGL 325 | ENGL 463 |
| PHIL 340 | POLI 73 | RELI 64 | RELI 325 | CMPL 500 | ENGL 133H | ENGL 326 | ENGL 465 |
| PHIL 351 | POLI 74 | RELI 66 | RELI 338 | CMPL 558 | ENGL 134H | ENGL 327 | ENGL 466 |
| PHIL 354 | POLI 206 | RELI 68 | RELI 420 | CMPL 624 | ENGL 135H | ENGL 330 | ENGL 472 |
| PHIL 360 | POLI 219 | RELI 71 | RELI 421 | CMPL 685 | ENGL 137 | ENGL 331 | ENGL 475 |
| PHIL 362 | POLI 265 | RELI 74 | RELI 424 | COMM 70 | ENGL 138 | ENGL 332 | ENGL 481 |
| PHIL 364 | POLI 270 | RELI 75 | RELI 426 | COMM 160 | ENGL 140 | ENGL 333 | ENGL 486 |
| PHIL 368 | POLI 271 | RELI 77 | RELI 438 | COMM 263 | ENGL 141 | ENGL 337 | ENGL 489 |
| PHIL 370 | POLI 272 | RELI 79 | RELI 450 | COMM 466 | ENGL 144 | ENGL 338 | ENGL 490 |
| PHIL 381 | POLI 274 | RELI 85 | RELI 522 | CZCH 280 | ENGL 145 | ENGL 339 | ENGL 530 |
| PHIL 384 | POLI 276 | RELI 102 | RELI 527 | CZCH 411 | ENGL 146 | ENGL 340 | ENGL 564 |
| PHIL 450 | POLI 280 | RELI 122 | RELI 530 | CZCH 469 | ENGL 147 | ENGL 343 | ENGL 619 |
| PHIL 460 | POLI 384 | RELI 125 | RELI 566 | DRAM 82 | ENGL 148 | ENGL 344 | ENGL 630 |
| PHIL 462 | POLI 414 | RELI 126 | RELI 603 | DRAM 115 | ENGL 149 | ENGL 345 | ENGL 631 |
| PHIL 470 | POLI 415 | RELI 127 | RELI 617 | DRAM 117 | ENGL 150 | ENGL 347 | ENGL 637 |
| PHIL 474 | POLI 432 | RELI 134 | SOCI 250 | DRAM 215 | ENGL 155 | ENGL 348 | ENGL 638 |
| PHIL 476 | POLI 449 | RELI 135 | SOCI 273 | DRAM 282 | ENGL 191 | ENGL 350 | ENGL 659 |
| PHIL 480 | POLI 470 | RELI 138 | SOCI 274 | DRAM 285 | ENGL 206 | ENGL 355 | ENGL 662 |
| PHYS 354 | POLI 471 | RELI 166 | WMST 219 | DRAM 286 | ENGL 207 | ENGL 356 | ENGL 670 |
| PLCY 71 | POLI 472 | RELI 184 | WMST 265 | DRAM 289 | ENGL 208 | ENGL 357 | ENGL 674 |
| PLCY 340 | POLI 473 | RELI 207 | WMST 275 | DRAM 297 | ENGL 209 | ENGL 359 | ENGL 675 |
| PLCY 364 | POLI 475 | RELI 222 | WMST 424 | DRAM 298 | ENGL 210 | ENGL 360 | ENGL 676 |
| PLCY 440 | POLI 477 | RELI 224 | WMST 477 | DTCH 405 | ENGL 225 | ENGL 361 | ENGL 685 |
| Literary Arts (LA) |  |  |  | EDUC 567 | ENGL 226 | ENGL 363 | EURO 362 |
|  |  |  |  | ENGL 52 | ENGL 227 | ENGL 365 | FOLK 310 |
| AAAD 201 | ASIA 228 | CLAS 121 | CMPL 277 | ENGL 53 | ENGL 228 | ENGL 366 | FREN 250 |
| AMST 52 | ASIA 241 | CLAS 131 | CMPL 279 | ENGL 54 | ENGL 230 | ENGL 367 | FREN 260 |
| AMST 201 | ASIA 261 | CLAS 133H | CMPL 282 | ENGL 55 | ENGL 240 | ENGL 368 | FREN 280 |
| AMST 211 | ASIA 262 | CLAS 240 | CMPL 321 | ENGL 56 | ENGL 246 | ENGL 369 | FREN 285 |
| AMST 246 | ASIA 332 | CLAS 241 | CMPL 364 | ENGL 57 | ENGL 260 | ENGL 370 | FREN 286 |
| AMST 256 | ASIA 333 | CLAS 253 | CMPL 374 | ENGL 63 | ENGL 261 | ENGL 371 | FREN 330 |
| AMST 257 | ASIA 360 | CLAS 257 | CMPL 380 | ENGL 64 | ENGL 263 | ENGL 373 | FREN 331 |
| AMST 258 | ASIA 380 | CLAS 258 | CMPL 383 | ENGL 65 | ENGL 265 | ENGL 374 | FREN 370 |
| AMST 266 | ASIA 382 | CLAS 259 | CMPL 385 | ENGL 67 | ENGL 266 | ENGL 375 | FREN 371 |
| AMST 290 | ASIA 383 | CLAS 362 | CMPL 386 | ENGL 68 | ENGL 267 | ENGL 376 | FREN 372 |
| AMST 297 | ASIA 481 | CLAS 363 | CMPL 450 | ENGL 69 | ENGL 268 | ENGL 377 | FREN 376 |
| AMST 335 | ASIA 483 | CLAS 364 | CMPL 452 | ENGL 70 | ENGL 270 | ENGL 383 | FREN 383 |
| AMST 338 | ASIA 486 | CLAS 409 | CMPL 453 | ENGL 71 | ENGL 271 | ENGL 385 | FREN 387 |
| AMST 360 | ASIA 489 | CLAS 547 | CMPL 456 | ENGL 72 | ENGL 278 | ENGL 386 | FREN 554 |
| AMST 365 | ASIA 584 | CMPL 120 | CMPL 458 | ENGL 74 | ENGL 281 | ENGL 387 | GERM 50 |
| AMST 370 | CHIN 231 | CMPL 121 | CMPL 460 | ENGL 80 | ENGL 282 | ENGL 388 | GERM 54 |
| AMST 440 | CHIN 232 | CMPL 122 | CMPL 462 | ENGL 81 | ENGL 283 | ENGL 390 | GERM 65 |
| AMST 685 | CHIN 252 | CMPL 123 | CMPL 464 | ENGL 85 | ENGL 284 | ENGL 406 | GERM 68 |
| ARAB 150 | CHIN 255 | CMPL 124 | CMPL 466 | ENGL 86 | ENGL 285 | ENGL 407 | GERM 220 |
| ARAB 151 | CHIN 464 | CMPL 130 | CMPL 468 | ENGL 88 | ENGL 288 | ENGL 430 | GERM 225 |
| ARAB 407 | CHIN 551 | CMPL 131 | CMPL 469 | ENGL 120 | ENGL 289 | ENGL 436 | GERM 249 |
| ARAB 408 | CHIN 552 | CMPL 132 | CMPL 470 | ENGL 121 | ENGL 291 | ENGL 437 | GERM 252 |
| ARAB 434 | CHIN 563 | CMPL 134 | CMPL 471 | ENGL 122 | ENGL 301 | ENGL 439 | GERM 279 |
| ARAB 443 | CLAS 55 | CMPL 198H | CMPL 472 | ENGL 123 | ENGL 306 | ENGL 440 | GERM 290 |
| ARAB 452 | CLAS 56 | CMPL 220 | CMPL 473 | ENGL 124 | ENGL 307 | ENGL 441 | GERM 303 |
| ARAB 468 | CLAS 57 | CMPL 223 | CMPL 478 | ENGL 125 | ENGL 310 | ENGL 442 | GERM 310 |
| ASIA 52 | CLAS 58 | CMPL 225 | CMPL 481 | ENGL 126 | ENGL 317 | ENGL 443 | GERM 325 |
| ASIA 56 | CLAS 60 | CMPL 230 | CMPL 483 | ENGL 127 | ENGL 318 | ENGL 444 | GERM 330 |
| ASIA 151 | CLAS 61 | CMPL 250 | CMPL 485 | ENGL 128 | ENGL 319 | ENGL 445 | GERM 349 |
| ASIA 152 | CLAS 63 | CMPL 251 | CMPL 486 | ENGL 129 | ENGL 320 | ENGL 446 | GERM 350 |
| ASIA 163 | CLAS 65 | CMPL 275 | CMPL 487 | ENGL 130 | ENGL 321 | ENGL 447 | GERM 371 |


| GERM 372 | LATN 332 | ROML 55 | SLAV 465 | ARTH 254 | ARTH 551 | ASIA 255 | COMM 452 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| GERM 380 | LATN 333 | ROML 56 | SLAV 469 | ARTH 255 | ARTH 556 | ASIA 266 | COMM 463 |
| GERM 381 | LATN 334 | ROML 58 | SLAV 470 | ARTH 258 | ARTH 588 | ASIA 273 | COMM 464 |
| GERM 382 | LATN 351 | RUSS 250 | SPAN 252 | ARTH 259 | ARTH 595 | ASIA 379 | COMM 493 |
| GERM 390 | LATN 352 | RUSS 270 | SPAN 260 | ARTH 262 | ARTS 50 | ASIA 435 | COMM 638 |
| GREK 221 | LATN 353 | RUSS 274 | SPAN 262 | ARTH 263 | ARTS 57 | ASIA 468 | COMM 647 |
| GREK 352 | LATN 354 | RUSS 275 | SPAN 270 | ARTH 264 | ARTS 58 | ASIA 586 | COMM 653 |
| GREK 509 | LATN 512 | RUSS 276 | SPAN 280 | ARTH 266 | ARTS 59 | CHIN 242 | COMM 662 |
| GREK 510 | LATN 513 | RUSS 277 | SPAN 348 | ARTH 270 | ARTS 75 | CHIN 244 | COMM 664 |
| GSLL 87 | LATN 514 | RUSS 281 | SPAN 362 | ARTH 271 | ARTS 78 | CHIN 354 | COMM 666 |
| GSLL 260 | MUSC 52 | RUSS 431 | SPAN 371 | ARTH 273 | ARTS 82 | CHIN 361 | DRAM 80 |
| GSLL 475 | MUSC 55H | RUSS 432 | SPAN 372 | ARTH 274 | ARTS 101 | CHIN 367 | DRAM 81 |
| HNRS 250 | MUSC 57 | RUSS 441 | SPAN 373 | ARTH 275 | ARTS 102 | CHIN 531 | DRAM 83 |
| HNRS 355 | MUSC 60H | RUSS 442 | SPAN 379 | ARTH 277 | ARTS 103 | CHIN 562 | DRAM 84 |
| HNUR 305 | PLSH 411 | RUSS 450 | SPAN 386 | ARTH 279 | ARTS 104 | CLAR 50 | DRAM 85 |
| HNUR 306 | PLSH 412 | RUSS 460 | SPAN 387 | ARTH 282 | ARTS 105 | CLAR 246 | DRAM 86 |
| HNUR 410 | PORT 270 | RUSS 463 | SPAN 388 | ARTH 283 | ARTS 106 | CLAR 247 | DRAM 87 |
| HNUR 592 | PORT 275 | RUSS 464 | SPAN 625 | ARTH 284 | ARTS 116 | CLAR 262 | DRAM 88 |
| HUNG 411 | PORT 382 | RUSS 465 | WMST 64 | ARTH 285 | ARTS 203 | CLAR 263 | DRAM 116 |
| ITAL 240 | PORT 385 | RUSS 469 | WMST 80 | ARTH 287 | ARTS 208 | CLAR 268 | DRAM 120 |
| ITAL 241 | PWAD 452 | RUSS 471 | WMST 140 | ARTH 288 | ARTS 213 | CLAR 465 | DRAM 131 |
| ITAL 242 | PWAD 465 | RUSS 473 | WMST 211 | ARTH 289 | ARTS 214 | CLAR 512 | DRAM 165 |
| ITAL 250 | PWAD 475 | RUSS 475 | WMST 220 | ARTH 291 | ARTS 233 | CLAR 561 | DRAM 192 |
| ITAL 340 | PWAD 489 | RUSS 479 | WMST 233 | ARTH 293 | ARTS 243 | CLAS 64 | DRAM 231 |
| ITAL 345 | PWAD 659 | RUSS 486 | WMST 240 | ARTH 294 | ARTS 300 | CMPL 55 | DRAM 260 |
| ITAL 370 | RELI 73 | RUSS 513 | WMST 241 | ARTH 297 | ARTS 303 | CMPL 133 | DRAM 277 |
| ITAL 371 | RELI 78 | RUSS 514 | WMST 243 | ARTH 299 | ARTS 305 | CMPL 142 | DRAM 281 |
| ITAL 382 | RELI 88 | RUSS 560 | WMST 263 | ARTH 302 | ARTS 313 | CMPL 143 | DRAM 283 |
| JAPN 160 | RELI 201 | SECR 411 | WMST 294 | ARTH 303 | ARTS 314 | CMPL 144 | DRAM 287 |
| JAPN 375 | RELI 212 | SLAV 81 | WMST 297 | ARTH 351 | ARTS 324 | CMPL 227 | DRAM 291 |
| JAPN 384 | RELI 240 | SLAV 82 | WMST 352 | ARTH 352 | ARTS 328 | CMPL 240 | DRAM 292 |
| JAPN 409 | RELI 382 | SLAV 83 | WMST 363 | ARTH 353 | ARTS 337 | CMPL 252 | DRAM 294 |
| JWST 289 | RELI 383 | SLAV 84 | WMST 373 | ARTH 360 | ARTS 338 | CMPL 254 | DRAM 331 |
| JWST 360 | RELI 385 | SLAV 85 | WMST 374 | ARTH 361 | ARTS 348 | CMPL 255 | DRAM 466 |
| JWST 412 | RELI 463 | SLAV 86 | WMST 380 | ARTH 362 | ARTS 355 | CMPL 257 | DRAM 467 |
| JWST 464 | RELI 480 | SLAV 88H | WMST 384 | ARTH 363 | ARTS 358 | CMPL 260 | DRAM 468 |
| JWST 465 | RELI 489 | SLAV 248 | WMST 446 | ARTH 365 | ARTS 368 | CMPL 280 | DRAM 480 |
| JWST 469 | RELI 584 | SLAV 250 | WMST 465 | ARTH 368 | ARTS 426 | CMPL 281 | DRAM 486 |
| JWST 602 | RELI 592 | SLAV 273 | WMST 486 | ARTH 370 | ARTS 428 | CMPL 332H | DRAM 488 |
| LATN 221 | RELI 602 | SLAV 463 |  | ARTH 383 | ARTS 500 | CMPL 375 | DRAM 489 |
| LATN 222 | ROML 54 | SLAV 464 |  | ARTH 385 | ASIA 54 | CMPL 379 | DRAM 666 |
| Visual and Performing Arts (VP) |  |  |  | ARTH 387 | ASIA 57 | CMPL 382 | ENGL 50 |
|  |  |  |  | ARTH 391 | ASIA 58 | CMPL 420 | ENGL 58 |
| AAAD 51 | AMST 268 | ANTH 343 | ARTH 77 | ARTH 445 | ASIA 59 | CMPL 463 | ENGL 87 |
| AAAD 211 | AMST 284 | ANTH 356 | ARTH 79 | ARTH 450 | ASIA 61 | CMPL 494 | ENGL 142 |
| AAAD 237 | AMST 336 | ANTH 477 | ARTH 84 | ARTH 452 | ASIA 64 | COMM 61 | ENGL 143 |
| AAAD 250 | AMST 340 | ANTH 586 | ARTH 151 | ARTH 453 | ASIA 122 | COMM 62 | ENGL 380 |
| AAAD 259 | AMST 371 | ARAB 337 | ARTH 152 | ARTH 454 | ASIA 153 | COMM 63 | ENGL 381 |
| AAAD 318 | AMST 483 | ARAB 338 | ARTH 153 | ARTH 455 | ASIA 154 | COMM 130 | ENGL 389 |
| AAAD 319 | AMST 485 | ARAB 453 | ARTH 154 | ARTH 465 | ASIA 158 | COMM 131 | ENGL 410 |
| AAAD 320 | AMST 487 | ARTH 53 | ARTH 155 | ARTH 468 | ASIA 164 | COMM 150 | ENGL 580 |
| AAAD 330 | AMST 488 | ARTH 54 | ARTH 157 | ARTH 470 | ASIA 224 | COMM 251 | ENGL 583 |
| AAAD 340 | AMST 489 | ARTH 55 | ARTH 158 | ARTH 473 | ASIA 231 | COMM 262 | ENGL 665 |
| AAAD 356 | AMST 498 | ARTH 56 | ARTH 159 | ARTH 475 | ASIA 235 | COMM 345 | ENGL 666 |
| AAAD 449 | ANTH 77 | ARTH 61 | ARTH 160 | ARTH 481 | ASIA 242 | COMM 364 | ENGL 680 |
| AAAD 486 | ANTH 123 | ARTH 64 | ARTH 161 | ARTH 483 | ASIA 251 | COMM 365 | EURO 332H |
| AMST 50 | ANTH 334 | ARTH 66 | ARTH 251 | ARTH 485 | ASIA 252 | COMM 437 | EXSS 191 |


| FOLK 77 | HIST 302 | MUSC 143 | MUSC 390 | ENGL 50 | ENGL 530 | LING 306 | PSYC 62 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| FOLK 334 | HIST 468 | MUSC 144 | PLSH 280 | ENGL 52 | ENGL 610 | LING 409 | PSYC 64 |
| FOLK 488 | HNRS 356 | MUSC 145 | PORT 388 | ENGL 55 | ENGL 611 | LING 484 | PSYC 530 |
| FOLK 550 | HUNG 280 | MUSC 146 | PWAD 289 | ENGL 69 | ENGL 638 | LTAM 697 | PSYC 693H |
| FOLK 587 | ITAL 333 | MUSC 147 | RELI 235 | ENGL 72 | ENGL 674 | MASC 550 | PSYC 694H |
| FREN 315 | ITAL 335 | MUSC 148 | RELI 236 | ENGL 75 | ENGL 675 | MATH 67 | PWAD 467 |
| FREN 332H | JAPN 161 | MUSC 155 | RELI 512 | ENGL 79 | ENGL 676 | MUSC 52 | PWAD 475 |
| FREN 373 | JAPN 162 | MUSC 156 | ROML 660 | ENGL 80 | ENGL 680 | MUSC 54 | PWAD 670 |
| FREN 388 | JAPN 261 | MUSC 157 | RUSS 273 | ENGL 81 | FOLK 484 | MUSC 55H | PWAD 680 |
| FREN 389 | JAPN 412 | MUSC 158 | SLAV 281 | ENGL 85 | FOLK 487 | MUSC 56 | RECR 430 |
| FREN 505 | JAPN 413 | MUSC 188 | SPAN 253 | ENGL 86 | FOLK 670 | MUSC 57 | RELI 60 |
| FREN 617 | JAPN 414 | MUSC 232 | SPAN 361 | ENGL 121 | FOLK 675 | MUSC 58 | RELI 73 |
| GERM 60 | JAPN 521 | MUSC 251 | WMST 68 | ENGL 127 | FREN 255 | MUSC 59 | RELI 283 |
| GERM 63 | JWST 512 | MUSC 280 | WMST 188 | ENGL 132H | FREN 310 | MUSC 60H | RELI 285 |
| GERM 210 | MUSC 54 | MUSC 281 | WMST 230 | ENGL 133H | FREN 311 | MUSC 61H | RELI 420 |
| GERM 250 | MUSC 63 | MUSC 282 | WMST 231 | ENGL 137 | FREN 350 | MUSC 62 | RELI 444 |
| GERM 265 | MUSC 64 | MUSC 283 | WMST 232 | ENGL 149 | GEOG 62 | MUSC 63 | RELI 485 |
| GERM 266 | MUSC 65 | MUSC 284 | WMST 250 | ENGL 150 | GEOG 65 | MUSC 64 | RELI 487 |
| GERM 275 | MUSC 120 | MUSC 285 | WMST 254 | ENGL 206 | GEOG 424 | MUSC 355 | RELI 488 |
| GERM 373 | MUSC 121 | MUSC 286 | WMST 285 | ENGL 207 | GEOG 543 | MUSC 390 | RELI 524 |
| GERM 374 | MUSC 131 | MUSC 287 | WMST 336 | ENGL 208 | GEOG 650 | PHIL 55 | RELI 527 |
| GSLL 69 | MUSC 132 | MUSC 288 | WMST 345 | ENGL 209 | GEOL 550 | PHIL 79 | RELI 586 |
| HEBR 142 | MUSC 141 | MUSC 289 | WMST 665 | ENGL 216 | GERM 50 | PHIL 261 | RELI 697 |
| HIST 77 | MUSC 142 | MUSC 291 | WMST 666 | ENGL 300 | GERM 55 | PHIL 397 | ROML 60 |
| Com | Inte |  |  | ENGL 300I | GERM 56 | PHIL 691H | RUSS 475 |
| C | , |  |  | ENGL 301 | GERM 58 | PHYS 281L | SLAV 248 |
| AAAD | ANTH 331 | BIOL 524 | COMM 472 | ENGL 302 | GERM 301 | PLAN 53 | SLAV 306 |
| AAAD 319 | ANTH 343 | BIOL 692H | COMM 535 | ENGL 303 | GERM 302 | PLCY 70 | SLAV 467 |
| AAAD 395 | ANTH 413 | BMME 698 | COMM 650 | ENGL 304 | GERM 303 | PLCY 210 | SOCI 67 |
| AAAD 486 | ANTH 439 | BUSI 51 | COMP 382 | ENGL 305 | HIST 72 | PLCY 691H | SOCI 68 |
| AERO 301 | ANTH 447 | BUSI 401 | COMP 523 | ENGL 316 | HIST 398 | PLCY 692H | SOCI 691H |
| AERO 302 | ANTH 463 | CHEM 550L | DRAM 80 | ENGL 317 | HIST 438 | PLCY 698 | SOCI 692H |
| AERO 401 | ANTH 484 | CHIN 441 | DRAM 81 | ENGL 318 | HIST 670 | POLI 50 | SPAN 255 |
| AMST 50 | ANTH 567 | CHIN 443 | DRAM 82 | ENGL 361 | HIST 692H | POLI 61 | SPAN 266 |
| AMST 51 | ANTH 578 | CLAR 51 | DRAM 84 | ENGL 366 | INLS 384 | POLI 62 | SPAN 350 |
| AMST 53 | ANTH 675 | CLAS 61 | DRAM 87 | ENGL 370 | INLS 691H | POLI 230 | SPAN 394 |
| AMST 55 | ARAB 300 | CLAS 62 | DRAM 120 | ENGL 371 | ITAL 310 | POLI 265 | WMST 224 |
| AMST 59 | ARTH 64 | CLSC 630 | DRAM 131 | ENGL 402 | ITAL 337 | POLI 400 | WMST 254 |
| AMST 257 | ARTH 80 | CMPL 250 | DRAM 231 | ENGL 406 | JOMC 153 | POLI 417 | WMST 265 |
| AMST 259 | ARTH 254 | CMPL 251 | DRAM 279 | ENGL 407 | JWST 444 | POLI 421 | WMST 278 |
| AMST 269 | ARTH 275 | CMPL 260 | DRAM 282 | ENGL 487 | JWST 486 | POLI 432 | WMST 385 |
| AMST 275 | ARTH 283 | CMPL 460 | DRAM 283 | ENGL 488 | JWST 697 | POLI 477 | WMST 477 |
| AMST 285 | ARTH 353 | CMPL 478 | DRAM 285 | ENGL 496 | KOR 407 | POLI 692H | WMST 695 |
| AMST 338 | ARTH 453 | CMPL 500 | DRAM 286 | Quantitative Intensive (QI) |  |  |  |
| AMST 339 | ARTH 485 | COMM 63 | DRAM 287 |  |  |  |  |
| AMST 385 | ARTH 555 | COMM 82 | DRAM 288 | ANTH 411 | ENEC 222 | MASC 460 | MATH 57 |
| AMST 386 | ARTS 58 | COMM 85 | DRAM 294 | ASTR 63 | EXSS 273 | MASC 470 | MATH 58 |
| AMST 387 | ASIA 58 | COMM 113 | DRAM 300 | ASTR 390 | GEOG 410 | MASC 553 | MATH 59 |
| AMST 394 | ASIA 61 | COMM 131 | DRAM 488 | BIOL 201 | GEOL 460 | MASC 561 | MATH 60 |
| AMST 398 | ASIA 285 | COMM 224 | DRAM 493 | BIOL 226 | GEOL 509 | MASC 562 | MATH 61 |
| AMST 466 | ASIA 300 | COMM 318 | ECON 55 | BIOL 452 | GEOL 510 | MATH 50 | MATH 62 |
| AMST 486 | ASIA 487 | COMM 333 | ECON 57H | COMP 60 | GEOL 512 | MATH 51 | MATH 63 |
| ANTH 59 | ASIA 488 | COMM 334 | ECON 285 | COMP 665 | GEOL 655 | MATH 52 | MATH 64 |
| ANTH 60 | ASIA 578 | COMM 350 | ECON 385 | ECON 400 | JOMC 279 | MATH 53 | MATH 65 |
| ANTH 278 | BIOL 81 | COMM 375 | EDUC 567 | ECON 485 | LING 333 | MATH 54 | MATH 66 |
| ANTH 284 | BIOL 101L | COMM 432 | ENEC 375 | ECON 570 | LING 540 | MATH 55 | MATH 67 |
| ANTH 330 | BIOL 522 | COMM 452 | ENEC 491 | ECON 575 | MASC 57 | MATH 56 | MATH 232 |


| MATH 233 | MATH 547 | PHYS 114 | STOR 52 | DHYG 422 | ENVR 695 | IDST 301 | LAN 575 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MATH 283 | MATH 548 | PHYS 115 | STOR 53 | DRAM 85 | EXSS 51 | IDST 691H | PLAN 691H |
| MATH 307 | MATH 550 | PHYS 116 | STOR 56 | DRAM 88 | EXSS 207 | IDST 692H | PLCY 130 |
| MATH 381 | MATH 551 | PHYS 117 | STOR 58 | DRAM 191 | EXSS 323 | INLS 393 | PLCY 293 |
| MATH 383 | MATH 555 | PHYS 118 | STOR 60 | DRAM 192 | EXSS 393 | INLS 691H | PLCY 393 |
| MATH 406 | MATH 564 | PHYS 119 | STOR 61 | DRAM 193 | EXSS 395 | INLS 692H | PLCY 493 |
| MATH 411 | MATH 565 | PHYS 131 | STOR 62 | DRAM 196 | EXSS 493 | ISP 300-600 | PLCY 691H |
| MATH 418 | MATH 566 | PLCY 460 | STOR 63 | DRAM 260 | EXSS 593 | ITAL 691H | PLCY 692H |
| MATH 452 | MATH 577 | POLI 209 | STOR 64 | DRAM 393 | EXSS 693H | ITAL 692H | PLCY 698 |
| MATH 515 | MATH 578 | POLI 281 | STOR 66 | DRAM 460 | EXSS 694H | JAPN 451 | POLI 193 |
| MATH 521 | MUSC 131 | POLI 285 | STOR 68 | DRAM 493 | FOLK 562 | JOMC 232 | POLI 196 |
| MATH 522 | PHIL 65 | POLI 288 | STOR 72 | DRAM 666 | FOLK 688 | JOMC 393 | POLI 219 |
| MATH 523 | PHIL 157 | POLI 488 | STOR 305 | DRAM 691H | FOLK 691H | JOMC 671 | POLI 404 |
| MATH 524 | PHIL 355 | PSYC 210 | STOR 435 | DRAM 692H | FOLK 692H | JOMC 691H | POLI 421 |
| MATH 528 | PHIL 357 | PSYC 215 | STOR 471 | ECON 55 | FREN 691H | JOMC 692H | POLI 691H |
| MATH 529 | PHIL 456 | PSYC 310 | STOR 582 | ECON 285 | FREN 692H | LING 691H | POLI 692H |
| MATH 533 | PHYS 63 | PSYC 530 |  | ECON 293 | GEOG 53 | LING 692H | POLI 693H |
| MATH 534 | PHYS 104 | PSYC 531 |  | ECON 327 | GEOG 293 | LTAM 512 | PORT 691H |
| MATH 535 | PHYS 105 | SOCI 252 |  | ECON 385 | GEOG 419 | LTAM 691H | PORT 692H |
| E |  |  |  | ECON 393 | GEOG 429 | LTAM 692H | PSYC 56 |
|  |  |  |  | ECON 570 | GEOG 452 | MASC 220 | PSYC 270 |
| AAAD 293 | ARAB 338 | BIOL 395 | CLSC 540L | ECON 691H | GEOG 650 | MASC 395 | PSYC 294 |
| AAAD 334 | ARCH 393 | BIOL 410 | CLSC 580L | ECON 692H | GEOG 691H | MASC 472 | PSYC 395 |
| AAAD 395 | ARCH 691H | BIOL 421L | CMPL 260 | EDUC 318 | GEOG 692H | MATH 290 | PSYC 403 |
| AAAD 402 | ARCH 692H | BIOL 463 | CMPL 460 | EDUC 412 | GEOL 72 | MATH 396 | PSYC 470 |
| AAAD 691H | ARTH 293 | BIOL 555 | CMPL 500 | EDUC 469 | GEOL 221 | MATH 410 | PSYC 493 |
| AAAD 692H | ARTH 551 | BIOL 661 | CMPL 558 | EDUC 493 | GEOL 412 | MATH 691H | PSYC 502 |
| AERO 393 | ARTH 595 | BIOL 692H | CMPL 622 | EDUC 593 | GEOL 555 | MATH 692H | PSYC 506 |
| AMST 51 | ARTH 691H | BIOS 392 | CMPL 691H | EDUC 691H | GEOL 601 | MUSC 269 | PSYC 509 |
| AMST 57 | ARTH 692H | BIOS 664 | CMPL 692H | EDUC 694H | GEOL 602 | MUSC 296 | PSYC 693H |
| AMST 275 | ARTS 233 | BIOS 693H | COMM 53 | EDUC 697 | GEOL 691H | MUSC 300 | PSYC 694H |
| AMST 285 | ARTS 243 | BIOS 694H | COMM 393 | ENEC 220 | GEOL 692H | MUSC 302 | PUBA 396 |
| AMST 350 | ARTS 300 | BMME 395 | COMM 466 | ENEC 259 | GERM 373 | MUSC 303 | PUBH 423 |
| AMST 385 | ARTS 493 | BMME 691H | COMM 472 | ENEC 304 | GERM 374 | MUSC 304 | PWAD 393 |
| AMST 394 | ARTS 500 | BMME 692H | COMM 493 | ENEC 393 | GERM 493 | MUSC 305 | PWAD 670 |
| AMST 394L | ARTS 691H | BMME 698 | COMM 562 | ENEC 395 | GERM 691H | MUSC 306 | PWAD 680 |
| AMST 398 | ARTS 692H | BUSA 101 | COMM 625 | ENEC 479 | GERM 692H | MUSC 364 | PWAD 691H |
| AMST 410 | ASIA 382 | BUSA 103 | COMM 664 | ENEC 482 | GERM 693H | MUSC 471 | PWAD 692H |
| AMST 466 | ASIA 383 | BUSG 101 | COMM 665 | ENEC 493 | GLBL 193 | MUSC 493 | RECR 420 |
| AMST 493 | ASIA 691H | BUSI 200 | COMM 666 | ENEC 593 | GLBL 382 | MUSC 691H | RECR 691H |
| AMST 691H | ASIA 692H | BUSI 493 | COMM 668 | ENEC 693H | GLBL 485 | MUSC 692H | RECR 692H |
| AMST 692H | ASTR 111L | BUSI 505 | COMM 691H | ENEC 694H | GLBL 691H | NURS 591 | RELI 382 |
| ANTH 93 | ASTR 502 | BUSI 514 | COMM 692H | ENEC 698 | GLBL 692H | NURS 691H | RELI 383 |
| ANTH 240 | BFRS 300 | BUSI 519 | COMM 693H | ENGL 50 | GSLL 691H | NURS 692H | RELI 688 |
| ANTH 248 | BFRS 310 | BUSI 593 | COMM 694H | ENGL 75 | GSLL 692H | NUTR 245 | RELI 691H |
| ANTH 278 | BFRS 320 | BUSI 650 | COMP 80 | ENGL 271 | GSLL 693H | NUTR 295 | RELI 692H |
| ANTH 356 | BFRS 330 | BUSI 692H | COMP 180 | ENGL 316 | HBEH 610 | NUTR 692H | ROML 60 |
| ANTH 393 | BFRS 340 | BUSS 101 | COMP 381 | ENGL 376 | HBEH 611 | PHIL 261 | ROML 500 |
| ANTH 395 | BFRS 350 | CHEM 395 | COMP 393 | ENGL 496 | HIST 398 | PHIL 292 | RUSS 691H |
| ANTH 451 | BFRS 360 | CHEM 397H | COMP 493 | ENGL 583 | HIST 493 | PHIL 691H | RUSS 692H |
| ANTH 453 | BFRS 370 | CHEM 410 | COMP 495 | ENGL 691H | HIST 562 | PHIL 692H | SLAV 691H |
| ANTH 477 | BFRS 371 | CHIN 242 | COMP 523 | ENGL 692H | HIST 691H | PHYS 295 | SLAV 692H |
| ANTH 539 | BIOL 274 | CHIN 354 | COMP 580 | ENGL 693H | HIST 692H | PHYS 395 | SOCI 253 |
| ANTH 625 | BIOL 277L | CLAR 650 | COMP 691H | ENGL 694H | HNRS 393 | PHYS 410 | SOCI 273 |
| ANTH 688 | BIOL 293 | CLAS 123 | COMP 692H | ENVR 593 | HPM 393 | PHYS 482L | SOCI 301 |
| ANTH 691H | BIOL 294 | CLAS 691H | DHYG 362 | ENVR 691H | HPM 691H | PHYS 691H | SOCI 393 |
| ANTH 692H | BIOL 295 | CLAS 692H | DHYG 393 | ENVR 692H | HPM 692H | PHYS 692H | SOCI 413 |


| SOCI 416 | SPAN 293 | STOR 493 | WMST 393 |
| :--- | :--- | :--- | :--- |
| SOCI 417 | SPAN 329 | STOR 496 | WMST 562 |
| SOCI 423 | SPAN 691H | STOR 691H | WMST 691H |
| SOCI 470 | SPAN 692H | STOR 692H | WMST 692H |
| SOCI 691H | STA 304 | WMST 219 | YAP 114-464 |
| SOCI 692H | STA 325 | WMST 278 |  |
| SOWO 492 | STA 334 | WMST 340 |  |
| SPAN 253 | STOR 358 | WMST 385 |  |
| U.S. Diversity (US) |  |  |  |


| AAAD 50 | ANTH 202 | ENGL 611 | PHIL 274 |
| :---: | :---: | :---: | :---: |
| AAAD 51 | ANTH 203 | ENGL 665 | PHIL 275 |
| AAAD 130 | ANTH 206 | ENGL 666 | PHIL 473 |
| AAAD 231 | ANTH 234 | ENGL 670 | PHIL 475 |
| AAAD 252 | ANTH 340 | EXSS 50 | PLCY 349 |
| AAAD 254 | ANTH 484 | FOLK 77 | PLCY 425 |
| AAAD 332 | ANTH 538 | FOLK 202 | PLCY 530 |
| AAAD 333 | ANTH 539 | FOLK 340 | POLI 51 |
| AAAD 432 | ANTH 625 | FOLK 375 | POLI 56 |
| AAAD 449 | ARTH 485 | FOLK 484 | POLI 71 |
| AAAD 491 | ASIA 350 | FOLK 487 | POLI 203 |
| AMST 50 | ASIA 360 | FOLK 560 | POLI 206 |
| AMST 52 | ASIA 445 | FOLK 610 | POLI 217 |
| AMST 54 | CMPL 133 | HIST 79 | POLI 220 |
| AMST 55 | COMM 63 | HIST 110 | POLI 255 |
| AMST 56 | COMM 224 | HIST 120 | POLI 280 |
| AMST 60 | COMM 318 | HIST 121 | POLI 333 |
| AMST 110 | COMM 374 | HIST 127 | POLI 404 |
| AMST 201 | COMM 422 | HIST 144 | POLI 414 |
| AMST 203 | COMM 437 | HIST 231 | POLI 419 |
| AMST 210 | COMM 576 | HIST 232 | POLI 422 |
| AMST 211 | COMM 577 | HIST 234 | PSYC 64 |
| AMST 231 | COMP 80 | HIST 239 | PSYC 472 |
| AMST 234 | EDUC 510 | HIST 241 | RECR 475 |
| AMST 246 | EDUC 533 | HIST 355 | RELI 60 |
| AMST 255 | ENGL 53 | HIST 356 | RELI 140 |
| AMST 258 | ENGL 58 | HIST 361 | RELI 245 |
| AMST 259 | ENGL 63 | HIST 366 | RELI 248 |
| AMST 266 | ENGL 80 | HIST 375 | RELI 423 |
| AMST 269 | ENGL 88 | HIST 376 | RELI 445 |
| AMST 317 | ENGL 129 | HIST 378 | RELI 542 |
| AMST 335 | ENGL 139 | HIST 381 | SOCI 56 |
| AMST 336 | ENGL 140 | HIST 475 | SOCI 67 |
| AMST 337 | ENGL 202 | HIST 561 | SOCI 122 |
| AMST 338 | ENGL 246 | HIST 574 | WMST 101 |
| AMST 339 | ENGL 265 | ITAL 340 | WMST 111 |
| AMST 360 | ENGL 267 | JOMC 441 | WMST 140 |
| AMST 371 | ENGL 269 | JWST 360 | WMST 144 |
| AMST 375 | ENGL 270 | JWST 486 | WMST 211 |
| AMST 384 | ENGL 271 | LING 484 | WMST 217 |
| AMST 394 | ENGL 315 | LTAM 291 | WMST 224 |
| AMST 486 | ENGL 359 | MUSC 143 | WMST 230 |
| ANTH 54 | ENGL 360 | MUSC 144 | WMST 231 |
| ANTH 62 | ENGL 361 | MUSC 145 | WMST 233 |
| ANTH 92 | ENGL 370 | MUSC 148 | WMST 275 |
| ANTH 93 | ENGL 371 | MUSC 280 | WMST 297 |
| ANTH 194 | ENGL 487 | PHIL 57 | WMST 360 |

$\begin{array}{lr}\text { WMST } 368 & \text { WMST } 465 \\ \text { WMST } 375 & \text { WMST } 475 \\ \text { North Atlantic World (NA) }\end{array}$

| AAAD 237 | ANTH 64 | CLAR 375 | CMPL 624 |
| :---: | :---: | :---: | :---: |
| AAAD 298 | ANTH 203 | CLAR 464 | CMPL 685 |
| AAAD 330 | ANTH 230 | CLAR 465 | COMM 436 |
| AAAD 385 | ANTH 234 | CLAR 470 | COMM 452 |
| AAAD 486 | ANTH 342 | CLAR 491 | COMM 470 |
| AMST 53 | ANTH 377 | CLAS 55 | DRAM 81 |
| AMST 56 | ANTH 406 | CLAS 56 | DRAM 85 |
| AMST 57 | ANTH 585 | CLAS 57 | DRAM 87 |
| AMST 58 | ARTH 53 | CLAS 58 | DRAM 115 |
| AMST 59 | ARTH 54 | CLAS 121 | DRAM 120 |
| AMST 101 | ARTH 55 | CLAS 122 | DRAM 215 |
| AMST 110 | ARTH 64 | CLAS 123 | DRAM 282 |
| AMST 201 | ARTH 66 | CLAS 240 | DRAM 283 |
| AMST 202 | ARTH 152 | CLAS 241 | DRAM 285 |
| AMST 203 | ARTH 161 | CLAS 242 | DRAM 286 |
| AMST 210 | ARTH 254 | CLAS 257 | DRAM 289 |
| AMST 211 | ARTH 259 | CLAS 258 | DRAM 470 |
| AMST 220 | ARTH 262 | CLAS 259 | DRAM 480 |
| AMST 231 | ARTH 263 | CLAS 263 | DTCH 405 |
| AMST 233 | ARTH 264 | CLAS 363 | ENEC 480 |
| AMST 234 | ARTH 270 | CLAS 364 | ENEC 585 |
| AMST 235 | ARTH 271 | CLAS 409 | ENGL 54 |
| AMST 253 | ARTH 274 | CLAS 547 | ENGL 58 |
| AMST 255 | ARTH 275 | CMPL 130 | ENGL 64 |
| AMST 256 | ARTH 282 | CMPL 134 | ENGL 68 |
| AMST 257 | ARTH 283 | CMPL 250 | ENGL 70 |
| AMST 258 | ARTH 284 | CMPL 251 | ENGL 74 |
| AMST 266 | ARTH 285 | CMPL 270 | ENGL 81 |
| AMST 268 | ARTH 287 | CMPL 279 | ENGL 120 |
| AMST 277 | ARTH 288 | CMPL 321 | ENGL 121 |
| AMST 290 | ARTH 289 | CMPL 332H | ENGL 122 |
| AMST 291 | ARTH 330 | CMPL 364 | ENGL 128 |
| AMST 292 | ARTH 370 | CMPL 374 | ENGL 129 |
| AMST 297 | ARTH 383 | CMPL 375 | ENGL 225 |
| AMST 334 | ARTH 385 | CMPL 383 | ENGL 226 |
| AMST 335 | ARTH 387 | CMPL 385 | ENGL 227 |
| AMST 336 | ARTH 453 | CMPL 386 | ENGL 228 |
| AMST 340 | ARTH 464 | CMPL 450 | ENGL 230 |
| AMST 350 | ARTH 465 | CMPL 452 | ENGL 246 |
| AMST 360 | ARTH 473 | CMPL 453 | ENGL 261 |
| AMST 370 | ARTH 483 | CMPL 454 | ENGL 278 |
| AMST 375 | ARTH 514 | CMPL 456 | ENGL 284 |
| AMST 384 | ARTH 551 | CMPL 458 | ENGL 285 |
| AMST 386 | ARTH 556 | CMPL 462 | ENGL 288 |
| AMST 390 | ARTH 588 | CMPL 464 | ENGL 289 |
| AMST 392 | ASIA 350 | CMPL 466 | ENGL 310 |
| AMST 410 | ASTR 61 | CMPL 468 | ENGL 319 |
| AMST 482 | CLAR 244 | CMPL 470 | ENGL 320 |
| AMST 483 | CLAR 245 | CMPL 471 | ENGL 321 |
| AMST 487 | CLAR 247 | CMPL 472 | ENGL 322 |
| AMST 488 | CLAR 262 | CMPL 485 | ENGL 325 |
| AMST 498 | CLAR 263 | CMPL 487 | ENGL 326 |
| AMST 685 | CLAR 268 | CMPL 492 | ENGL 327 |


| GL 330 | FOLK 375 | GERM 311 | HIST 255 | HIST 474 | MUSC 248 | POLI 414 | RELI 342 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ENGL 331 | FOLK 488 | GERM 325 | HIST 256 | HIST 479 | MUSC 255 | POLI 415 | RELI 375 |
| ENGL 332 | FOLK 560 | GERM 330 | HIST 257 | HIST 500 | MUSC 281 | POLI 416 | RELI 441 |
| ENGL 333 | FOLK 571 | GERM 349 | HIST 259 | HIST 501 | MUSC 282 | POLI 418 | RELI 444 |
| ENGL 337 | FOLK 587 | GERM 350 | HIST 262 | HIST 514 | MUSC 283 | POLI 432 | RELI 530 |
| ENGL 338 | FREN 250 | GERM 370 | HIST 268 | HIST 516 | MUSC 284 | POLI 433 | RELI 580 |
| ENGL 339 | FREN 280 | GERM 371 | HIST 269 | HIST 517 | MUSC 285 | POLI 438 | RELI 607 |
| ENGL 343 | FREN 285 | GERM 372 | HIST 310 | HIST 563 | MUSC 287 | POLI 470 | RELI 662 |
| ENGL 344 | FREN 286 | GERM 373 | HIST 347 | HIST 564 | MUSC 288 | POLI 471 | RELI 665 |
| ENGL 345 | FREN 315 | GERM 374 | HIST 354 | HIST 566 | MUSC 289 | POLI 472 | RUSS 473 |
| ENGL 347 | FREN 325 | GERM 380 | HIST 355 | HIST 568 | PHIL 51 | POLI 473 | SOCI 61 |
| ENGL 348 | FREN 330 | GERM 381 | HIST 356 | HIST 569 | PHIL 134 | POLI 475 | SOCI 66 |
| ENGL 350 | FREN 331 | GERM 382 | HIST 357 | HIST 571 | PHIL 215 | POLI 477 | SOCI 115 |
| ENGL 355 | FREN 332H | GERM 383 | HIST 358 | HIST 576 | PHIL 220 | PWAD 101 | SOCI 257 |
| ENGL 356 | FREN 373 | GERM 390 | HIST 360 | HIST 577 | PHIL 224 | PWAD 220 | SPAN 280 |
| ENGL 357 | FREN 376 | GERM 493 | HIST 362 | HIST 581 | PHIL 228 | PWAD 254 | SPAN 331 |
| ENGL 367 | FREN 377 | GSLL 280 | HIST 363 | HIST 582 | PHIL 229 | PWAD 262 | SPAN 335 |
| ENGL 368 | FREN 378 | HIST 53 | HIST 364 | HIST 586 | PHIL 230 | PWAD 268 | SPAN 340 |
| ENGL 369 | FREN 388 | HIST 54 | HIST 365 | HIST 589 | PHIL 272 | PWAD 272 | SPAN 362 |
| ENGL 373 | FREN 389 | HIST 56 | HIST 366 | HIST 625 | PHIL 370 | PWAD 283 | SPAN 375 |
| ENGL 374 | GEOG 260 | HIST 57 | HIST 367 | HIST 671 | PHYS 61 | PWAD 289 | WMST 64 |
| ENGL 375 | GEOG 262 | HIST 60 | HIST 368 | ITAL 242 | PLAN 53 | PWAD 352 | WMST 111 |
| ENGL 377 | GEOG 430 | HIST 66 | HIST 369 | ITAL 250 | PLAN 585 | PWAD 354 | WMST 188 |
| ENGL 387 | GEOG 435 | HIST 68 | HIST 371 | ITAL 330 | PLCY 70 | PWAD 368 | WMST 219 |
| ENGL 388 | GEOG 464 | HIST 72 | HIST 372 | ITAL 331 | PLCY 101 | PWAD 369 | WMST 220 |
| ENGL 430 | GERM 50 | HIST 73 | HIST 373 | ITAL 333 | PLCY 220 | PWAD 373 | WMST 240 |
| ENGL 436 | GERM 53 | HIST 79 | HIST 374 | ITAL 335 | PLCY 360 | PWAD 416 | WMST 241 |
| ENGL 437 | GERM 54 | HIST 84 | HIST 375 | ITAL 340 | PLCY 361 | PWAD 421 | WMST 242 |
| ENGL 439 | GERM 56 | HIST 85 | HIST 376 | ITAL 343 | PLCY 420 | PWAD 422 | WMST 243 |
| ENGL 440 | GERM 65 | HIST 106 | HIST 377 | ITAL 345 | PLCY 480 | PWAD 432 | WMST 248 |
| ENGL 441 | GERM 67 | HIST 107 | HIST 378 | ITAL 365 | PLCY 585 | PWAD 517 | WMST 250 |
| ENGL 442 | GERM 68 | HIST 110 | HIST 380 | ITAL 370 | PLCY 698 | PWAD 564 | WMST 253 |
| ENGL 443 | GERM 210 | HIST 124 | HIST 420 | JWST 239 | POLI 51 | PWAD 577 | WMST 254 |
| ENGL 444 | GERM 216 | HIST 125 | HIST 421 | JWST 253 | POLI 54 | RELI 62 | WMST 259 |
| ENGL 445 | GERM 220 | HIST 127 | HIST 422 | JWST 262 | POLI 56 | RELI 72 | WMST 265 |
| ENGL 446 | GERM 225 | HIST 128 | HIST 423 | JWST 289 | POLI 63 | RELI 104 | WMST 353 |
| ENGL 465 | GERM 245 | HIST 152 | HIST 424 | JWST 360 | POLI 72 | RELI 105 | WMST 373 |
| ENGL 472 | GERM 246 | HIST 156 | HIST 425 | JWST 444 | POLI 100 | RELI 126 | WMST 374 |
| ENGL 475 | GERM 249 | HIST 157 | HIST 427 | LATN 221 | POLI 101 | RELI 140 | WMST 375 |
| ENGL 486 | GERM 250 | HIST 158 | HIST 428 | LATN 331 | POLI 216 | RELI 141 | WMST 437 |
| ENGL 619 | GERM 254 | HIST 159 | HIST 431 | LATN 353 | POLI 219 | RELI 142 | WMST 446 |
| ENGL 630 | GERM 255 | HIST 164 | HIST 432 | LATN 511 | POLI 230 | RELI 162 | WMST 477 |
| ENGL 631 | GERM 257 | HIST 165 | HIST 433 | LATN 514 | POLI 232 | RELI 164 | WMST 479 |
| ENGL 637 | GERM 265 | HIST 177H | HIST 435 | LATN 530 | POLI 239 | RELI 207 | WMST 500 |
| ENGL 638 | GERM 266 | HIST 178H | HIST 436 | MNGT 364 | POLI 257 | RELI 208 | WMST 501 |
| ENGL 665 | GERM 270 | HIST 179H | HIST 452 | MNGT 365 | POLI 265 | RELI 209 | WMST 517 |
| ENGL 666 | GERM 275 | HIST 225 | HIST 453 | MUSC 64 | POLI 270 | RELI 236 | WMST 568 |
| ENGL 685 | GERM 279 | HIST 226 | HIST 460 | MUSC 65 | POLI 271 | RELI 239 | WMST 569 |
| ENVR 585 | GERM 280 | HIST 227 | HIST 461 | MUSC 141 | POLI 272 | RELI 240 | WMST 576 |
| EURO 159 | GERM 283 | HIST 228 | HIST 462 | MUSC 142 | POLI 276 | RELI 241 | WMST 583 |
| EURO 239 | GERM 290 | HIST 231 | HIST 463 | MUSC 143 | POLI 280 | RELI 242 | WMST 665 |
| EURO 252 | GERM 301 | HIST 232 | HIST 466 | MUSC 144 | POLI 410 | RELI 323 | WMST 666 |
| EURO 332H | GERM 302 | HIST 233 | HIST 467 | MUSC 145 | POLI 411 | RELI 332 |  |
| EURO 362 | GERM 303 | HIST 234 | HIST 468 | MUSC 188 | POLI 412 | RELI 340 |  |


| AAAD 202 | ARTH 157 | ASIA 232 | CHIN 361 | HEBR 142 | HIST 485 | MUSC 245 | RELI 286 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AAAD 210 | ARTH 160 | ASIA 235 | CHIN 407 | HEBR 436 | HIST 526 | PHIL 213 | RELI 287 |
| AAAD 211 | ARTH 251 | ASIA 240 | CHIN 408 | HIST 51 | HIST 527 | PLSH 280 | RELI 288 |
| AAAD 212 | ARTH 255 | ASIA 241 | CHIN 440 | HIST 52 | HIST 528 | PLSH 405 | RELI 289 |
| AAAD 214 | ARTH 258 | ASIA 242 | CHIN 442 | HIST 61 | HIST 529 | PLSH 406 | RELI 345 |
| AAAD 260 | ARTH 266 | ASIA 243 | CHIN 443 | HIST 62 | HIST 533 | PLSH 411 | RELI 381 |
| AAAD 284 | ARTH 273 | ASIA 244 | CHIN 463 | HIST 64 | HIST 534 | PLSH 412 | RELI 382 |
| AAAD 300 | ARTH 277 | ASIA 251 | CHIN 464 | HIST 74 | HIST 535 | POLI 55 | RELI 383 |
| AAAD 307 | ARTH 291 | ASIA 252 | CHIN 511 | HIST 83 | HIST 537 | POLI 130 | RELI 385 |
| AAAD 315 | ARTH 294 | ASIA 266 | CHIN 525 | HIST 130 | HIST 550 | POLI 131 | RELI 413 |
| AAAD 316 | ARTH 297 | ASIA 267 | CHIN 551 | HIST 131 | HNUR 305 | POLI 235 | RELI 426 |
| AAAD 318 | ARTH 299 | ASIA 273 | CHIN 552 | HIST 132 | HNUR 306 | POLI 236 | RELI 463 |
| AAAD 319 | ARTH 300 | ASIA 276 | CHIN 562 | HIST 133 | HNUR 410 | POLI 237 | RELI 465 |
| AAAD 320 | ARTH 303 | ASIA 277 | CHIN 563 | HIST 134 | HNUR 592 | POLI 238 | RELI 480 |
| AAAD 401 | ARTH 352 | ASIA 281 | CLAR 50 | HIST 135 | HUNG 271 | POLI 260 | RELI 481 |
| AAAD 404 | ARTH 353 | ASIA 282 | CLAR 110 | HIST 136 | HUNG 280 | POLI 431 | RELI 485 |
| AAAD 405 | ARTH 363 | ASIA 284 | CLAR 241 | HIST 138 | HUNG 411 | POLI 434 | RELI 487 |
| AAAD 412 | ARTH 445 | ASIA 285 | CLAR 242 | HIST 139 | JAPN 150 | POLI 435 | RELI 488 |
| AAAD 421 | ARTH 452 | ASIA 286 | CLAR 489 | HIST 140 | JAPN 160 | POLI 436 | RELI 489 |
| AMST 378 | ARTH 468 | ASIA 287 | CLAR 512 | HIST 142 | JAPN 161 | POLI 437 | RELI 501 |
| ANTH 60 | ARTH 488 | ASIA 288 | CLAR 561 | HIST 143 | JAPN 162 | POLI 441 | RELI 504 |
| ANTH 102 | ARTH 555 | ASIA 300 | CLAS 71 | HIST 161 | JAPN 246 | POLI 452 | RELI 512 |
| ANTH 121 | ARTH 562 | ASIA 301 | CLAS 73 | HIST 162 | JAPN 258 | PORT 382 | RELI 574 |
| ANTH 130 | ASIA 52 | ASIA 302 | CLAS 253 | HIST 163 | JAPN 261 | PORT 385 | RELI 581 |
| ANTH 142 | ASIA 54 | ASIA 303 | CMPL 198H | HIST 174H | JAPN 306 | PORT 387 | RELI 582 |
| ANTH 222 | ASIA 55 | ASIA 331 | CMPL 252 | HIST 175H | JAPN 333 | PORT 388 | RELI 583 |
| ANTH 231 | ASIA 56 | ASIA 332 | CMPL 281 | HIST 176H | JAPN 363 | PWAD 132 | RELI 585 |
| ANTH 232 | ASIA 57 | ASIA 375 | CMPL 282 | HIST 240 | JAPN 375 | PWAD 134 | RELI 586 |
| ANTH 233 | ASIA 58 | ASIA 382 | CMPL 469 | HIST 242 | JAPN 381 | PWAD 260 | RELI 592 |
| ANTH 330 | ASIA 59 | ASIA 383 | CMPL 483 | HIST 247 | JAPN 384 | PWAD 277 | ROML 660 |
| ANTH 343 | ASIA 60 | ASIA 429 | CZCH 280 | HIST 260 | JAPN 408 | PWAD 281 | RUES 260 |
| ANTH 356 | ASIA 61 | ASIA 435 | CZCH 411 | HIST 264 | JAPN 409 | PWAD 452 | RUSS 250 |
| ANTH 361 | ASIA 63 | ASIA 453 | CZCH 469 | HIST 274 | JAPN 410 | PWAD 465 | RUSS 270 |
| ANTH 375 | ASIA 64 | ASIA 468 | DRAM 117 | HIST 276 | JAPN 411 | PWAD 467 | RUSS 273 |
| ANTH 429 | ASIA 66 | ASIA 483 | DRAM 291 | HIST 277 | JAPN 412 | PWAD 475 | RUSS 274 |
| ANTH 461 | ASIA 122 | ASIA 487 | DRAM 298 | HIST 278 | JAPN 413 | PWAD 481 | RUSS 275 |
| ANTH 545 | ASIA 131 | ASIA 488 | DRAM 475 | HIST 279 | JAPN 482 | RELI 64 | RUSS 276 |
| ANTH 574 | ASIA 132 | ASIA 489 | DRAM 486 | HIST 280 | JAPN 521 | RELI 73 | RUSS 277 |
| ANTH 578 | ASIA 133 | ASIA 537 | ENEC 266 | HIST 281 | JWST 103 | RELI 75 | RUSS 281 |
| ANTH 586 | ASIA 134 | ASIA 545 | ENGL 240 | HIST 282 | JWST 106 | RELI 102 | RUSS 400 |
| ANTH 626 | ASIA 135 | ASIA 574 | ENGL 364 | HIST 284 | JWST 110 | RELI 103 | RUSS 431 |
| ANTH 682 | ASIA 136 | ASIA 578 | ENGL 386 | HIST 285 | JWST 311 | RELI 106 | RUSS 432 |
| ARAB 150 | ASIA 138 | ASIA 581 | ENGL 663 | HIST 286 | JWST 412 | RELI 109 | RUSS 441 |
| ARAB 151 | ASIA 139 | ASIA 582 | FOLK 130 | HIST 287 | JWST 464 | RELI 110 | RUSS 442 |
| ARAB 300 | ASIA 150 | ASIA 583 | FOLK 429 | HIST 288 | JWST 465 | RELI 117 | RUSS 450 |
| ARAB 321 | ASIA 151 | ASIA 586 | FREN 375 | HIST 311 | JWST 476 | RELI 151 | RUSS 460 |
| ARAB 337 | ASIA 152 | ASIA 682 | FREN 505 | HIST 331 | JWST 485 | RELI 180 | RUSS 463 |
| ARAB 338 | ASIA 153 | BUSI 200 | FREN 555 | HIST 334 | JWST 512 | RELI 181 | RUSS 464 |
| ARAB 350 | ASIA 154 | CHIN 150 | GEOG 59 | HIST 370 | KOR 150 | RELI 183 | RUSS 465 |
| ARAB 434 | ASIA 163 | CHIN 231 | GEOG 64 | HIST 476 | KOR 151 | RELI 184 | RUSS 469 |
| ARAB 443 | ASIA 164 | CHIN 232 | GEOG 259 | HIST 477 | KOR 407 | RELI 185 | RUSS 471 |
| ARAB 452 | ASIA 180 | CHIN 242 | GEOG 266 | HIST 478 | LING 560 | RELI 205 | RUSS 475 |
| ARAB 453 | ASIA 181 | CHIN 244 | GEOG 267 | HIST 480 | LTAM 101 | RELI 211 | RUSS 479 |
| ARTH 80 | ASIA 183 | CHIN 252 | GEOG 268 | HIST 481 | LTAM 697 | RELI 212 | RUSS 486 |
| ARTH 153 | ASIA 224 | CHIN 253 | GEOG 269 | HIST 482 | MUSC 146 | RELI 283 | RUSS 511 |
| ARTH 154 | ASIA 228 | CHIN 255 | GEOG 458 | HIST 483 | MUSC 234 | RELI 284 | RUSS 512 |
| ARTH 155 | ASIA 231 | CHIN 354 | GERM 252 | HIST 484 | MUSC 240 | RELI 285 | RUSS 513 |


| RUSS 514 | SLAV 405 | SPAN 252 |
| :--- | :--- | :--- |
| RUSS 560 | SLAV 463 | SPAN 330 |
| SECR 405 | SLAV 464 | SPAN 333 |
| SECR 406 | SLAV 465 | SPAN 344 |
| SECR 411 | SLAV 467 | SPAN 345 |
| SLAV 84 | SLAV 470 | SPAN 348 |
| SLAV 88H | SOCI 60 | SPAN 386 |
| SLAV 101 | SOCI 260 | SPAN 387 |
| SLAV 248 | SOCI 418 | SPAN 625 |
| SLAV 250 | SOCI 419 | SPAN 683 |
| SLAV 273 | SOCI 450 | WMST 200 |
| SLAV 281 | SOCI 453 | WMST 264 |

World before 1750 (WB)

| AAAD 286 | ARTH 467 | CLAR 268 | CMPL 321 |
| :--- | :--- | :--- | :--- |
| AAAD 298 | ARTH 470 | CLAR 375 | CMPL 364 |
| AMST 54 | ARTH 475 | CLAR 464 | CMPL 452 |
| ANTH 54 | ARTH 562 | CLAR 465 | CMPL 453 |
| ANTH 121 | ASIA 65 | CLAR 470 | CMPL 454 |
| ANTH 145 | ASIA 131 | CLAR 475 | CMPL 470 |
| ANTH 149 | ASIA 135 | CLAR 489 | CMPL 471 |
| ANTH 222 | ASIA 138 | CLAR 491 | CMPL 473 |
| ANTH 231 | ASIA 152 | CLAR 512 | CMPL 478 |
| ANTH 233 | ASIA 153 | CLAS 55 | CMPL 487 |
| ANTH 250 | ASIA 158 | CLAS 56 | CMPL 558 |
| ANTH 252 | ASIA 180 | CLAS 57 | CMPL 622 |
| ANTH 377 | ASIA 183 | CLAS 58 | CMPL 624 |
| ANTH 411 | ASIA 266 | CLAS 61 | DRAM 281 |
| ANTH 451 | ASIA 273 | CLAS 62 | ENGL 74 |
| ANTH 452 | ASIA 284 | CLAS 63 | ENGL 85 |
| ANTH 453 | ASIA 286 | CLAS 71 | ENGL 120 |
| ANTH 458 | ASIA 301 | CLAS 73 | ENGL 225 |
| ANTH 550 | ASIA 333 | CLAS 121 | ENGL 226 |
| ANTH 551 | ASIA 488 | CLAS 122 | ENGL 227 |
| ARTH 52 | ASIA 581 | CLAS 123 | ENGL 228 |
| ARTH 151 | ASIA 582 | CLAS 240 | ENGL 230 |
| ARTH 153 | ASIA 583 | CLAS 241 | ENGL 285 |
| ARTH 158 | ASTR 61 | CLAS 242 | ENGL 314 |
| ARTH 160 | ASTR 205 | CLAS 253 | ENGL 319 |
| ARTH 258 | CHIN 252 | CLAS 257 | ENGL 320 |
| ARTH 263 | CHIN 346 | CLAS 258 | ENGL 321 |
| ARTH 266 | CHIN 356 | CLAS 259 | ENGL 322 |
| ARTH 368 | CLAR 246 | CLAR 247 | CMPL 223 | FREN 554


| GERM 58 | HIST 422 | LATN 530 | RELI 208 |
| :---: | :---: | :---: | :---: |
| GERM 210 | HIST 423 | LING 444 | RELI 209 |
| GERM 216 | HIST 424 | MUSC 55H | RELI 211 |
| GERM 218 | HIST 425 | MUSC 56 | RELI 217 |
| GERM 220 | HIST 427 | MUSC 57 | RELI 218 |
| GERM 225 | HIST 428 | MUSC 251 | RELI 266 |
| GERM 310 | HIST 431 | MUSC 254 | RELI 284 |
| GERM 311 | HIST 432 | PHIL 51 | RELI 286 |
| GERM 325 | HIST 433 | PHIL 54 | RELI 362 |
| GREK 221 | HIST 435 | PHIL 210 | RELI 375 |
| GREK 352 | HIST 436 | PHIL 213 | RELI 413 |
| GREK 509 | HIST 437 | PHIL 215 | RELI 450 |
| HIST 75 | HIST 438 | PHIL 220 | RELI 463 |
| HIST 76 | HIST 451 | PHIL 412 | RELI 465 |
| HIST 106 | HIST 452 | PHYS 61 | RELI 488 |
| HIST 107 | HIST 453 | POLI 270 | RELI 501 |
| HIST 131 | HIST 460 | PWAD 251 | RELI 504 |
| HIST 135 | HIST 461 | PWAD 254 | RELI 512 |
| HIST 138 | HIST 467 | PWAD 421 | RELI 565 |
| HIST 151 | HIST 472 | PWAD 422 | RELI 566 |
| HIST 153 | HIST 561 | PWAD 432 | RELI 581 |
| HIST 156 | ITAL 240 | RELI 62 | RELI 582 |
| HIST 158 | ITAL 241 | RELI 63 | RELI 583 |
| HIST 161 | ITAL 330 | RELI 65 | RELI 602 |
| HIST 177H | ITAL 370 | RELI 78 | RELI 603 |
| HIST 225 | JAPN 165 | RELI 88 | RELI 607 |
| HIST 226 | JAPN 231 | RELI 103 | RELI 617 |
| HIST 227 | JAPN 363 | RELI 104 | RELI 665 |
| HIST 228 | JWST 103 | RELI 105 | RELI 668 |
| HIST 251 | JWST 106 | RELI 106 | SLAV 101 |
| HIST 253 | JWST 110 | RELI 108 | SLAV 463 |
| HIST 254 | JWST 153 | RELI 109 | SPAN 330 |
| HIST 255 | JWST 308 | RELI 110 | WMST 220 |
| HIST 271 | JWST 330 | RELI 117 | WMST 240 |
| HIST 286 | JWST 451 | RELI 161 | WMST 241 |
| HIST 308 | JWST 512 | RELI 164 | WMST 242 |
| HIST 309 | JWST 602 | RELI 165 | WMST 294 |
| HIST 330 | LATN 205 | RELI 180 | WMST 362 |
| HIST 345 | LATN 221 | RELI 183 | WMST 458 |
| HIST 370 | LATN 332 | RELI 201 |  |
| HIST 420 | LATN 353 | RELI 205 |  |
| HIST 421 | LATN 511 | RELI 207 |  |

## Global Issues (GL)

| AAAD 101 | AERO 213 | ANTH 147 | ANTH 439 |
| :--- | :--- | :--- | :--- |
| AAAD 212 | AERO 401 | ANTH 210 | ANTH 441 |
| AAAD 260 | AERO 446 | ANTH 280 | ANTH 445 |
| AAAD 301 | AMST 61 | ANTH 306 | ANTH 446 |
| AAAD 307 | AMST 277 | ANTH 312 | ANTH 447 |
| AAAD 385 | AMST 378 | ANTH 319 | ANTH 454 |
| AAAD 387 | ANTH 59 | ANTH 320 | ANTH 460 |
| AAAD 400 | ANTH 61 | ANTH 333 | ANTH 463 |
| AAAD 405 | ANTH 66H | ANTH 361 | ANTH 466 |
| AAAD 460 | ANTH 101 | ANTH 375 | ANTH 502 |
| AAAD 485 | ANTH 103 | ANTH 380 | ANTH 503 |
| AAAD 488 | ANTH 130 | ANTH 422 | ANTH 537 |
| AAAD 489 | ANTH 142 | ANTH 429 | ANTH 540 |


| ANTH 545 | COMM 662 | GEOL 108 | MUSC 147 | PWAD 430 | RELI 79 | RELI 481 | SPAN 333 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ANTH 551 | ECON 56 | GERM 51 | MUSC 188 | PWAD 444 | RELI 85 | RELI 541 | SPAN 683 |
| ANTH 567 | ECON 360 | GERM 59 | MUSC 240 | PWAD 446 | RELI 107 | RELI 580 | WMST 188 |
| ANTH 578 | ECON 363 | GERM 67 | MUSC 258 | PWAD 453 | RELI 123 | RELI 585 | WMST 281 |
| ANTH 585 | ECON 461 | GERM 218 | PHIL 272 | PWAD 455 | RELI 143 | RELI 668 | WMST 289 |
| ANTH 623 | ECON 465 | GERM 251 | PHIL 368 | PWAD 457 | RELI 185 | ROML 62 | WMST 297 |
| ANTH 624 | ECON 560 | GERM 255 | PHYS 108 | PWAD 465 | RELI 218 | RUES 469 | WMST 388 |
| ANTH 626 | EDUC 508 | GERM 270 | PLAN 58 | PWAD 469 | RELI 224 | SLAV 85 | WMST 389 |
| ANTH 649 | ENEC 108 | GLBL 210 | PLCY 51 | PWAD 481 | RELI 225 | SLAV 251 | WMST 410 |
| ANTH 674 | ENEC 201 | GLBL 488 | PLCY 110 | PWAD 489 | RELI 239 | SLAV 306 | WMST 438 |
| ARAB 462 | ENEC 254 | GLBL 560 | PLCY 430 | PWAD 570 | RELI 246 | SLAV 465 | WMST 441 |
| ARAB 468 | ENEC 325 | GSLL 260 | PLCY 455 | PWAD 577 | RELI 345 | SLAV 469 | WMST 503 |
| ARTH 56 | ENEC 368 | GSLL 280 | PLCY 487 | PWAD 659 | RELI 352 | SOCI 58 | WMST 610 |
| ARTH 80 | ENEC 460 | GSLL 475 | PLCY 520 | RELI 64 | RELI 445 | SOCI 68 |  |
| ARTH 300 | ENEC 510 | HIST 61 | POLI 58 | RELI 77 | RELI 480 | SOCI 416 |  |
| ARTH 488 | ENEC 520 | HIST 66 | POLI 60 |  |  |  |  |
| ARTH 555 | ENGL 54 | HIST 140 | POLI 61 |  |  |  |  |
| ASIA 150 | ENGL 56 | HIST 203 | POLI 130 |  |  |  |  |
| ASIA 235 | ENGL 67 | HIST 205 | POLI 150 |  |  |  |  |
| ASIA 240 | ENGL 72 | HIST 206 | POLI 210 |  |  |  |  |
| ASIA 261 | ENGL 79 | HIST 210 | POLI 239 |  |  |  |  |
| ASIA 262 | ENGL 141 | HIST 212 | POLI 252 |  |  |  |  |
| ASIA 276 | ENGL 143 | HIST 213 | POLI 253 |  |  |  |  |
| ASIA 281 | ENGL 155 | HIST 242 | POLI 254 |  |  |  |  |
| ASIA 331 | ENGL 282 | HIST 245 | POLI 255 |  |  |  |  |
| ASIA 357 | ENGL 365 | HIST 246 | POLI 272 |  |  |  |  |
| ASIA 375 | ENGL 463 | HIST 249 | POLI 287 |  |  |  |  |
| ASIA 429 | ENGL 488 | HIST 268 | POLI 423 |  |  |  |  |
| ASIA 435 | ENGL 659 | HIST 276 | POLI 431 |  |  |  |  |
| ASIA 445 | EURO 239 | HIST 278 | POLI 433 |  |  |  |  |
| ASIA 453 | EURO 442 | HIST 281 | POLI 435 |  |  |  |  |
| ASIA 545 | FOLK 130 | HIST 325 | POLI 437 |  |  |  |  |
| ASIA 570 | FOLK 429 | HIST 329 | POLI 441 |  |  |  |  |
| ASIA 578 | FOLK 537 | HIST 351 | POLI 442 |  |  |  |  |
| BIOL 62 | FREN 378 | HIST 371 | POLI 444 |  |  |  |  |
| BUSI 610 | FREN 383 | HIST 373 | POLI 446 |  |  |  |  |
| BUSI 611 | FREN 452 | HIST 379 | POLI 449 |  |  |  |  |
| BUSI 617 | FREN 555 | HIST 389 | POLI 450 |  |  |  |  |
| BUSI 623 | FREN 617 | HIST 459 | POLI 452 |  |  |  |  |
| CHIN 342 | GEOG 56 | HIST 510 | POLI 457 |  |  |  |  |
| CLAR 51 | GEOG 120 | HIST 534 | POLI 469 |  |  |  |  |
| CLAS 391 | GEOG 121 | HIST 570 | PWAD 108 |  |  |  |  |
| CMPL 131 | GEOG 130 | HIST 577 | PWAD 110 |  |  |  |  |
| CMPL 132 | GEOG 210 | HIST 578 | PWAD 120 |  |  |  |  |
| CMPL 143 | GEOG 212 | JAPN 277 | PWAD 150 |  |  |  |  |
| CMPL 144 | GEOG 266 | JOMC 446 | PWAD 212 |  |  |  |  |
| CMPL 220 | GEOG 270 | JWST 100 | PWAD 213 |  |  |  |  |
| CMPL 225 | GEOG 424 | JWST 107 | PWAD 252 |  |  |  |  |
| CMPL 257 | GEOG 434 | JWST 143 | PWAD 253 |  |  |  |  |
| CMPL 270 | GEOG 436 | JWST 239 | PWAD 268 |  |  |  |  |
| CMPL 489 | GEOG 445 | JWST 465 | PWAD 272 |  |  |  |  |
| COMM 82 | GEOG 450 | JWST 469 | PWAD 280 |  |  |  |  |
| COMM 350 | GEOG 452 | KOR 327 | PWAD 281 |  |  |  |  |
| COMM 422 | GEOG 453 | LING 306 | PWAD 287 |  |  |  |  |
| COMM 625 | GEOG 470 | LTAM 101 | PWAD 351 |  |  |  |  |
| COMM 650 | GEOG 480 | MASC 108 | PWAD 373 |  |  |  |  |
| COMM 661 | GEOG 481 | MASC 312 | PWAD 423 |  |  |  |  |

# Undergraduate Education 

# The Academic Advising Program 

Lee Y. May, Ph.D., Associate Dean<br>Andrea Caldwell, M.S., Assistant Dean<br>Glynis Cowell, Ph.D., Assistant Dean<br>Alice C. Dawson, Ph.D., Senior Assistant Dean<br>Roger Kaplan, Ph.D., Assistant Dean<br>Barbara E. Lucido, M.Ed., Assistant Dean<br>Chloe Russell, M.A., Assistant Dean<br>Elizabeth O. Shuster, Ph.D., Assistant Dean<br>Spencer Welborn, M.S., Assistant Dean<br>Lora Wical, M.Ed., Deputy Director, Senior Assistant Dean<br>Marilyn J. Wyrick, M.A., Senior Assistant Dean<br>Charlotte Waterhouse, M.Ed., Graduation Coordinator

## Advisors

David Adamson, M.F.A.; Matthew Andrews, Ph.D.; Todd L. Austell, Ph.D.; Kelsey Axe, M.Ed.; Fred Cave, M.A.; Nicole Cobb, M.A.; Ryan Comfort, M.A.; Jamie Corcoran, M.Ed.; Marcus L. Collins, M.S.; Elizabeth Cox, M.Ed.; Melissa R. Edwards, B.A.; Nikki Glenos, M.A.; Carmen Gonzalez, M.A.; Deborah S. Graczyk, M.A.; Kara A. GrawOzburn, M.A.; Anthony Hanson, M.A.; Kristen Hondros, Ph.D.; Mary-Charles Horn, M.A.; Nichole Howe, M.S.; Michael Jahn, M.A.; Elizabeth A. Jordan, Ph.D.; Stephen Lich-Tyler, Ph.D.; Hilary Lithgow, Ph.D.; George E. Maitland, Ed.D.; Robert Malekoff, Ph.D.; Hollie Mann, Ph.D.; Kathleen McNeil, M.A.; Anna J. Millar, M.B.A.; Mérida Negrete, M.M., Musc.Ed.; Kimberlee Nelson, M.Ed.; Julianne B. Page, M.S.N., R.N.; Adam Persky, Ph.D.; Valerie C. Pruvost, Ph.D.; Joy J. Renner, M.A., R.T.; Dexter Robinson, B.A.; Jamie Samples, M.A.; Gidi Shemer, Ph.D.; Kenneth B. Shugart, M.A.; Dennis Soberl, B.S.; Lynn Tocci, M.A., M.S.W.; Kristal Walenz, M.A.; Linwood Webster, M.S.; Jonathan Weiler, Ph.D.; Lara Wind, B.A.; Harold Woodard, M.A.
The Academic Advising Program serves all students in the General College and the College of Arts and Sciences.
The charge of the Academic Advising Program is to assist students with all aspects of their academic planning while providing a foundation for appropriate academic decisions. Students are assigned a primary advisor but may see any advisor for their concerns. Advisors provide students with assistance and advice about options for course selection, maintaining required scholastic standards, and planning a complete educational program. Advisors help ensure that students are making satisfactory progress towards their degree. Advisors discuss choices about majors with advisees and help them identify appropriate courses to satisfy General Education and major/minor requirements. In addition, advisors explain academic policies, procedures, and regulations and provide referrals to appropriate campus resources as needed. Advisors' office locations, office hours, and contact information are posted on the Web at advising.unc.edu.
All first-year students and sophomores are enrolled in the

General College and are assisted by advisors in the Academic Advising Program. During their junior and senior years, students pursue academic majors/minors either in the College of Arts and Sciences or in one of the professional schools. To continue in the College of Arts and Sciences, students must meet the academic eligibility requirements discussed in later sections of this bulletin. To enter a professional school, students must be accepted into the program. (See admission information for professional schools in this bulletin.)

As juniors and seniors, students may receive academic advice regarding major studies, course registration, graduate school, internships, and career opportunities from faculty advisors in their major department or curriculum offices, or from the professional school to which they have been admitted. Some departments and schools require students to meet with a departmental advisor each term before they can register for the next term. Students in majors/ minors that are part of the College of Arts and Sciences should also consult with an advisor in the Academic Advising Program at least once each year to ensure that they are making acceptable progress toward meeting degree requirements, including General Education requirements. Consulting Tar Heel Tracker can help students keep track of requirements, anticipate "what-if" scenarios, and prepare for meetings with advisors.

Each student is ultimately responsible for selecting appropriate courses and complying fully with all published regulations and requirements.

To avoid problems with registration and to ensure graduation by the expected date, students are strongly encouraged to declare a major during their sophomore year or early in their junior year. Students who have not declared a major before registration opens for their sixth semester will not be permitted to register for their sixth semester until they have consulted with an advisor in the Academic Advising Program.

## Prehealth Advising

Resa Anderson, M.P.A., Health Professions Advising Coordinator
UNC-Chapel Hill has no formal prehealth curriculum or major. Instead, students should choose one of the four-year B.A. or B.S. degree programs and incorporate appropriate prerequisite courses in their planning. Health profession schools/programs encourage students to major in what they are interested in studying; no specific majors are recommended. Students are strongly encouraged to visit the Health Professions Advising Office (second floor, Hanes Hall) soon after entering the University to learn the latest course requirements and other preparations necessary to become an outstanding candidate for the health career of choice. The office gives advice about many professions, including allopathic medicine, osteopathic medicine, podiatric medicine, dentistry, nursing, pharmacy, physical therapy, physician assistant, veterinary medicine, optometry, chiropractic, and other allied health professions.
Advising information, advising hours, and information about joining the prehealth information listserv may be found on the office's Web site at prehealth.unc.edu.

## Prelaw Advising

William Taylor, Ph.D., Advisor

UNC-Chapel Hill has no formal prelaw curriculum or major. Instead, students should follow one of the four-year B.A. or B.S. degree programs. Most law schools do not require, or even recommend, that students major in any particular field; instead, most law schools prefer applicants who have pursued a course of study that gives a foundation for undertaking legal studies, with an emphasis on reading, writing, speaking, and analytical and critical thinking. However, a student wishing to practice patent law will need a degree in one of the sciences.

Prelaw students should emphasize academics. The campus Learning Center offers programs designed to help enhance reading skills. Students are encouraged to take advantage of this opportunity. Students also are encouraged to call University Career Services to schedule an appointment with Dr. Taylor in Hanes Hall (second floor). They also may wish to visit the prelaw Web site at prelaw.unc.edu, where they can gain helpful information and join the prelaw listserv to receive important announcements.

## Graduate School Advising

William Taylor, Ph.D., Coordinator
This resource is offered to students in the College of Arts and Sciences interested in pursuing graduate studies through the Pre-Graduate Education Advising Program in Hanes Hall (second floor). The program advises undergraduate students considering a graduate degree in various disciplines (sciences, arts and humanities, social sciences, and professional arenas). These advisors can help clarify the differences between a doctorate and a master's degree and the opportunities a terminal degree may offer. The program is primarily responsible for helping students considering graduate school understand what their next steps are in researching and applying to graduate programs, so that they can move forward independently and effectively. Students interested in graduate study also should speak with departmental or curricular advisors, the director of undergraduate studies for their major, and other faculty members. The advisors are also happy to help you identify the individuals you should contact. For more information, visit pregrad.unc.edu.

## Undergraduate Degree Programs

Students may expect to receive a degree by fulfilling the requirements of a curriculum as specified in the Undergraduate Bulletin for the year in which the student matriculated at the University of North Carolina at Chapel Hill. The University is not strictly obligated to fulfill this expectation since changes to the structure of degree requirements may entail widespread curricular adjustments, but it will make every effort to modulate changes so that appropriate substitutes for particular requirements, or particular courses, are available to students operating under a previous set of expectations. The faculty reserves the right to make any changes deemed necessary in the curricula and in regulations. By University policy, the regulations in this bulletin are not necessarily valid beyond the academic year for which it was published.

The University offers programs of study leading to the bachelor of arts (B.A.), bachelor of arts in education (B.A.Ed.), bachelor of fine arts (B.F.A.), bachelor of music (B.Mus.), bachelor of science (B.S.), bachelor of science in business administration (B.S.B.A), bachelor of science in information science (B.S.I.S.), bachelor of
science in nursing (B.S.N.), bachelor of science in pharmaceutical sciences (B.S.Ph.S.), and bachelor of science in public health (B.S.P.H.) degrees.

In the College of Arts and Sciences students may choose from more than 50 major fields of study (see complete list below). Specific requirements for each major are listed alphabetically by department or curricula in the "Academic Units" section of this bulletin. That section also includes information on professional school majors available to undergraduates by application and acceptance.

Students are expected to complete their undergraduate degree in eight semesters. Summer terms are not included in the semester count. Students who enter the University as first-year students in summer 2007 or later, as sophomore transfer students in summer 2008 or later, or as junior transfer students in summer 2009 or later and who wish to attend a ninth semester must submit a written petition to, and receive permission from, their dean. Permission to enroll in a ninth semester or beyond must be secured in advance. Students who are granted permission to enroll in an additional semester will graduate with one major only and no minors indicated on the transcript.

## Bachelor of Arts

Students seeking a bachelor of arts (B.A.) degree must complete the Supplemental General Education requirement. Among other options, completing a minor or a second major fulfills the Supplemental General Education requirement.

## Bachelor of Science

Four-year programs leading to the degree of bachelor of science (B.S.) provide for specialization in a particular field and necessary instruction in related fields. In some B.S. programs offered by professional schools, General Education requirements may be reduced. Most B.S. programs, however, require students to complete quantitative reasoning courses beyond the General Education minimum and/or require specific quantitative reasoning courses.

## Bachelor of Fine Arts

A four-year program leading to the degree of bachelor of fine arts is offered by the Department of Art. It provides, for qualified students, preprofessional training in creative aspects of the field of art. Approximately one-half of the program is in the field of the major, and the other half is in the liberal arts and sciences.

## Bachelor of Music

The four-year program leading to the degree of bachelor of music, housed in the Department of Music, emphasizes training and achievement in the performance or composition of music. Approximately one-half of the program ( 63 credit hours) is in the field of the major, and the other half ( 57 hours) is in the liberal arts and sciences.

For information about the other undergraduate degree programs, please refer to the professional schools' sections in this bulletin.

## Dual Bachelor/Graduate Degree Programs

The University offers several dual bachelor-graduate degree programs. The programs currently offered are listed below. The requirements for the bachelor's degree must be completed within eight semesters of study. The requirements for the graduate degree can be completed in as few as two additional semesters, for a
possible total of 10 semesters of study. For information about the requirements and application process, please consult the relevant academic unit in this bulletin.

- Computer science (B.S.-M.S.), College of Arts and Sciences
- Contemporary European studies and political science (B.A.M.A.), College of Arts and Sciences
- Environmental science and engineering (B.S. or B.S.P.H-M.S. or M.S.P.H.), Gillings School of Global Public Health
- Environmental studies and journalism (B.A.-M.A.), College of Arts and Sciences and the School of Media and Journalism
- Information science (B.S.I.S.-M.S.I.S or M.S.L.S.), School of Information and Library Science
- Linguistics (B.A.-M.A.), College of Arts and Sciences
- Mathematical decision sciences and statistics and operations research (B.S.-M.S.), College of Arts and Sciences


## Joint Degree Programs with the National University of Singapore (NUS)

UNC-Chapel Hill undergraduates can spend anywhere from two to four semesters at the National University of Singapore and receive a joint bachelor of arts degree from both institutions. Programs are offered in biology, economics, English, geography, history, and political science. For more information, refer to the "Academic Units" section of this bulletin for the department housing the program.

## Requirements for Undergraduate Degree Programs

The requirements and limitations that apply to all undergraduate degree programs are as follows:

- Students must successfully complete at least 120 semester hours of coursework and attain a final cumulative grade point average of at least 2.0.
- Students must satisfy all General Education requirements. In some B.S. programs offered by professional schools, General Education requirements may be reduced. No course used as a General Education requirement may be taken Pass/D+/D/Fail, except for lifetime fitness (LFIT) courses and some forms of experiential education that award only Pass/Fail credit. (Also see "Regulations Governing the Pass/D+/D/Fail Option.")
- A minimum of 45 academic credit hours must be earned from UNC-Chapel Hill courses.
- At least 24 of the last 30 academic credit hours applied to the degree requirements must be earned in UNC-Chapel Hill courses.
- A maximum of 24 semester hours of courses from professional schools (business administration, education, information and library science, media and journalism, law, social work, dentistry, medicine, nursing, pharmacy, or public health) may be taken for credit toward a degree from the College of Arts and Sciences.
- No more than 45 semester hours in any subject, as defined by subject code, may be used toward fulfilling the B.A. graduation requirement in the College of Arts and Sciences.
- Students completing the requirements for more than one major field of study will earn only one degree and receive only one diploma. For additional information, including which degree is
awarded when completing more than one major field of study, refer to the "Academic Policies and Procedures" section of this bulletin.
The "Academic Policies and Procedures" section of this bulletin contains information on many important topics, including registration, academic course load, academic eligibility, repeating course enrollments, final examinations, and the grading system, among others.

Students must complete a major field of study as prescribed by the academic unit. The College of Arts and Sciences offers undergraduate degree programs in the following major fields:

| Program | Degree | Academic Unit |
| :--- | :--- | :--- |
| African, African American, <br> and Diaspora studies | B.A. | African, African <br> American, and <br> Diaspora Studies |
| American studies | B.A. | American Studies |
| Anthropology | B.A. | Anthropology |
| Applied science | B.S. | Biomedical <br> Engineering; joint <br> program with the |
| Archaeology | B.A. | Archaeology |
| Art history | B.A. | Art |
| Asian studies | B.A. | Asian Studies |


| Environmental studies | B.A. | Environment and <br> Ecology |
| :--- | :--- | :--- |
| Exercise and sport science | B.A. | Exercise and Sport <br> Science |
| Geography | B.A., NUS | Geography |
| Geological sciences | B.A., B.S. | Geological Sciences |
| Germanic and Slavic <br> languages and literatures | B.A. | Germanic and Slavic <br> Languages and |
| Global studies | B.A. | Literatures |

The following requirements and limitations apply to all undergraduate academic majors at the University:

- Unless specifically prohibited by departments or curricula, major or minor courses may be used to satisfy General Education requirements.
- Courses in a student's major academic unit, or specifically required by the major, including foreign language courses,
electives, and any additional required courses (or any courses crosslisted with such required courses) may not be declared a Pass/ D+/D/Fail course. (See "Regulations Governing the Pass/D+/D/Fail option.")
- Although a specific grade point average in the major is not required, a minimum of 18 hours of C or better (C- does not qualify) in the major is required. Certain majors require 21 hours of C or better grades in the major.
- Students transferring credits in their major field must earn a grade of C (not C-) or better in at least three-fourths of those courses and credit hours in the major that are taken at UNC-Chapel Hill. Courses taken on a study abroad program through the UNC Study Abroad Office may receive TREQ credit; TREQ credit contributes to the hours of C in the major.
- All students, including students transferring from another institution, must take at least half of their major course requirements (courses and credit hours) at UNC-Chapel Hill.
- Students who use By-Examination (BE) credit (see section below) toward a major may have fewer than 18 hours of coursework remaining to complete the major (especially for majors consisting of eight courses or 24 hours); in these situations, earning grades of C or better in all of the remaining coursework is required.
- Some majors require a gateway course that must be taken first, before enrolling in any other courses that satisfy the core requirements in the major. The gateway course is not counted in the hours of C , but students cannot continue in the major without having completed the gateway course.


## Academic Minors

The University offers over 70 academic minors. Students enrolled in the College of Arts and Sciences who wish to complete a minor in a professional school must receive permission from the professional school. For more information about the following minors, refer to the "Academic Units" section of this bulletin for the school, department, or curriculum housing the minor. An asterisk (*) indicates that students must receive permission to be admitted to the minor.

Aerospace studies
African studies (African,
African American, and
Diaspora Studies)
African American and diaspora studies (African, African American, and Diaspora Studies)
American studies
American Indian studies
(American Studies)
Anthropology
Arabic (Asian Studies)
Archaeology
Art history
Asian studies
Astronomy (Physics and
Astronomy)
Biology
Business administration
(Kenan-Flagler Business School)*

## Chemistry

Chinese (Asian Studies)
Classical humanities (Classics)
Coaching education (Exercise and Sport Science)*
Cognitive science (Psychology)
Comparative literature (English and Comparative Literature)
Composition, rhetoric, and digital literacy (English and Comparative Literature)
Computer science
Creative writing (English and Comparative Literature)*
Dramatic art
Education (School of Education)*
English
Entrepreneurship (Economics)*
Environmental science and studies (Environment and Ecology)

| Exercise and sport science Folklore (American Studies) | Medieval and early modern studies (History) |
| :---: | :---: |
| French (Romance Studies) | Military science |
| Geography | Modern Hebrew (Asian studies) |
| Geology | Music |
| German | Naval science |
| Languages and Literatures) | Neuroscience (Psychology) |
| Global cinema (English and | Philosophy |
| Comparative Literature) Greek (Classics) | Philosophy, politics, and economics (Philosophy) |
| Hindi-Urdu (Asian Studies) | Physics |
| Hispanic studies (Romance | Portuguese (Romance Studies) |
| Studies) | Public policy |
| History | Recreation administratio |
| Information sy | (Exercise and Sport Science) |
| of Information and Library Sciences)* | Religious studies |
| Sciences)* <br> International American studies (American Studies) | Russian culture (Germanic and Slavic Languages and Literatures) |
| Islamic and Middle Eastern studies (Religious Studies) | Sexuality studies (Women's and Gender Studies) |
| Italian (Romance Studies) | Slavic and East Europ |
| Japanese (Asian Studies) | cultures (Germanic and Slavi |
| Jewish studies (Religious Studies) | Languages and Literatures) |
| Korean (Asian Studies) | Social and economic justice (Sociology) |
| Latin (Classics) |  |
| Latina/o studies (English and Comparative Literature) | Southern studies (American Studies) |
| Linguistics | Spanish for the professions (Romance Studies)* |
| Marine sciences |  |
| Mathematical decision sciences (Statistics and Operations | Speech and hearing sciences (UNC School of Medicine)* |
| Research) | Studio art |
| Mathematics | Study of Christianity and culture (Religious Studies) |
| Media and journalism (School of Media and Journalism)* | Sustainability studies (Environment and Ecology) |
| Medical anthropology (Anthropology) | Urban studies and planning (City and Regional Planning) |
| Medicine, literature, and culture (English and Comparative | Women's and gender studies |
| Literature) | Writing for the screen and stage (Communication Studies)* |

The following requirements and limitations apply to all undergraduate academic minors:

- A student may have no more than two minors, regardless of the student's major degree program. Academic units may exclude certain minors from being elected and completed by students majoring in these units.
- More than half (not merely half) of the credit hours and courses (including cross-listed courses) taken to satisfy the minor requirements must be counted exclusively in the minor and not double-counted in other majors or minors.
- At least nine hours of the minor must be completed at UNCChapel Hill and not at other academic institutions. Certain academic units may require that more than nine hours must be completed at the University.
- Some academic units may disallow the double-counting of courses in the minor and as General Education courses.
- A minimum of 12 hours of C (not C-) grades or better is required in the minor, though some minors may require more. Students who transfer courses into the minor must earn C or better grades in three-quarters of the courses and hours that they take for the minor at UNC-Chapel Hill. Students who use By-Examination (BE) credit (see section below) toward a minor may have fewer than 12 hours of coursework remaining to complete the minor (especially for minors with fewer than five courses or 15 hours); in these situations, earning grades of C or better in all of the remaining coursework is required.
- All courses in the minor unit must be taken for a regular letter grade. Courses in a student's minor unit, or specifically required by the minor, including foreign language courses, electives, and any additional required courses (or any courses cross-listed with such required courses) may not be declared a Pass/D+/D/ Fail course. (See "Regulations Governing the Pass/D+/D/Fail option.")
- If students plan to pursue the completion of a minor, they are encouraged to declare their minor by early in the junior year.


## Combining Majors and Minors

Students in the College of Arts and Sciences are permitted to study up to three subjects in depth. They may do this in one of the following ways: one major, two majors, one major and one minor, two majors and one minor, one major and two minors. Students enrolled in professional schools who wish to have a second major or minor in the College of Arts and Sciences must receive permission from their professional school and the College of Arts and Sciences; students who receive permission to have a second major in the College are required to complete all General Education requirements, including all eight connections. Students enrolled in professional schools who wish to have a second major or minor in a different professional school must receive permission from both professional schools.

A student may pursue in-depth study in multiple areas by fulfilling in eight semesters all major/minor requirements in each of the selected disciplines, in addition to General Education requirements. Students may not pursue two concentrations (emphases, options, or tracks) within the same major. In general, students may pursue a minor in the same department or curriculum as the major, provided they follow the double-counting rules described below and do not exceed 45 credit hours of coursework in any one subject. For example, a major in Asian studies with a concentration in Japanese and a minor in Korean, both housed in the Department of Asian Studies, are permitted. Some departments may restrict majors and minors within the same academic unit, so please consult an academic advisor, the department, or the curriculum.

Courses that fulfill requirements for a major or minor may be double-counted (applied to a second major or minor) with the following general limitation: more than half (not merely half) of the courses and course credit hours taken in each major/minor must be exclusive to that major/minor. In a 10-course major, for example, at least six courses, and at least 51 percent of the credit
hours, should be counted exclusively in that major and should not double-count even if cross-listed with courses in a student's second major or a minor. Some majors may further restrict double-counting courses. Students who are pursuing two majors and a minor (or two minors and a major) may, in principle, use a single course to satisfy requirements in all three areas of study, provided that more than half (not merely half) of the courses and course credit hours taken in each major/minor are exclusive to that major/minor.

## Credit by College Board Advanced Placement, International Baccalaureate, or SAT Subject Examinations

Students who meet UNC-Chapel Hill standards on certain approved College Board Advanced Placement examinations, examinations of the International Baccalaureate Program, or certain SAT II Subject Tests (e.g., foreign language) may receive academic credit for comparable University coursework. Each year the Office of Undergraduate Admissions publishes the minimum scores necessary for the awarding of course credit; however, final authority for awarding this placement credit lies with the chair of the department or curriculum in which credit is to be received. Minimum scores for placement may change from year to year. Regulations for credit in the year in which the student began study at UNC-Chapel Hill as a full-time student determine the standards that apply, not the year in which the student took the examination. Such credit will not be contingent upon the completion of further work in the subject unless specified by an academic department.

By-Examination (BE) credit awarded based on a student's scores on the Advanced Placement, International Baccalaureate, SAT II Subject Tests, or departmental examinations may be used to fulfill General Education requirements. For students admitted as new firstyear or transfer students beginning in fall 2009 or later, the following limitations apply to the use of By-Examination (BE) credit in a major or minor:

- No more than two courses (six to eight credit hours) of BE credit may be used as part of the major core.
- No more than one BE credit course (three to four credit hours) may be used as part of a minor.
- Grades of BE from an Advanced Placement, International Baccalaureate, or SAT II Subject Test may not count toward the requirement that students earn at least 18 hours of C or better grades in the major core, or toward the minimum hours of C required in the minor.
Students who wish to enroll in a course for which they have ByExamination credit should discuss their decision with an academic advisor. In the event that a student takes a course for which Advanced Placement, International Baccalaureate, or SAT II Subject Test credit is awarded, the By-Examination credit will be forfeited when the course is completed, as well as any higher-level BE credit in that sequence. For example, a student whose test scores would award BE credit for MATH 231 and 232 and who chooses to take MATH 231 at UNC-Chapel Hill will forfeit BE credit for both MATH 231 and 232.


## Credit by Departmental Examination

Enrolled students who, through individual study or experience, have gained knowledge of the content of undergraduate courses offered by the University may, with the approval of the relevant department and school or college, receive credit (without grade) for such courses by special examination. The student must receive the approval of the department and college/school at least 30 days before the examination is taken, and the examination must be taken before the
beginning of the last semester or full summer session before the student's graduation.

## Foreign Language Placement Credit

## Experiential Speakers of a Foreign Language

Enrolled students who have learned a language currently offered at UNC-Chapel Hill by experience (i.e., having grown up speaking another language in the home or having lived several years in another country) and who are conversant and literate in that language and in English, may take a placement test in that language for placement (PL) only and not for credit hours. If the student places beyond level 3, the student can use that language to fulfill the General Education foreign language requirement, but again, no credit hours will be awarded. The placement test must be taken before the beginning of the last semester or full summer session before graduation.

## Native Speakers of a Foreign Language

For academic purposes, a native speaker is a student raised in a country outside the United States and formally educated through all or most of high school in a language other than English. Native speakers cannot use By-Examination (BE) credit in their native language to reduce the requirements for a major in that language and will not receive credit for levels 1 through 4 of their native language(s). However, upon recommendation of the appropriate language department, they may receive credit for courses taken at UNC-Chapel Hill beyond level 4 if those courses are heavily based on literature, film, culture, or other content. Native speakers of languages other than English may use ENGL 105, or its transfer equivalent, to satisfy their General Education foreign language requirement. Native speakers who wish to pursue placement (PL) in their language, should make an appointment with Assistant Dean Glynis Cowell via the online scheduler at advising.unc.edu.

## Independent Studies for Credit

The University offers independent study experiences for students. Such courses, including directed readings, internships, and research courses for an individual student, are offered for academic credit through departments and curricula. Twelve hours of graded independent study credit may be counted toward graduation (excluding six hours of senior honors thesis credit). No more than six hours may be taken in any one semester, with the exception of students completing a full-time teaching internship program in the School of Education and other approved practicum/ internship programs in the professional schools. Students may participate in formalized programs, or they may make individual learning contracts for work under the supervision of a member of the permanent faculty at the department/curriculum level. For information about independent study courses in their majors, students should consult the director of undergraduate studies in their major department or curriculum. Students, in consultation with the faculty member, must complete a learning contract and have it approved by the director of undergraduate studies (or designee) before the last day of late registration (at the end of the first week of classes in a fall or spring semester or the equivalent date in each summer session). A template for such a learning contract is available at registrar.unc.edu/files/2014/02/Template-Adapted-for-Use-in-the-College-of-Arts-and-Sciences.pdf. Students are strongly encouraged to begin this process early, well before the beginning of the semester.

## Policy on Credit for InternshipsThe College of Arts and Sciences

No internship automatically earns academic credit. Students who want academic credit for an internship should contact the director of undergraduate studies in a relevant academic department or curriculum before beginning the internship and must complete an internship course in that academic unit. Not all departments and curricula offer internship courses.

Internships may not be used to meet the experiential education (EE) requirement unless the student earns academic credit for the internship through a department or curriculum. A student must enroll in a course that has been approved as meeting the EE requirement in order for an internship to fulfill that requirement.
Students who must earn academic credit as a condition of doing the internship-and who cannot get credit through an academic department or curriculum-should contact a counselor at University Career Services for possible credit in SPCL 493 before beginning the internship. The student must write a statement describing his or her learning objectives and a paper reflecting on the experience. SPCL 493 is a one-credit, Pass/Fail course that does not count toward any graduation requirements.

## Undergraduate Honors

Students may earn one of two types of honors at UNC-Chapel Hill: distinction/highest distinction and honors/highest honors.

## Degrees with Distinction

To graduate with distinction or with highest distinction, students must have completed at least 45 academic hours at UNC-Chapel Hill and have an overall grade point average of at least 3.500 or 3.800 respectively. The grade point average is based on the grades received and recorded by the Office of the University Registrar as of the degree award date. No changes are permitted to the awards after that date.

## Degrees with Honors

Programs providing an opportunity for graduation with honors for qualified students are offered in all four divisions of the College of Arts and Sciences: fine arts, humanities, natural sciences and mathematics, and social and behavioral sciences. Honors programs are supervised by the individual departments and curricula in conjunction with the associate dean for honors. Though they are not completely uniform in the various disciplines, all have the following general procedures and requirements:
Application for honors work: Students should apply to the honors advisor in the department or curriculum of the major. Ordinarily, application is made during the junior year, although it is done earlier in some departments. Detailed information concerning the application should be obtained from the honors advisor in the major.
Requirements for eligibility: A minimum overall grade point average of 3.300 is required for admission to senior honors work. Departments and curricula may require a higher grade point average for coursework in the major. Membership in Honors Carolina (see below) is not required.
Nature and purpose of honors study: Programs are provided for students who have demonstrated a high level of scholastic ability and achievement and who desire to pursue an intensive,
individualized program of study in their major discipline. Honors studies consist of six credit hours of faculty-supervised academic work leading to an honors thesis based on original research, an artistic performance or exhibition, or a comparable scholarly product.

A special written or oral examination on the student's program is required during the final semester of honors study. The department or curriculum may impose other requirements that it deems appropriate. In every instance, study for honors will require academic excellence. When the student has fulfilled all requirements, the department or curriculum will recommend to the associate dean for honors that the degree be awarded with honors or with highest honors. The degree with highest honors is conferred in recognition of extraordinary achievement in a program of honors study.
Procedures for granting degrees with honors: The grade for coursework in connection with an honors project is determined by the faculty advisor and is (like all grades) subject to appeal. Successful completion of honors study does not automatically confer departmental honors. Before awarding a degree with honors or highest honors, the College of Arts and Sciences requires the recommendation of a student's examining committee and the endorsement of that committee's recommendation by the chair of the department or curriculum. A negative recommendation by the department is final and cannot be appealed. The associate dean for honors makes the final decision to award a degree with honors on the basis of the department's positive recommendation and the student's cumulative grade point average.

## Phi Beta Kappa

This national collegiate honor society is open to undergraduate students in the College of Arts and Sciences and in exceptional circumstances (as described below) to students enrolled in undergraduate professional degree programs. The following students in the College of Arts and Sciences are eligible for membership:

- Students who have completed at least 75 semester hours of graded academic coursework in the liberal arts and sciences at UNC-Chapel Hill with a quality point average of at least 3.850
- Students who have completed at least 105 semester academic course hours in the liberal arts and sciences, at least 45 of which must have been graded coursework taken at UNC-Chapel Hill with a quality point average of at least 3.750
No grades made at an institution from which a student has transferred shall be included in determining a student's eligibility. The quality point average shall include all academic coursework in the liberal arts and sciences taken and counted toward the candidate's degree (physical activity grades and hours are not included). Grades and hours received on courses taken after the candidate has received his or her degree shall not be counted.

Undergraduate students not enrolled in the College of Arts and Sciences who meet the general semester hours and quality point average described in the second bullet above and who have completed at least 90 semester hours of coursework in the departments and curricula of the College of Arts and Sciences (or the equivalents accepted for transfer credit from other institutions) are eligible for election.

## Dean's List

To be eligible for the Dean's List, full-time students who enter the

University as first-time, first-year students beginning in fall 2010 must meet the following requirement:

- A 3.500 grade point average with no grade lower than a C if enrolled in at least 12 hours of letter-grade credit, exclusive of physical education activities (PHYA) courses.
The grade point average is based on the grades received and recorded by the Office of the University Registrar at the time the Dean's List is published. No changes are permitted to the Dean's List after that date.


## Special Undergraduate Programs

The James M. Johnston Center for Undergraduate Excellence<br>James Leloudis, Ph.D., Director

The James M. Johnston Center for Undergraduate Excellence was founded to lead a renaissance in undergraduate education at Carolina. Building on the University's 200-year commitment to outstanding teaching and scholarship, the Johnston Center serves as the intellectual crossroads of the College of Arts and Sciences and welcomes students, faculty, and staff from all departments and programs.

The Johnston Center supports curricular initiatives that enliven undergraduate education. It offers opportunities for learning outside the traditional classroom and for building a strong sense of intellectual community. The center hosts visits from civic and community leaders, philosophers, artists, scientists, poets, and politicians. It also provides a warm and welcoming environment, where students can get to know their professors as scholars and as people, meet Carolina alumni, and perform or present their own creative and scholarly works.

The Johnston Center houses Honors Carolina, the Office of Burch Programs and Honors Study Abroad, the Office of Distinguished Scholarships, the Office for Undergraduate Research, the Robertson Scholars Program, and the Beasley Multimedia Center.

The Johnston Center also serves as a laboratory for innovation in teaching and learning by providing access to exceptional technology. Faculty and students use its state-of-the-art classrooms to engage in collaborative inquiry with peers close to home and around the globe. The center's teleconferencing facilities connect UNC-Chapel Hill programs abroad back to campus and give students in Chapel Hill access to academic experts from all parts of the world.

The Johnston Center's student-faculty advisory committee advises its director on all aspects of programming and planning.

## Honors Carolina

James Leloudis, Ph.D., Associate Dean for Honors
Ritchie Kendall, Ph.D., Assistant Dean for Honors
Honors Carolina offers exceptionally well-qualified undergraduate students an opportunity to take part of their General Education curriculum and other coursework in special honors seminars and honors sections of regular departmental offerings.

Honors seminars are special topics courses that are often interdisciplinary and that emphasize new approaches to scholarship and teaching. Honors seminars and honors sections of regular departmental courses are limited in enrollment, usually 24 or fewer students. These courses emphasize critical reading, class discussion, and expository writing. Departments and curricula often provide
honors versions of the courses listed in their sections of this bulletin; interested students also should consult the course listings at the Honors Carolina Web site at honorscarolina.unc.edu.
Some enrolling first-year students are invited to participate immediately in Honors Carolina. Other students may apply to the program at the end of their first semester or first year of study. Details of the application process are available on the Honors Carolina Web site. Honors Carolina students must take at least two honors courses during each academic year and maintain a minimum overall grade point average of 3.0 to remain in good standing. Honors courses are open to all academically qualified students on a space-available basis.

The Honors Carolina Student Board coordinates a variety of social and cocurricular activities, including a dinner and discussion series for students and faculty, community service projects, film festivals, and networking receptions with distinguished alumni.
To graduate from the University with honors or highest honors, students must complete a senior thesis project or an approved equivalent in their academic major. Senior honors thesis programs are offered in nearly 50 departments, curricula, and professional schools throughout the University. Interested students should consult with the honors advisor in their major about departmentspecific requirements.

## Office of Burch Programs and Honors Study Abroad

## Friederike Seeger, Director

Honors Study Abroad: Honors Carolina offers innovative study abroad opportunities in London, Oxford, Rome, Cape Town, and Singapore. Students take courses with UNC-Chapel Hill faculty who serve as program directors and with instructors from some of the world's leading institutions of higher education. The London program is based at Winston House, UNC-Chapel Hill's European Study Center, located in Bloomsbury close to the city's leading universities and cultural institutions. All of the programs provide graded honors credit and fulfill General Education and major requirements.

Burch Field Research Seminars: Burch Field Research Seminars offer students and faculty members an opportunity to spend a full semester or summer session working on a shared research project in the United States or abroad. Topics for recent seminars have included policy making and foreign affairs in Washington, DC, the role of international organizations in the peace-building process in the Balkans, human rights and international law in Rwanda, public health in Vietnam, rain forest ecology in the Brazilian Amazon, sustainability in Germany and Sweden, and climate change and renewable energy in Alaska and Iceland. A changing roster of Burch Seminars is offered every year.
Burch Fellows Program: The Burch Fellows Program recognizes undergraduates who possess extraordinary ability, promise, and imagination. It provides up to six fellowships each year to support self-designed off-campus experiences in the United States and abroad that enable students to pursue a passionate interest in a way and to a degree not otherwise possible.

Weir Fellows Program: Weir Fellows spend the spring semester in Beijing for intensive Chinese language study and then complete an eight-week summer internship in either Beijing or Shanghai, where they explore careers in fields such as banking, law, journalism, public health, and historic preservation.

These programs are open to all academically qualified students. Additional information is available on the Honors Carolina Web site: honorscarolina.unc.edu/current-students/global-honors/ honors-study-abroad.

## Office of Distinguished Scholarships

Mary Floyd-Wilson, Ph.D., Director

The Office of Distinguished Scholarships (ODS) provides a central location for information about distinguished awards and assists Carolina students and alumni in putting their best foot forward when applying for these scholarships and fellowships. The staff is available to provide general advising to any applicant for any nationally competitive award. They will also suggest interviewing strategies and can connect applicants with faculty members who can assist with writing project statements.
In addition, ODS administers the institutional vetting process called "endorsement" for 11 scholarship and fellowship programs, including the Rhodes, Marshall, Mitchell, Churchill, Truman, Udall, and Luce.

ODS strongly believes in educating students and alumni about available opportunities and the preparation required to compete for these prestigious scholarships. For more information about ODS and to access awards offered through this office, visit distinguishedscholarships.unc.edu.

## Office for Undergraduate Research

## Krista M. Perreira, Associate Dean and Director

The Office for Undergraduate Research (OUR) was established in 1999 to expand the opportunities for undergraduates at UNCChapel Hill to engage in innovative research, mentored scholarship, and creative performance. It seeks to make research a distinctive feature of the undergraduate educational experience at this vibrant research university. By engaging in research, students learn how discoveries are made and become well prepared to address the unsolved problems of the future. The office is located in 220 Graham Memorial and is a part of the Johnston Center for Undergraduate Excellence.
All undergraduates are invited to register for the Carolina Research Scholar Program (CRSP). Requirements for CRSP include: 1) the completion of a multidisciplinary research-intensive or researchexposure course such as Modes of Inquiry (IDST 194) or Research beyond Academia (IDST 184); 2) the completion of either two research-intensive courses or one research intensive and one research methods course; and 3) the presentation of research at OUR's Annual Celebration of Undergraduate Research or another approved research symposium or professional conference. Participants who complete these requirements receive official University recognition on their transcripts for their contributions to undergraduate research.

The OUR maintains several searchable databases. These include listings of research methods courses, research-intensive courses in which over half of class time is devoted to students' conducting original research and presenting research conclusions, and researchexposure courses that provide students with an opportunity to learn through research experiences guided by Graduate Research Consultants (GRCs). The OUR sponsors the Celebration of Undergraduate Research each spring, allowing students to present their results to the campus and community. In addition, OUR offers opportunities for undergraduate students to apply for Summer Undergraduate Research Fellowships (SURFs) and for travel awards to present their research at professional meetings.

For more information about the Office for Undergraduate Research and for access to all the programs and databases, visit the Web site at our.unc.edu.

## Study Abroad

## Robert Miles, Ph.D., Associate Dean for Study Abroad and International Exchanges

Living and studying in another culture is a crucial part of an undergraduate education for all majors. Undergraduate students who wish to receive credit for study abroad may do so only on officially sanctioned UNC-Chapel Hill programs, by applying through one of the following offices that administer study abroad programs: the College of Arts and Sciences Study Abroad Office located in the FedEx Global Education Center and the KenanFlagler Business School B.S.B.A. program, McColl Building. Study abroad credit will be awarded only to students who participate in the programs administered by these UNC-Chapel Hill offices. Students who wish to participate in other programs for academic credit may submit a petition for approval only to the Study Abroad Office. Deadlines and procedures are available from the director for advising in the Study Abroad Office. Not all program petitions are granted.

The Study Abroad Office facilitates all study abroad programs designed and offered within the College of Arts and Sciences, including Honors Study Abroad Programs, Burch Field Research Seminars, and UNC Institute for the Environment Programs. The Study Abroad Office also operates undergraduate student exchange programs and a number of programs led by UNC-Chapel Hill faculty members. Study abroad programs are available in more than 70 countries. There are summer, semester, and yearlong programs.

Many programs for UNC-Chapel Hill students offer a varied curriculum, while some are focused on a particular academic discipline. Students are strongly advised to begin to plan their academic program by first attending a Study Abroad 101 information session and then arranging an advising session in the Study Abroad Office. Students may fulfill elective, General Education, and major/minor requirements abroad. All students who participate in approved study abroad programs will earn experiential education (EE) General Education credit. Approval for major/minor credits must be granted by the director of undergraduate studies or study abroad liaison in the relevant department, and approval for General Education requirements must be granted by the Study Abroad Office, which coordinates the approval process in both instances. Some programs, most often those taught by UNC-Chapel Hill faculty members, offer University graded course credits. Most programs will offer transfer credit that can also be used to fulfill requirements toward graduation.

Through informational meetings and individual counseling, the Study Abroad Office advising staff assists students in choosing the best programs for their academic needs and in devising an appropriate course schedule. The Study Abroad Office requires students to attend a predeparture program during which they receive valuable information regarding safe travel, managing money abroad, academic credit issues, and managing cultural adjustment. The office maintains contact with the students while they are abroad and provides reentry information upon their return to UNC-Chapel Hill.

## First-Year Seminars

Drew S. Coleman, Ph.D., Assistant Dean
The First Year Seminar Program at UNC-Chapel Hill builds and sustains a vibrant campus-based educational community committed to promoting the success of first-year college students by coordinating a varied offering of seminar-format courses that allow students to work closely with our best instructors on intriguing topics.

First-year seminars introduce students to the intellectual life of the University. They are taught by instructors who are active scholars and accomplished teachers, and have limited enrollment of only 16 to 24 students who are in the first two semesters of their undergraduate experience. The seminars address a range of topics across disciplines, often including the most pressing issues of the day. First-year seminars share a common focus on how scholars pose problems, discover solutions, resolve controversies, and evaluate knowledge. They also provide students with a comfortable and engaging social network.

Students in first-year seminars are active participants in the learning process. The seminars encourage self-directed inquiry by using a variety of activities inside and outside the classroom, including field work, case studies, performances, computer projects, laboratory explorations, archival research, and group presentations.

For more information about the First Year Seminar Program, visit the Web site at fys.unc.edu.

## Languages across the Curriculum (LAC)

The Languages across the Curriculum (LAC) program offers students the opportunity to use world languages in a variety of courses outside the departments of languages and literatures. The program aims to promote a full understanding of world regions while demonstrating the relevance of practical language skills across the disciplines. Participation in LAC enables students to 1) communicate in the target language about course topics, 2) explore how course topics relate to world regions that speak the target language, 3) consider course topics from the perspective of individuals who represent the target language or culture, and 4) use the target language to conduct course research. Administratively housed in the Center for European Studies, the LAC program receives support from the College of Arts and Sciences and from seven international and area studies centers: the Center for European Studies, the Center for Global Initiatives, the African Studies Center, the Institute for the Study of the Americas, the Carolina Center for the Study of the Middle East and Muslim Civilizations, and the Carolina Asia Center.

Since spring 1996, the LAC program has offered course options in nine languages-Arabic, Dutch, French, German, Italian, Portuguese, Spanish, Swahili, and Turkish-for more than 60 different courses spanning 24 disciplines. Students who enroll in LAC recitation or discussion sections are eligible to receive one graded hour of foreign language credit. For enrollment instructions, semester course lists, and additional information, visit areastudies. unc.edu/lac.

# The Center for Student Success and Academic Counseling (CSSAC) 

Harold Woodard, M.A., Associate Dean and Director

Marcus Collins, M.S., Assistant Dean and Director, Summer Bridge
Kim Abels, Ph.D., Director, Writing Center and Learning Center
Chris Faison, M.A., Coordinator, Minority Male Mentoring and Engagement

Vacant, Learning Specialist, Peer Tutoring
Vacant, Coordinator for Peer Mentoring
2203 SASB North, CB\# 3106; (919) 966-2143.
Web site: cssac.unc.edu

## Mission Statement

CSSAC is dedicated to promoting academic excellence and assisting students to achieve their academic goals while enrolled at Carolina. Its constituent programs-the Office for Student Academic Counseling, Summer Bridge, Minority Male Mentoring and Engagement, and the Writing and Learning Center-provide support for students in developing the skills and strategies needed to achieve academic success. This commitment to student learning supports the University's mission to "teach a diverse community of undergraduate, graduate, and professional students to become the next generation of leaders."

CSSAC's unit for Student Academic Counseling offers academic and personal support to all UNC-Chapel Hill students. Its primary objective is to sponsor programs and activities that promote academic excellence, increase retention, and improve the campus climate for diversity among American Indian and African American undergraduates. Support provided by Student Academic Counseling includes the Minority Advisory Program, Cultural and Personal Enrichment Sessions for American Indian Students, the STAR Networks, and the annual Hayden B. Renwick Academic Achievement Awards Ceremony. Historically, this office has worked cooperatively with members of several student organizations, including Black Women United, the Black Student Movement, the Carolina Hispanic Student Association, the National Panhellenic Council, the Asian Student Association, Unique Heels, and the Carolina Indian Circle. Among the tribes that have been represented in the Carolina Indian Circle over the years are the Cherokee, Coharie, Haliwa-Saponi, Lumbee, Meherrin, and Waccamaw Siouan. CSSAC's full-time and part-time professionals work with several graduate assistants and undergraduate student assistants to meet the needs of any UNC-Chapel Hill student requesting assistance.

## The Minority Advisory Program and Carolina Covenant Peer Mentoring Program

The Minority Advisory Program (MAP) consists of students with cumulative grade point averages of 2.5 or higher who volunteer to serve as peer mentors mostly to minority first-year undergraduates. These peer mentors provide academic counseling, bridge communication between CSSAC and first-year students, and assist them with their transition from high school to university life. CSSAC also oversees the peer mentoring program for Carolina Covenant Scholars and community college students participating in the Carolina Student Transfer Excellence Program (C-STEP). As with MAP, Carolina Covenant Scholars and C-STEP volunteers
serve as peer mentors to first-year Carolina Covenant Scholars and C-STEP participants to assist them with their academic and social transition to Carolina.

## Academic Skills Enhancement Workshops

These workshops encourage students to strengthen their study skills through organized topical discussions and a mutual sharing of ideas. Those topics include reading for college, note taking, studying for biology, studying for chemistry, using and citing sources properly and effectively, time management, test preparation, reading preparation/speed, studying/active learning, memorization, managing time and stress, and preparing for final exams.

## Cultural and Enrichment Sessions for American Indian Students

These sessions provide opportunities to discuss aspects of students' culture and heritage, share their experiences at UNC-Chapel Hill, and develop strategies for meeting their personal and academic goals.

## STAR Networks

These networks organize sophomores, juniors, and seniors to help them prepare for graduate research and career opportunities.

## Hayden B. Renwick Academic Achievement (3.0) Recognition Ceremony

These ceremonies acknowledge primarily minority students who have excelled academically while attending UNC-Chapel Hill. Students achieving a cumulative grade point average of 3.0 or better are recognized each spring semester and awarded a certificate of achievement. Parents and friends are encouraged to attend this annual event.

## The Learning Center

Kim Abels, Ph.D., Director
0118 and 2109 SASB North, CB\# 5135; (919) 962-3782.
Web site: learningcenter.unc.edu
The Learning Center helps students optimize their learning strategies to achieve their academic potential at Carolina. To make an appointment with an academic coach or check out this year's event calendar, visit the Learning Center's Web site at learningcenter.unc.edu. The Learning Center regularly offers an array of programs and services popular with many undergraduate students. The Center's programs include

- One-on-one appointments with an academic coach. Coaching appointments provide opportunities for students to set personal academic goals and get support and accountability in the process.
- Peer tutoring for many introductory courses: Drop-in support is available on Tuesday and Wednesday nights in Dey Hall.
- Reading and study skills mini-courses. These popular four-week courses address speed-reading techniques and other approaches to tackle assignments strategically and efficiently.
- Study groups and boot camps providing opportunities to gather with other students to maximize study time and strategies.
- Test prep courses for GRE, GMAT, MCAT, and LSAT in partnership with The Princeton Review, often at discounts of 30 to 50 percent.
- ADHD/LD services. Both individual appointments and coaching groups are available


## Minority Male Mentoring and Engagement

Christopher Faison, M.A., Coordinator
2203 SASB North, CB\# 3106; (919) 966-5245.
Web site: cssac.unc.edu
Newly created during the 2013-2014 academic year, this initiative develops, implements, and assesses programming for minority males. It focuses on mentoring and promoting academic success and engagement, especially for students after their first year at the University. The coordinator trains and supervises graduate/ professional students, faculty and staff members, alumni, and members of the community to engage and mentor undergraduates in high impact activities. Additionally, this initiative provides a clearinghouse for Universitywide efforts tailored to undergraduate, underrepresented males of color.

## Summer Bridge

Marcus Collins, M.S., Director
2203 SASB North, CB\# 3106; (919) 962-1046.
Web site: summerbridge.unc.edu.
Summer Bridge is a seven-week residential academic support program for a select group of entering first-year students. The program is designed to ease participants' personal and academic transition from high school to the University. Students enroll in an English composition course and in one mathematics or chemistry course. They also participate in learning strategies instruction offered by the Learning Center. Cultural and recreational activities are significant components of the program, as students are introduced to the University and the array of opportunities available.

## The Writing Center

Kim Abels, Ph.D., Director
0127 SASB North, CB\# 5137; (919) 962-7710.
Web site: writingcenter.unc.edu
The Writing Center is a free service available to students, faculty members, and staff at UNC-Chapel Hill. Our main office is in SASB North, and we have a satellite location in Greenlaw Hall. Our tutors are friendly graduate and undergraduate students from a variety of academic disciplines who are specially trained in teaching writing. We offer both 45 -minute face-to-face sessions and an online tutoring system that allows undergraduate students to submit writing and receive feedback via the Web. An array of popular handouts and videos are available anytime via our Web site. Our face-to-face sessions take place by appointment. Additional services for international students and scholars and other English language learners are available through our ESL services. Detailed information about the Writing Center programs and support are available at writingcenter.unc.edu

## What happens during a session?

The Writing Center is not a proofreading or editing service, although we are happy to help you learn these skills. Our tutors work collaboratively with you to address your concerns as a writer. After reading through your assignment and paper together, we'll discuss your concerns. We will spend a lot of our time talking, but most likely you also will do some writing. We may direct you to further resources at the end of a session. Our goal is to support your long-term development as a writer, giving you new skills to use in future writing projects.

## What kinds of things do writers usually work on?

People visit us at all stages of the writing process. Writers often want to work on understanding an assignment or project, brainstorming some good ideas, or making an outline. They may choose to focus on thesis development, organization, or argument, or they may be interested in learning how to proofread or edit their papers. People come to the Writing Center seeking feedback from an experienced, interested reader, someone who can say, "I understood this part, but not this one," or "I'm not sure how this relates to your thesis," or "I was wondering why you put this sentence here; can you tell me more?" The questions our tutors ask will show you how your writing is coming across to one audience; the skills they teach you will help you communicate your ideas more clearly and effectively.

## Other Academic Services

## General Chemistry Resource Center

Todd Austell, Ph.D., Coordinator
The Chemistry Resource Center supplements class instruction for any student enrolled in CHEM 101 General Chemistry I and CHEM 102 General Chemistry II as well as CHEM 241 and $241 \mathrm{H}, 251,261$ and 261 H , and 262 and 262 H . When the University is in session, tutors are on duty in Dobbins Chemistry Resource Center, C143 Kenan Labs, Monday through Thursday from 2:00 to 7:00 pm. Students may drop in to ask questions, discuss course material, and work through problems.

## Math Help Center

Miranda Thomas, Ph.D., Director
The Math Help Center, located in 365 Phillips Hall, provides additional instructional support for students enrolled in MATH 110 through 233 . The center is staffed by both graduate and undergraduate tutors who work with students in small groups or individually. The center's main purposes are to provide assistance and to increase the success rate for students in specific math courses. To view hours or updates, visit the Web site at math.unc.edu/for-undergrads/help-center.

## Academic Units

Undergraduate courses usually offered in regular sessions of the University are listed in the following section.

This section does not include courses offered by the professional schools of government, law, medicine, and social work. For those courses, refer to bulletins from those schools. Although Summer School offers many courses described here, it publishes a separate bulletin of course offerings.

The requirements for majors and minors are shown in connection with information pertaining to the various schools, departments, and curricula.

The work of the University is arranged and offered on the semester system, the regular session being divided into two approximately equal parts called the fall and spring semesters. Summer School offers two sessions of five weeks each, a threeweek Maymester, and other short courses with various beginning and ending dates.

Work is valued and credited toward degrees by semester hours, one such hour usually being awarded for each class meeting per week for a semester. One hour of credit is usually awarded for each three hours of laboratory or field work or work in studio art. In the following lists of courses, the numbers in parentheses after the descriptive titles show the credits allowed in semester hours.

## College of Arts and Sciences and the General College

college.unc.edu
Karen M. Gil, Ph.D., Dean
Terry Ellen Rhodes, D.M.A., Senior Associate Dean for Fine Arts and Humanities

Kevin Guskiewicz, Ph.D., Senior Associate Dean for Natural Sciences and Mathematics
Jonathan Hartlyn, Ph.D., Senior Associate Dean for Social Sciences and Global Programs
Tammy McHale, M.B.A., Senior Associate Dean for Finance and Planning

Abigail Panter, Ph.D., Senior Associate Dean for Undergraduate Education

The College is divided into four divisions. All departments and curricula are assigned to one of these four divisions. Each division has a representative, who serves on the Arts and Sciences Advisory Committee (ASAC). Members are listed below by division.

## Division of Fine Arts

Susan Klebanow, M.M.

## Departments

Art, Dramatic Art, Music
Division of the Humanities
Robert Babcock, Ph.D.

## Departments

American Studies, Classics, Communication Studies, English and Comparative Literature, Germanic and Slavic Languages and Literatures, Linguistics, Philosophy, Religious Studies, Romance Studies, Women's and Gender Studies

## Division of Natural Sciences and Mathematics

Michael Crimmins, Ph.D.

## Departments

Applied Physical Sciences, Biology, Biomedical Engineering, Chemistry, Computer Science, Exercise and Sport Science, Geological Sciences, Marine Sciences, Mathematics, Physics and Astronomy, Psychology, Statistics and Operations Research

## Curriculum

Environment and Ecology
Division of Social and Behavioral Sciences
Kathleen Harris, Ph.D.

## Departments

Aerospace Studies; African, African American, and Diaspora Studies; Anthropology; Asian Studies; City and Regional Planning; Economics; Geography; History; Military Science; Naval Science; Political Science; Public Policy; Sociology

## Curricula

Archaeology; Contemporary European Studies; Global Studies; Latin American Studies; Peace, War, and Defense

## Department of Aerospace Studies

afrotc.unc.edu
ROTC Armory, 221 South Columbia Street, CB\# 7480; (919) 962-2074

JOHN COLLINS, Chair

## Introduction

The United States Air Force Reserve Officer Training Corps (AFROTC) program provides leadership and Air Force-specific training to students pursuing a career as an officer in the United States Air Force. The AFROTC program is open to students looking for a challenging career and the opportunity to support and defend the constitution of the United States. AFROTC is more than just a department in the College of Arts and Sciences; it is a professional organization designed to provide students growth, development, and leadership opportunities beyond the classroom. Cadets learn and develop these skills through hands-on experiences both inside and outside the traditional classroom setting.

## The Air Force ROTC Program

## Four-Year Traditional ROTC Program

This program is for students who enroll as cadets in AFROTC and plan to graduate in four years with a commission as an Air Force second lieutenant. Each year of the program cadets must take the appropriate aerospace studies course and leadership laboratory (AERO 500) and participate in weekly physical training. In the spring of the sophomore year, cadets will compete for an Officer Commissioning Enrollment Allocation, which gives them a slot to attend a four-week field training course in the summer. Successful completion of field training grants entry into the Professional Officer Corps (POC) for the junior and senior years. Cadets in the POC refine their leadership skills and prepare for a United States Air Force active duty commission upon graduation.

## Nontraditional ROTC Program

Students who do not enroll in Air Force ROTC in their first semester are still eligible to participate in the program. They will participate in the same academic courses, leadership laboratory, and physical training as traditional students. All nontraditional cadets will be required to complete AERO 101, 102, 201, and 202 prior to attending field training and must be able to complete at least three semesters of college as a full-time student following field training.

## Interested Students

First- and second-year students seeking to learn more about the Air Force and ROTC can take AERO 101, 102, 201, or 202 with no obligation. These courses provide a solid introduction to Air Force operations and culture, providing students with the necessary information to make an informed decision about whether the Air Force interests them.

## Aerospace Studies Minor

The minor in aerospace studies is a 14 -semester-hour, nontechnical course of study open to all UNC-Chapel Hill students. Students may select courses for the minor from the following list: AERO 101, 102, 201, 202, 301, 302, 393, 401, 402; AERO/HIST/ PWAD 213; AERO/POLI/PWAD 446. Students must complete a minimum of 12 hours of coursework with a grade of C or better. The remaining two hours must be completed with a grade of C - or better.

## Advising

All majors and minors have a primary academic advisor in Steele Building. At a minimum, students who join the AFROTC program are required to meet with their advisor every fall term to develop and update their academic plan. The department's education officer and academic instructors help oversee this process. For information on Air Force officer careers, please visit www.afrotc.com.

## Special Opportunities in Aerospace Studies

## Scholarships and Financial Assistance

Two- to four-year scholarships are available to students based on merit or specialized major (e.g., foreign language or nursing). In
most cases, these scholarships cover tuition and fees, and provide a tax-free allowance ( $\$ 250$ to $\$ 400$ each month) and a textbook allowance ( $\$ 600$ ) each semester.

## Foreign Language/Study Abroad Stipend and Opportunities

All contract and scholarship cadets are eligible to earn up to $\$ 3,000$ per academic year for studying a foreign language or participating in a study abroad program.

Air Force ROTC cadets are uniquely eligible to participate in Department of Defense language grant programs through major universities, often involving study abroad. See www.rotcprojectgo. org or contact the unit admissions officer for more information.

## Extracurricular Activities

The AFROTC experience is much more than classroom studies. Cadets participate in a range of activities. These include social functions such as a formal dinner, fundraising events, color guard at home football and basketball games, volunteer work in the community, and field trips to military bases. Recent cadet activities are highlighted on a public Facebook page: www.facebook.com/ UNC.AFROTC.DET590.
Arnold Air Society (AAS) is a national service organization dedicated to furthering the traditions, purposes, and concepts of the United States Air Force as a military organization and a professional calling. The local AAS chapter is active nationwide, and AFROTC cadets attend the regional and national conventions each year.

## Guaranteed Job Placement

Successful AFROTC program graduates are commissioned as second lieutenants in the USAF.

## Faculty

## Professor

John Collins, Lieutenant Colonel, U.S. Air Force.

## Assistant Professors

Steven P. Duckers, Captain, U.S. Air Force
Henry L. Sims, Jr., Captain, U.S. Air Force.

## Contact Information

Captain Henry Sims, Unit Admissions Officer, (919) 962-2074.

## Courses

## AERO-Aerospace Studies

AERO 101 United States Air Force Today (1). An introduction to AFROTC and the United States Air Force (USAF); customs and courtesies, officer opportunities, core values, and communications skills.

AERO 102 United States Air Force Today (1). An introduction to the United States Air Force organization and mission.

AERO 190 Seminar (1-3). Seminar in topics related to the United States Air Force.

AERO 196 Independent Study (1-3). Readings and research of topics regarding the United States Air Force.


#### Abstract

AERO 201 The Evolution of United States Air Force Air and Space Power (1). Examines general aspects of air and space power through a historical perspective from the first balloons and dirigibles to the Cold War.


AERO 202 The Evolution of United States Air Force Air and Space Power (1). Examines general aspects of air and space power through a historical perspective from post-Cold War military operations through the Global War on Terror.
AERO 213 Air Power and Modern Warfare (HIST 213, PWAD 213) (3). See HIST 213 for description.

AERO 301 Contemporary Leadership and Management (3). Prerequisites, AERO 101, 102, 201, and 202. Part one of a twopart course concerning contemporary leadership and management. Emphasizes modern-day experiences, successes, and failures, with various theories on motivating people, organizing, and managing. Lectures and discussion focus on application of various principles as an Air Force officer. Class participation, comprehension, and oral communication skills are stressed.

AERO 302 Contemporary Leadership and Management (3). Prerequisites, AERO 101, 102, 201, and 202. A continuation of AERO 301. Class participation, comprehension, and written communication skills will be stressed.

AERO 393 Air and Space Expeditionary Training (1). Provides leadership training in a military environment. Professional development is achieved through academics, physical fitness, marksmanship, and leadership exercises. Course culminates in a simulated expeditionary deployment to a combat zone.

## AERO 401 National Security Affairs and Preparation for

Active Duty (3). Prerequisites, AERO 101, 102, 201, and 202. Summer field training required. Examines issues relevant to new Air Force officers with an emphasis on national security issues and Department of Defense and U.S. Air Force organizational structures and function.
AERO 402 The Military and Contemporary Society (3). Survey and analysis of the major issues affecting officers in the Air Force. Lectures and discussions center on gaining insight into the military officer, military law, ethics, law of armed conflict, and preparing for active duty as a second lieutenant. Class participation, comprehension, written and oral communication skills are stressed.

## AERO 446 Defense Policy and National Security (POLI 446, PWAD 446) (3). See POLI 446 for description.

AERO 500 Leadership Laboratory (0). Required for all AFROTC cadets. This laboratory is conducted by the cadet corps and involves career opportunities in the USAF, life and work of the USAF junior officer, and military ceremonies.

# Department of African, African American, and Diaspora Studies 

aaad.unc.edu
109 Battle Hall, CB\# 3395; (919) 966-5496

## EUNICE SAHLE, Chair

## Introduction

The Department of African, African American, and Diaspora Studies is a transnational program that emphasizes the histories, cultures, cultural linkages, and contemporary sociopolitical and economic realities of Africa and the African diasporas in the context of a globalizing world. Included on our faculty are award-winning teachers and recognized scholars whose work in and out of the classroom covers all major regions of Africa, the United States, and increasingly other parts of the Atlantic African Diaspora, including the Caribbean and Latin America. We approach these areas of study from multiple perspectives, and as an interdisciplinary program, our faculty are trained in the fields of anthropology, film, history, international development studies, law, linguistics, music, and political science.

Prospective majors should contact the department's director of undergraduate studies.

## African, African American, and Diaspora Studies Major, B.A.-African Studies Concentration

## Core Requirements

- AAAD 101
- AAAD 130
- AAAD 395 (in the African studies concentration; with permission of instructor and director of undergraduate studies, a student may take this course in the African American and Diaspora studies concentration)
- AAAD 487
- Six additional courses apportioned in the following way:
- One African American and Diaspora studies, or transnational, course chosen from AAAD 130-184, 230-284, 286, 298, 330384, 385, 430-484, 485, 488, 489
o As many as three courses chosen from AAAD 100-129, 200-229, 300-329, 386, 387; LGLA 404; SWAH 404, 405, 406; WOLO 404
o At least two courses chosen from AAAD 400-429, 485
${ }^{\circ}$ One course may come from this list, so long as students still take two courses at or above the 400 level in the African studies concentration: ARTH 155, 255; ANTH 238; FREN 505; GEOG 268; HIST 130, 301, 535; PORT 385; WMST 237, 283, 289
First-year seminars do not count toward the major.


## Recommended

- Three semesters of one African language (either to fulfill the foreign language Foundations requirement or in addition to it) are recommended for the concentration in African studies. The following African language courses currently are offered:
o Arabic: ARAB 101, 102, 203, 204, 305, 306
o Chichewa: CHWA 401, 402, 403
o Lingala: LGLA 401, 402, 403, 404
${ }^{\circ}$ Kiswahili: SWAH 112, 234, 401, 402, 403, 404, 405, 406
- Wolof: WOLO 401, 402, 403, 404


## African, African American, and Diaspora Studies Major, B.A.-African American and Diaspora Studies Concentration

## Core Requirements

- AAAD 101
- AAAD 130
- AAAD 395 (in the African American and Diaspora concentration; with permission of instructor and director of undergraduate studies, a student may take this course in the African studies concentration)
- AAAD 487
- Six additional courses apportioned in the following way:
- One African studies or transnational course chosen from AAAD 100-129, 200-229, 300-329, 386, 387, 400-429, 485
o As many as three courses chosen from AAAD 130-184, 230284, 286, 298, 330-384, 385
o At least two courses chosen from AAAD 430-484, 485, 488, 489
o One course may come from this list, so long as students still take two courses at or above the 400 level in the African American and Diaspora studies concentration: ANTH/FOLK 130; COMM 437, 662; DRAM 287; ENGL 367, 368, 369, 472; HIST 378, 380; PHIL 274; POLI 274, 419; PSYC 467; RELI 580; SOCI/WMST 444; WMST 285, 553
First-year seminars do not count toward the major.


## African Studies Minor

The undergraduate minor in African studies consists of 15 hours.

- AAAD 101
- Four additional courses chosen from the following list: AAAD courses at or above the 100 level whose last two digits are from 00 to 29, and African studies courses whose last two digits are from 85 to 99; LGLA 404; SWAH 404, 405, 406; WOLO 404


## African American and Diaspora Studies Minor

The undergraduate minor in African American and Diaspora studies consists of 15 hours.

- AAAD 130
- Four additional AAAD courses at or above the 100 level whose last two digits are from 30 to 84, and African American and Diaspora studies courses whose last two digits are from 85 to 99


## Advising

Upon declaring the major in African, African American, and Diaspora studies, students should consult with the director of undergraduate studies, who is also available to students at other times in their academic careers.

## Special Opportunities in African, African American, and Diaspora Studies

Honors in African, African American, and Diaspora Studies

Students with an overall grade point average of 3.3 or higher at the beginning of their senior year and who have already completed AAAD 395 are encouraged to apply for candidacy for the B.A. with honors. Students interested in undertaking honors research and the writing of a thesis should consult with the department's honors coordinator no later than in their junior year to discuss the process of applying to the program. Approved candidates will enroll in AAAD 691 H in the fall semester of their senior year. Upon completion of AAAD 691 H and with the approval of the student's thesis director and the department's honors coordinator, students will enroll in AAAD 692 H in the spring semester. AAAD 691 H can count as one of the five courses students must take in their concentration of study.

## Departmental Involvement

The department works closely with two important research units on campus: the African Studies Center and the Institute for African American Research. These two units provide an opportunity for the advanced study of issues concerning Africa and its diaspora. Two student organizations of note are the Black Student Movement (BSM) and the Organization for African Students' Interests and Solidarity (OASIS). The Sonja Haynes Stone Center for Black Culture and History is a resource for students in terms of programming and a library on African, African American and Diaspora studies.

## Study Abroad

There are several opportunities for study abroad. Honors Carolina offers a Burch seminar in Cape Town, South Africa, during the fall semester. The department runs summer study abroad programs in Dakar (Senegal) and Durban (South Africa).

## Undergraduate Research

The department encourages undergraduate research. The required seminar for majors (AAAD 395) introduces students to research skills and methods in African, African American, and Diaspora studies. The honors program (AAAD 691H and AAAD 692H) offers qualified students the opportunity to engage in a yearlong process of research and writing.

## Graduate School and Career Opportunities

The skills and perspectives of African, African American, and Diaspora studies provide an excellent background for students considering careers in international development, education, business, government, or diplomacy. Students go on to a variety of managerial, teaching, and research positions. Other careers for which the major is excellent preparation include law, communication, social work, community development, and public administration.

## Faculty

## Professors

Kenneth Janken, Georges Nzongola-Ntalaja, Bereket H. Selassie.

## Associate Professors

Kia Caldwell, Perry Hall, Reginald Hildebrand, Michael Lambert, Margaret Lee, Charlene Regester, Eunice Sahle.

## Assistant Professors

Lydia Boyd, David Pier, Ronald Williams II.

## Lecturers

Barbara Anderson, Alassane Fall, Donato Fhunsu, Alphonse
Mutima, Robert Porter.

## Contact Information

Eunice Sahle, Chair, CB\# 3395, 109 Battle Hall, (919) 966-5496, fax (919) 962-2694.

Kenneth Janken, Director of Undergraduate Studies, krjanken@ email.unc.edu, (919) 962-1519.

## Courses

The department has adopted the following numbering system for all AAAD courses numbered above 99:

- Courses ending in 00 to 29: African studies
- Courses ending in 30 to 59: African American studies
- Courses ending in 60 to 84: African Diaspora outside the United States
- Courses ending in 85 to 99 : Courses that cross geography; dedicated courses whose numbers are reserved by the University Registrar, such as independent studies and internships. Foreign language courses have their own subject code: Kiswahili (SWAH), Wolof (WOLO), Lingala (LGLA), and Chichewa (CHWA).


## AAAD-African, African American, and Diaspora Studies

AAAD 50 First-Year Seminar: Defining Blackness (3). Blackness and whiteness as racial categories have existed in the United States from the earliest colonial times, but their meanings have shifted and continue to shift. Over the semester we will attempt to define and redefine blackness in the United States.

AAAD 51 First-Year Seminar: Masquerades of Blackness (3). This course is designed to investigate how race has been represented in cinema historically with an emphasis on representations of race when blackness is masqueraded.
AAAD 52 First-Year Seminar: Kings, Presidents, and Generals: Africa's Bumpy Road to Democracy (3). An introduction to Africa's modern history and politics with a special focus on types of leadership involved in governmental institutions.

AAAD 89 First-Year Seminar: Special Topics (3). Special topics course: content will vary each semester.

AAAD 101 Introduction to Africa (3). Introduction to the study of the African continent, its peoples, history, and contemporary problems of development in a globalized world, including a survey of the African past, society and culture, and contemporary political, economic, and social issues.

AAAD 130 Introduction to African American and Diaspora
Studies (3). The course tracks the contours of life, societies,
cultures, and history in the Atlantic African Diaspora from origins in Atlantic Africa to the present. Emphasis on forces that have created African American and African Diaspora peoples in North America, South America, and the Caribbean.

AAAD 159 The History of the Black Church and Social Change
(3). A survey of the historical development of the black church in America, beginning during the antebellum period and continuing to the present day.

## AAAD 200 Gender and Sexuality in Africa (WMST 200)

(3). Introduction to the study of gender and sexuality in African societies. Theoretical questions relating to the cross-cultural study of gender will be a primary focus. Topics include historical perspectives on the study of kinship and family in Africa and the impact of colonialism and other forms of social change.
AAAD 201 The Literature of Africa (3). An introduction to African literature. In addition to substantive themes, we will identify major stylistic characteristics of modern African literature with particular attention to the ways in which African language, literature, and traditional values have affected modern writing.

AAAD 202 West Africa through Visual Art, Literature, and Film (3). This course introduces students to the rich, complex, and diverse pictorial, oral, and written productions by West African artists, novelists, poets, and singers, through readings, music, and films. It stimulates students' critical thinking skills as they reflect on aspects of West African societies and cultures.

## AAAD 210 African Belief Systems: Religion and Philosophy

 in Sub-Saharan Africa (3). The relationship between religion and society in sub-Saharan Africa is explored through ethnographic and historical readings. The Nilotic, Bantu, and West African religious traditions are examined in detail.AAAD 211 African Art and Culture (3). Introduction to the plastic arts of sub-Saharan Africa through study of their relationship to the human values, institutions, and modes of aesthetic expression of select traditional and modern African societies.
AAAD 212 Africa in the Global System (3). A seminar that critically examines the historical and theoretical basis of the state's centrality in economic development in African countries. Relevant case studies drawn from sub-Saharan Africa.

AAAD 214 Ethnography of Africa (3). By examining ethnographic texts, students will learn about topics in African studies such as systems of thought, aesthetics, the economy, politics, social organization, identity, and the politics of representation.
AAAD 231 African American History since 1865 (3). Special emphasis on postemancipation developments.

AAAD 232 Black Women in America (WMST 266) (3). An examination of the individual and collective experiences of black women in America from slavery to the present and the evolution of feminist consciousness.

AAAD 237 African American Art Survey (ARTH 287) (3). See ARTH 287 for description.
AAAD 240 African American Politics (POLI 240) (3). A survey
of African American political development from emancipation to the present. The course examines the dynamics of minority group politics with African Americans as the primary unit of analysis. Students consider African American politics in domestic and global contexts and issues of local, regional, national, and international relevance.

AAAD 250 The African American in Motion Pictures: 1900 to the Present (3). This course will analyze the role of the African American in motion pictures, explore the development of stereotypical portrayals, and investigate the efforts of African American actors and actresses to overcome these portrayals.

AAAD 252 Blacks in the West (3). Blacks in the West is a survey course that examines the origins, migration, and development of African descended peoples in the United States west of the Mississippi River.

AAAD 254 Blacks in North Carolina (3). This course is an overview of the black experience in North Carolina with special emphasis on Chapel Hill and Wilmington.

AAAD 257 Black Nationalism in the United States (3). This course traces the evolution of black nationalism, both as an idea and a movement, from the era of the American Revolution to its current Afrocentric expressions.

AAAD 258 The Civil Rights Movement (3). An examination of the struggle by black Americans for social justice since World War II and of the systemic responses.

AAAD 259 Black Influences on Popular Culture (3). This course examines the influence of African American expressive culture, particularly popular music, on American mainstream culture.

AAAD 260 Blacks in Latin America (3). The majority of people of African descent in this hemisphere live in Latin America. This course will explore various aspects of the black experience in Latin America.

AAAD 278 Black Caribbeans in the United States (3). This course will look at the experiences of black Caribbean immigrants in the United States and the activities in which they participate, as well as their shifting senses of their identities.

AAAD 284 Contemporary Perspectives on the African Diaspora in the Americas (3). An interdisciplinary survey of Africandescendant communities and the development and expression of African/black identities in the context of competing definitions of diaspora.

## AAAD 286 The African Diaspora in the Colonial Americas,

 1450-1800 (3). Explores the experiences of Africans in European colonies in locations such as colonial Mexico, Brazil, the Caribbean, and mainland North America. Lecture and discussion format. The major themes of inquiry include labor, law, gender, culture, and resistance, exploring differing experiences based on gender, location, and religion.AAAD 290 Topics in African, African American, and Diaspora Studies (3). Subject matter will vary by instructor. Course description available from department office.

AAAD 293 Individual Internships for Majors and Minors (1-3). Students work internships and develop, in conjunction with a faculty supervisor, an academic project relating to their internship experience. Permission of the director of undergraduate studies required.

AAAD 298 Blacks in British North America to 1833 (3). This course looks at blacks in the British world to 1833, with particular attention on the 13 colonies and the lands that would eventually form the Dominion of Canada.

AAAD 300 Cultures of Health and Healing in Africa (3). This course explores contemporary economic, political, and social factors influencing the health and welfare of African peoples. Emphasis is placed on understanding the cultural perspectives that shape nonWestern experiences of health, disease, and notions of spiritual and physical well-being. Readings draw from the fields of anthropology, history, and public health.
AAAD 301 Contemporary China-Africa Relations (3). The course examines the contemporary relationship between China and Africa. This includes China and Africa's history; China's economic, trade, strategic, and foreign policy towards Africa; as well as the relationship between China and the Africans who live and work there.

AAAD 307 21st-Century Scramble for Africa (3). Examines the 21st-century global competition for African resources and compares it to the 19th-century "scramble for Africa." Major actors include the European Union, the United States, and China.
AAAD 315 Political Protest and Conflict in Africa (3). This course surveys contemporary forms of political conflict and protest in Africa. The nature, causes, and consequences of these conflicts will be examined.

AAAD 316 Policy Problems in Africa (3). A course on policy making in African states concerning development and/or other issues.

AAAD 318 Politics of Cultural Production in Africa (3). Explores the role that the cultural realm plays in legitimizing, reproducing, resisting, and uncovering dominant structures of power in Africa.

AAAD 319 African Masquerade and Ritual (ANTH 343, ARTH 353) (3). See ARTH 353 for description.

AAAD 320 Music of Africa (3). An introduction to African music new and old, focusing on the continent's distinctive techniques and concepts, and on its musical interactions with the rest of the world. The politics of music making in various historical settings will be explored. Prior musical experience is helpful, but not required.

## AAAD 330 20th-Century African American Art (ARTH 387)

 (3). See ARTH 387 for description.AAAD 331 African America: Contemporary Issues (3). This course will allow students to research, analyze, and engage pressing political, economic, and social issues confronting black people in North America and elsewhere in the diaspora.
AAAD 332 Remembering Race and Slavery (3). The course provides an examination of the ways that the past plays out in the present. Specifically this course examines memorials, monuments,
and museums that remember and reinvent slavery and race in the United States and throughout the rest of the Diaspora.

AAAD 333 Race and Public Policy in the U.S. (POLI 333)
(3). Exploration of the relationship between race and public policy in the U.S. Primary focus on African Americans, but other racial groups also studied. Key areas include reproductive justice, health care, employment, labor, welfare, education, housing, environmental justice, policing, criminalization, foreign policy, immigration, and war.

AAAD 334 Performing African American History (3). Taking an issue of current or historic importance to African American communities, students conduct archival research and collect and/ or analyze oral histories and work to create a documentary play that will be publicly performed.

AAAD 340 Diaspora Art and Cultural Politics (3). Examines the sociopolitical dimensions of African Diaspora art and culture with a focus on African Americans in the 20th century.

AAAD 341 Law and Society (3). This course explores the intersection of law and societal developments drawing from the disciplines of history, political science, anthropology, feminist legal studies, and constitutional law. The themes of the course will vary depending on the training, research interests, and geographical concentration of the faculty teaching the course.

AAAD 356 The History of Hip Hop Culture (3). Examines the emergence and impact of Hip Hop music and culture and its broad influence in mainstream culture, as a global phenomenon and as a vehicle embodying formative ideas of its constituent communities.

AAAD 385 Emancipation in the New World (HIST 371) (3). See HIST 371 for description.

AAAD 386 Comparative Studies in Culture, Gender, and Global Forces (WMST 386) (3). Prerequisites, AAAD 101 and 130. Examines participatory development theory and practice in Africa and the United States in the context of other intervention strategies and with special attention to culture and gender

AAAD 387 HIV/AIDS in Africa and the Diaspora (3). This course explores the history and contemporary politics of HIV/AIDS in African communities and across the Diaspora. The differing trajectories of the epidemic on the continent, in the West, and in the Caribbean and Latin America will be explored.

AAAD 395 Undergraduate Research Seminar (3). Permission of the instructor for nonmajors. Subject matter will vary with each instructor. Each course will concern itself with a study in depth of some problem in African, African American, or diaspora studies.

AAAD 396 Independent Studies (3). Permission of the director of undergraduate studies. Independent study projects defined by student and faculty advisor. Majors only.

AAAD 400 The Challenges of Democratic Governance in Africa (3). An in-depth examination of trends and theories on democratic governance since the end of the Cold War, together with the implications of these trends and theories for Africa.
AAAD 401 Ghanaian Society and Culture (3). This course examines the societies, cultures, and history of Ghana. Emphasis
on the many forces converging to shape the lives of West African peoples, with a focus on Ghana. This course also offers opportunities to assess issues arising from Ghana's role in the slave trade to its postcolonial condition.

AAAD 402 African Media and Film: History and Practice (3). This course explores forms of filmic and photographic representation of and by Africans. An introduction to key concepts in social theory and their application to the field of media studies and ethnography is a primary focus.

AAAD 403 Human Rights: Theories and Practices in Africa (3). This course explores major conceptual debates in the field of human rights. Further, it examines human rights practices and struggles in selected countries in Africa.

AAAD 404 Music of African Diasporas (3). An exploration of musical articulations of African diasporic identity focusing on aesthetics, social fields of production, and the historical development of the diaspora concept around music.

AAAD 405 Contemporary African Art (ARTH 488) (3). See ARTH 488 for description.

AAAD 412 Regional Seminar in African Studies (3). Seminar focuses on history, politics, and economic development challenges of a single region or major country of the African continent, with emphasis on contemporary issues. Region, country, and topics vary by semester and instructor.
AAAD 414 Senegalese Society and Culture (3). This course provides an overview of Senegalese culture through movies, literary works, and scholarly books and articles. The course examines the geography, population, ethnic composition, thoughts and religious beliefs, arts and music, polygamy, status of women, and the impact of the tariqas or Sufi orders on people's daily lives.

AAAD 419 African Studies Colloquium (3). This course will equip students to analyze critically cutting-edge issues concerning Africa today through readings, lectures, and research. For junior/ senior majors and students with interest in Africa.

AAAD 421 Introduction to the Languages of Africa (3). This course is an introduction to the languages of Africa. No linguistics background is required. Topics include classification, characteristic linguistic features of Africans languages, and their role in their respective societies.

AAAD 430 African American Intellectual History (3). An examination of the principal intellectual trends in black life during the 19th and 20th centuries as well as the life and work of the intelligentsia.

AAAD 431 DuBois, Howard Thurman, and Malcolm X (3). Examines the ideas of the scholar W. E. B. DuBois, theologian Howard Thurman, and political theorist Malcolm X. Major issues will be conceptualized from the distinct perspectives represented by those leaders.

## AAAD 432 Vernacular Traditions in African American Music (FOLK 610) (4). See FOLK 610 for description.

AAAD 449 Black Women in Cinema: From the Early 1900s to the Present (3). This course interrogates the diverse representations
that black women personified on screen, investigates intersections between their off-screen lives and on-screen images, and explores what and how they contributed to the cinema industry. This course is a theoretical, critical, and historical examination of the black woman's cinematic experience.
AAAD 450 The Harlem Renaissance (3). This course explores outstanding themes of the Harlem Renaissance through readings, prints and photographs, lectures, and class discussion.

AAAD 451 Orality, Literacy, and Cultural Production: African Americans and Racial Modernity (3). Examines the divide between literacy- and orality-based modes of self-expression and cultural production, and the effects of this fault line on the African American struggle for inclusion and self-definition in the United States.

AAAD 460 Race, Culture, and Politics in Brazil (3). Examines race, culture, and politics in Brazil from historical and contemporary perspectives. Focuses on dynamics of race, gender, class, and nation in shaping Brazilian social relations.

AAAD 485 Black Atlantic Crosscurrents (3). This course explores theoretical issues concerning historical, cultural, sociopolitical, and intellectual formations, connections, and movements between Africa and its Atlantic diaspora.
AAAD 486 Africa in the American Imagination (ARTH 453)
(3). See ARTH 453 for description.

AAAD 487 Intellectual Currents in African and African Diaspora Studies (3). Prerequisites, AAAD 101 and 130. Permission of the instructor for students lacking the prerequisites. In this seminar students will examine primary documents of engaged scholarship written by Africans and peoples of African descent in the Americas, Europe, and elsewhere in the African Diaspora.
AAAD 488 Human Rights and Democracy in African Diaspora Communities (3). This course examines how questions of democracy and human rights have been conceptualized in African Diaspora communities in the Americas and Europe.

AAAD 489 African Diaspora Theory and History (3). This course examines the cultural and political formation of the African Diaspora in the Americas and Europe from the 15th century to the present. Course materials focus on the development of communities in Western Europe, the Caribbean, Central America, and South America.

AAAD 491 Theorizing Race (3). This course examines the evolution, transformation, and sociopolitical implications of the concept of race, with particular emphasis on blackness and whiteness in the United States.

AAAD 691H Honors Research I (3). Permission of the department. Beginning of mentored research on an honors thesis. Required of all candidates for graduation with honors in African, African American, and Diaspora studies.

AAAD 692H Honors Research II (3). Permission of the department. Completion of an honors thesis under the direction of a member of the faculty. Required of all candidates for graduation with honors in African, African American, and Diaspora studies.

## CHWA-Chichewa

CHWA 401 Elementary Chichewa I (3). The course introduces the essential elements of the Chichewa language. Emphasis is on speaking and writing grammatically acceptable Chichewa and on aspects of central African culture.
CHWA 402 Elementary Chichewa II (3). Prerequisite, CHWA 401. Emphasis is on speaking and writing grammatically acceptable Chichewa to a proficiency level that will enable the student to live among the Chichewa-speaking people of central southern Africa.

CHWA 403 Intermediate Chichewa III (3). Prerequisite, CHWA 402. Continued instruction in Chichewa following the materials introduced in CHWA 401 and 402.

## LGLA-Lingala

LGLA 401 Elementary Lingala I (3). Introduces the essential elements of Lingala structure and vocabulary and aspects of African cultures. Aural comprehension, reading, speaking, and writing are stressed.

LGLA 402 Elementary Lingala II (3). Prerequisite, LGLA 101. Continues the introduction of the essential elements of Lingala structure and vocabulary and aspects of African cultures. Aural comprehension, reading, speaking, and writing are stressed.

LGLA 403 Intermediate Lingala III (3). This course increases language learning ability, communicative proficiency, and proficiency in the cultures of the Lingala-speaking people.

LGLA 404 Intermediate Lingala IV (3). This course reinforces language learning ability, communicative proficiency in the culture of the Lingala-speaking people through gradual exposure to more challenging tasks, with emphasis on poetry and prose reading, and creative writing.

## SWAH-Kiswahili

SWAH 112 Intensive Kiswahili 1-2 (6). The 112 course covers the material in the SWAH 401 and 402 sequence in a single semester.

SWAH 234 Intensive Kiswahili 3-4 (6). Prerequisite, SWAH 112 or 402 . The course covers the material in the SWAH 403 and 404 sequence in a single semester.

SWAH 401 Elementary Kiswahili I (3). Introduces the essential elements of Kiswahili structure and vocabulary and aspects of African cultures. Aural comprehension, reading, speaking, and writing are stressed.
SWAH 402 Elementary Kiswahili II (3). Prerequisite, SWAH 401. Continues the introduction of essential elements of Kiswahili structure and vocabulary and aspects of African cultures. Aural comprehension, reading, speaking, and writing are stressed.

SWAH 403 Intermediate Kiswahili III (3). Third-semester Kiswahili, designed to increase reading and writing skills. Introduction of literature. Aural comprehension and speaking skills stressed.

SWAH 404 Intermediate Kiswahili IV (3). Prerequisite, SWAH 403. Fourth-semester Kiswahili, designed to increase reading and writing skills. Introduction of more compound structures.

Emphasis on literature, including drama, prose and poetry, and creative writing. Aural comprehension and speaking skills stressed.

SWAH 405 Advanced Kiswahili V (3). Prerequisite, SWAH 404. This course is offered to students who have completed SWAH 404. It is taught in Swahili and aims at enabling students with grammatical and communicative competence.
SWAH 406 Advanced Plus Kiswahili VI (3). Prerequisite, SWAH 405. Permission of the instructor for students lacking the prerequisite. This course reinforces and expands the grammatical, cultural, and communicative competence achieved in SWAH 405.

## SWAH 408 Swahili across the Curriculum Recitation (1).

Prerequisite, SWAH 403. Permission of the instructor for students lacking the prerequisite. Swahili recitation offered in conjunction with selected content courses. Weekly discussion and readings in Swahili relating to attached content courses.

## WOLO-Wolof

WOLO 401 Elementary Wolof I (3). This course enables students who have no previous experience in Wolof to develop speaking, listening and understanding, writing, and reading skills in Wolof. Students will also be exposed to Wolof culture.
WOLO 402 Elementary Wolof II (3). This course is for students who have already acquired the basics of Wolof to reinforce their ability to learn speaking, listening and understanding, writing, and reading Wolof. Evidence of basic knowledge of Wolof is required.

WOLO 403 Intermediate Wolof III (3). This course is intended for learners who have already acquired Wolof proficiency in WOLO 401 and 402. It increases communicative proficiency and language learning ability as well as proficiency in cultures of the Wolof people.
WOLO 404 Intermediate Wolof IV (3). Prerequisite, WOLO 403. Permission of the instructor for students lacking the prerequisite. This course reinforces students' communicative and cultural skills via gradual exposure to increasingly challenging tasks. Reading poetry and prose, and introduction to creative writing will be stressed.

## Department of American Studies <br> amerstud.unc.edu

204 Greenlaw Hall, CB\# 3520; (919) 962-5481
BERNARD HERMAN, Chair

## Introduction

The Department of American Studies is one of the longeststanding interdisciplinary programs at UNC-Chapel Hill, with roots in the study of folklore and the American South going back to the 1920s. A formal program in American studies was established in 1968, and exciting additions in American Indian and indigenous studies, Southern studies, and international American studies have been added in the past two decades. The Department of American Studies has a tradition of vigorous
teaching and an innovative curriculum that offers stimulating opportunities to study the United States and the diversity and influence of its peoples, institutions, texts, performances, and places. In addition, each of our areas of major concentration incorporates global and comparative perspectives that extend our reach beyond the geographical boundaries of the United States. The department's commitment to interdisciplinary approaches empowers students to value the nation's complexity by engaging with a variety of historical, literary, artistic, political, social, cultural, legal, racial, ethnic, and ethnographic perspectives within and beyond the United States. American studies majors graduate with a comprehension of the dynamics of American culture that prepares them to make a responsible and critical difference in the variety of professions they choose to pursue.

The American studies major has within it five areas, each with its own distinct degree requirements.

## American Studies Major, B.A.

## Core Requirements

The major in American studies consists of nine courses, with one from each of the following categories (courses listed more than once can be counted for only one category):

- Introduction (one of the following): AMST 101, 334, or 335
- Approaches: AMST 201 or 202
- Topics: At least two AMST courses numbered above 202 (not including independent study or honors thesis research)
- Literature (one of the following): AMST 246, 256, 257, 290, 338, 360, 365, 370, 371, 440, 685; COMM 561; ENGL 270, $343,344,345,347,348,367,368,369,373,374,375,443$, 444, 445, 446, 472, 644, 673; RELI 240
- Ideas and Traditions (one of the following): AAAD 159, 257, 258, 430, 431; AMST 255, 269, 277, 291, 334, 335, 337, 384, 386, 387, 392, 394; COMM 372; ECON 330, 430; EDUC 441; HIST 239, 355, 356, 364, 365, 368, 369, 372, 373, 375, 561, 563, 564, 565, 566, 581, 582, 584, 589, 622, 624; JOMC 448; PHIL 228, 274, 428, 473; PLCY 220; POLI 200, 202, 206, 274, 280, 410, 411, 412; RELI 241, 282, 338, 340, 441, 442, 443; SOCI 468; WMST 375, 560
- Expressive Arts and Popular Culture (one of the following): AAAD 250, 259, 284, 340, 356; AMST 266, 268, 336, 340, 370, 371, 375, 466, 482, 483, 485, 487, 488, 489, 498; ARTH 161, 259, 287, 288, 289, 387, 481; COMM 430, 550, 573, 577; DRAM 287, 292, 487, 488; ENGL 284; FOLK 560, 610; HIST 125, $363,571,625,671$; MUSC 143, 144, 145, 147, 281; RELI 236
- Regionalism, Transnationalism, and the Public Sphere (one of the following): AAAD 252, 254, 278, 284, 385, 485; AMST 210, 211, $259,275,277,285,350,378,385,387,394$ and 394L, 398, 410, 486, 488; ARTH 453, 485, 487, 556; ASIA 452; COMM 374, 437, 573, 576; ENGL 267, 270, 271, 315, 371, 475, 673; FOLK 340; GEOG 228, 260, 261, 262, 430, 454; HIST 232, 233, 242, 278, 281, 358, 366, 367, 373, 374, 379, 380, 534, 568, 570, 574, 577, 586, 587; JOMC 242; PLAN 550, 585; PLCY 349, 361, 455; POLI 231, 418, 443; RELI 345; SOCI 115, 468
- Ethnicity and Diversity (one of the following): AAAD 240, 257, 286, 331, 450; AMST 231, 233, 234, 235, 246, 253, 258, 336, 337, 339, 360, 392, 440, 486; AMST/ANTH 203; ANTH 206,

230, 250; ARTH 387, 485, 554; ASIA 350, 455; COMM 487,
576; DRAM 297; EDUC 510; ENGL 267, 270, 271, 289, 360, 361, 364, 371, 472; FOLK 610; HIST 232, 241, 358, 376, 377, 378, 380, 569, 576, 589; JOMC 342; POLI 217, 218, 220, 419; PSYC 467, 503; RELI 141, 142, 242, 243, 248, 342, 423, 445, 540, 580; SLAV 469; SPAN 335; WMST 233, 368, 553 At the core of the undergraduate major in American studies are two required courses in interdisciplinary cultural analysis (see above). Majors also choose at least two advanced seminars in the department that focus readings and research on topics representative of both the talents of its faculty members and emergent directions in American studies scholarship. For the remainder of their requirements, majors select a series of relevant electives offered by over a dozen different University departments and curricula. These courses deepen majors' interdisciplinary awareness of American traditions, institutions, literature, and arts as well as expose them to a diversity of American experiences and perspectives.

## American Studies Major, B.A.-American Indian and Indigenous Studies Concentration

## Core Requirements

The concentration in American Indian and indigenous studies consists of nine courses. At least one of the courses must be at the 300-level or above.

- Introduction: AMST/HIST 110
- Approaches: AMST/ANTH 203
- History (at least two of the following): AMST 337, 339; AMST/ ANTH/HIST 234; AMST/HIST 231, 233, 235; HIST 232; HIST/WMST 576
- Social Science (at least two of the following): AMST/ANTH/ HIST 234; ANTH 206, 250, 252, 451; ANTH/FOLK 230
- Expressive Culture (at least two of the following): AMST 246, 336, 338, 340; SPAN 348
- One other course drawn from the above lists or approved by the director of undergraduate studies and the coordinator of the American Indian and indigenous studies concentration. Students may choose a course on indigenous peoples outside of the presentday borders of the United States to fulfill this requirement. Petition and approval required.
The American Indian and indigenous studies concentration provides a meaningful grounding in the histories, cultures, and contemporary experiences of peoples indigenous to North America, as well as their encounters with settler states. The curriculum increasingly provides opportunities for students to gain a hemispheric perspective that includes the histories, cultures, and contemporary experiences of the indigenous peoples of the Americas.


## American Studies Major, B.A.-Folklore Concentration

## Core Requirements

The concentration in folklore consists of nine courses.

- Introduction: ANTH/ENGL/FOLK 202
- Four core content courses from the following list: AAAD 432/ FOLK 610; AMST 266, 275, 284, 340, 350, 466, 482, 485, 489; AMST/FOLK 375; AMST/JWST 486; AMST/JWST/WMST 253; ANTH/FOLK 334, 340, 675; ANTH/FOLK/LING 484; COMM/FOLK/HIST/WMST 562; ENGL/FOLK 487; FOLK 550, 560, 690; FOLK/HIST 571, 670; HIST 671; MUSC 144
- Two ethnographic-intensive courses from the following list (the same course may not be taken to satisfy two different concentration requirements): AAAD 432/FOLK 610; AMST 275, 350, 466, 482; ANTH 477; ANTH/FOLK 675; ANTH/ FOLK/LING 484; ENGL/FOLK 487; FOLK 550; FOLK/HIST 571; WMST 230. (AMST 396 or FOLK 690 may be counted if appropriate with the permission of the director of undergraduate studies.)
- Two other AMST courses numbered 101 or above The concentration in folklore emphasizes the study of creativity and aesthetic expression in everyday life. The study of folklore focuses attention on those expressive realms that communities infuse with cultural meaning and through which they give voice to the issues and concerns they see as central to their being. These realms are often deeply grounded in tradition, yet as community self-definitions develop in light of shifting social, political, and economic realities, community-based artistry likewise evolves. Folklore thus moves beyond the study of the old and time-honored to explore emergent meanings and cultural forms. The primary vehicle for the exploration of contemporary folklore is ethnographic field work, the real-world study of people's lives in everyday settings, grounded in conversation and participatory engagement.


## American Studies Major, B.A.-International American Studies Concentration

## Core Requirements

The concentration in international American studies consists of nine courses from the following categories:

- Introduction (one of the following): AMST 101, 334, or 335
- Approaches: AMST 201 or 202
- America in the World (at least one of the following): AAAD 386; AMST 259, 277, 378, 387; CMPL 379; HIST 212, 213, 242, 281, 373, 570, 577; POLI 231, 443
- The World in America (at least one of the following): AAAD 278, 284, 286, 340, 385, 485; AMST 258, 685; ARTH 453, 487; ASIA 350, 452, 455; EDUC 510; ENGL 265, 361, 364, 365; GEOG 430, 452; HIST 241, 278, 574; PLCY 349, 455; POLI 450; RELI 345, 423, 445, 580; SLAV 469; SPAN 335; WMST 211, 233
- Students may elect to complete up to four approved American culture courses taken at an American studies international partner institution or other UNC-approved study abroad program. These courses should deal primarily with the United States, or with the interaction between American culture and one or more other cultures, or with the impact within the United States of other cultures. Courses must be approved by the American studies chair or director of undergraduate studies prior to beginning the study
abroad experience.
- If fewer than four courses are taken abroad, the student should increase the number of courses taken at UNC-Chapel Hill from the America in the World and The World in America lists above, to reach a total of nine courses in the major.
The major concentration in global American studies maps the reach of American cultures across political and geographical boundaries and through myriad exchanges and intersections. It encourages an engagement with "the global" that extends from the local and regional to the national and transnational, and back again. This major concentration aims to situate the study of American culture in relation to both the recent effects of globalization and in recognition of the always-global character of "America."


## American Studies Major, B.A.-Southern Studies Concentration

## Core Requirements

The concentration in Southern studies consists of nine courses, with one from each of the following categories (courses listed more than once can be counted for only one category):

- Introduction (one of the following): AMST 210 or 211
- One AMST course 101 or above other than those that count in the categories below.
- Core content courses (at least two of the following): AMST 210, 211; AMST/FOLK 488; ANTH/FOLK 340; COMM 374; ENGL 373, 673; FOLK 560, 587; FOLK/HIST 571; GEOG 261; HIST 586, 587; JOMC 458; PLCY 349; SOCI 115
- Thematic courses (at least five other courses; choose at least two from each of the following two lists):
${ }^{\circ}$ History and Social Sciences: AAAD 159, 254, 258, 385; AMST 259, 275, 350, 394, 398, 486; AMST/FOLK 488; ANTH 121; GEOG 261, 262; HIST 232, 278, 366, 367, 376, 377, 378, 565, 568, 569, 586, 587, 670, 671; JOMC 458; PLCY 349; POLI 419; SOCI 115
o Art and Expressive Culture: AAAD 237/ARTH 287, AAAD 330/ARTH 387; AAAD 432/FOLK 610; ANTH/ENGL/ FOLK 202; ANTH/FOLK 340; ANTH/FOLK/RELI 342; ARTH 487; COMM 374; ENGL 367, 368, 371, 373, 374, 375, 475, 673; FOLK 560, 587; FOLK/HIST 571; MUSC 144, 145; RELI 141
The Southern studies concentration focuses critical attention on the history, society, culture, and expression of the American South with its regional, state, and local distinctiveness. It allows students to examine the American South from many disciplinary perspectives, including anthropology, art, architecture, communication studies, cultural tourism, ecology, environment, folklife, foodways, geography, history, journalism, language, law, literature, material culture, myth and manners, music, oral history, politics, public health, religion, values, and more.


## American Studies Minor

The undergraduate minor in American studies consists of five courses in American studies, with courses chosen from each of the following categories (courses listed more than once can be counted
for only one category):

- Introduction (one of the following): AMST 101, 334, or 335
- Approaches: AMST 201 or 202
- Topics: Three AMST courses numbered above 202 (not including independent study or honors thesis research)


## American Indian and Indigenous Studies Minor

The minor in American Indian and indigenous studies consists of five courses:

- Introduction: AMST/HIST 110
- History (at least one of the following): AMST 337, 339; AMST/ ANTH 203; AMST/ANTH/HIST 234; AMST/HIST 231, 233, 235; HIST 232; HIST/WMST 576
- Social Science (at least one of the following): AMST/ANTH/HIST 234; ANTH 206, 250, 252, 451; ANTH/FOLK 230
- Expressive Culture (at least one of the following): AMST 246, 336, 338, 340; SPAN 348
- One other course drawn from the above list or approved by the director of undergraduate studies and American Indian and indigenous studies concentration coordinator. Students may choose a course on indigenous peoples outside of the present-day borders of the United States to fulfill this requirement. Petition and approval required.
Students are strongly encouraged, though not required, to take AMST/ANTH 203 Approaches to American Indian Studies.


## Folklore Minor

The undergraduate minor in folklore consists of five courses:

- Introduction: ANTH/ENGL/FOLK 202
- Three core content courses from the following list: AAAD 432/ FOLK 610; AMST 266, 275, 284, 340, 350, 466, 482, 485, 489; AMST/FOLK 375; AMST/JWST 486; AMST/JWST/WMST 253; ANTH/FOLK 334, 340, 675; ANTH/FOLK/LING 484; COMM/FOLK/HIST/WMST 562; ENGL/FOLK 487; FOLK 550, 560, 690; FOLK/HIST 571, 670; HIST 671; MUSC 144
- One ethnographic-intensive course from the following list (the same course may not be taken to satisfy two different minor requirements): AAAD 432/FOLK 610; AMST 275, 350, 466, 482; ANTH 477; ANTH/FOLK 675; ANTH/FOLK/LING 484; ENGL/FOLK 487; FOLK 550; FOLK/HIST 571; WMST 230 (AMST 397 or FOLK 690 may be counted if appropriate with permission of the director of undergraduate studies.)


## International American Studies Minor

The minor in international American studies consists of five courses: - Introduction (one of the following): AMST 101, 201, 202, 334, 335

- America in the World (at least one of the following): AMST 259, 277, 378, 387; CMPL 379; HIST 212, 213, 242, 281, 373, 570, 577; POLI 231, 443
- The World in America (at least one of the following): AAAD 278, 286, 284, 340, 385, 485; AMST 258, 685; ARTH 453, 487; ASIA 350, 452, 455; EDUC 510; ENGL 265, 361, 364, 365; GEOG 430, 452; HIST 271, 278, 574; PLCY 349, 455; POLI 450; RELI 345, 423, 445, 580; SLAV 469; SPAN 335; WMST 211, 233
- Students may elect to complete up to two approved American culture courses taken at an American studies international partner institution or other UNC-approved study abroad program. These courses should deal primarily with the United States, or with the interaction between American culture and one or more other cultures, or with the impact within the United States of other cultures. Courses must be approved by the American studies chair or director of undergraduate studies prior to beginning the study abroad experience.
- If fewer than two courses are taken abroad, the student should increase the number of courses from the America in the World and The World in America lists above, to reach a total of five courses in the minor.


## Southern Studies Minor

Students may minor in Southern studies by completing five courses, including AMST 210 or 211 and four other courses from the core content and thematic offerings listed under the Southern studies concentration.

## Advising

All majors and minors have a primary academic advisor in Steele Building. Students are strongly encouraged to meet regularly with their advisor and review their Tar Heel Tracker each semester. The department's director of undergraduate studies works with current and prospective majors and minors by appointment. Further information on courses, opportunities, and honors theses may be obtained from the department's Web site.

## Special Opportunities in American Studies

## Honors in American Studies

The American studies interdisciplinary major offers a two-course honors program: AMST 691H in the fall semester and AMST 692 H in the spring semester. The Folklore Program offers a twocourse honors program: FOLK 691 H in the fall semester and FOLK 692H in the spring semester. Students must propose their thesis and contract with a faculty advisor during the semester prior to the beginning of their senior year. For each semester of honors work, thesis students must submit a signed learning contract to the Department of American Studies during the registration period. During the two semesters devoted to honors work, students conduct individual research and prepare an honors thesis under the supervision of a faculty member. Students also will attend a weekly seminar at the discretion of the advisor. Students must maintain a 3.3 cumulative grade point average to be eligible. With the approval of the associate or the assistant dean for honors, students with a slightly lower average who have a reasonable expectation of meeting the requirement within one more semester may embark upon the honors thesis, understanding that if they do not attain the 3.3 standard they may continue the research project as independent study but are not eligible to graduate with honors or highest honors.

## Experiential Education

The Department of American Studies offers a seminar on Service

Learning in America (AMST 398) and offers credits for approved internship projects (AMST 493). Students have learned about American studies by serving the community in museums, schools, social agencies, and other cultural institutions.

## Study Abroad

The Department of American Studies encourages students to consider a semester or more of study abroad and has developed close relations with several American studies programs in different countries. Studying American experience in international contexts is an integral part of understanding the place and influence of the United States in the world. Student learning is enhanced by the perspectives gained by examining how American subjects are taught in universities around the globe as well as by encountering the international students who enroll in American studies courses in Chapel Hill. Study abroad offers students of folklore the opportunity to understand the rich vernacular and traditional cultures of other parts of the world from both a local and a comparative perspective. Students can receive American studies major credit for selected study abroad programs and are encouraged to make study abroad part of their academic plans. Study abroad courses can count toward the international American studies major or minor. Students interested in this experience should consult with the director of undergraduate studies or with the Study Abroad Office about international exchange programs sponsored by UNCChapel Hill.

## Undergraduate Awards

The department awards Julia Preston Brumley Travel Scholarships to help fund international travel and study abroad. The Peter C. Baxter Memorial Prize is awarded annually to the outstanding senior majoring in American studies.

## Undergraduate Research

The Department offers credit for AMST 396 Independent Study and FOLK 495 Independent Field Research. Majors can develop a two-semester honors thesis project (AMST 691H and 692H or FOLK 691 H and 692 H ) in consultation with an advisor. Students have received summer undergraduate research fellowships, earned research support and travel awards, and presented their work at the Annual Celebration of Undergraduate Research each spring.

## Graduate School and Career Opportunities

American studies is an excellent liberal arts major for students interested in graduate and professional school study. The major prepares students for graduate work in fields such as American history and literature. After receiving their baccalaureate degree, American studies majors consistently have been accepted in law and business schools, which are interested in students with a broad, interdisciplinary undergraduate background. American studies provides a solid basis for a variety of career choices, including public service, business, teaching, museum curation, and journalism. The folklore concentration and minor are a productive component of study for those preparing for graduate school in anthropology, communication studies, journalism, music, and folklore itselfincluding the master of arts in folklore at UNC-Chapel Hill—as well as for those planning careers in museum curation, public arts
presentation, and music production.

## Faculty

## Professors

Robert Allen, Elizabeth Engelhardt, Philip Gura, Bernard Herman, Sharon Holland.

## Associate Professors

Daniel Cobb, Marcie Cohen Ferris, Glenn Hinson, Timothy Marr, Patricia Sawin, Rachel Willis.

## Assistant Professors

Seth Kotch, Keith Richotte Jr., Michelle Robinson, Jenny Tone-Pah-Hote.

## Adjunct Professors

Daniel Anderson, W. Fitzhugh Brundage, Lawrence Grossberg, Minrose Gwin, Emily Kass, Michael Lienesch, Jocelyn Neal, Ruth Salvaggio.

## Adjunct Associate Professors

Kathleen DuVal, Jennifer Ho, Malinda Maynor Lowery, Eliza Richards, Jane Thrailkill, Anne Whisnant.

## Affiliated Faculty

William Andrews (English and Comparative Literature), Jan Bardsley (Asian Studies), Richard Cante (Communication Studies), Erin Carlston (English and Comparative Literature), Tyler Curtain (English and Comparative Literature), María DeGuzmán (English and Comparative Literature), Jean Dennison (Anthropology), Connie Eble (English and Comparative Literature), Rebecka Rutledge Fisher (English and Comparative Literature), Gregg Flaxman (English and Comparative Literature), David Garcia (Music), Laura Halperin (English and Comparative Literature), Reginald Hildebrand (African, African American, and Diaspora Studies), Jordynn Jack (English and Comparative Literature), Scott Kirsch (Geography), Valerie Lambert (Anthropology), Richard Marciano (School of Information and Library Science), Rosa Perelmuter (Romance Studies), Della Pollock (Communication Studies), John Sweet (History), Harry Watson (History), Eric King Watts (Communication Studies), Gang Yue (Asian Studies).

## Professors Emeriti

Robert Cantwell, Peter Filene, John Kasson, Joy Kasson, Townsend Ludington, Daniel W. Patterson, Theda Perdue, Charles G. Zug III.

## Contact Information

Director of Undergraduate Studies, CB\# 3520, 227 Greenlaw Hall, (919) 962-5483, fax (919) 962-3520.

Web sites: amerstud.unc.edu; folklore.unc.edu; americanindianstudies.unc.edu.

## Courses

## AMST-American Studies

AMST 50 First-Year Seminar: American Culture in the Era of
Ragtime (3). Interdisciplinary seminar exploring American culture
in the first two decades of the 20th century. Material includes film, music, photography, and musical theater as well as fiction and autobiography.

AMST 51 First-Year Seminar: Navigating America (3). Analyze American journeys and destinations, focusing on how resources, technology, transportation, and cultural influences have transformed the navigation and documentation of America. Multimedia documentation of personal journey required.
AMST 52 First-Year Seminar: The Folk Revival: The Singing Left in 20th-Century America (3). Enlisting fiction, film, and recorded music, this course will acquaint first-year students with the cultural and historical contexts of a range of American traditional musics and explore the social, political, and cultural meanings of these musics in a revivalist movement.

AMST 53 First-Year Seminar: The Family and Social Change in America (3). This course uses changes in the American family over the past century as a way of understanding larger processes of social change.
AMST 54 First-Year Seminar: The Indians' New Worlds: Southeastern Histories from 1200 to 1800 (ANTH 54) (3). This course uses archaeological and historical scholarship to consider the histories of the Southern Indians from the Mississippian period to the end of the 18th century.
AMST 55 First-Year Seminar: Birth and Death in the United States (3). This course explores birth and death as essential human rites of passage that are invested with significance by changing and diverse American historical, cultural, ethnic, and ethical contexts.

AMST 56 First-Year Seminar: Exploring American Memory (3). This course examines the contested and changing role of memory in constructing historical meaning, creating political ideologies, and imagining cultural communities.
AMST 57 First-Year Seminar: Access to Higher Education (3). This course explores barriers to access to American colleges and universities. Success in application, admission, matriculation, and graduation requires ability and experience and is also a function of other advantages.

AMST 58 First-Year Seminar: Cultures of Dissent: Radical Social Thought in America since 1880 (3). This course examines the history of radical social thought in American history, focusing in particular on examples from "leftist" and "collectivist" traditions, and emphasizes the many forms radicalism has taken by exploring different radical thinkers' dissenting critiques of dominant political, economic, and social arrangements.

## AMST 59 First-Year Seminar: Yoga in Modern America:

 History, Belief, Commerce (3). Examines yoga in American cultural and intellectual history through a range of documents and cultural forms: memoirs, speeches, fiction, biography, letters, and music. Focuses on the meanings ascribed to yoga in the United States and the public and commercial transformations yoga has undergone in different periods of American history.AMST 60 First-Year Seminar: American Indians in History, Law, and Literature (3). This research seminar provides a grounding in American Indian law, history, and literature. Students
will conduct research for presentation on Wikipedia.
AMST 61 First-Year Seminar: Navigating the World through American Eyes (3). Designed to help prepare students for future study abroad opportunities and travel, service, and work in a global environment, the seminar focuses on critical differences, including transportation and other forms of infrastructure, that impact navigating places, people, and information. Individual competitive global travel proposals will be developed and presented

AMST 89 First-Year Seminar: Special Topics (3). Special topics course. Content will vary each semester.

AMST 101 The Emergence of Modern America (3).
Interdisciplinary examination of two centuries of American culture, focusing on moments of change and transformation.

## AMST 110 Introduction to the Cultures and Histories of Native North America (HIST 110) (3). See HIST 110 for description.

AMST 201 Literary Approaches to American Studies (3). A study of interdisciplinary methods and the concept of American studies with an emphasis on the historical context for literary texts.

AMST 202 Historical Approaches to American Studies (3). A study of interdisciplinary methods and the concept of American studies with an emphasis on historical and cultural analysis.

AMST 203 Approaches to American Indian Studies (ANTH 203) (3). Introduces students to the disciplines comprising American Indian studies and teaches them how to integrate disciplines for a more complete understanding of the experiences of American Indian peoples.

AMST 210 Approaches to Southern Studies: A Historical Analysis of the American South (3). An examination of both the mythical and real American South and its diverse peoples through the study of the region's archaeological, geographical, and environmental history integrated with the study of the region's sociology and its economic, political, intellectual, and religious history.

AMST 211 Approaches to Southern Studies: The Literary and Cultural Worlds of the American South (3). An examination of Southern cultural identity, literary imagination, and sense of place with an emphasis on the fiction, folklore, foodways, art, architecture, music, and material culture of the American South.

AMST 220 On the Question of the Animal: Contemporary Animal Studies (3). This course is an introduction to "animal studies," through animal rights, animal welfare, food studies, and the human/animal distinction in philosophical inquiry. We will read work from dog and horse trainers, and explore the history of the American racetrack. This course builds a moral and ethical reasoning skill set.

AMST 231 Native American History: The East (HIST 231) (3). Covers the histories of American Indians east of the Mississippi River and before 1840. The approach is ethnohistorical.

AMST 233 Native American History: The West (HIST 233) (3). See HIST 233 for description.

AMST 234 Native American Tribal Studies (ANTH 234, HIST
234) (3). See HIST 234 for description.

AMST 235 Native America in the 20th Century (HIST 235)
(3). This course deals with the political, economic, social, and cultural issues important to 20th-century Native Americans as they attempt to preserve tribalism in the modern world.

## AMST 246 Indigenous Storytelling: Oral, Written, and Visual

 Literatures of Native America (3). Offers a historically, politically, and culturally contextualized examination of Native America through oral, written, and visual storytelling. Covering a wide range of genres, including oral narratives, novels, and visual arts, this introductory course showcases the fluidity of Indigenous artistic forms and their continuing centrality in Native America.AMST 253 A Social History of Jewish Women in America (JWST 253, WMST 253) (3). Course examines the history and culture of Jewish women in America from their arrival in New Amsterdam in 1654 to the present and explores how gender shaped this journey.

AMST 255 Mid-20th-Century American Thought and Culture (3). This course examines topics in the intellectual and cultural history of the United States in the mid-20th century, including issues of race thinking, mass culture, and gender ideologies.

AMST 256 Anti-'50s: Voices of a Counter Decade (3). We remember the 1950s as a period of relative tranquility, happiness, optimism, and contentment. This course will consider a handful of countertexts: voices from literature, politics, and mass culture of the 1950 s that for one or another reason found life in the postwar world repressive, empty, frightening, or insane and predicted the social and cultural revolutions that marked the decade that followed.

AMST 257 Melville: Culture and Criticism (3). Investigates the significance of Herman Melville as a representative 19th-century American author. Includes issues of biography, historical context, changing reception, cultural iconography, and the politics of the literary marketplace.

## AMST 258 Captivity and American Cultural Definition

 (3). Examines how representations of captivity and bondage in American expression worked to construct and transform communal categories of religion, race, class, gender, and nation.AMST 259 Tobacco and America (3). Explores the significance of tobacco from Native American ceremony to the Southern economy by focusing on changing attitudes toward land use, leisure, social style, public health, litigation, and global capitalism.

AMST 266 The Folk Revival: The Singing Left in Mid-20thCentury America (3). Emphasizing cultural stratification, political dissent, and commercialization in American youth and popular movements, this course will map the evolving political and cultural landscape of mid-20th-century America through the lens of the Folk Revival, from its origins in various regionalist, nativist, and socialist traditions of the 1920s to its alliance with the civil rights and anti-war movements of the 1960s.

AMST 268 American Cinema and American Culture. (3). Examines the relationship between cinema and culture in America with a focus on the ways cinema has been experienced in American
communities since 1896.
AMST 269 Mating and Marriage in American Culture (3). Interdisciplinary examination of the married condition from colonial times to the present. Themes include courtship and romance, marital power and the egalitarian ideal, challenges to monogamy.

AMST 275 Documenting Communities (3). Covers the definition and documentation of communities within North Carolina through research, study, and field work of communities. Each student produces a documentary on a specific community.

AMST 277 Globalization and National Identity (3). Considers the meanings and implications of globalization especially in relation to identity, nationhood, and America's place in the world.
AMST 284 Visual Culture (3). This course investigates how we make and signify meaning through images, ranging from art to advertising to graffiti, and provides the critical tools to understand the visual worlds we inhabit.

AMST 285 Access to Work in America (ECON 285) (3).
Focus on systemic and individual factors affecting access to work, including gender, race, age, disability, transportation, international competition, technological progress, change in labor markets, educational institutions, and public policy.
AMST 290 Topics in American Studies (3). Special topics in American studies.

AMST 291 Ethics and American Studies (3). An interdisciplinary seminar in American studies addressing ethical issues in the United States.

AMST 292 Historical Seminar in American Studies (3). Topics in American history from the perspective of American studies.

## AMST 294 American Studies Junior Seminar Aesthetic

Perspective (3). Topics in arts and literature from the perspective of American studies.

AMST 297 Back to the Future: Chicago, 1893 (3). This course will explore Chicago at the end of the 19th century from the perspective of our own postindustrial, postmodern condition.
AMST 317 Adoption in America (3). An interdisciplinary approach to the history of adoption and related practices in the United States, employing the provisions society has made for the welfare of children deemed to be orphans as a powerful lens into changing values and attitudes toward childhood, race, class, gender, reproduction, parenthood, and family.

AMST 334 Defining America I (3). An interdisciplinary seminar that considers the changing understandings of what it meant to be American up through the United States Civil War.
AMST 335 Defining America II (3). An interdisciplinary seminar that investigates the changing meanings of being American since the United States Civil War.

AMST 336 Native Americans in Film (3). This course is about Hollywood's portrayal of Indians in film, how Indian films have depicted Native American history, and why the filmic representation of Indians has changed over time.
AMST 337 Beyond Red Power: American Indian Activism since

1900 (3). This course seeks to understand how American Indian individuals and communities survived a century that began with predictions of their disappearance. To answer that question, we take a broad view of politics and activism, exploring everything from the radical protest to art and everyday forms of resistance.

AMST 338 Native American Novel (3). This course examines this art form's development by indigenous writers as a mode of storytelling that explores the continuing effects of settler colonialism upon indigenous peoples and foregrounds indigenous notions of land, culture, and community.

AMST 339 The Long 1960s in Native America (3). An interdisciplinary exploration of Native America during the "long 1960s" (1954-1973), this course focuses on how American Indian experiences intersected with and diverged from those of non-native groups via topics such as the youth movement, women's rights, nationalism, civil rights, radical protest, and creative expression.
AMST 340 American Indian Art and Material Culture through Interdisciplinary Perspectives (3). Analyzes material culture created by Native artists throughout the United States and portions of Canada. Examines the role of art and artists and how material culture is studied and displayed. Students study objects, texts, and images, exploring mediums such as painting, sculpture, basket making, beadwork, and photography.

AMST 350 Main Street Carolina: A Cultural History of North Carolina Downtowns (3). An introduction to the interdisciplinary scholarly approaches to the physical, social, economic, and cultural developments of downtowns. Students will conduct and share original research.
AMST 360 The Jewish Writer in American Life (3). This course will investigate through literature, film, and song the encounter of Eastern European Jews and their descendants with Anglo-Protestant America over four generations.

AMST 365 Women and Detective Fiction: From Miss Violet Strange to Veronica Mars (3). Traces the origins of detective fiction and major developments in the history of the genre with a focus on women authors and protagonists. Examines literary texts including fiction and film, with close attention to historical and social contexts and to theoretical arguments relating to popular fiction, genre studies, and gender.
AMST 370 Girl Talk: American Women's Voices in Literature and Art (3). This course looks at the process by which women find their "voice" as individuals, and particularly as artists and writers. Louisa May Alcott, Emily Dickinson, Mary Cassatt, Maxine Hong Kingston, and Faith Ringgold are among the figures we will discuss.

AMST 371 LGTBQ Film and Fiction from 1950 to the Present (3). An interdisciplinary seminar that explores stylistic choices and representational modes available to LGTBQ artists in the United States since 1950. We will relate shifts in cinematic and literary representations and aesthetic strategies to developments in political, social, and economic life.

AMST 375 Food in American Culture (FOLK 375) (3). This course will examine the history and meaning of food in American culture and will explore the ways in which food shapes national, regional, and personal identity.

AMST 378 Nation Building and National Identity in Australia and the United States (3). This course compares the cultural and social histories of two settler societies, the United States and Australia. Focus on selected topics, including landscape, indigenous peoples, national identity, exploration.
AMST 384 Myth and History in American Memory (3). Examines the role of memory in constructing historical meaning and in imagining the boundaries of cultural communities. Explores popular rituals, artifacts, monuments, and public performances.

AMST 385 Gender and Economics (ECON 385, WMST 385) (3). See ECON 385 for description.

AMST 386 American Families (3). Students research the history of their own families as we examine the history of the family as a social institution in America.

## AMST 387 Race and Empire in 20th-Century American

 Intellectual History (3). This upper-level seminar explores influential 20th-century writings on race and empire and colonialism by intellectuals from America and around the world.AMST 390 Seminar in American Studies (3). Seminar in American studies topics with a focus on historical inquiry from interdisciplinary angles.

## AMST 392 Radical Communities in 20th-Century American

 Religious History (3). How the language, ideas, and cultural products of religious outsiders responded to and influenced mainstream ideas about what American religious communities could and should look like in terms of gender, race, economics, and faith-based practices.AMST 394 The University in American Life: The University of North Carolina (3). This team-taught course is for juniors and seniors and is multifaceted in its inquiry into the role of the university in American life. UNC-Chapel Hill is used as the case study.

AMST 394L Role of the University (1). Pre- or corequisite, AMST 394. Field laboratory explores UNC-Chapel Hill campus sites and Triangle-area universities. One four-hour laboratory a week.

AMST 396 Independent Study in American Studies (3). Permission of the department. Directed reading under the supervision of a faculty member.

AMST 398 Service Learning in America (3). Explores history and theory of volunteerism and service learning in America. Includes a weekly academic seminar and placement in a service learning project.

AMST 410 Senior Seminar in Southern Studies (3). We will engage such topics as race, immigration, cultural tourism, and memory to consider conceptions of the South. Students will research a subject they find compelling and write a 20 - to 25 -page paper.
AMST 420 Theories in American Studies Work (3). This course will move through prevalent theories in American studies to familiarize students with theoretical concepts and to ascertain both the advantages and pitfalls of theoretical landscapes. Students
will become familiar with critical race (postcoloniality and settlercolonialism, for example), feminist, "queer" theories, historical materialism, political economy, postcolonialism, and bio-power.

AMST 440 American Indian Poetry (3). This course explores the relation of American Indian poetry and music in English to the history and culture of indigenous communities and their relation to the United States.

AMST 466 You Are Where You Live: The American House in Critical Perspective (3). This course emphasizes the complexities of human shelter in the United States. We learn housing types, explore their social uses and meanings, and evaluate critical issues, such as affordability and gentrification.

AMST 482 Images of the American Landscape (3). This course will consider how real estate speculation, transportation, suburbanization, and consumerism have shaped a landscape whose many representations in art and narrative record our ongoing struggle over cultural meaning.

AMST 483 Seeing the U.S.A.: Visual Arts and American Culture (3). Examines the ways in which visual works-paintings, photographs, sculpture, architecture, film, advertising, and other images-communicate the values of American culture and raise questions about American experiences.

AMST 485 Folk, Self-Taught, Vernacular, and Outsider Arts
(3). Drawing on American and international examples, this course addresses a body of art that occupies the borderlands of contemporary art, examining questions of authenticity, dysfunction, aesthetics, and identity.

AMST 486 Shalom Y'all: The Jewish Experience in the American South (JWST 486) (3). This course explores ethnicity in the South and focuses on the history and culture of Jewish Southerners from their arrival in the Carolinas in the 17th century to the present day.

AMST 487 Early American Architecture and Material Life (3). This course explores, through lecture and discussion, the experiences of everyday life from 1600 through the early 19th century, drawing on the evidence of architecture, landscape, images, and objects.

AMST 488 No Place like Home: Material Culture of the American South (FOLK 488) (3). Seminar will explore the unique worlds of Southern material culture and how "artifacts" from barns to biscuits provide insight about the changing social and cultural history of the American South.

AMST 489 Writing Material Culture (3). A reading seminar that examines multiple critical perspectives that shape the reception and interpretation of objects, with a particular emphasis on things in American life.

AMST 493 Internship (1-3). Permission of the department and the instructor. Internship. Variable credit.

AMST 498 Advanced Seminar in American Studies (3).
Graduate or junior/senior standing. Examines American civilization by studying social and cultural history, criticism, art, architecture, music, film, popular pastimes, and amusements, among other
possible topics.
AMST 685 Literature of the Americas (CMPL 685, ENGL 685) (3). See ENGL 685 for description.

AMST 691H Honors in American Studies (3). Directed independent research leading to the preparation of an honors thesis and an oral examination on the thesis. Required of candidates for graduation with honors in American studies who enroll in the class once permission to pursue honors is granted.

AMST 692H Honors in American Studies (3). Directed independent research leading to the preparation of an honors thesis and an oral examination on the thesis. Required of candidates for graduation with honors in American studies who enroll in the class once permission to pursue honors is granted.

## CHER-Cherokee

CHER 101 The Cherokee-Speaking World: "Hadolegwa Tsawonihisdi'i" (3). Students develop basic knowledge of the Cherokee-speaking world. Using linguistic and content-based material, students will learn basic Cherokee.
CHER 102 Elementary Cherokee II (3). Prerequisite, CHER 101. Continued audio-lingual practice of basic imperatives, idioms on the imperative stem, verbs of motion and locationals, and basic complement types.
CHER 203 Intermediate Cherokee (3). Prerequisite, CHER 102. Review and continuation of oral and written grammar, selected readings, and conversation.
CHER 204 Intermediate Cherokee II (3). Prerequisite, CHER 203. Readings and discussions on Cherokee history and culture; emphasis on grammar and conversation.
CHER 305 Phonetics and General Linguistics (3). Prerequisite, CHER 204. Introduction to linguistics; the Cherokee sound system from a phonetic and allophonic view; grammatical categories, morphology, syntax.

## FOLK-Folklore

FOLK 77 First-Year Seminar: The Poetic Roots of Hip-Hop: Hidden Histories of African American Rhyme (3). What are the roots of hip-hop's masterful rhymes and tongue-tripping flow? This seminar explores hip-hop's poetic prehistory, looking to the rhyming and oral poetics that have long defined African American experience. In so doing, we'll uncover hidden histories of everyday eloquence and explore spoken/sung poetry's role in marking cultural identity.
FOLK 89 First-Year Seminar: Special Topics (3). Special topics course. Content will vary each semester.
FOLK 130 Anthropology of the Caribbean (ANTH 130) (3). See ANTH 130 for description.
FOLK 202 Introduction to Folklore (ANTH 202, ENGL 202) (3). See ENGL 202 for description.

FOLK 230 American Indian Societies (ANTH 230) (3). See ANTH 230 for description.
FOLK 310 Fairy Tales (ENGL 310) (3). A study of fairy tales as historical artifacts that reveal the concerns of their times and places,
as narrative structures capable of remarkable transformation, and as artistic performances drawing upon the expressive resources of multiple media, intended to challenge conventional presuppositions about the genre.
FOLK 323 Magic, Ritual, and Belief (ANTH 323) (3). See ANTH 323 for description.
FOLK 334 Art, Nature, and Religion: Cross-Cultural Perspectives (ANTH 334) (3). See ANTH 334 for description.
FOLK 340 Southern Style, Southern Culture (ANTH 340) (4). See ANTH 340 for description.
FOLK 342 African American Religious Experience (ANTH 342, RELI 342) (3). See RELI 342 for description.
FOLK 375 Food in American Culture (AMST 375) (3). See AMST 375 for description.
FOLK 428 Religion and Anthropology (ANTH 428, RELI 428) (3). See ANTH 428 for description.

FOLK 429 Culture and Power in Southeast Asia (ANTH 429, ASIA 429) (3). See ANTH 429 for description.
FOLK 435 Consciousness and Symbols (ANTH 435, CMPL 435) (3). See ANTH 435 for description.

FOLK 454 Historical Geography of the United States (GEOG 454) (3). See GEOG 454 for description.

FOLK 455 Method and Theory in Ethnohistoric Research (ANTH 455) (3). See ANTH 455 for description.
FOLK 470 Medicine and Anthropology (ANTH 470) (3). See ANTH 470 for description.
FOLK 473 Anthropology of the Body and the Subject (ANTH 473) (3). See ANTH 473 for description.

FOLK 484 Discourse and Dialogue in Ethnographic Research (ANTH 484, LING 484) (3). See ANTH 484 for description.

FOLK 487 Everyday Stories: Personal Narrative and Legend (ENGL 487) (3). Oral storytelling may seem old-fashioned, but we tell true (or possibly true) stories every day. We will study personal narratives (about our own experiences) and legends (about improbable, intriguing events), exploring the techniques and structures that make them effective communication tools and the influence of different contexts and audiences.
FOLK 488 No Place like Home: Material Culture of the American South (AMST 488) (3). See AMST 488 for description.
FOLK 490 Topics in Folklore (3). Topics vary from semester to semester.
FOLK 495 Field Research (3). Research at sites that vary.
FOLK 496 Directed Readings in Folklore (3). Permission of the department. Topic varies depending on the instructor.

FOLK 502 Myths and Epics of the Ancient Near East (RELI 502) (3). See RELI 502 for description.

FOLK 525 Culture and Personality (ANTH 525) (3). See ANTH 525 for description.
FOLK 537 Gender and Performance: Constituting Identity (ANTH 537, WMST 438) (3). See ANTH 537 for description.

FOLK 550 Introduction to Material Culture (3). An introduction to material folk culture, exploring the meanings that people bring to traditional arts and the artful creations with which they surround themselves (e.g., architecture, clothing, altars, tools, food).

FOLK 560 Southern Literature and the Oral Tradition (3). Course considers how Southern writers employ folklore genres such as folk tales, sermons, and music and how such genres provide structure for literary forms like the novel and the short story.

FOLK 562 Oral History and Performance (COMM 562, HIST 562, WMST 562) (3). See COMM 562 for description.

FOLK 565 Ritual, Theater, and Performance in Everyday Life (COMM 362) (3). See COMM 362 for description.
FOLK 571 Southern Music (HIST 571) (3). See HIST 571 for description.

FOLK 587 Folklore in the South (3). An issue-oriented study of Southern folklore, exploring the ways that vernacular artistic expression (from barns and barbecue to gospel and well-told tales) come to define both community and region.

FOLK 610 Vernacular Traditions in African American Music (AAAD 432) (4). Explores performance traditions in African American music, tracing development from African song through reels, blues, gospel, and contemporary vernacular expression. Focuses on continuity, creativity, and change within African American aesthetics.

FOLK 670 Introduction to Oral History (HIST 670) (3). See HIST 670 for description.

FOLK 675 Ethnographic Method (ANTH 675) (3). See ANTH 675 for description.

FOLK 688 Observation and Interpretation of Religious Action (ANTH 688, RELI 688) (3). See ANTH 688 for description.

FOLK 690 Studies in Folklore (3). Topic varies from semester to semester.

FOLK 691H Honors Project in Folklore (3). Permission of the instructor. For honors candidates. Ethnographic and/or library research and analysis of the gathered materials, leading to a draft of an honors thesis.

FOLK 692H Honors Thesis in Folklore (3). Prerequisite, FOLK 691 H . Writing of an honors thesis based on independent research conducted in FOLK 691H. Open only to senior honors candidates who work under the direction of a faculty member.

## Department of Anthropology

anthropology.unc.edu
301 Alumni Building, CB\#3115; (919) 962-1243
RUDI COLLOREDO-MANSFELD, Chair

## Introduction

Anthropology is the integrative study of human beings at all times and in all places. Anthropological expertise has special application
for hidden histories and the ancient past; the intersection of human biology and ecology; and the way communities create and use meaning, values, and history in everyday life. We support studies, research, and professional applications in these areas with three programs of foundational training: archaeology; human biology, ecology, and evolution; and sociocultural anthropology.

Cutting across these specializations, the department supports concentrations that integrate anthropology's diverse expertise to address contemporary world problems. Programming in these areas helps students connect their anthropological studies to work and life beyond the University. Current concentrations focus on health, medicine, and humanity; heritage and unwritten histories; global engagement; race, place and power; and food, environment, and sustainability.

Together, the Department of Anthropology's programs and concentrations offer the undergraduate student one of the best introductions possible to our biological and cultural pasts and to our contemporary world. Anthropology majors thus develop the written and oral skills needed to live and work in a complex world marked by an accelerated rate of environmental, social, and cultural change. Anthropology majors acquire general knowledge and skills valued within a large number of occupations and professions, including but not limited to professional anthropology.

## Anthropology Major, B.A.

## Core Requirements

- One course from biological anthropology chosen from the following list: ANTH 143, 148, 315, 319
- One course from archaeology chosen from the following list: ANTH 121, 145, 220, 222, 231, 232, 250, 454
- One course from sociocultural anthropology chosen from the following list: ANTH 102, 120, 147, 240, 280, 284
- One theoretical perspectives course chosen from the following list: ANTH 291, 294, 297, 298
- ANTH 490
- Four additional three-hour courses (12 hours) in anthropology


## Additional Requirements

- No more than three courses used to fulfill the major can be numbered below 200.
- No more than six hours of field-oriented coursework (ANTH $393,395,451$, or 453 ) can be counted toward the major.
- No more than three hours of coursework from the following list may be counted toward the major: ANTH 92, 93, 195, 196, 295, $296,396,691 \mathrm{H}, 692 \mathrm{H}$.
The theoretical perspectives requirement (ANTH 291, 294, 297, or 298) serves as the major's core course; it offers an integrative perspective on the theories and history of anthropology and explores what it means to be an anthropologist. Majors should fulfill this requirement in their junior year. If they cannot do so, they should consult with the director
of undergraduate studies.
The department recommends that majors enroll in some field-oriented coursework such as ANTH 393 Internship in Anthropology, 395 Independent Fieldwork, 451 Field School in North American Archaeology, 453 Field School in South American Archaeology, or in study abroad coursework.

Students interested in choosing anthropology as a major or minor should visit the department's Web site at anthropology.unc. edu and
click on the link for the undergraduate program. Students planning a major in anthropology should inform the department's director of undergraduate studies. Students should consult with the director of undergraduate studies on a regular basis.

## General Anthropology Minor

The minor in general anthropology consists of five three-hour courses taken in the department. A maximum of two courses may be numbered below 200. Credit hours for independent study or independent field research may not count towards the minor, including ANTH 195, 196, 295, 296, 393, 395, and 396. Students must have a grade of C or better in at least four of the five courses, and at least three courses must be taken at UNC-Chapel Hill or in a program officially sponsored by the University. Students planning on a minor in anthropology should inform the department's director of undergraduate studies.

## Medical Anthropology Minor

This option is especially appropriate for those planning careers in medicine and health professions. The minor consists of five threehour courses taken from the following list of courses: AAAD 300; ANTH 66H, 143, 147, 151, 270, 278, 280, 315, 318, 319, 320, $323,325,414,422,423,426,437,439,441,442,443,444,445$, 446, 470, 473, 474, 538, 585, 623, 624, 649, and 650. Students must have a grade of C or better in at least four of the five courses, and at least three courses must be taken at UNC-Chapel Hill or in a program officially sponsored by the University. Students planning on a minor in medical anthropology should inform the department's director of undergraduate studies. For more information about medical anthropology see medicalanthropology. unc.edu.

## Advising

All majors and minors have a primary academic advisor in Steele Building. Students are strongly encouraged to meet regularly with their advisor and review their Tar Heel Tracker each semester. The department's director of undergraduate studies (see "Contact Information" below) works with current and prospective majors and minors by appointment. Students are encouraged to consult with the director of undergraduate studies about course choices and field work opportunities. Departmental academic advising is particularly important for those majors who are considering going on to graduate school. Further information on courses, undergraduate research opportunities, and the honors program may be obtained from the department's Web site.

## Special Opportunities in Anthropology

## Honors in Anthropology

The department encourages students with an overall grade point average of 3.3 or higher to apply for candidacy for the B.A. with honors. The aim of the honors program is to free the serious and well-qualified student from some restrictions of the usual
undergraduate course format by allowing the student to work closely with a small number of department faculty members. The anthropology honors program requires an independent study and research project presented in the form of a thesis to the department.

Honors candidates must meet the same course requirements as other anthropology majors. In their senior year, honors candidates take ANTH 691 H and 692 H in two consecutive semesters. These courses provide candidates with the opportunity to pursue original research for the thesis. ANTH 691 H and 692 H are controlled enrollment courses, which means that students must first confer with the director of undergraduate studies. Honors candidates are encouraged to identify and contact an honors thesis advisor by the end of their junior year and to apply for financial aid for their thesis project.

Candidates who complete and successfully defend a thesis before a committee consisting of their advisor and two readers may graduate with honors or highest honors. The awarding of highest honors for theses written in the department is rare and reserved for those cases in which the examining committee determines that the project is exceptional even among honors degrees.

Students who are interested in becoming honors candidates should contact the department's director of undergraduate studies.

## Internships, Field Work, and Independent Study

Students who wish to explore an anthropological concern outside the conventional classroom setting, or who desire advanced or specialized work beyond current course offerings, should consider ANTH 393, 395, 396, 451, and 453.

ANTH 393 provides anthropology students the opportunity to engage in internships or other field experiences within or beyond the University that have a significant anthropological learning component. Variable credit may be obtained for this course. ANTH 393 is a controlled enrollment course; it requires the permission in advance of the faculty member sponsoring the internship, of a responsible official of the agency in which the internship is carried, and of the director of undergraduate studies. It is essential that students make arrangements and secure permissions prior to the semester of the internship.

ANTH 396 provides anthropology students the opportunity to engage in independent study, and ANTH 395, the opportunity to engage in field research, in both cases under the mentoring of a specific faculty member. Variable credit may be obtained for these courses, although three units are usually expected. ANTH 396 and 395 require the permission of the faculty member under whom the student wishes to conduct research prior to the semester in which ANTH 396 or 395 is taken. Both are controlled enrollment courses. In general, these courses should be taken only by students with some prior coursework in anthropology or a related social science.

ANTH 451 and 453 are six-unit field school courses in which the student gains hands-on experience in research and study in the field under the direction of a faculty member.

Anthropology majors are limited to having no more than six credit hours of field-oriented coursework (ANTH 393, 395, 451, or 453) count toward meeting the major requirement, although they are not restricted from enrolling in more than six credit hours of these courses combined.

## Study Abroad

Anthropology majors are encouraged to enroll in a study abroad program. These programs can offer direct experience of another culture and intensive language training, as well as excellent coursework in anthropology. By consulting with their departmental advisors as well as with the University's Study Abroad Office, students can assess the relevance of available programs to their interests and arrange to transfer credit hours to count toward their undergraduate degree and, where appropriate, the anthropology major. Study abroad programs are often affordable even to students who require financial aid. Information about student loans and scholarships for the purpose of studying abroad can be obtained from the Study Abroad Office.

## Undergraduate Awards

The Honigmann Undergraduate Honors Thesis Award is given each year to the student who completed the best undergraduate honors project.

## Graduate School and Career Opportunities

There are three basic career paths for B.A.-level anthropology majors:

- Anthropology majors have open to them all of the career options of any student with a bachelor of arts degree in the liberal arts and social sciences, with the added advantage that they surely are more prepared than most in the growing international arena of business, government, and nongovernmental organizations (NGOs). The resources and professional staff of University Career Services and the department's director of undergraduate studies can provide guidance.
- Anthropology majors can seek a career that puts their anthropology degree directly into practice.
- Lastly, anthropology majors can continue with graduate education in order to seek a career in education, either as a social studies teacher in a school or a professor in a university. See Careers in Academic Anthropology-Graduate School Route at anthropology. unc.edu/undergraduate-program/career-tracks.


## Faculty

## Professors

Florence Babb, Rudi Colloredo-Mansfeld, Arturo Escobar, Dale L. Hutchinson, Paul W. Leslie, Patricia A. McAnany, Donald M. Nonini, Peter Redfield, C. Margaret Scarry, Vincas P. Steponaitis, Silvia Tomášková.

## Associate Professors

Brian Billman, Robert E. Daniels, Glenn D. Hinson, Valerie Lambert, Christopher T. Nelson, Charles R. Price, Michele Rivkin-Fish, Karla Slocum, Mark Sorensen, Amanda Thompson, Margaret J. Wiener.

## Assistant Professors

Anna Agbe-Davies, Benjamin Arbuckle, Jocelyn Chua, Jean Dennison, Christopher T. Middleton, Colin T. West.

## Research Associate Professors

William H. Jansen II, Scott L.H. Madry.

## Adjunct Professors

Jonathan Boyarin, R.P. Stephen Davis, Sue E. Estroff, Richard G. Fox, Lawrence Grossberg, John Pickles, Debra G. Skinner.

## Adjunct Associate Professors

Lorraine V. Aragon, Marisol de la Cadena, Kia Caldwell, Michael C. Lambert, Lauren Leve, Brett H. Riggs, Barry F. Saunders, Patricia Sawin, John F. Scarry, Philip W. Setel.

## Adjunct Assistant Professors

Hannah Gill, Flora Lu, Todd Ramon Ochoa, Karaleah Reichart, Beverly A. Sizemore, Sandy Smith-Nonini, Laurie C. Steponaitis.

## Professors Emeriti

Carole L. Crumley, Terence M.S. Evens, Dorothy C. Holland, Norris B. Johnson, James L. Peacock.

## Contact Information

Margaret Scarry, Director of Undergraduate Studies, CB\# 3115, 301 Alumni Building, scarry@email.unc.edu.

## Courses

The basic division in undergraduate anthropology courses is between lower-division courses numbered below 300 and upperdivision courses numbered between 300 and 699. Sophomores should not hesitate to take courses numbered 300 to 699 because of fears of their difficulty but may wish to consult the instructor before enrolling.

## ANTH-Anthropology

ANTH 50 First-Year Seminar: Skeletons in the Closet (3). In this first-year seminar, students explore the use of the human skeleton to modern behavioral and biological investigations, focusing on observations that are used as evidence to prove or disprove hypotheses.

ANTH 51 First-Year Seminar: Environmentalism and American
Society (3). This first-year seminar examines United States environmentalism and its relationship to power and privilege, consumer desire, and attachment to place. Students conduct original group research on the environmental movement.

## ANTH 52 First-Year Seminar: Asian Cultures, Asian Cities,

 Asian Modernities (3). Introduction to the processes of cultural productions and the making of social diversity in large Southeast Asian cities, as they have experienced modernity and globalization during the last 30 years.ANTH 53 First-Year Seminar: Darwin's Dangerous Idea (3). Exploration of how natural selection works, how it has been used and misused for understanding human nature, health and disease, aging, social behavior, how we choose mates, and more.

## ANTH 54 First-Year Seminar: The Indians' New Worlds: Southeastern Histories from 1200 to 1800 (AMST 54) (3). See AMST 54 for description.

ANTH 56 First-Year Seminar: The Art of Healing, the Science
of Curing. (3). This seminar focuses on cross-cultural healing
beliefs and practices and on how social, economic, political, and
ethical aspects of our lives relate to health and healing.
ANTH 57 First-Year Seminar: Today in Africa (3). Examination of the daily news as reported online by African newspapers, the BBC, etc. Readings and class discussions of ethnographic and historical background. Student projects based on following major stories.

ANTH 59 First-Year Seminar: The Right to Childhood: Global Efforts and Challenges (3). Do children have special needs and rights? This seminar will answer this question.

## ANTH 60 First-Year Seminar: Crisis and Resilience: Past and

 Future of Human Societies (3). Adopting a long view of human societies, students examine responses to crises engendered by political, economic, and environmental factors. Perspectives on societal change-apocalyptic, transformational, and resilientundergo scrutiny.ANTH 61 First-Year Seminar: Deep Economies (3). Using cultural case studies, the course examines how communities organize an economy to promote local well-being. Readings emphasize crosscultural problems of status, trust, property, exchange and political authority.

ANTH 62 First-Year Seminar: Indian Country Today (3). This course examines current topics in American Indian country through the use of films and interactive case studies.

## ANTH 63 First-Year Seminar: The Lives of Others: Exploring

 Ethnography (3). Can we truly access, understand, and represent the lives of others? In this class, students take on these questions by taking up the practice of ethnography, a research method consisting of entering into a community, interacting with its members, observing social life, asking questions, and writing about these experiences.
## ANTH 64 First-Year Seminar: Public Archaeology in

 Bronzeville, Chicago's Black Metropolis (3). In the early 20th century millions of African Americans migrated to large northern cities. The Phyllis Wheatley Home for Girls was run by black women to provide social services for female migrants to Chicago starting in 1926. The course combines elements of archaeology, anthropology, and history to study their lives.
## ANTH 65 First-Year Seminar: Humans and Animals:

Anthropological Perspectives (3). In this course we explore the complex relationships between people and animals cross-culturally and through time. Taking both anthropological and archaeological perspectives we address a wide range of topics, including the origins and uses of domestic animals, the history of dogs and cats, animal symbolism, hunting, and animal rights.

## ANTH 66H First-Year Seminar: Saving the World?

Humanitarianism in Action (3). In this seminar we will explore international aid, with an emphasis on its medical end and the set of organizations and institutions that exist to offer assistance to people suffering from disaster, endemic poverty, and health disparities.

ANTH 77 First-Year Seminar: Windows of Mystery and Wonder: Exploring Self-Taught Art (3). Folk, outsider, visionary: these terms invoke artistry that unfolds outside of mainstream artistic
traditions. This seminar explores these worlds of self-taught art, addressing issues of inspiration, authenticity, and cultural (mis) representation.

ANTH 89 First-Year Seminar: Special Topics (3). Special topics course; content will vary each semester.
ANTH 92 UNITAS (3). Fall component of a two-semester course. A seminar that explores issues of social and cultural diversity. Students must be residents of UNITAS residence hall.

ANTH 93 UNITAS (3). Prerequisite, ANTH 92. Permission of the instructor for students lacking the prerequisite. Spring component of a two-semester course. Students engage in service learning through APPLES and produce a final product that thoughtfully reflects on their experience. Students must be residents of UNITAS residence hall.

ANTH 101 General Anthropology (3). An introduction to anthropology, the science of humans, the culture-bearing animal. Topics considered: human evolution and biological variations within and between modern populations, prehistoric and historic developments of culture, cultural dynamics viewed analytically and comparatively.

ANTH 102 Introduction to Cultural Anthropology (3). An introduction to non-Western cultures studied by anthropologists. Includes an in-depth focus on the cultural and social systems of several groups.
ANTH 103 Anthropology of Globalization (3). The study of different approaches to globalization and of inequalities in power between nation-states, ethnic groups, classes, and locales experiencing globalization. Uses ethnographic materials to examine effects of transnational migrations and other processes of globalization.

ANTH 120 Anthropology through Expressive Cultures (3). Introduction to cultural analysis and the anthropological point of view through analytic and interpretive readings of films, fiction, and ethnography. Emphasis on social conditions and native points of view.

ANTH 121 Ancient Cities of the Americas (3). An introduction to archaeology through the study of towns and cities built by the ancient peoples of the Americas. The focus is on historical processes by which these centers arose.

ANTH 123 Habitat and Humanity (3). Cross-cultural survey of building and landscape architecture, including prehistoric dwellings and sacred structures such as shrines and temples. Emphasis on architecture as symbolic form and cultural meaning.
ANTH 130 Anthropology of the Caribbean (FOLK 130) (3). Theories and examples of how Caribbean people live, act, and see themselves within various cultural, social, economic, and political contexts across time. Attention to North American views of the Caribbean.

ANTH 139 Ecological Anthropology (3). Examines how human-environmental adaptations shape the economic, social, and cultural lives of hunter-gatherers, pastoralists, and agriculturalists. Approaches include optimal foraging theory, political ecology, and subsistence risk.

ANTH 142 Local Cultures, Global Forces (3). Globalization as a cultural and economic phenomenon, emphasizing the historical development of the current world situation and the impact of increasing global interconnection on local cultural traditions.

ANTH 143 Human Evolution and Adaptation (3). Evolutionary and ecological approach to understanding the human species' past and contemporary human variation. Emphasis on evolutionary processes, biological adaptation, and biocultural interactions with diverse environments.

ANTH 145 Introduction to World Prehistory (3). Introduction to world prehistory and archaeological methods. Examines the development of human society from the emergence of modern human beings 100,000 years ago through the formation of ancient civilizations.

ANTH 146 The Nature of Moral Consciousness: A Course in General Anthropology (3). An introductory course in general anthropology focusing on the development of moral consciousness. Western and non-Western patterns of thought and culture are compared and contrasted. The course has a strongly philosophical orientation.

ANTH 147 Comparative Healing Systems (3). In this course we compare a variety of healing beliefs and practices so that students may gain a better understanding of their own society, culture, and medical system.
ANTH 148 Human Origins (3). Study of human evolution. Focus on the fossil record of humans and human-like ancestors. Topics include communication, aggression, dietary adaptations, locomotion, major anatomical changes, and behavioral shifts in an evolutionary framework.

ANTH 149 Great Discoveries in Archaeology (3). This course provides students with a detailed look at some of the most significant archaeological discoveries from around the world, including Neanderthals, Stonehenge, and the Egyptian pyramids.
ANTH 151 Anthropological Perspectives on Food and Culture (3). Anthropological perspectives on foodways. This course examines the biological basis of human diets as well as the historical and cultural contexts of food production, preparation, presentation, and consumption.

ANTH 190 Special Topics in Anthropology I (1-4). Examines selected topics from an anthropological perspective. Course description is available from the departmental office.
ANTH 191 Peoples of Siberia (ENEC 191) (3). Comparative study of the cultural and biological diversity of peoples of Siberia from prehistoric through contemporary times. Course topics include the biological diversity, culture, behavior, and history of Siberian populations.

ANTH 194 Anthropology and Community Development (3). The course examines ethnographic, theoretical, practical, and policy approaches to community development and community organizations in America and the English-speaking Caribbean. Students can work with a local community organization.
ANTH 195 Research in Anthropology I (1-3). Permission of the instructor. Data collection, analysis, and interpretation for
independent research project.

## ANTH 196 Independent Reading or Study in Anthropology

I (1-3). Permission of the instructor. Reading and study under a faculty member whose interests coincide with those of the individual student.

ANTH 198H First-Year Honors in Anthropology II (3). Open to honors candidates. Permission of the instructor is required. Reading or study under a faculty member whose interests coincide with those of the individual student.

## ANTH 202 Introduction to Folklore (ENGL 202, FOLK 202)

(3). See ENGL 202 for description.

ANTH 203 Approaches to American Indian Studies (AMST 203) (3). See AMST 203 for description.

ANTH 206 American Indian Societies (3). Explores the tremendous diversity that exists within and across American Indian nations, together with the concerns, issues, and challenges that shape the futures American Indians are charting for themselves.
ANTH 210 Global Issues in the 20th Century (GEOG 210, GLBL 210, HIST 210, POLI 210) (3). See GLBL 210 for description.

ANTH 220 Principles of Archaeology (3). Introduction to method and theory in archaeology. An examination of how archaeologists make inferences about past societies, including reconstruction of culture histories; lifeways; ideologies; and social, political, and economic relationships.
ANTH 222 Prehistoric Art (3). A survey of prehistoric art in Africa, the Americas, Australia, and Europe.
ANTH 226 The Peoples of Africa (3). Introductory ethnographic survey emphasizing 1) diversity of kinship systems, economies, polities, religious beliefs, etc.; 2) transformations during the colonial era; and 3) political and economic challenges of independent nations. Lectures, films, recitation.

ANTH 230 Native American Cultures (FOLK 230) (3). Broad survey of contemporary American Indian societies and cultures in the United States. Explores sociocultural and historical diversity of tribes through film, autobiography, literature, current issues, guest speakers, archaeology, and history.
ANTH 231 Archaeology of South America (3). An examination of the prehistory of Andean South America (Ecuador, Peru, and Bolivia) from first colonization 12,000 years ago to the fall of the Inca Empire in 1532 CE.

ANTH 232 Ancestral Maya Civilizations (3). Maya civilization is prominent among American societies that flourish prior to European incursions. Archaeological, epigraphic, and historical materials provide the foundation for understanding this past and its romance allure.

ANTH 233 Prehistory of Southwest Asia and Egypt: From the Earliest Humans to the Rise of Civilization (3). This course surveys the archaeology of the Middle East focusing on major milestones in human history, including the initial expansion of humans out of Africa, human-Neanderthal interactions, the development of agriculture, and the rise of the world's first states
and empires.
ANTH 234 Native American Tribal Studies (AMST 234, HIST 234) (3). See HIST 234 for description.

ANTH 238 Human Ecology of Africa (ENEC 238) (3). Course examines human adaptations to environments across Africa. Focuses on livelihood systems such as farming, herding, and hunting/gathering.

ANTH 240 Action Research (3). Action research is a strategy for answering important questions, solving problems, and generating meaningful and democratic relationships. Through this course students will learn action research through academic and experiential techniques.
ANTH 248 Anthropology and Public Interest (3). Explores how anthropologists can impact or participate in policy debates regarding contemporary social problems. Involves professional and internship options in public service fields. APPLES service-learning course.

ANTH 250 Archaeology of North America (3). The history of North American Indian cultures from 10,000 BCE to the time of the European colonization as reconstructed by archaeological research. Special emphasis on the eastern and southwestern United States.

ANTH 252 Archaeology of Food (3). Examines how people in the past acquired, distributed, prepared, presented, consumed, and thought about food. Considers the questions that archaeologists ask, the data and methods they use to answer those questions, and how the study of food contributes to understanding people in the distant and recent past.

ANTH 259 Culture and Identity (3). Introduces anthropological approaches to identity. Explores the relationship of identity, cultural contexts, and social life. Emphasizes contemporary global cultural interchange and visual media as tools of self-expression.
ANTH 270 Living Medicine (3). This course examines the social and cultural experience of medicine, the interpersonal and personal aspects of healing and being healed. It explores how medicine shapes and is shaped by those who inhabit this vital arena of human interaction: physicians, nurses, other professionals and administrators; patients; families; friends and advocates.

ANTH 277 Gender and Culture (WMST 277) (3). Examines what it means to be male, female, and other gendered categories in different societies. Focus on institutions, groups, and individuals that both shape and challenge how gender is understood, organized, and enacted.

ANTH 278 Women in Science (WMST 278) (3). See WMST 278 for description.

ANTH 280 Anthropology of War and Peace (PWAD 280)
(3). Cross-cultural perspectives on war in its relation to society, including Western and non-Western examples. Surveys political, economic, and cultural approaches to warfare and peacemaking.
ANTH 284 Culture and Consumption (3). A cross-cultural look at gift giving, commodities, and status symbols. Course explores
branded commodities, materialism as a factor in cultural change, global consumer culture, and local alternatives.

ANTH 290 Special Topics in Anthropology II (3). Examines selected topics from an anthropological perspective. Course description is available from the departmental office.
ANTH 291 Archaeological Theory and Practice (3). A review of historical and theoretical developments that have framed archaeological research, including a discussion of substantive changes in research questions, topics, methods, and analyses that reshaped the field. Course will place American archaeology in a wider international context.

ANTH 294 Anthropological Perspectives on Society and Culture (3). Restricted to anthropology majors. Examines major theoretical perspectives that anthropologists have used to explain cultural diversity, social organization, and relations among societies. The class will offer a historical look at how anthropology developed its commitment to holism and ethnography and how contemporary debates have reshaped the field.

ANTH 295 Research in Anthropology II (1-3). Permission of the instructor. Data collection, analysis, and interpretation for independent research project.

## ANTH 296 Independent Reading or Study in Anthropology

II (1-3). Permission of the instructor. Reading or study under a faculty member whose interests coincide with those of the individual student.

ANTH 297 Directions in Anthropology (3). Open only to and required of anthropology majors in their junior or senior year. Historical and contemporary issues and directions in the discipline as reflected in various concepts, theories, and research strategies.
ANTH 298 Biological Anthropology Theory and Practice (3).
Biological anthropology theory and practice, including human natural history, human genetics, epigenetics, and evolution; primatology; paleoanthropology; human biological variation; human biology and ecology; natural selection and adaptation in human evolution; and evolutionary, ecological, and biocultural perspectives on health and disease.

ANTH 302 Language and Power (LING 302, WMST 302) (3). See LING 302 for description.
ANTH 303 Native Languages of the Americas (LING 303) (3). See LING 303 for description.

## ANTH 306 Water and Inequality: Anthropological Perspectives

 (3). This course aims to foster an appreciation of the tremendous role of water in shaping human experience, including the ways water shapes where people live, constrains what they do, and plays a major role in the institutionalization of social, political, and economic inequalities. No prerequisites or permissions.ANTH 312 From the Equator to the Poles: Case Studies in Global Environmental Change (3). Case studies in environmental change, highlighting human and environmental dynamics in terrestrial and marine ecosystems on multiple spatial and temporal scales. Includes active learning modules, group presentations, writing assignments.

ANTH 315 Human Genetics and Evolution (3). Interaction of heredity, environment, and culture in shaping human biological diversity and behavior, and what such patterns of diversity reveal about our evolutionary past.

ANTH 317 Evolutionary Perspectives on Human Adaptation and Behavior (3). Critical, partially historical discussion of evolutionary theories, including Darwinism, neo-Darwinism, ethnology, and sociobiology, and their social-science analogs. Focus on the relevance and limitations of these theories for anthropology.

ANTH 318 Human Growth and Development (3). Comparative study of human growth and development from conception through adulthood. Special emphasis on evolutionary, biocultural, ecological, and social factors that influence growth.

ANTH 319 Global Health (3). This class explores some of the historical, biological, economic, medical, and social issues surrounding globalization and health consequences.

ANTH 320 Anthropology of Development (3). Critical exploration of current debates in the anthropology of Third World development, the production of global inequality, and the construction of parts of the world as underdeveloped through discourses and practices of development.

ANTH 323 Magic, Ritual, and Belief (FOLK 323) (3). Permission of the instructor. Starting with the late 19thcentury evolutionists, this course discusses, intensively, major anthropological theories of magico-religious thought and practice, then offers an approach of its own.

ANTH 325 Emotions and Society (3). Survey of the interplay between emotional experience and social life. Emotions as learned, culturally variable, and socially performed perceptions, understandings, and actions.

ANTH 330 Melancholy Japan: Myth, Memory, and Everyday Life (3). Ethnographic study of the profound social and cultural transformations that accompanied the capitalist modernization of Japan. Considers the emergence of native ethnology and state interventions into everyday life.

ANTH 331 The Anthropology of Memory (3). This course is a historical and ethnographic study of the problems of history, memory, and forgetting in contemporary society.

ANTH 333 Anthropology of Democracy (3). This course explores how anthropological perspectives might take understandings of democracy in new and unanticipated directions. Using examples from across the globe students will investigate the forces and impacts of democracy. Through hands-on assignments, students will implement a local research project related to the theme of democracy.

## ANTH 334 Art, Nature, and Religion: Cross-Cultural

 Perspectives (FOLK 334) (3). This cross-cultural study of art focuses on the forms, images, and meanings of paintings, drawings, and carvings produced by the Diyin Dine'é (Navajo), the Dogon (Mali, West Africa), and the Haida, Kwagiutl, Tlingit, and Tshimshian (northwest coast of North America).ANTH 340 Southern Style, Southern Culture (FOLK 340) (4). A journey into the worlds of Southern meaning, exploring
aesthetics, faith, race, class, gender, and the politics of culture. In this class, students explore culture through semester-long, group-based fieldwork projects.

ANTH 342 African American Religious Experience (FOLK 342, RELI 342) (3). See RELI 342 for description.
ANTH 343 African Masquerade and Ritual (AAAD 319, ARTH 353) (3). See ARTH 353 for description.

ANTH 356 Artisans and Global Culture: Economic, Historical, Experiential, and Cross-Cultural Dimensions (3). An
anthropological investigation of the role of skilled handiwork in the creation of contemporary culture and society. It includes field work with a local artisan. Ethnographies about artisan industries and apprenticeship in Latin America, Africa, and Southeast Asia guide our conceptual focus. No prerequisites, preparation, or permissions required.
ANTH 360 Latin American Economy and Society (3). Examines economic and cultural diversity of Latin America. Using case studies, class focuses on community social organization, work habits, family life and cosmologies, and the problem of inclusion in national cultures.

ANTH 361 Community in India and South Asia (3). This course offers an introduction to the peoples and current dynamics of South Asia by focusing on how communities are constituted and mobilized in India, Pakistan, Nepal, Sri Lanka, and Bangladesh. No prior knowledge of this world area is needed.

ANTH 375 Memory, Massacres, and Monuments in Southeast Asia (ASIA 375) (3). The past in Southeast Asia's present, focusing on global, national, and local processes; individual and collective memory; and the legacies of violent death.

ANTH 377 European Societies (3). This course explores many cultural factors and diverse peoples, non-Greco-Roman as well as Greco-Roman, that have formed the European identity from the earliest human occupation of Europe to present.

## ANTH 380 Anthropological Perspectives on Cultural Diversity

 (3). Introduction to theories of cultural and social difference. Encourages students to use social theory and ethnography to understand how various societies imagine and enact their cultural and political worlds.ANTH 390 Special Topics in Anthropology (3). Examines selected topics from an anthropological perspective. Course description is available from the departmental office.
ANTH 393 Internship in Anthropology (1-12). Permission of the instructor and the director of undergraduate studies.

ANTH 395 Independent Fieldwork (1-12). Permission of the instructor

## ANTH 396 Independent Reading or Study in Anthropology

 (1-12). Permission of the instructor.ANTH 400 Introduction to General Linguistics (LING 400) (3). See LING 400 for description.

ANTH 406 Native Writers (3). Exploration of a broad selection of writings by native or indigenous scholars from tribal societies throughout the world. Seeks to understand the hopes, dreams,
priorities, and perspectives of native peoples as expressed by and through their writers.
ANTH 411 Laboratory Methods in Archaeology (3). An examination of the laboratory techniques used by archaeologists to analyze artifacts and organic remains, including the analysis of stone tools, pottery, botanical remains, and bone.
ANTH 412 Paleoanthropology (3). This course traces the evolution of humans and nonhuman primates-including behaviors, tools, and bodies of monkeys, apes, and human hunters and gatherers-evolutionary theory, and paleoanthropological methods.

ANTH 413 Laboratory Methods: Archaeobotany (3). Corequisite, ANTH 413L. This course will focus on the analysis of plant remains from archaeological sites. Introduction to laboratory methods, analytical approaches, and interpretive framework for archaeobotany. Prior course in archaeology recommended but not required.

## ANTH 413L Archaeobotany Lab (1). Corequisite, ANTH

 413. Lab analysis of plant remains from archaeological sites with an emphasis on basic procedures for processing, sorting, and identifying macrobotanical remains.ANTH 414 Laboratory Methods: Human Osteology (3). This course will focus on the analysis of human skeletal materials in the laboratory and in the field, with an emphasis on basic identification, age and sex estimation, and quantitative analysis.
ANTH 414L Human Osteology Lab (1). Corequisite, ANTH 414. The laboratory analysis of human skeletal materials with an emphasis on basic identification, age and sex estimation, and quantitative analysis.
ANTH 415 Laboratory Methods: Zooarchaeology (3). This course will focus on the analysis of animal remains from archaeological sites. Introduction to laboratory methods, analytical approaches, and interpretive frameworks for zooarchaeology.
ANTH 415L Zooarchaeology Lab (1). Corequisite, ANTH 415. Required preparation, an archaeological course or permission of instructor. Examination of identification techniques, quantitative methods, and interpretive frameworks used to analyze animal remains recovered from archaeological sites.
ANTH 416 Bioarchaeology (3). The study of human skeletal remains from archaeological contexts. The collection and interpretation of quantitative and qualitative data is emphasized to assess the relationship between past biology, environment, culture, and behavior.
ANTH 417 Laboratory Methods: Lithic Seminar (3). Laboratory techniques in stone tool research and experimental practice.
ANTH 417L Lithic Analysis Lab (1). Corequisite, ANTH 417. Required preparation, any course in archaeology or permission of the instructor. This is a required one-hour laboratory section to be taken in conjunction with ANTH 417.
ANTH 418 Laboratory Methods: Ceramic Analysis (3). A survey of the laboratory techniques used by archaeologists to study and draw social and behavioral inferences from ancient pottery.

ANTH 419 Anthropological Application of GIS (3). Permission of the instructor. GIS experience required. This course explores applying GIS science technologies to anthropological problems. Students will learn GIS skills and apply them using spatial data.
ANTH 420 Public Archaeology (3). The aim of the course is to build an understanding of archaeology as a discipline that involves and affects the public. Among the areas to be covered are the implementation of federal, state, and other statutes, and the presentation of archaeological knowledge through museums and public media.
ANTH 421 Archaeological Geology (GEOL 421) (3). See GEOL 421 for description.
ANTH 422 Anthropology and Human Rights (3). An examination of human rights issues from an anthropological perspective, addressing the historical formation of rights, their crosscultural contest, and the emergence of humanitarian and human rights organizations on a global scale.
ANTH 423 Written in Bone: CSI and the Science of Death Investigation from Skeletal Remains (3). This course combines laboratory training, field projects, lectures, films, discussion, and student presentations into a course on the science of human skeletal analysis. Students learn the laboratory methods scientists use to study human remains and the role of skeletal analysis in the study of contemporary forensic cases.
ANTH 426 Making Magic (3). Magic in anthropology and popular culture, from the 19th century to the present. Focuses on witchcraft and healing; arts of illusion; fantasy and (multiple) realities. Examines how realities are made and unmade through speech, rites, relations of power.
ANTH 428 Religion and Anthropology (FOLK 428, RELI
428) (3). Religion studied anthropologically as a cultural, social, and psychological phenomenon in the works of classical and contemporary social thought.
ANTH 429 Culture and Power in Southeast Asia (ASIA 429, FOLK 429) (3). The formation and transformation of values, identities, and expressive forms in Southeast Asia in response to forms of power. Emphasis on the impact of colonialism, the nationstate, and globalization.

## ANTH 435 Consciousness and Symbols (CMPL 435, FOLK

 435) (3). This course explores consciousness through symbols. Symbols from religion, art, politics, and self are studied in social, psychological, historical, and ecological context to ascertain meanings in experience and behavior.ANTH 437 Evolutionary Medicine (3). This course explores evolutionary dimensions of variation in health and disease in human populations. Topics include biocultural and evolutionary models for the emergence of infectious and chronic diseases and cancers.

ANTH 438 Religion, Nature, and Environment (3). A seminar on concepts of nature within religions and a variety of world-wide spiritual traditions. Emphasis on sacred space, place, and pilgrimage as a vital intersection of religion and nature.
ANTH 439 Political Ecology (3). Examines environmental degradation, hunger, and poverty through the lens of power
relationships, particularly inequality, political and economic disenfranchisement, and discrimination. Discussion of global case studies, with a Latin American focus.

ANTH 441 The Anthropology of Gender, Health, and Illness (WMST 441) (3). The course explores cultural beliefs, practices, and social conditions that influence health and sickness of women and men from a cross-cultural perspective.

ANTH 442 Health and Gender after Socialism (3). This course examines post-socialist experiences of the relationship between political, economic, social, and cultural transitions, and challenges in public health and gender relations.

ANTH 443 Cultures and Politics of Reproduction (3). This course takes a cross-cultural approach to understanding how reproduction and associated phenomena become arenas where political debates are played out and where global and local social relations are contested.

ANTH 444 Medicine, Politics, and Justice (3). This course brings an anthropological approach to understanding the intersections between medicine, politics, and public health.

ANTH 445 Migration and Health (3). This course examines the intersections between migration processes and the political, economic, and social dimensions of health and well-being among migrants, their families, and their communities.
ANTH 446 Poverty, Inequality, and Health (3). This course examines poverty, inequalities, and health from a global and historical perspective. We will study the role of sociopolitical context, individual behavior, and human biology, and will pay particular attention to the roles of psychosocial stress, material conditions, and policy in shaping health differences within and between populations.

ANTH 447 The Anthropology of Work (3). Anthropological investigations of work and the relationship between work, family life, and community in contemporary societies in the United States, Asia, and Latin America, within the framework of globalization.

ANTH 449 Anthropology and Marxism (3). Critical study of Marx's mature social theory and its relationship to contemporary anthropology

ANTH 451 Field School in North American Archaeology (6). Intensive training in archaeological field methods and techniques. Students participate in the excavation, recovery, recording, and interpretation of archaeological remains. Instruction given in survey, mapping, photography, flotation recovery, etc.

ANTH 452 The Past in the Present (3). Memory and history, history and politics, national narratives, the past in the present, and the present in the past; a cross-cultural examination of ways of connecting the present and the past.

ANTH 453 Field School in South American Archaeology (6).
Intensive study of archaeological field and laboratory methods and prehistory of the Andes through excavation and analysis of materials from archaeological sites in Peru. Includes tours of major archaeological sites.
ANTH 454 The Archaeology of African Diasporas (3).
Considers how archaeological evidence is used to understand the
movement of Africans and their descendants across the globe, with an emphasis on the transformation of societies on the African continent and in the Americas.

ANTH 455 Ethnohistory (FOLK 455) (3). Integration of data from ethnographic and archaeological research with pertinent historic information. Familiarization with a wide range of sources for ethnohistoric data and practice in obtaining and evaluating information. Pertinent theoretical concepts will be explored.

## ANTH 456 Archaeology and Ethnography of Small-Scale

Societies (3). The study of small-scale hunter-gatherer and farming societies from archaeological and ethnographic perspectives. Methods and theories for investigating economic, ecological, and social relations in such societies are explored.

ANTH 458 Archaeology of Sex and Gender (WMST 458) (3). Required preparation, at least one ANTH or one WMST course. A discussion of gender and sex roles and sexuality in past cultures; a cross-cultural examination of ways of knowing about past human behavior.

ANTH 459 Ecological Anthropology (ENEC 459) (3). Examines how human-environmental adaptations shape the economic, social, and cultural lives of hunter-gatherers, pastoralists, and agriculturalists. Approaches include optimal foraging theory, political ecology, and subsistence risk.

ANTH 460 Historical Ecology (ENEC 460) (3). Historical ecology is a framework for integrating physical, biological, and social science data with insights from the humanities to understand the reciprocal relationship between human activity and the earth system.

## ANTH 461 Colonialism and Postcolonialism: History and

 Anthropology (3). This course examines colonialism and postcolonialism through the lenses of history and anthropology respectively. Through history, it asks, What were the dynamics of colonialism then? Through anthropology, it questions, What are the conditions, quandaries, and possibilities of postcolonialism now? Regional focus varies by instructor and year.ANTH 463 Settler Colonialism (3). This class will be framed around readings that explore the varied impact of European settlement across the globe. In focusing on both the varied global legacies of colonialism and the continued sociopolitical movements of indigenous populations, this class will encourage a broad perspective on what settler colonialism looks like today.

ANTH 466 Alternative Economic Systems (3). An investigation of economic systems that are sustainable alternatives to the prevailing economic order. Topics include markets, the commons, cooperatives, local trading systems, and social movements working to achieve alternatives.

ANTH 467 Culture, Wealth, and Poverty (3). Examines three broad perspectives used to explain inequality: ecological, cultural, and political. Students read theoretical works and evaluate arguments using ethnographies that describe local economies, institutions, and adaptive practices.

ANTH 468 State Formation (3). The course examines the state, from its initial appearance 5,000 years ago to newly established
nation-states, exploring the concepts of ethnicity, class, race, and history in state formation and maintenance.
ANTH 469 History and Anthropology (3). Studies links between history and anthropology; cultures in historical perspective and history in cultural perspective; and effects of relations of power and historical interconnections on the peoples of the world.
ANTH 470 Medicine and Anthropology (FOLK 470) (3). This course examines cultural understandings of health, illness, and medical systems from an anthropological perspective with a special focus on Western medicine.

## ANTH 473 Anthropology of the Body and the Subject (FOLK

 473) (3). Anthropological and historical studies of cultural constructions of bodily experience and subjectivity are reviewed, with emphasis on the genesis of the modern individual and cultural approaches to gender and sexuality.ANTH 474 The Anthropology of Disability (3). Investigates the social, cultural, and historical variation in the conception of disability, in its practical meaning and performance, and in its social and medical management. Special attention is paid to the interplay of embodiment, identity, and agency in work and everyday life and in political action and advocacy.
ANTH 477 Visual Anthropology (3). This course introduces students to visual forms of communication through both the analysis and production of still and video materials. Ethics, crosscultural representations, and ethnographic theory will all be explored.
ANTH 484 Discourse and Dialogue in Ethnographic Research (FOLK 484, LING 484) (3). Study of cultural variation in styles of speaking applied to collection of ethnographic data. Talk as responsive social action and its role in the constitution of ethnic and gender identities.
ANTH 490 Undergraduate Seminar in Anthropology (3). Restricted to junior and senior anthropology majors; generally the course is limited to 18 students. The subject matter will vary with the instructor. Each course will concern itself with a study in contemporary anthropology and new directions in research or applications.
ANTH 491 Political Anthropology (3). Introduction to political anthropology. A thematically organized investigation of political processes in state societies, including state formation, with special attention to ethnographic and historical approaches.
ANTH 502 Globalization and Transnationalism (3). Anthropological examination of processes of globalization and transnationalism, with special attention to transnational migration, emergence of transnational ("global") institutions, commodity flows, and dissemination of ideologies, cultural frameworks, and media imagery.
ANTH 503 Gender, Culture, and Development (3). Classic writings and debates relating to gender and development, with emphasis on recent work that critiques conventional development models. The scope is global, with special attention to Latin America and to such questions as how alternative approaches to gender, culture, and development may be more inclusive of diverse peoples and grassroots movements for change.

ANTH 520 Linguistic Phonetics (LING 520) (3). See LING 520 for description.

ANTH 523 Phonological Theory I (LING 523) (3). See LING 523 for description.

ANTH 525 Culture and Personality (FOLK 525) (3). Systems theory used to conceptualize relationship between cultural patterns and individual minds. Functional, dysfunctional, and therapeutic processes considered. Examples from Africa, Asia, Europe, and Native America. Lectures, films, recitations.

## ANTH 537 Gender and Performance: Constituting Identity

 (FOLK 537, WMST 438) (3). Examines the culturally and historically variable ways in which individuals constitute themselves as cis- or trans-gendered subjects, drawing upon extant expressive resources, modifying them, and expanding options available to others. Performance of self as the product of esthetically marked or unmarked, everyday actions.ANTH 538 Disease and Discrimination in Colonial Atlantic
America (3). Colonization of Atlantic America between 1500 and 1900, through landscape change, agriculture, poverty, labor discrimination, and slavery differentially placed subsets of the general population at risk for infectious disease and other insults to their health. Lecture and discussion using archaeological and bioarchaeological studies, modern disease studies, and historic documents.

ANTH 539 Environmental Justice (3). Course examining issues of race, poverty, and equity in the environmental movement. Cases include the siting of toxic incinerators in predominantly people-ofcolor communities as well as resource exploitation on indigenous lands.

## ANTH 540 Planetary Crises and Ecological and Cultural

Transitions (3). Analysis of the social-environmental crisis and approaches to redress it, particularly those that posit ecological and cultural transitions beyond current globalization models. Participants will construct their own scenarios for transitions to sustainable and pluralistic societies. The course will have an inbuilt, collective research component. Intended for upper-division undergraduates.
ANTH 541 Sociolinguistics (LING 541) (3). See LING 541 for description.

ANTH 542 Pidgins and Creoles (LING 542) (3). See LING 542 for description.
ANTH 545 The Politics of Culture in East Asia (ASIA 545) (3). Examines struggles to define culture and the nation in 20th-century China in domains like popular culture, museums, traditional medicine, fiction, film, ethnic group politics, and biography and autobiography.
ANTH 550 Archaeology of the American South (3). Current issues and interpretations in the archaeology of the American South. Through weekly readings and discussions, students will explore the lifeways and changes that characterized each major period of the South's ancient history, from 12,000 years ago to the beginnings of European colonization.

ANTH 551 Origins of Agriculture in the Ancient World (3). This course explores archaeological evidence for the origins of food production. We address when and where this profound change occurred as well as focusing on why it happened and what its consequences were. We will examine current evidence for the origins of agriculture in both Old and New Worlds.
ANTH 559 History in Person (3). Extends anthropological approaches to identity in social life. Examines social position, power, and cultural imagination; the personal and collective dynamics of sociocultural change; and the concept of agency.

ANTH 567 Urban Anthropology (3). Comparative study of the political economy and cultural politics of populations in spaces and landscapes in cities in America and the Third World undergoing globalization, economic restructuring, and transnational immigration.

ANTH 574 Chinese World Views (ASIA 574, RELI 574) (3). Explores the indigenous Chinese sciences and the cosmological ideas that informed them. Topics include astronomy, divination, medicine, fengshui, and political and literary theory. Chinese sources in translation are emphasized.

## ANTH 578 Chinese Diaspora in the Asia Pacific (ASIA 578)

(3). Examination of the histories, social organization, and cultures of the Chinese diasporas in the Asia Pacific region, focusing on contemporary issues in the cultural politics and identities of "overseas Chinese."

## ANTH 584 Conspiracy Thinking in Contemporary United

States (3). We will consider the JFK assassination, in detail and in historical context, and several subsequent real and imagined conspiracies, including $9 / 11$. The course focuses on a fundamental issue in social analysis: the empirical and epistemological bases of what we know about our society, its current events and recent history.

ANTH 585 Anthropology of Science (3). Cultural perspectives on science and technology at a global scale, including research settings and social contexts, knowledge claims and material practice, and relations between scientific worldviews, social institutions, and popular imagination.
ANTH 586 The Gardens, Shrines, and Temples of Japan (ASIA 586) (3). The religious landscape and built environments of Japan. Attention to palace, courtyard, and teahouse architecture and gardens, with emphasis on Shinto shrines and the Zen Buddhist temple and garden.

ANTH 590 Special Topics in Anthropology I (3). Subject matter will vary with instructor but will focus on some particular topic or anthropological approach. Course description is available from the departmental office.

ANTH 623 Human Disease Ecology (3). This seminar considers cultural ecologies of disease by examining how social, cultural, and historical factors shape disease patterns. We examine how ecosystems are shaped by disease, how disease shapes ecosystems, and how cultural processes (e.g., population movements, transportation, economic shifts, landscape modifications, and built environments) contribute to emerging infectious disease.

ANTH 624 Anthropology and Public Health (3). This course compares disciplinary approaches of public health and anthropology. We begin by examining the social determinants of health paradigms and relationships between inequality, poverty, and global health. We will explore epidemiological, biocultural, and symbolic approaches to these problems. Public policy and health development will also be examined.

ANTH 625 Ethnography and Life Stories (3). The course focuses on the practical and research uses of ethnography and oral history, emphasizing life histories, life stories, biographies, and how these intersect with communities.

ANTH 626 African Cultural Dynamics (3). In-depth reading of several books and articles that consider the interaction between indigenous African traditions and intrusive colonial and postcolonial forces. Emphasis on class discussion. Short papers and individual projects.
ANTH 629 Language Minority Students: Issues for Practitioners (EDUC 629) (3). See EDUC 629 for description.

ANTH 639 Beyond the Tragedy of the Commons (3). Reexamination of the "tragedy of the commons" concept in light of recent work on environmental problems, property rights, and community-based conservation. Case studies include fishery, waterway, forest, and pasture management.

ANTH 649 Politics of Life and Death (3). The course examines intersections between life, death, and contemporary politics, with a historical focus on the health of populations. It combines theoretical discussions with comparative empirical cases in a global frame and includes a research component.

ANTH 650 Reconstructing Life: Nutrition and Disease in Past Populations (3). This is an advanced course in the reconstruction of nutrition and health in past populations. Among the topics explored are epidemiology, disease ecology, dietary reconstruction, and paleopathology.
ANTH 660 Kinship, Reproduction, Reproductive Technology, and the New Genetics (WMST 660) (3). This course focuses on the relationship between family, kinship, new reproductive technologies, and the new genetics from a cross-cultural perspective.

ANTH 674 Issues in Cultural Heritage (3). This course examines entanglements between the past and present from multiple and conflicting perspectives, highlighting an archaeological point of view. Models of participatory research are considered in relation to cultural heritage, and indigenous-rights perspectives are discussed in reference to archaeological, nation-state, and global interests.
ANTH 675 Ethnographic Method (FOLK 675) (3). Intensive study and practice of the core research methods of cultural and social anthropology.

ANTH 682 Contemporary Chinese Society (ASIA 682) (3). Presents recent anthropological research on the People's Republic of China. In addition to social sciences sources, fictional genres are used to explore the particular modernity of Chinese society and culture.

ANTH 688 Observation and Interpretation of Religious Action (FOLK 688, RELI 688) (3). Permission of the instructor. Exercises (including field work) in learning to read the primary modes of
public action in religious traditions, e.g., sermons, testimonies, rituals, and prayers.

ANTH 690 Special Topics in Anthropology II (3). Subject matter will vary with instructor but will focus on some particular topic or anthropological approach. Course description is available from the departmental office.
ANTH 691H Seniors Honors Project in Anthropology (3). Permission of the instructor. Open only to honors candidates.

ANTH 692H Senior Honors Thesis in Anthropology (3).
Permission of the instructor. Open only to honors candidates.

## Department of Applied Physical Sciences

apsc.unc.edu

244 Chapman Hall, CB\# 3216; (919) 843-9334
ED SAMULSKI, Interim Chair
The Department of Applied Physical Sciences was created to expand interdisciplinary research and teaching by strengthening an intellectual climate in which science is collaborative and focused on applications. The department has connections among disciplinary departments across the natural sciences. The graduate program in materials science (M.S. and Ph.D.) is housed in the department. The following undergraduate courses also are offered.

## Courses

## APPL-Applied Sciences

APPL 390 Special Topics in Applied Physical Sciences (.5-12). Permission of the instructor. Advanced specialty topics in applied physical sciences for undergraduates.

APPL 420 Introduction to Polymer Chemistry (CHEM 420)
(3). See CHEM 420 for description.

APPL 421 Synthesis of Polymers (CHEM 421) (3). See CHEM 421 for description.
APPL 422 Physical Chemistry of Polymers (CHEM 422) (3). See CHEM 422 for description.

APPL 423 Intermediate Polymer Chemistry (CHEM 423) (3). See CHEM 423 for description.
APPL 470 Fundamentals of Materials Science (CHEM 470) (3). See CHEM 470 for description.

APPL 472 Chemistry and Physics of Electronic Materials Processing (CHEM 472, PHYS 472) (3). See PHYS 472 for description.

APPL 473 Chemistry and Physics of Surfaces (CHEM 473) (3). See CHEM 473 for description.
APPL 491L Materials Laboratory I (PHYS 491L) (2). See PHYS 491L for description.

APPL 492L Materials Laboratory II (PHYS 492L) (2). See PHYS 492L for description.

APPL 520L Polymer Chemistry Laboratory (CHEM 520L) (2). See CHEM 520L for description.
APPL 573 Introductory Solid State Physics (PHYS 573) (3). See PHYS 573 for description.

## MTSC-Material Science

MTSC 615 Structure of Solids (3). Crystallography, reciprocal lattices, Bloch waves, band structure, electronic wave functions, phonons, thermal expansion. Superlattice structures, including liquid crystals. Overview of properties of ceramic, amorphous, polymeric, and composite materials.

## Curriculum in Archaeology

archaeology.unc.edu
108 Alumni Building, CB\# 3120; (919) 962-6574
VINCAS P. STEPONAITIS, Chair

## Introduction

The undergraduate major in archaeology focuses on the systematic study of the human past through its material remains by means of the excavation, recovery, and interpretation of artifacts and other associated evidence. Historical, environmental, and comparative components enable the examination of different culture systems through time and space, as well as the reconstruction of past lifeways and the interpretation of ancient social, political, and economic systems. The geographic scope of the program includes the Americas, Europe and the Mediterranean, Egypt, and the Near East. The educational goal of the program is to provide the student with a component of a liberal arts education that draws on both the social sciences and the humanities. It also will effectively prepare students for graduate study in anthropological archaeology, Mediterranean archaeology, museology, and historical preservation, or careers in contract archaeology and cultural resource management. Students interested in applying to graduate programs in Mediterranean or Near Eastern archaeology may need ancient language classes not required for the major. Students should consult a faculty advisor in archaeology if they have questions.

## Archaeology Major, B.A.

## Core Requirements

- One course in the logic of archaeological inference: ANTH 220, 291, or CLAR 411
- Two courses in archaeological practice. One must be a laboratory course: ANTH 411, 413, 414, 415, 416, 417, or 418 . One must be a field school: ANTH 451, 453, or CLAR 650.
- One course in comparative perspectives from the following list: ANTH 121, 123, 145, 222, 456, 468, 551; CLAR 50, 120, 470
- Two courses in long-term history from the following list: ANTH 148, 231, 233, 250, 359; ARTH/CLAR 262, 263, 460; CLAR 241, 242, 244, 245, 247, 268, 475, 561; CLAR/JWST/RELI 110
- One course in topics in archaeology from the following list:

AMST/ANTH 54; ANTH 50, 60, 64, 65, 149, 232, 252, 412, 420, 423, 454, 538, 550, 650, 674; ANTH/ENEC 460; ANTH/ FOLK 455; ANTH/GEOL 421; ANTH/WMST 458; ARTH/ CLAR 461, 462, 463, 464, 465, 474, 476, 683; CLAR 51, 243 , 488, 489, 491; CLAR/JWST/RELI 512; CLAR/RELI 375; CLAS 71; LING 558, 560, 561; RELI 63

- One elective course chosen from any of the courses listed above. Internship, independent research, directed readings, or honors thesis hours selected from ARCH 393, 395, 396, 691H, or 692H may be substituted for the elective.
- Two additional electives from related fields. The following courses approved for electives are listed by potential student interest. Any two may be used to fulfill the major requirement.
${ }^{\circ}$ General interest electives: ANTH 143, 151, 377, 438, 452, 459; ANTH/FOLK 334; ARTH 151, 152, 450, 551, 592; ARTH/GLBL 514; ARTS 213; BIOL/ENEC 461; ENEC 201, 202, 308, 479; ENEC/GEOL 417; GEOG 110, 111, 123, 125, 228, 370, 419, 420, 444, 597; GEOG/PLAN 491; GEOL 77, 101, 105, 109, 301, 404, 501; HIST 514, 671, 697; RELI 438
- Electives appropriate for students interested in historical archaeology: AAAD 130, 211, 231, 254; AAAD 232/WMST 266; AMST 210, 275, 384; AMST/FOLK 488; ANTH/FOLK 340; ARTH 156, 274, 275; FOLK/GEOG 454; GEOG 261, 262; HIST 107, 127, 128, 227, 278, 366, 376, 467, 516, 531, 534, 541, 561, 584; HIST/WMST 568, 569
${ }^{\circ}$ Electives appropriate for students interested in the archaeology of the Americas: AMST 203; AMST/ANTH/HIST 234;

AMST/HIST 110, 231, 233; ANTH/FOLK 230; ANTH/ LING 303; ARTH 157, 469; GEOG 259, 260; HIST 142, 143, 232, 531, 574; HIST/WMST 576; LTAM 411
o Electives appropriate for students interested in the archaeology of the Mediterranean and ancient Near East: ARTH 467; CLAS 71, 73, 253, 254, 257, 258; CLAS/WMST 240, 241; FOLK/ RELI 502; HIST 225, 226, 420, 423, 424, 425, 427, 428; HIST/PWAD 421, 422; JWST/RELI 103, 106, 503; RELI 104, 105, 109, 117

## Additional Requirements

- In choosing their comparative perspectives, long-term history, and topics in archaeology courses students are required to select courses from at least two of the participating departments (art, anthropology, classics, and religious studies).
- Of the 30 hours required for the major, at least 21 must be completed with a grade of C or better.
- Students may count only three introductory archaeology courses (numbered below 200) toward their major. This restriction does not include courses used to fill electives in related fields.
- For transfer students, at least half of the coursework in the major must be completed within the curriculum at UNC-Chapel Hill. Subject to the approval of the advisor for the major, students may count graduate seminars towards fulfillment of their comparative perspectives, long-term history, and topics in archaeology or electives requirements. Also subject to the approval of the archaeology major advisor, field schools sponsored by Study Abroad or other universities may be used to fulfill the archaeological practice field experience requirement.


## Archaeology Minor

The minor consists of five courses: two core courses (no more than one of which can be a field school), one comparative course, one area-studies course, and one topical course. The courses used to satisfy these requirements must come from at least two departments. Three of the courses used to fulfill the minor's requirements must be numbered 200 or above and come from two different divisions. (AMST, CLAR, CLAS, LING, and RELI courses are in the Division of the Humanities; ANTH and ARCH courses are in the Division of the Social and Behavioral Sciences.) At least one of the courses used to fulfill the minor's requirements must be numbered 300 or above.

- Two core courses (no more than one of which is a field school) from the following list: ANTH 220, 291, 451, 453; CLAR 411, 650
- One comparative course from the following list: ANTH 121, 123, 145, 222, 456, 468, 551; CLAR 50, 120, 470
- One area-studies course from the following list: ANTH 231, 232, 233, 250, 550; CLAR 241, 242, 243, 244, 245, 247, 262, 268, 375, 464, 465, 475, 488, 489, 491, 550; CLAR/JWST/RELI 110 - One topical course from the following list: AMST/ANTH 54; ANTH 50, 60, 64, 65, 143, 148, 149, 252, 411, 412, 413, 414, $415,416,417,418,420,423,454,455,458,460,538,650$, 674; ANTH/GEOL 421; ARCH 393, 395, 396; ARTH/CLAR 263, 460 461, 462, 463, 474, 476, 683; CLAR 51; CLAS 71; LING 558, 560, 561; RELI 63, 512
The minor in archaeology draws on a number of disciplines and departments-principally anthropology, classics, and art-in the study of the ancient world, the reconstruction of past lifeways, and the interpretation of ancient social, political, and economic systems.

The minor helps prepare students for graduate study in anthropological archaeology, classical archaeology, cultural resource management, and historical preservation. It also provides any student with a strong intellectual interest in archaeology with a structured introduction to this field. Students interested in the minor in archaeology may contact Director of Undergraduate Studies Margaret Scarry and consult the Web site: archaeology.unc. edu/degrees/minor.html.

## Advising

All majors and minors have a primary academic advisor in Steele Building. Students are strongly encouraged to meet regularly with their advisor and review their Tar Heel Tracker each semester. The curriculum's director of undergraduate studies (see "Contact Information" below) works with current and prospective majors and minors by appointment. Students are encouraged to consult with the director of undergraduate studies about course choices and field work opportunities. Curriculum academic advising is particularly important for those majors who are considering going on to graduate school. Further information on courses, undergraduate research opportunities, and the honors program may be obtained from the curriculum's Web site.

## Special Opportunities in Archaeology

Honors in Archaeology

Students with a grade point average of 3.3 or higher are eligible to pursue a degree with honors. A student who wishes to take this track should identify and contact a faculty thesis advisor before the end of the junior year. During the senior year the student enrolls in a two-semester course sequence, ARCH 691 H and 692 H , which provides the opportunity to carry out an independent research project and write a thesis under the direction of the faculty advisor. Prior to registering for the honors courses, the student and faculty mentor must fill out a contract and have it signed by the curriculum's director of undergraduate studies. The thesis is evaluated by a committee consisting of the advisor and two readers. The advisor and at least one reader must be members of the Curriculum in Archaeology's faculty. A student who successfully completes the thesis may be awarded honors or highest honors by the committee. Highest honors is awarded only in cases where the thesis is judged to be exceptional in comparison to other such works.

## Research Laboratories of Archaeology

Founded in 1939, the Research Laboratories of Archaeology (RLA) was the first center for the study of North Carolina archaeology. Serving the interests of students, scholars, and the general public, it is currently one of the leading institutes for archaeological teaching and research in the South. Located within the College of Arts and Sciences, it provides support and research opportunities for UNCChapel Hill students working not only in North Carolina but also throughout the Americas and overseas.

## Duke-UNC Consortium for Classical and Mediterranean Archaeology (CCMA)

The Duke-UNC Consortium for Classical and Mediterranean Archaeology represents a collaboration between the institutions in order to enhance archaeology curricula and concentrations in the respective departments and programs in archaeology. The consortium fosters an interdisciplinary dialogue on methods, theory, and practice in classical archaeology and material culture, providing students access to coursework, seminars, excavations, and other research opportunities; academic advising; and avenues for curricular and extracurricular interaction.

## Experiential Education

The development of skills and perspectives beyond the classroom is considered central to the curriculum in archaeology. Handson training in field archeology provides students with the basic tools not only necessary for graduate training and advanced research in archaeology, but also for careers in cultural resource and heritage management through government agencies, contract firms, and museums. Developing an understanding of context and physical environment in archaeology requires field and laboratory experiences that are impossible to teach effectively in the classroom. Excavation and laboratory experiences allow students to participate directly in faculty research and to learn firsthand important aspects of the research process. Two or more field schools in archaeology are generally offered during summer sessions through the Study Abroad Office by faculty from the departments of anthropology, classics, religious studies, and history. In addition,
many faculty research associates offer laboratory experiences through independent study projects and internships. These field work and laboratory experiences are designed to enhance the classroom training, allowing students to work as assistants to field archaeologists and specialists-such as surveyors, archaeological architects, palaeoethnobotanists, zooarchaeologists, biological anthropologists, and geomorphologists-learning firsthand various aspects of data recovery, processing, and interpretation associated with archaeological field projects.

## Graduate School and Career Opportunities

The undergraduate curriculum in archaeology prepares majors for specialized graduate study in archaeology and cognate fields. The specific area of graduate study will depend on the fields of concentration of major, minor, and supporting coursework. Graduating majors (and double majors and minors) may pursue degree programs and careers in fields such as anthropology, Latin American studies, classical and medieval archaeology, Egyptology and ancient Near Eastern archaeology, art history, ancient history, and linguistics. Provided with a well-rounded undergraduate degree in the liberal arts, graduating students may pursue professional and graduate programs in diverse fields of the humanities and social sciences, utilizing their skills in various professions such as field archaeology (professional or contract archaeology), museology, conservation and historical preservation, cultural resource and heritage management, and teaching. Career resources as well as a list of former graduates and their careers are available on the curriculum's Web site at archaeology.unc.edu.

## Faculty

## Adjunct Professors

R.P. Stephen Davis Jr., Donald C. Haggis, Dale L. Hutchinson, Jodi Magness, Patricia M. McAnany, G. Kenneth Sams, C. Margaret Scarry, Vincas P. Steponaitis, Silvia Tomášková.

## Adjunct Associate Professors

Brian Billman, David Mora-Marín, Brett H. Riggs, John F. Scarry.

## Adjunct Assistant Professors

Anna Agbe-Davies, Benjamin Arbuckle, Jennifer Gates-Foster, Laurie Cameron Steponaitis.

## Research Associate Professor

## Scott Madry.

## Research Assistant Professor

John Pleasants.

## Professors Emeriti

Carole L. Crumley, Mary C. Sturgeon.

## Contact Information

Professor V. Steponaitis, Chair, 108 Alumni Building, (919) 9626574, vin@unc.edu.

Professor C.M. Scarry, Director of Undergraduate Studies and Undergraduate Advisor, 202 Alumni Building, (919) 962-3841, scarry@email.unc.edu.

## Courses

## ARCH-Archaeology

ARCH 393 Internship in Archaeology (3-6). Permission of the instructor and the director of undergraduate studies. Internships combine substantive work experience with an academic project.
ARCH 395 Research in Archaeology (1-6). Permission of the instructor. For students who wish to participate in laboratory or field research programs. May be taken twice.

## ARCH 396 Independent Study in Archaeology (1-6).

Permission of the instructor. Special reading and research in archaeology under the supervision of a selected instructor. May be taken twice.

ARCH 691H Senior Honors Thesis, Part I (3). Permission of the instructor. Restricted to senior honors candidates. First semester of senior honors thesis. Independent research under the direction of an archaeology curriculum faculty member.

ARCH 692H Senior Honors Thesis, Part II (3). Permission of the instructor. Restricted to senior honors candidates. Second semester of senior honors thesis. Independent research under the direction of an archaeology curriculum faculty member.

## Department of Art

art.unc.edu
101 Hanes Art Center, CB\# 3405; (919) 962-2015
JIM HIRSCHFIELD, Chair

## Introduction

As a department, we are committed to working closely with our students and to guiding them in developing an individual voice. From a strong central core in the traditional practices of making and interpreting art, the faculty and students at UNC-Chapel Hill move out in innovative and personal directions. We cultivate exchange between studio art and art history and offer maximum flexibility within our individual programs. We also invite our studio art students to work in different media and across disciplines, and we encourage art history students to develop connections with other fields of inquiry and to intertwine historical analysis with theoretical speculation.

The art history curriculum is designed to help students acquire an individual perspective on their own values and beliefs and on their places in a society increasingly shaped by visual communication. Majors and minors in art history become acquainted with the historical significance, cultural diversity, and intellectual richness of human artistic traditions, enabling students to investigate the complex roles played by the arts in a variety of social contexts. The course of study for majors or minors in studio art provides a sound foundation for students to move into art-related careers. At the same time, studio art students gain the valuable skill of finding creative solutions to problems as well as the vital ability to express their individuality. These are two major keys
to any successful career, no matter what a student's field of interest may be.

The studio art program is a community of ardent and diverse fine arts professionals who facilitate studio art experiences for undergraduate and graduate students. We recognize and respond to the universal human need for visual expression, and the necessity of the visual arts and visual communication in contemporary society. The program encourages experimentation, crossing boundaries, and hybrid processes as well as engaging the history and traditions of art. Through directed practice and creative research, faculty work closely with students to stimulate aesthetic and intellectual inquiry, impart portable skills, and motivate self-exploration to help students create outstanding works of art. The studio learning environment promotes curiosity, critical thinking, and creative problem solving-valuable skills for anyone who studies in the discipline.

The program in studio art focuses on fine arts. Students may choose from a range of studio coursework designed to develop both skills and a personal creative vision. Students develop two critical skills: the means of self-expression and techniques for creative thinking. While the undergraduate program focuses on the fine arts, the course of study nonetheless offers a sound foundation for students to move into art education, design fields, and other artrelated careers as well as preparation for further study or careers in the fine arts.

## Art History Major, B.A.

## Core Requirements

- Three art history foundation courses from ARTH 100 to 199 and one studio art course
- Two intermediate art history courses from ARTH 200 to 399
- One advanced art history course from ARTH 400 to 699
- Four elective art history courses from ARTH 200 to 699; a firstyear seminar taught by an art history faculty member (ARTH 53, $54,55,56,61,64,66,77,79,84,89$ [with approval based on topic]) may be substituted for one art history elective numbered 200 or above.
- One undergraduate research seminar, ARTH 391 (offered with three chronological topic areas). It is strongly recommended that students take this seminar no later than the spring of their junior year.
- Area of concentration: Five courses of any level from the above categories must fall within one of the following five areas of concentration:
${ }^{\circ}$ Concentration I: 5000 BCE- 400 CE: ARTH 151, 153, 158, 160, 262, 263, 266, 292, 391 (ancient and medieval topic), 460, 461, 462, 463, 464, 465, 466, 467, 474, 476, 683
o Concentration II: 200-1500 CE: ARTH 151, 153, 154, 157, $158,160,251,258,264,265,266,270,272,351,361,362$, 363, 365, 391 (ancient and medieval topic), 454, 455, 457, 458, 466, 467, 469, 470, 471, 472, 475, 561, 562, 570
${ }^{\circ}$ Concentration III: 1250-1850: ARTH 54, 55, 64, 66, 77, 152, $153,154,157,161,254,266,270,271,272,273,274,275$, 277, 279, 283, 287, 288, 352, 361, 365, 368, 370, 391 (early modern topic), 451, 457, 458, 466, 469, 470, 471, 472, 473, 485, 561, 562, 570, 597
o Concentration IV: 1750-1950: ARTH 54, 61, 64, 66, 77, 84,
$152,153,155,157,159,161,254,266,267,275,282,283$, 284, 287, 288, 289, 352, 353, 370, 383, 387, 391 (modern and contemporary topic), 452, 453, 456, 457, 473, 481, 483, 514, 551, 556, 583, 592
o Concentration V: 1900-Present: ARTH 53, 54, 61, 152, 153, $155,157,159,255,259,267,283,284,285,287,289,352$, 353, 383, 385, 386, 387, 391 (modern and contemporary topic), $445,452,453,456,457,468,473,485,488,514,551$, $553,554,556,583,586,588$
The undergraduate program in art history is directed toward two main educational goals: 1) to provide students with an excellent liberal arts foundation through an understanding of the historical and global significance, cultural diversity, and intellectual richness of human artistic traditions from prehistoric times to the present; and 2) to provide these students with the intellectual tools needed to investigate the complex roles played by the arts in a variety of social contexts. Skills in visual analysis, historical research, critical reading, analytical and descriptive writing, and oral communication are developed throughout the course of the study. The practice of art history is interdisciplinary, dynamically engaged with many fields in the humanities and social sciences, as well as with the University's diverse area studies programs and the Ackland Art Museum. The art history major equips students with skills, knowledge, and values to negotiate rapidly changing, richly diverse, and increasingly interconnected local, national, and worldwide communities.

A maximum of two cross-listed courses taught by faculty members outside the Department of Art may count toward the major. It is strongly recommended that before taking a course numbered above 399, students take a lower-level course devoted to the same period. Advanced courses numbered 400 to 699 are lecture and discussion classes open to both graduate and undergraduate students.

All General Education Foundations, Approaches, Connections, and Supplemental General Education requirements must be satisfied.

## Studio Art Major, B.A.

## Core Requirements

- ARTS 101
- Three studio art foundation courses: ARTS 102, 103, and 106
- One Tier I studio art course: ARTS 104, 105, 116, 233, or 243
- ARTS 300
- One Tier II studio art course: ARTS 202, 203, 206, 208, 213, $214,290,305,324,328,348,355,356$, or 358
- One Tier III studio art course: ARTS 302, 303, 313, 314, 368, 402, 403, 410, 413, 415, 416, 417, 418, 428, 493, 515, 596, or 636
- Four studio art electives: any Tier I, II, or III courses, ARTS 500, an art history course, first-year seminar, or internship (ARTH 293). Only three credits of senior honors thesis can count in the major.
The B.A. degree is intended to expose undergraduate students to a range of studio art ideas and practices. Students should choose this degree option if they are seeking a general liberal arts education. It is
also the most often selected degree option when pursuing a double major. Second majors are frequent with communication studies (media and technology studies and production), journalism (design track), biology, drama (costume and set design), and psychology (art therapy), but any field can be augmented by studying the visual arts. All General Education Foundations, Approaches, Connections, and Supplemental General Education requirements must be satisfied. While the major consists of 36 credit hours, students may earn up to 45 credits in the Department of Art that will count toward graduation. Credits taken in the Department of Art beyond 45 will not count toward overall graduation requirements.


## Studio Art Major, Bachelor of Fine Arts (B.F.A)

## Core Requirements

- ARTS 101
- Three studio art foundation courses: ARTS 102, 103, and 106
- Two Tier I studio art courses: ARTS 104, 105, 116, 233, or 243
- ARTS 300
- Two Tier II studio art courses: ARTS 202, 203, 206, 208, 213, $214,290,305,324,328,348,355$, or 358
- Three Tier III studio art courses: ARTS 302, 303, 313, 314, 368, $402,403,410,413,415,416,417,418,428,493,515,596$, or 636
- Five studio art electives: any Tier I, II, or III courses, first-year seminar, or internship (ARTH 293). Students can include an additional art history course in place of one studio art course. Students can count up to six hours of senior honors thesis credit.
- Two art history courses, one must have a contemporary focus chosen from ARTH 159, 255, 283, 285, 302, 385, 387, 468, 488, 553, 554, 555, 586


## - ARTS 500

The B.F.A. is considered the preprofessional course of study, providing a more in-depth experience of visual concept and practice. Students intending to pursue further study in visual arts disciplines (master of fine arts, design fields, or architecture) should choose this degree option. Students considering the B.F.A. degree are advised to contact the undergraduate advisor for studio art during the first year and no later than the sophomore year. All General Education Foundations, Approaches, and Connections requirements must be satisfied. B.F.A. students should be aware that courses taken in the Department of Art beyond the 60 credits outlined in the major will not count toward graduation.

## Studio Art Major, Bachelor of Fine Arts (B.F.A)-Art History Emphasis

This combined degree was designed for those wishing a depth of study in both programmatic areas of the Department of Art.

## Core Requirements

- Three studio art foundation courses: ARTS 102, 103, and 106
- One Tier I studio art course: ARTS 104, 105, 116, 233, or 243
- One Tier II studio art course: ARTS 202, 203, 206, 208, 213, $214,290,305,324,328,348,355,356$, or 358
- One Tier III studio art course: ARTS 302, 303, 313, 314, 368, $402,403,410,413,415,416,417,418,428,493,515,596$, or 636
- Four studio art electives: any Tier I, II, or III courses, first-year seminar, or internship (ARTH 293). Students can count senior honors thesis credits (up to six hours) as studio or art history electives or split between the two, depending on the nature of the thesis project.
- ARTS 500
- Art history emphasis (nine art history courses): two art history survey courses, plus seven courses numbered from 200 to 699, two of which must be numbered above 400 The bachelor of fine arts with art history emphasis degree was established to allow students to pursue concentrated study in both studio art and art history. Unique to UNC-Chapel Hill, this degree has been well received for students wishing to pursue graduate study in fields that demand knowledge in both history and practice, such as curatorial studies, museum studies, or education. Students pursuing this degree are advised by the director of undergraduate studies for both studio art and art history. Students interested in this degree should contact both advisors no later than the sophomore year.

All General Education Foundations, Approaches, and Connections requirements must be satisfied. B.F.A.-A.H. students should be aware that courses taken in the Department of Art beyond the 60 credits outlined in the major will not count toward graduation.

## Studio Art Credit Summary: B.A., B.F.A., B.F.A.-A.H.

|  | B.A. | B.F.A. | B.F.A.-A.H. |
| :--- | :---: | :---: | :---: |
| ARTS 101 | 3 | 3 | Not <br> Required |
| Studio Art Foundation Courses: <br> ARTS 102, 103, and 106 | 9 |  |  |
| Tier I Studio Art Courses: |  |  |  |

## Art History Minor

Students majoring in another department may elect to pursue a minor in art history. The minor consists of five courses at any level in art history. Studio art majors may not pursue an art history minor.

## Studio Art Minor

Students majoring in another department may elect to pursue a minor in studio art. The minor consists of five courses at different levels. Students minoring in studio art may choose from a broad selection of courses including drawing, painting, ceramics, sculpture, printmaking, digital media, special topics, mixed media, and photography. Art history majors may not pursue a studio art minor.
The undergraduate minor in studio art consists of five courses (15 credit hours).

- Choose one studio art foundation course: ARTS 102, 103, 106
- Choose one Tier I studio art course: ARTS 104, 105, 116, 233, 243
- Choose one Tier II studio art course: ARTS 202, 203, 206, 208, 213, 214, 290, 305, 324, 328, 355, 356, 358
- Choose one Tier III or upper-level studio art course: ARTS 302, $303,313,314,368,402,403,410,413,415,416,417,418,428$, 515, 596, 636
- Choose one course from the foundation, Tier II, or Tier III category
Note: Students MUST have appropriate prerequisites to take upperlevel courses. Be sure to check the courses in each level to determine the appropriate courses to take in Tiers I and II. You may have to take an additional course to satisfy these requirements.


## Credit by Examination

Students who pass the Advanced Placement (AP) examination in art history and earn a score of 4 or 5 will receive credit for ARTH 152 History of Western Art II.

Students who fulfill the studio art portfolio requirements for the Advanced Placement (AP) examination and earn a score of 4 or 5 will receive credit for ARTS 102, 103, or 104. Students who score a 3 can petition to waive relevant prerequisites via portfolio review,
although no course credit will be given. Students earning a score of 6 or higher on the International Baccalaureate (IB) portfolio will be granted three credits for ARTS 104. Students who score a 5 on the IB may petition for a portfolio review to determine if they can exempt ARTS 102 or 104.

## Advanced Placement by Portfolio Review

Art majors who have broad experience in visual art may petition to exempt foundation requirements by submitting to a portfolio review. If the review is successful, students do not receive credit for these courses; rather, the credit hours are redistributed to the studio concentration or elective requirement of the major. Portfolio requirements are modeled after the College Board Advanced Placement portfolio guidelines. These guidelines are available from the director of undergraduate studies in studio art, the student services administrator, or on the art majors' Sakai site.

## Advising

All majors and minors have a primary academic advisor in Steele Building. Students are strongly encouraged to meet regularly with their advisor and review their Tar Heel Tracker each semester. The department's directors of undergraduate studies and undergraduate advisors work with current and prospective majors by appointment (see "Contact Information" below). On request, art history majors may be assigned an individual faculty advisor. The studio area also holds general advising sessions prior to registration each semester. Departmental academic advising is particularly important for those majors who are considering honors thesis work or graduate school. Further information on courses, undergraduate research opportunities, and the honors program may be obtained from the department's Web site.
Additionally, special informational sessions are held periodically to guide students on awards, study abroad, internships, and research opportunities (especially the Summer Undergraduate Research Fellowships). These sessions are announced on the art majors listserv and Sakai site, as well as by posters in the Hanes Art Center and Art Lab.

## Special Opportunities in Art

## Honors in Art History

The honors program is open to students with a 3.3 grade point average who have demonstrated overall excellence in the discipline. Honors are generally pursued in the senior year. Students enroll in the honors courses (ARTH 691H in the fall; ARTH 692H in the spring) through the student services assistant in the Department of Art office. This should be done after consultation with the faculty honors advisor and department honors advisor. For more information, see the honors program description elsewhere in this bulletin and the departmental honors announcement. Honors work will allow a student to graduate with honors or with highest honors.

## Honors in Studio Art

The honors program in studio art is designed to provide senior majors an opportunity to pursue serious and substantial work culminating in a senior honors project. Successful completion of the
project qualifies the student to graduate with honors or with highest honors. Studio art majors with a grade point average of 3.3 or above are eligible for consideration. Admission to the studio art honors program is determined by a review of work by a designated faculty committee. For this review students must submit the following application materials for review:

- A completed application form,
- A written statement regarding the work, and
- A digital portfolio.

The work must demonstrate a mature capability to perform visual research. Applications are reviewed each spring, in early April, for rising seniors.

If accepted as a studio art honors candidate, students enroll in the honors courses (ARTS 691 H in the fall and ARTS 692 H in the spring) through the student services assistant. In addition to the scheduled coursework, studio honors students select a thesis committee consisting of a thesis adviser-who must be studio art faculty member-and two additional faculty members, one of whom must be a studio art faculty member. In studio art, the thesis is the creative work produced. Students also must write an accompanying artist's statement. Completed honors project work is presented to the honors committee for an oral defense. On the basis of this defense and the work presented, the committee determines whether or not a student graduates with an honors designation (honors or highest honors.) A selection of work from the senior honors thesis project is also presented in the Senior Exhibition required for B.F.A. students.

Details of the application process and requirements for the honors project are available on the studio art majors' Sakai site.

## Independent Study

Students may pursue independent study coursework with individual faculty members. Such work may be undertaken only with the permission of the sponsoring faculty member. Students should consult individual faculty members prior to registration to secure permission. A proposal and a contract must be approved by the director of undergraduate studies before students may enroll. The independent study syllabus and contract are available on the art majors' Sakai site. Since faculty are limited to supervising only two independent study students each semester, students are strongly advised to contact the faculty member whom they wish to work with early in the registration period for the upcoming semester.

Independent study work requires a minimum of three hours per week per credit hour. For example, a typical three-credit-hour class would require at least nine hours of work per week. Once the semester begins, students must meet with the faculty member initially to confirm goals, review expectations, and establish semester deadlines. Thereafter, students must meet regularly to review work in progress, with a suggested biweekly frequency. Total time spent in direct interaction with the faculty member for the semester must average 45 minutes per week. This may be in the form of face-to-face meetings, blog or e-mail exchanges, or group critiques with other independent study students and their advisors.

## Departmental Involvement

Students have opportunities to see and interact with professional artists and their work through exhibition in the Allcott Galleries,
installations of sculptural works in the Alumni Sculpture Garden, artist-in-residence programs, and the Hanes Visiting Artist Lecture Series.

There are several undergraduate student organizations serving the visual arts at Carolina. The Undergraduate Art Association (UAA) is a campuswide social club that supports and develops undergraduate visual artists at Carolina regardless of their enrollment in art classes, and strengthens the impact of visual art in the University community. The Studio Art Majors Association (SAMA) is aimed specifically at developing community and professional opportunities that augment the experience for studio majors. ArtHeels is a servicebased organization that is passionate about bringing arts (visual, performing, and literary) to the healthcare setting. The Art History Liaisons is the undergraduate art history group. Kappa Pi is the art majors honors society which includes both studio and art history majors. These groups serve as an important link between the majors and the department's administration. The department utilizes these organizations to facilitate communication about matters of interest, including participation in departmental initiatives or other extracurricular opportunities.

## Internships

Students are encouraged to pursue internships at local, regional, or national arts institutions. Information about internship opportunities is available in the department office. Just as with independent study, students must have internships preapproved and under contract before enrolling for ARTS 493 Studio Art Practicum or Internship.

## Study Abroad

Students are encouraged to pursue study abroad opportunities. While there are many opportunities to study art abroad, the Department of Art maintains a special affiliation with the Studio Art Centers International (SACI) and the Lorenzo di Medici-both in Florence, Italy-and the Glasgow School of Art in Scotland. Students should discuss their study abroad plans with the undergraduate adviser in studio art to obtain prior approval for courses taken abroad. Basically, courses that have an equivalent in the UNC-Chapel Hill curriculum usually are approved. Courses that fall outside the UNC-Chapel Hill curriculum must be evaluated on a case-by-case basis. No guarantee exists that a course will transfer for UNC credit unless preapproved. Contact the Study Abroad office to discuss the procedures for approval.

## Undergraduate Awards

## Undergraduate Scholarship Awards in Studio Art

A competition each November encourages studio art majors to submit up to four works to be considered for the following scholarships: The Alexander Julian Prize (one award to our best student), the Sharpe Scholarships (multiple awards for students receiving financial aid), George Kachergis Studio Art Scholarships (multiple awards chosen by a student-designated committee), the Anderson Award, the Penland School of Craft Scholarships (two awards cover expenses for a summer course at the Penland School of Craft), and a design honorarium to develop proposals for the Alumni Sculpture Garden (see below). The studio program awards over $\$ 24,000$ annually and awards range from a minimum of $\$ 500$
to $\$ 3,000$.

## Alumni Sculpture Garden Commission

The Department of Art annually commissions new works for the Alumni Sculpture Garden. Students wishing to be considered for the commission will indicate their interest during the Undergraduate Studio Art Awards Competition. Students selected during the competition are paid an honorarium to develop a design proposal. These proposals are evaluated and approved by a facultydesignated panel. Selected finalists receive a commission to realize the work. Most projects are sculptural but can be experimental, temporary performative works, projections, or other projects that utilize the Alumni Sculpture Garden spaces around the Hanes Art Center.

## Undergraduate Research

Opportunities for undergraduate research in the Department of Art exist in several forms. Detailed descriptions and application guidelines are available on the art majors' Sakai site and from the student services representative in the Department of Art office.
Allcott Travel Fellowships support two summer research projects in studio art and/or art history.

The Pearman Fund supports special projects in both art history and studio art. Competitions for art history research funds are held in the fall and the spring. Studio art students may request funds for special projects by submitting a proposal to the director of undergraduate studies in studio art. Awards are generally \$500 or less.

The James Boyd Gadson Summer Fellowships in Studio Art award up to $\$ 3,000$ for studio art research projects. These are specially designated Summer Undergraduate Research Fellowships (SURF) administered through the UNC Office for Undergraduate Research. SURF applications from studio art majors are automatically considered for the Gadson Fellowships. This fund typically supports at least two awards. Application deadlines (usually in February) are set by the Office for Undergraduate Research. Students interested in pursuing summer research should contact faculty sponsors toward the end of the fall semester.
The Jacquelyn Friedman and Marvin Saltzman Fund in Art provides supplemental monies for painting supplies for students who for economic reasons may be hindered from working to their full potential. Any undergraduate student with need, regardless of major, enrolled in a Department of Art painting class during the fall and/or spring semesters is eligible. Students should see their course instructor for further information.

## Facilities

The department possesses outstanding facilities for the teaching of both art history and studio art in the Hanes Art Center. The building houses state-of-the-art facilities for image projection required in art history. Specialized classrooms for art practice include large studios for painting, drawing, and mixed media. A dedicated space is available for installation projects. The John C. Henry Printmaking Studio is a wonderfully spacious 3,325 square foot laboratory providing ambient work space for a variety of printmaking processes. Studios for photography include both wet (black and white) and digital photography and a dedicated
shooting studio. The digital laboratories at UNC-Chapel Hill are Mac-based, with the most current software needed for work in photography (including large-scale output), video, and digital/ electronic media. Students enrolled in studio art classes have 24hour access to these laboratories. In addition, the 17,686 squarefoot Art Lab, located 1.8 miles north of the Hanes Art Center (108 Airport Drive), houses the department's sculpture facilities.

Department of Art resources also include the Joseph C. Sloane Art Library with its collection of 100,000 volumes, which is supplemented by the University's Academic Affairs Libraries, with holdings of more than six million volumes. The department's Visual Resources Library contains 250,000 slides, 40,000 photographs, and 20,000 digitized images. The University's Ackland Art Museum is located adjacent to the Hanes Art Center. The Ackland's programming regularly augments the educational experience of the University community.

The John and June Allcott Galleries in the Hanes Art Center are sites for numerous exhibitions throughout the year. The main gallery has an exhibition schedule of 12 to 15 shows each year, including the annual award and graduation shows of undergraduate work as well as work by professional artists, faculty members, and graduate students. The John and June Allcott Undergraduate Gallery is the exhibition space designed especially for work produced or chosen by undergraduate students. The Alumni Sculpture Garden occupies the grounds surrounding the Hanes Art Center. Temporary exhibitions of sculpture are commissioned by the department and are on display for a two-year period. Commissions are awarded annually to undergraduate and graduate students.

## Faculty

## Professors

Christoph Brachmann, S. Elizabeth Grabowski, Jim Hirschfield, Yun-Dong Nam, Mary D. Sheriff, Daniel J. Sherman, elin o'Hara slavick, Jeff Whetstone, Dennis Zaborowski.

## Associate Professors

Glaire Anderson, John Bowles, Eduardo Douglas, Pika Ghosh, Cary Levine, Wei-Cheng Lin, Carol Magee, Mario Marzan, Mary Pardo, Roxana Pérez-Méndez, Victoria Rovine, Tatiana String, Dorothy Verkerk, Lyneise Williams.

## Assistant Professors

Sabine Gruffat, Hong-An Truong, Lien Truong, Jina Valentine.

## Lecturers

Jennifer J. Bauer, Joy Cox, Brian Garner.

## Adjunct Professor

Bernard Herman.

## Adjunct Associate Professors

John Coffey (North Carolina Museum of Art), Elizabeth C. Mansfield (National Humanities Center), Peter Nisbet (Ackland Art Museum).

## Adjunct Assistant Professors

Carolyn Allmendinger (Ackland Art Museum), Ross Barrett (University of South Carolina).

## Professors Emeriti

Jaroslav T. Folda, James Gadson, Juan Logan, Arthur Marks, Jerry Noe, Marvin Saltzman, Mary C. Sturgeon.

## Contact Information

Department of Art, CB\# 3405, 101 Hanes Art Center, (919) 9622015.

## Courses

## ARTH-Art History

ARTH 52 First-Year Seminar: Celts-Druid Culture (3). Who were the Celts, and more specifically, who were the Druids? Little is known about the ancient Druids, yet they have captured the imagination of Western Europeans and North Americans for centuries. They have defined ethnic identity for disparate cultures. So who were they, and who are they today?
ARTH 53 First-Year Seminar: Art and the Body (3). This course will examine presentations and representations of the body in Western art and how such portrayals relate to their social, cultural, and political contexts.

ARTH 54 First-Year Seminar: Art, War, and Revolution (3). Focusing on one or two works of art per week in a variety of media, this course explores the complex relationship between art, war, and conflict in the modern world.
ARTH 55 First-Year Seminar: Gender and Power in Early Modern Europe (3). This first-year seminar introduces students to some of the issues related to representations of western European men and women in the period 1400-1700. Portraits, mythological and biblical imagery, and even architecture will be studied for their attention to gender.

ARTH 56 First-Year Seminar: Lives of East Asian Artworks at the Ackland Art Museum (3). This course traces the "lives" of East Asian artworks as to how they entered the Ackland Art Museum, transformed, and became part of its collection, as well as related issues.
ARTH 61 First-Year Seminar: Introduction to African American Art (3). The purpose of this class is to examine African American art and some of the historical considerations that affected the nature of its developments.

ARTH 64 First-Year Seminar: Picturing Nature (3). This seminar focuses on how the collecting and study of natural and aesthetic wonders shaped ideas about knowledge in the arts and sciences.
ARTH 66 First-Year Seminar: Art, Money, and the Market (3). This seminar explores the complex relationship between art and economy in the age of capitalism, focusing on artworks that interpret market activities and address the subject of economic value.

ARTH 77 First-Year Seminar: Seeing the Past (3). This seminar will introduce students to practices of critical analysis that inform academic work in all the core humanistic disciplines: how do we ask analytical questions about texts, artwork, and other cultural artifacts that come down to us from the past or circulate in our own culture?

ARTH 79 First-Year Seminar: Meaning and the Visual Arts (3). In the course of the semester, each student will learn to become an art historian. Students will undertake a series of viewing, research, and writing exercises, which will culminate in the production of an exhibition catalogue on world art titled "In the Eye of the Beholder."

ARTH 80 First-Year Seminar: Islamic Art and Science (3). Explores the intersection of science and Islamic visual arts (manuscript painting, architecture, objects, material culture). Course teaches visual analysis and interpretation, and experiments with digital humanities approaches.

## ARTH 84 First-Year Seminar: Society of the Spectacle:

 Impressionism and Post-Impressionism (3). Students will pay special attention to recent historical and theoretical studies of Impressionist and post-Impressionist painting, as well as selected French novels of the period.ARTH 89 First-Year Seminar: Special Topics (3). Content varies by semester.

ARTH 150 World Art (3). This course provides an introductory survey of some of the major traditions of art making throughout the world, from prehistory to the present.

ARTH 151 History of Western Art I (3). This is the first semester of a two-semester survey that is designed to acquaint the beginning student with the historical development of art and with the offerings and instructors of the art history faculty. ARTH 151 covers ancient, medieval, and early Renaissance periods.

ARTH 152 History of Western Art II (3). This is the second semester of the two-semester survey course including Western art from the Renaissance to the modern period. ARTH 151 is not a prerequisite for ARTH 152.

ARTH 153 Introduction to South Asian Art (ASIA 153) (3). An introductory survey of the visual arts of South Asia.

ARTH 154 Introduction to Art and Architecture of Islamic Lands (Eighth-16th Centuries CE) (ASIA 154) (3). This course introduces the arts of the Islamic lands from the seventh-century rise of the Umayyad dynasty of Syria to the 16th-century expansion of the Ottoman Empire.

ARTH 155 African Art Survey (3). A selective survey of subSaharan African art (sculpture, painting, architecture, performance, personal decoration) in myriad social contexts (ceremony, politics, royalty, domestic arenas, cross-cultural exchanges, colonialism, postcolonialism, the international art world).

ARTH 156 Introduction to Architecture (3). What is architecture? What does it do? This course is designed to encourage students to consider architecture less as something technical, existing in a separate sphere from everyday life, but as social space.

## ARTH 157 Introduction to Latin American Visual Culture

(3). This course examines manifestations of visual culture such as festivals and their related objects, comics, and painting in Latin America according to themes like indigenismo, religion, race, modernism, and identity.

ARTH 158 Introduction to East Asian Art and Architecture (ASIA 158) (3). This course traces the history of art and architecture in premodern East Asia, emphasizing ideas and ways of seeing and representing that were common or different across East Asia.

ARTH 159 The Film Experience: Introduction to the Visual Study of Film (3). A critical and historical introduction to film from a visual arts perspective. The course surveys the history of film from its inception to the present, drawing upon both foreign and American traditions.

ARTH 160 Introduction to the Art and Architecture of PreHispanic Mesoamerica (3). This course introduces the art, architecture, and cultures of pre-Hispanic Mesoamerica, from the rise of Mesoamerica's first high civilization in the second millennium BCE to the defeat of the Aztec Empire in 1521 CE.

ARTH 161 Introduction to American Art (3). This course surveys American art and architecture, analyzing paintings, sculpture, buildings, and popular imagery produced between the early colonial period and World War I.

ARTH 251 Art and Architecture in the Age of the Caliphs (Seventh-12th Centuries CE) (ASIA 251) (3). Introduces the art and architecture of the caliphal period, concentrating on the seventh through 12th centuries (the "classical" period of Islamic art).

ARTH 254 Women in the Visual Arts I (WMST 254) (3). This course analyzes the role of women in Western art as art producers and consumers of art and looks at how women have been represented.

ARTH 255 African Art and Culture (3). This course explores the art and culture of sub-Saharan Africa on the levels of both production and consumption both locally and globally.

ARTH 258 Chinese Art and Culture: From Han to Tang (3). This course investigates cultural and artistic complexities and diversities in medieval China, resulting from its exchanges with neighboring peoples during the period between the Han and Tang dynasties.

ARTH 259 Native American Art and Culture (3). A selective survey of Native North American art (sculpture, painting, architecture, performance, personal decoration) in myriad social contexts (ceremony, politics, domestic arenas, cross-cultural exchanges, colonialism, postcolonialism, the international art world).

ARTH 262 Art of Classical Greece (CLAR 262) (3). Required preparation, any introductory art history course or permission of the instructor. A chronological study of the main developments of Greek sculpture, architecture, and painting from the fifth to the first centuries BCE.

ARTH 263 Roman Art (CLAR 263) (3). See CLAR 263 for description.

ARTH 264 Medieval Art in Western Europe (3). Required preparation, any introductory art history course or permission of the instructor. Survey of major developments in painting and sculpture in Europe during the Latin Middle Ages (300-1400 CE).

ARTH 265 Medieval Iconography (3). Required preparation, any introductory art history course or permission of the instructor. Understanding the meaning of medieval art by examining the iconography of selected important works.

ARTH 266 Arts of Early and Medieval India (ASIA 266) (3). Required preparation, any introductory art history course or permission of the instructor. This course is an introduction to the visual culture of early and medieval India.
ARTH 267 Latin American Modernisms (3). This course focuses on the relationship between the national and international and art and politics within Latin American modernist movements from ca. 1900 to 1960.

ARTH 270 Early Renaissance Art in Italy (3). Required preparation, any introductory art history course or permission of the instructor. The course develops a solid acquaintance with representative aspects of Italian art from about 1250 to 1450 . In alternate semesters the emphasis may change from central (Florence, Rome) to northern (Venice) Italy.

ARTH 271 High Renaissance Art in Italy (3). Required preparation, any introductory art history course or permission of the instructor. The course is a survey of major Italian painting from about 1490 to 1575 . From semester to semester the emphasis may alternate between central Italian and Venetian/northern Italian works.
ARTH 272 Northern European Art: Van Eyck to Bruegel
(3). Required preparation, any introductory art history course or permission of the instructor. Survey of painting and sculpture ca. 1400-1600 in the Netherlands-Belgium (Flanders) and Holland-as well as France and England.
ARTH 273 Arts under the Mughal Dynasty in India (ASIA 273) (3). Required preparation, any introductory art history course or permission of the instructor. This course explores the visual culture patronized by the Mughal dynasty in India from the 11th to the 17 th centuries.
ARTH 274 European Baroque Art (3). Required preparation, any introductory art history course or permission of the instructor. This course examines 17th-century art and architecture in Europe.

ARTH 275 18th-Century Art (3). An introductory survey of architecture, sculpture, and painting with emphasis on European developments in the "fine" and "decorative" arts from the late 17th century to the Napoleonic era.
ARTH 277 Art and Architecture of Viceregal Latin America (3). Prerequisite, ARTH 152 or 157. This course surveys the art and architecture of Hispanophone and Lusophone America of the Viceregal period (1492-ca. 1810).
ARTH 279 The Arts in England, 1450-1650 (3). This course explores the visual culture of England during the reigns of the Tudors and Stuarts. This will include portraits of Henry VIII, Elizabeth I, and Charles I by artists such as Holbein, Van Dyck, and Rubens, royal palaces, printed books, tomb monuments, heraldry, spectacles, as well as portraits of the middle classes.
ARTH 282 Modernism I: Realism, Impressionism, PostImpressionism (3). Recommended preparation, any ARTH 50-89
or 100-199. The development of European art from 1850 to 1905, with an emphasis on French avant-garde movements including realism and impressionism.
ARTH 283 Picturing Paris: 1800-2000 (3). This class explores the cultural, political, and artistic circumstances in which images of Paris have been made and viewed, as well as various visual technologies that have disseminated and marketed.

ARTH 284 Modernism II: 1905-1960 (3). Required preparation, any introductory art history course or permission of the instructor. Major figures, movements, and themes of modernism from cubism and the emergence of abstraction to the transfer of artistic energy and innovation to the United States after World War II.

ARTH 285 Art since 1960 (3). This course will explore major trends in Western art since 1960. It focuses on key contemporary movements and their relations to social, cultural, and political contexts.

ARTH 287 African American Art Survey (AAAD 237) (3). An introduction to African American art and artists and their social contexts from early slavery.
ARTH 288 19th-Century American Art (3). Prerequisite, ARTH $53,54,61,64,77,79,84,151,152,153,154,155,156,157,158$, 159,160 , or 161 . Permission of the instructor for students lacking the prerequisite. This course surveys the broad spectrum of 19thcentury artistic practice in the United States, focusing on academic and popular artworks that addressed the major conflicts and crises of the period.
ARTH 289 American Modernisms (3). Prerequisite, ARTH 53, 54, 61, 64, 77, 79, 84, 151, 152, 153, 154, 155, 156, 157, 158, 159,160 , or 161 . This course surveys the wide field of early 20thcentury American art, stressing the diverse and contested character of artistic modernism in the United States.
ARTH 290 Special Topics in Art History (3). Required preparation, any introductory art history course or permission of the instructor. Selected topics in art history.
ARTH 291 Art, Culture, and Power in Africa (3). This course explores how power operates through objects in Africa, including royal regalia, objects used in healing and other ritual contexts, and African art as commodity in international markets.
ARTH 292 Egypt, Near East, and Aegean (3). Required preparation, any introductory art history course or permission of the instructor. This course surveys the ancient art and architecture of Egypt, the Near East, and the Aegean Bronze Age, from the Neolithic period to the end of the Neo-Assyrian empire.
ARTH 293 Art History Practicum (3). Students complete an internship in an art history related field. Students will gain practical knowledge of the practice of art history. Studio majors may use this course to fulfill an art history requirement by pursuing facultyapproved, nonpaid internships working in nonprofit or commercial art sectors.
ARTH 294 Arts of Southern Africa (3). This course focuses on a wide range of regions, time periods, and genres in the visual arts in southern Africa, including archaeological materials, arts associated with longstanding indigenous cultures, art that reflects the often
violent encounter with European cultures, and contemporary arts that are produced in the region today.

ARTH 297 Clothing and Textiles in Africa (3). This class explores how dress reveals information about African aesthetics, culture, and history, including its roles in political systems, religious worship, fashion trends, and other aspects of social life.

ARTH 299 Arts of West Africa (3). This course addresses the roles of art in the lives of West Africans who make and use it, spanning centuries of African creativity from archaeological sites to 21st century artists.

ARTH 300 Art of African Independence (3). This course focuses on African art produced in the mid-twentieth century. It promotes comparative analysis around themes of modernity, nationalism, independence, identity, and the role of the artist in society.
ARTH 302 Fashioning Identities (3). This course examines fashion and the political, social, and cultural discourses, conditions, and institutional formations used in the creation of varied social and personal identities.

## ARTH 303 Art and Colonialism: France in Africa/Africa in

 France (3). Art elucidates French and African experiences of colonial rule, as a record of political transformations and a tool for resistance and the assertion of local cultures.ARTH 330 Art and the History of Museums, 1750-2000 (3). Focusing on art museums in Europe and North America, this course considers the emergence and development of museums as powerful social and cultural institutions from the mid-18th century to the late 20th century. Topics include museums and national identity, museum architecture, and changing conceptions of the public.

ARTH 351 Crusader Art (3). Required preparation, any introductory art history course or permission of the instructor. This course surveys the main works of Crusader art in order to understand their nature and development from 1099 to 1291. The Crusader monuments are set in their historical context and in relation to Byzantine and Western European art.
ARTH 352 Religious Architecture and Visual Culture in Latin America (3). Prerequisite, ARTH 157. Permission of the instructor for students lacking the prerequisite. This course uses case studies to introduce students to the visual culture manifested in architecture, festivals, ritual spaces, clothing, and objects associated with religious practices of Latin America.

ARTH 353 African Masquerade and Ritual (AAAD 319, ANTH 343) (3). Prerequisites, AAAD 101, ANTH 102 or 120, and ARTH 155. Permission of the instructor for students lacking the prerequisites. Explores ideas of and contexts for select sub-Saharan African rituals/masquerades. Examines how people use objects in establishing and mediating relationships with one another, ancestors, and the spiritual world.

## ARTH 360 The Art of Dying Well: Death and Commemoration

 in the Middle Ages and Early Modern Times (3). Covers medieval and early modern artifacts and monuments connected with death as well as the diversity of donations for individual commemoration. Explores the social, political, and economic aspects of medieval/early modern society that affected thesedevelopments and phenomena.
ARTH 361 Saints in Medieval Art (3). The course explores the modes in which saints and issues related to sainthood are visualized in medieval art.

ARTH 362 Early Christian Art and Modern Responses (3). Required preparation, any introductory art history course or permission of the instructor. The early Christian origins of art and architecture in domestic and public contexts of the 200-600 CE Christian communities; the 18th- and 20th-century adaptation of early Christian art

ARTH 363 Envisioning Buddhism in Medieval China (3). This course investigates different genres of Buddhist art in medieval China, produced to disseminate religion and give rise to a new religious vision and imagination.
ARTH 365 Late Medieval Art (3). This course explores the art of the late medieval period in Byzantium and the Latin West.

ARTH 368 The Renaissance Portrait (3). This course focuses on European portraits produced in the period ca. 1400-1600. Through careful study of specific paintings, prints, and sculptures, by artists such as Leonardo da Vinci, Michelangelo, and Albrecht Dürer, we will explore different ways of interpreting portraiture in the Renaissance, addressing issues of identity, reception, and function.

ARTH 370 Visual Art in the Age of Revolution (3). This course focuses on the visual arts of Europe between 1750 and 1830, and addresses the political, social, cultural, and aesthetic issues pertinent to art in an age of revolution.

ARTH 383 Modern Architecture (3). Required preparation, any introductory art history course or permission of the instructor. This course will examine the history of architecture from the late 19th century to the present.
ARTH 385 Pop Art and Its Legacy (3). This course will investigate what is commonly termed "pop art." We will examine the various issues at stake in the appropriation of mass media imagery and techniques, the diversity within the movement, the different arguments surrounding particular artists and artworks, and pop art's continuing legacy in work by contemporary artists.

## ARTH 387 20th-Century African American Art (AAAD

330) (3). This course will focus upon the expression of African Americans in the United States in the 20th century.
ARTH 390 Special Topics in Art History (3). Required preparation, any intermediate art history course or permission of the instructor. Selected topics in art history.

ARTH 391 Undergraduate Research Seminar (3). Required preparation, art history major and sophomore standing or permission of the instructor. Introduces students to research in art history. Seminar involves a multi-stage research project beginning with close analysis of an art object and culminating with a research paper. Topics are drawn from ancient/medieval, early modern, and modern/contemporary art.
ARTH 396 Directed Readings in Art History (3). Permission of the instructor. Independent study under the direction of a faculty
member.
ARTH 445 The Mexican Mural Renaissance, 1921-1945 (3). Prerequisite, ARTH 157 or 267. Permission of the instructor. This course investigates mural painting and state patronage in postRevolutionary Mexico, from 1921 to 1945, when artists engaged politics in monumental public works. Focuses on the murals of Diego Rivera, José Clemente Orozco, and David Alfaro Siqueiros, as well as on the relationship between art and politics.

ARTH 450 The City as Monument (3). A city or cities will be considered as cultural artifact(s), with emphasis given to plans and planning, architecture, public monuments and to various institutions, such as religion, government, the arts, and commerce that initiate or affect these urban developments and forms.

ARTH 451 Women in the Visual Arts II (WMST 451) (3). Discussion of topics related to the representation of women in Western art and/or women as producers of art.

ARTH 452 Brazilian Modernism (3). Prerequisite, ARTH 157 or 267. Permission of the instructor for students lacking the prerequisite. This course covers the development of modernism in the visual arts in Brazil from 1917, the year in which a Brazilian artist first exhibited "modernist" artworks in Brazil, to 1960.

ARTH 453 Africa in the American Imagination (AAAD 486)
(3). Restricted to sophomores, juniors, and seniors. Examines the ways African art appears in United States popular culture (advertisements, magazines, toys, films, art) to generate meanings about Africa. Addresses intersecting issues of nationalism, multiculturalism, imperialism, nostalgia, race.

ARTH 454 Cathedrals, Abbeys, Castles: Gothic Art and Architecture, ca.1130-1500 (3). Covers the development of Gothic church and secular architecture in Europe between 1130 and 1500. Explores formal and constructive progress in architecture (including sculpture and stained glass windows) and social, political, and economic aspects of medieval society that affected these developments.

ARTH 455 City, Architecture, Art: Nuremberg as a European Artistic Center, 1300-1600 (3). Prerequisite, ARTH 151. Permission of the instructor for students lacking the prerequisite. The course covers the development of art and architecture from ca. 1300 to ca. 1600 in one of the most important medieval and early modern art centers in Europe: Nuremberg, the hometown of the famous German painter Albrecht Dürer (1471-1528).

ARTH 456 Art and Visual Culture of South Asia (ASIA 456)
(3). Required preparation, any intermediate art history course or permission of the instructor. This thematic course explores how objects and monuments are viewed, experienced, and used in a ritual context in South Asia.

ARTH 457 Studies in the History of Graphic Art (3). Required preparation, any intermediate art history course or permission of the instructor. Study of prints and printmaking in Western art from ca. 1400 to the present focusing on selected topics.

ARTH 458 Islamic Palaces, Gardens, and Court Culture (Eighth-16th Centuries CE) (ASIA 458) (3). Prerequisite, ARTH 154. Permission of the instructor for students lacking the
prerequisite. This course focuses on palaces, gardens, and court cultures beginning with the eighth-century Umayyad period and ending with the 16th-century reigns of the Mughal, Safavid, and Ottoman dynasties.

ARTH 460 Greek Painting (CLAR 460) (3). Required preparation, any intermediate art history course or permission of the instructor. A survey of the development of Greek art from geometric to Hellenistic painting through a study of Greek vases, mosaics, and mural paintings.

ARTH 461 Archaic Greek Sculpture (CLAR 461) (3). Required preparation, any intermediate art history course or permission of the instructor. A focused study of sculpture during the Archaic period in Greece.

ARTH 462 Classical Greek Sculpture (CLAR 462) (3). See CLAR 462 for description.
ARTH 463 Hellenistic Greek Sculpture (CLAR 463) (3). Required preparation, any intermediate art history course or permission of the instructor. A focused study of Greek sculpture in the Hellenistic period.

ARTH 464 Greek Architecture (CLAR 464) (3). See CLAR 464 for description.
ARTH 465 Architecture of Etruria and Rome (CLAR 465) (3). See CLAR 465 for description.

ARTH 466 History of the Illuminated Book (3). Required preparation, any intermediate art history course or permission of the instructor. Chronological survey of major developments in book painting during the European Middle Ages from 300 to 1450 CE.
ARTH 467 Celtic Art and Cultures (3). Required preparation, any intermediate art history course or permission of the instructor. This course explores the art and culture from the Hallstat and La Tène periods (seventh century BCE) to the Celtic "renaissance" (ca. 400-1200 CE).

## ARTH 468 Visual Arts and Culture in Modern and

Contemporary China (ASIA 468) (3). This course examines visual materials, including those from fine arts, commerce, popular culture, political propaganda, avant-garde movements, etc., produced in modern and contemporary China as an important means of defining China's self-identity in the modern and global world.

ARTH 469 Art of the Aztec Empire (3). This course provides a comprehensive introduction to the art of the Aztec Empire, including architecture, monumental sculpture, small-scale sculpture, ceramics, painting, lapidary work, gold work, and feather work.

ARTH 470 The Moving Image in the Middle Ages (3). The course explores the range of contexts in which images in the medieval period were made to move; for instance, in rituals, processions, and miracles.

## ARTH 471 Northern European Art of the 14th and 15th

Centuries (3). Required preparation, any intermediate art history course or permission of the instructor. Advanced study of painting and sculpture in France, England, and the Netherlands, 1300 to 1400.

ARTH 472 Early Modern Art, 1400-1750 (3). Required preparation, any intermediate art history course or permission of the instructor. This course explores specialized themes and/or broad topics in Western European art of the early modern period.

ARTH 473 Early Modern and Modern Decorative Arts (3). Required preparation, any intermediate art history course or permission of the instructor. This course traces major historical developments in the decorative and applied arts, landscape design, and material culture of Western society from the Renaissance to the present.

## ARTH 474 Roman Sculpture (CLAR 474) (3). See CLAR 474

 for description.
## ARTH 475 Icons and Idols: Debates in Medieval Art (3).

 This course will examine theories and instances of image making and breaking from the classical world to the early modern world, covering late antiquity, iconoclasm in Byzantium, and the medieval West.ARTH 476 Roman Painting (CLAR 476) (3). See CLAR 476 for description.

ARTH 481 American Art and the Civil War (3). Prerequisite, ARTH 53, 54, 61, 64, 77, 79, 84, 151, 152, 153, 154, 155, $156,157,158,159,160$, or 161 . Permission of the instructor for students lacking the prerequisite. An exploration of the ways that American artists negotiated the Civil War, examining artworks and popular images that addressed slavery and sectionalism, the wartime experience, and the project of Reconstruction.

ARTH 483 Art, Politics, and Society in France, 1850-1914 (HIST 468) (3). An examination of the interaction of artists, criticism, and the market with larger political and social developments in France, with an emphasis on primary sources.

ARTH 485 Art of the Harlem Renaissance (3). Examines the Harlem Renaissance (1918-1942) as an instance of both transnational modernism and cultural nationalism through study of how artworks articulate interrelated conceptions of race, gender, sexuality, and social class.

ARTH 487 African Impulse in African American Art (3). Required preparation, any intermediate art history course or permission of the instructor. This class will examine the presence and influences of African culture in the art and material culture of Africans in the Americas from the colonial period to the present.

ARTH 488 Contemporary African Art (AAAD 405) (3). Prerequisite, AAAD 101 or ARTH 152 or 155 . Permission of the instructor for students lacking the prerequisite. Examines modern and contemporary African art (1940s to the present) for Africans on the continent and abroad. Examines tradition, cultural heritage, colonialism, postcolonialism, local versus global, nationalism, gender, identity, diaspora.

ARTH 490 Special Topics in Art History (3). Required preparation, any intermediate art history course or permission of the instructor. Selected topics in art history.

ARTH 514 Monuments and Memory (HIST 514) (3). Explores the role of monuments in the formation of cultural
memory and identity, both nationally and globally. Topics include the construction of identities in and through public spaces, commemoration of both singular individuals and ordinary citizens, and the appearance of new types of post-traumatic monuments in the 20th century.

ARTH 551 Introduction to Museum Studies (3). Introduces careers in museums and other cultural institutions. Readings and interactions with museum professionals expose participants to curation, collection management, conservation, exhibition design, administration, publication, educational programming, and fundraising.

ARTH 552 The Literature of Art (3). Required preparation, any intermediate art history course or permission of the instructor. A study of the principal critics and historians who have contributed to the development of modern art history. Also application of the principles to specific works of art.
ARTH 553 The Body in Social Theory and Visual Representation (3). A study of how the human body has been represented in contemporary art and the relation of those representations to theories of the individual and society.

## ARTH 554 Imagining Otherness in Visual Culture in the

Americas (3). Required preparation, any intermediate art history course or permission of the instructor. This course examines representational othering of black, Asian, Latina/o, and Native American people in images in the Americas through postcolonial topics like racial stereotyping, Orientalism, primitivism, essentialism, and universalism.

ARTH 555 Urban Africa and Global Mobility (3). The contemporary arts of Africa are framed by urbanization and global mobility. This course examines how artists examine, reflect on, and express visually experiences of these conditions.

ARTH 556 Visual Cultures of the American City, 1750-1950 (3). Prerequisite, ARTH 53, 54, 61, 64, 77, 79, 84, 151, 152, $153,154,155,156,157,158,159,160$, or 161 . Permission of the instructor for students lacking the prerequisite. An exploration of the wide field of American art and visual culture inspired by the spaces and social life of the modern city.

## ARTH 561 Art and Society in Medieval Islamic Spain and

 North Africa (ASIA 561) (3). Prerequisite, ARTH 154. Permission of the instructor for students lacking the prerequisite. This course introduces the art and architecture of medieval Islamic Spain and North Africa between the eighth and 16th centuries.ARTH 562 Islamic Urbanism (3). Prerequisite, ARTH 154. Permission of the instructor for students lacking the prerequisite. This course explores the development, urban forms, and social structures of some of the major cities of the medieval Islamic lands.
ARTH 583 Theories of Modern Art (3). Required preparation, any intermediate art history course or permission of the instructor. A study of theoretical issues central to the understanding of trends in modern art (e.g., modernism, the avant-garde, formalism originality).

ARTH 586 Cultural Politics in Contemporary Art (3).
Permission of the instructor. This course will examine the strategies
of critique in contemporary art. Organized thematically, it focuses on the tactics employed by artists who address political, social, or cultural issues through their work.

ARTH 588 Current Issues in Art (3). Addresses select issues that have gained or regained prominence in today's art world, for example globalization, training, the market, and the nature of the "contemporary."

ARTH 590 Topics in Connoisseurship (3). Permission of the instructor. Works in the Ackland Museum's collection will be studied directly as a means of training the eye and exploring the technical and aesthetic issues raised by art objects.

ARTH 592 History and Theory of Museums (3). Required preparation, any intermediate art history course or permission of the instructor. Provides an historical overview of museums. Serves as an introduction to many of the theoretical issues museums face including: ethics, audiences, the role of museums in society, exhibiting dilemmas.

ARTH 595 Experience in Research (1-3). Required preparation, one 100-level art history course and one 200- to 399-level art history course. An experiential-learning opportunity in independent and original research on a topic or in a field of the student's choosing under the close direction of a faculty supervisor.

ARTH 597 Studiolo to Wunderkammer (3). Required preparation, any intermediate art history course or permission of the instructor. This course explores the history of early modern collecting, encompassing scholars' and merchants' "study rooms," aristocrats' menageries, humanists' "sculpture gardens," and princely cabinets of wonders.

ARTH 683 Etruscan Art (CLAR 683) (3). See CLAR 683 for description.

ARTH 691H Honors in Art History (3). Permission of the instructor. Independent research directed by a faculty member leading to an honors thesis.
ARTH 692H Honors in Art History (3). Permission of the instructor. Independent research directed by a faculty member leading to an honors thesis.

## ARTS-Studio Art

Registration for the studio art foundation courses (ARTS 102, 103, and 106) is limited to studio art majors during the first part of the preregistration period. Remaining spaces are made available to nonmajors during the registration period for first-year students. Because the department gives this preference to studio art majors, nonmajors, undeclared students, or continuing study students often find it difficult to enroll in these courses. Individuals seriously considering a studio art major and experiencing such difficulty should see the undergraduate advisor for studio art. We reserve a small number of spaces for such students. Students may be asked to demonstrate a commitment to studio art with some examples of artwork.

In general, studio art courses are numbered to reflect media areas in the last digit. Painting courses end in 2, sculpture 3, drawing 4, photography 5 , digital media 6 , mixed media 7 , and printmaking 8 .

ARTS 50 First-Year Seminar: The Artistic Temperament (3). Class examines how to advance and sustain artistic production, focusing not only on being a successful artist, but also on the importance of creativity and hard work in any successful venture.

ARTS 57 First-Year Seminar: Narrative Sight/Site (3). A mixed media course investigating visual storytelling.

ARTS 58 First-Year Seminar: Book Art (3). The book as a structural format for expression has a long history in visual arts. We will address aspects of the book that function visually, considering both design and content.

## ARTS 59 First-Year Seminar: Time, A Doorway to Visual

 Expression (3). This class will study one of the lesser considered, but most intriguing, visual components: the element of time.ARTS 75 First-Year Seminar: Stories in Sight: The Narrative Image (3). This class looks at the theory and practice of telling stories through photographs.

ARTS 78 First-Year Seminar: The Visual Culture of Photography (3). This course will investigate how photography is inextricably entwined in our lives and histories.

## ARTS 82 First-Year Seminar: Please Save This: Exploring Personal Histories through Visual Language (3). This class will

 investigate the idea of personal histories in visual art. As a studio class, the course will be organized around several art making projects. As a catalyst to our own art making, we will explore the idea of personal history and memory through readings, as well as looking at contemporary artists whose work functions in an autobiographical framework.ARTS 89 First-Year Seminar: Special Topics (3). Content varies by semester.
ARTS 101 Idea and Form (3). This course will explore concepts of making art in both practice and in theory. Driven by foundational theoretical texts that have influenced 20th-century art and culture, the course explores art as content and meaning, and art's relationship to form, everyday life, and visual culture.

ARTS 102 Core Concepts: Image (3). Studio course investigates concepts and strategies of two-dimensional image making. Introduces design elements of visual language (line, shape, value, texture, color). Considers the cultural codes that accompany visual information and how they combine with organizational structures to determine a variety of effects, influence responses, and inform meaning. Foundation requirement for studio majors.
ARTS 103 Core Concepts: Space (3). Studio course introduces concepts and strategies of working in three dimensions. Projectbased coursework develops understanding of ideation process and creative problem solving. Ideas about sculpture are further expanded by considering works by contemporary artists. Students develop aesthetic sensibility, analytical capacity, and fundamental skills in sculptural media. Foundation requirement for studio majors.

ARTS 104 Basic Drawing and Composition (3). Working out of an observational tradition, this course provides an introduction to the concepts and techniques of drawing. Paying attention to both representation and interpretation, the course is designed to develop fundamental skills, aesthetic sensibility, analytical capacity, and
creative problem solving in two-dimensional media.
ARTS 105 Basic Photography (3). Focusing on creative digital and analog photography, this course provides an introduction to the concepts and techniques of lens-based media.
ARTS 106 Core Concepts: Time (3). This foundation course introduces concepts and techniques of temporal art making. Through projects designed to develop an understanding of the creative language unique to digital media, students will learn various software programs and basic digital strategies to realize timebased works of art. Foundation requirement for studio majors.

ARTS 116 Introduction to Web Media (3). Basic computer skills required. This course investigates the emergence of Web, interactive, and mobile technologies as artistic tools, communication technologies, and cultural phenomena. Students will design and produce interactive Web sites. The course covers principles of Webbased programming and design via HTML and CSS.

ARTS 202 Painting I (3). Prerequisites, ARTS 102 and 104. Permission of the instructor for students lacking the prerequisites. Introduction to the techniques of two-dimensional thought and process through the application of various painting media.

ARTS 203 Sculpture I (3). Prerequisite, ARTS 103. Permission of the instructor for students lacking the prerequisite. Introduction to the techniques of three-dimensional thought and process through the application of the various sculpture media.
ARTS 206 Intermediate Electronic Media (3). Prerequisite, ARTS 106. Permission of the instructor for students lacking the prerequisite. Continuation of ARTS 106.

ARTS 208 Print Survey (3). Prerequisites, ARTS 102 and 104. Permission of the instructor for students lacking the prerequisites. Introduction to four basic approaches to printmaking: intaglio, relief, planographic, and stencil processes. Students will explore creative strategies unique to the printed process.
ARTS 213 Ceramic Sculpture I (3). Prerequisite, ARTS 103. Permission of the instructor for students lacking the prerequisite. An investigation of clay as a sculptural medium; developing technical skills, aesthetic awareness, and historical perspective.

ARTS 214 Life Drawing I (3). Prerequisite, ARTS 104.
Development of proficiency in figure drawing through the use of various drawing and painting materials (study from the model).
ARTS 223 Life Sculpture (3). Prerequisite, ARTS 103. Permission of the instructor for students lacking the prerequisite. Conceptual investigation of the figure and issues of the body through the combined use of various sculptural materials.

ARTS 233 Wood Sculpture (3). This class examines wood sculpture from both a technical and intuitive perspective. Students are taught woodworking skills and are then encouraged to use these skills to discover their creative potential.
ARTS 243 Metal Sculpture (3). This class examines metal sculpture from both a technical and intuitive perspective. Students are taught metalworking skills and are then encouraged to use these skills to discover their creative potential.

ARTS 290 Special Topics in Studio Art (3). Required
preparation, any introductory studio art course or permission of the instructor. Selected topics in studio art.

ARTS 300 Studio 15: Art Majors Seminar (3). Prerequisites, ARTS 101, 102, 103, and 106. Required for studio art majors with at least 15 hours of course work in the major. This class addresses questions of artistic identity and professional development for the art major.

ARTS 302 Intermediate Painting (3). Prerequisite, ARTS 202. Continuation of ARTS 202.

ARTS 303 Intermediate Sculpture (3). Prerequisite, ARTS 203. Continuation of ARTS 203.

ARTS 305 Intermediate Photography (3). Prerequisite, ARTS 105. Continuation of ARTS 105.

ARTS 307 Mixed Media Seminar (3). Prerequisite, ARTS 103 or 104. Permission of the instructor for students lacking the prerequisite. Work produced in this class crosses media boundaries. Students consider the codedness of media and stylistic approaches and how these mediate specific content ideas as determined from specific readings.

ARTS 313 Intermediate Ceramic Sculpture (3). Prerequisite, ARTS 213. Continuation of ARTS 213.

ARTS 314 Life Drawing II (3). Prerequisite, ARTS 214. Continuation of ARTS 214.

ARTS 324 Intermediate Drawing (3). Prerequisite, ARTS 104. Continuation of ARTS 104.

ARTS 328 Screen Printing (3). Prerequisites, ARTS 102 and 104. Permission of the instructor for students lacking the prerequisites. An intermediate studio course focused on creating stencil-based print images. Students explore a range of technical approaches and will investigate art making concepts specific to screen printing as well as the intersections of screen printing with other twodimensional art forms.

ARTS 337 The Aesthetics of Junk (3). From Dada to Art Brut to Mix-tape, this course experiments with assemblage (accumulations of things forming a new whole) and destruction (taking apart and reconfiguring a thing). This course addresses issues of collage as both object and action, playing in the intersection of experimental theatre and design of mass-produced objects.
ARTS 338 Intaglio and Relief Printmaking (3). Prerequisite, ARTS 208. Continuation of ARTS 208, with emphasis on intaglio and relief.

ARTS 348 Lithography (3). Prerequisite, ARTS 208. Permission of the instructor for students lacking the prerequisite. Lithography is an intermediate printmaking class. The course provides basic technical introduction to stone and plate lithography. Students will investigate artistic strategies to forge visual literacy in print media.

## ARTS 355 The Practice of Representation: Portraiture in

 Photography (3) Prerequisite, ARTS 105. This course examines the practical and theoretical issues of portraiture. Students will learn technical skills and conceptual strategies to engage with issues of representation and notions of identity. We will explore the history of the photographic portraiture as well as work of contemporaryportrait artists working in a post-modern age.
ARTS 356 Introduction to Digital Photography (3). Exploration of the transition of photography from traditional darkroom processes to digital formats. Includes methods of interpretation, analysis of images, scanning, retouching, color correction, basic composition, and inkjet printing.
ARTS 358 Letterpress (3). Prerequisite, ARTS 208. This class explores the concepts and craft of letterpress printing. Technical skills include typesetting, linoleum carving, and digital interfaces for making image and text matrices. Projects explore the special relationship of image and word and are designed around specific text/image forms: broadside, poster, portfolio, and book.
ARTS 368 Intermediate Printmaking (3). Prerequisite, ARTS 208. This course continues an investigation of print techniques and concepts. Projects develop an understanding of print strategies, focusing on the affordances of processes unique to printmaking. This approach positions traditional techniques as a point of departure for seeking an expanded definition of printmaking.
ARTS 390 Special Topics in Studio Art (3). Required preparation, any intermediate studio art course or permission of the instructor. Selected topics.
ARTS 402 Advanced Painting (1-6). Prerequisite, ARTS 302. Permission of the instructor for students lacking the prerequisite. Continuation of ARTS 302. May be repeated for credit.
ARTS 403 Advanced Sculpture (1-6). Prerequisite, ARTS 303. Permission of the instructor for students lacking the prerequisite. Continuation of ARTS 303. May be repeated for credit.
ARTS 405 Color Photography (3). Prerequisite, ARTS 105. The class will focus on lectures, readings, technical demonstrations, and visual assignments investigating color photography. Students will be responsible for completing a series of photographic assignments. Emphasis will be placed on intensive final projects.
ARTS 407 Body Imaging (3). Prerequisite, ARTS 102. Required preparation, one intermediate ARTS class or permission of the instructor. Work is made through close examination and analysis of the human "body." Work may be made using any technical or theoretical approach. Required readings provide a conceptual grounding.

ARTS 410 Public Art (3). Prerequisite, ARTS 302, 303, or 305. Permission of the instructor for students lacking the prerequisite. This studio class explores public art from historical and critical perspective. Students will propose and create works of public art. Opportunities to implement projects will be explored through the Department of Art and other resources.
ARTS 413 Advanced Ceramic Sculpture (1-6). Prerequisite, ARTS 313. Permission of the instructor for students lacking the prerequisite. Continuation of ARTS 313. May be repeated for credit.

## ARTS 415 Conceptual-Experimental Photography (3).

An advanced photography course for students interested in contemporary photographic practices, critical theory, art history, and experimental processes: theory and practice, formal and conceptual investigations, and historical and contemporary strategies will all be given equal attention.

ARTS 416 Video Art (3). Prerequisite, ARTS 106. Permission of the instructor for students lacking the prerequisite. An introduction to the creative and technical processes in producing video art. Students will shoot and edit their own independent video projects. Some class time will be devoted to viewing video art and other media-based work.
ARTS 417 Advanced Mixed Media Projects (3). Cultural production and practice, theory, and criticism. Pursuit of individual visual projects, formally and conceptually, through theoretical, poetic, art historical, and autobiographical texts, critiques, collaboration, and discussion using all media.
ARTS 418 Advanced Printmaking (1-6). Prerequisites, ARTS 208 and any two of 328,338 , or 348 . Permission of the instructor for students lacking the prerequisites. This course is appropriate for students who have had a minimum of three semesters of prior printmaking experience. Students submit a proposal outlining technical and artistic goals for the semester.
ARTS 423 Installation (3). Prerequisite, ARTS 303. Permission of the instructor for students lacking the prerequisite. This class explores art that encompasses its audience. Conceptual motivations as well as practical realities of dealing with a specific threedimensional space will be considered.

ARTS 426 Two-Dimensional Computer Animation (3). Prerequisite, ARTS 106. Familiarity with basic computer skills and drawing required. Explores concepts and techniques of two-dimensional animation, including conceptualization with storyboards, pencil testing and timing animation, animating sequences with Photoshop, experimenting with color and compositing using After Effects. Emphasis placed on developing ideas though experimental practices, combining traditional and digital animation processes.

ARTS 428 Book Art (3). Prerequisite, ARTS 102. Required preparation, one additional two-dimensional studio course (drawing, photography, or printmaking). Defining the book as a "multiple and sequential picture plane," this course considers a range of traditional approaches and conceptual departures of the book as a format for creative expression.
ARTS 490 Special Topics in Studio Art (3). Required preparation, any intermediate studio art course or permission of the instructor. Advanced consideration of selected topics in studio art.
ARTS 493 Studio Art Practicum or Internship (3). Prerequisite, ARTS 300. Recommended for juniors or seniors. Allows studio art majors to pursue unpaid practicums or internships for credit. Examples include working as a studio assistant or working in artrelated fields, such as galleries, design firms, architectural firms, and nonprofit arts organizations. Work undertaken must comply with Federal criteria governing unpaid internships.
ARTS 500 Senior Seminar (3). Restricted to senior studio art majors. This course is the capstone course for the studio art major. Topics covered include issues of professional development, curatorial practice, and presentation of works of art in exhibition. The culminating project is mounting the Senior Exhibition.

ARTS 515 Advanced Photography (3). Prerequisite, ARTS 305.

Permission of the instructor for students lacking the prerequisite. May be repeated for credit.

ARTS 526 Three-Dimensional Animation (3). Prerequisite, ARTS 106. The primary goals of this class are to introduce threedimensional computer modeling and animation in Maya. The course covers a broad range of creative applications including special effects, compositing with video, and motion graphics. Students will produce a short three-dimensional animation as their final project.

ARTS 596 Independent Study in Studio Art (1-9). Permission of the instructor. For students wishing to pursue additional media or thematic study beyond the advanced level. Students register with section numbers designated for faculty. May be repeated for credit.

ARTS 636 Interactive Media (COMM 636) (3). See COMM 636 for description.

ARTS 691H Honors in Studio Art (3). Permission of the instructor. Independent research directed by a faculty member leading to an honors thesis.

ARTS 692H Honors in Studio Art (3). Permission of the instructor. Independent research directed by a faculty member leading to an honors thesis.

## Department of Asian Studies

asianstudies.unc.edu
New West 113, CB\# 3267; (919) 843-7817
NADIA YAQUB, Chair

## Introduction

The interdisciplinary major within the Department of Asian Studies provides an intellectual challenge as well as sound training for students who intend to go on to graduate school in the social sciences or humanities and focus their research on Asia. It also provides an essential background for students who are contemplating professions such as business, law, or journalism with the intent of doing extensive work in Asia. The department offers students a range of language classes in Arabic, Chinese, Hebrew, Hindi-Urdu, Japanese, Korean, Persian, and Turkish, as well as a selection of courses taught by our core and affiliated faculty in the humanities (art, drama, linguistics, literature, and religious studies) and in the social sciences (anthropology, economics, geography, history, political science, and sociology).

Students majoring in the Department of Asian Studies also may pursue a minor in the department that is different from their major.

## Asian Studies Major, B.A.- <br> General Concentration

## Core Requirements

- ASIA 150
- At least one other course (other than a language course or senior honors thesis course) taken within the Department of Asian

Studies and chosen from the following list: ARAB 150, 151, 321, $337,338,350,434,443,452,453,462,468$; ASIA 52, 54, 55, $56,57,58,59,60,61,63,64,65,66,122,150,151,152,163$, $164,224,228,231,232,235,252,261,262,331,332,333,357$, 435, 453; ASIA/RELI 382, 383; CHIN 150, 231, 232, 242, 244 , 252, 255, 342, 346, 354, 356, 361, 367, 463, 464, 531, 551, 552, 562, 563; HEBR 142, 436; HIST 271/JAPN 231; HNUR/RELI 592; JAPN 150, 160, 161, 165, 246, 258, 261, 277, 333, 363, 375, 376, 377, 451, 482; JAPN/WMST 381, 384; KOR 150, 151, 327

- At least one major course each from any two other departments
- At least one major course numbered 400 or above
- At least two major courses each from any two of the six geographic regions: China, Japan, Korea, Middle East, South Asia, Southeast Asia (see lists below)


## Additional Requirements

- Any Asian language through level 4

The major in Asian studies consists of eight courses. The same courses can be used to fulfill both departmental and geographic requirements within the major. The following courses can be counted for the Asian studies major:

China Courses: ANTH/ASIA 545, 574, 578, 682; ARTH/ASIA 468; ASIA 52, 55, 56, 65; ASIA/HIST 133, 282; ASIA 303/RELI 288; CHIN 150, 231, 232, 242, 244, 252, 253, 255, 342, 346, 354 , 356, 361, 367, 463, 464, 531, 551, 552, 562, 563; HIST 284

Japan Courses: ANTH/ASIA 586; ASIA 54, 58, 63; ASIA/CMPL 379, 380, 481, 483, 486; ASIA/HIST 281, 287, 288; ASIA 301/ RELI 286; ASIA 302/RELI 287; ASIA/RELI 487, 488, 489; HIST 271/JAPN 231; JAPN 150, 160, 161, 162, 165, 246, 258, 261, 277, 333, 363, 375, 376, 377, 451, 482; JAPN/LING 563; JAPN/ WMST 381, 384

Korea Courses: KOR 150, 151, 327
Middle East Courses: ARAB 150, 151, 321, 337, 338, 350, 434, 443, 452, 453, 462, 468; ARAB/ASIA/RELI 681; ARTH 351; ARTH/ASIA 154, 251, 458, 561; ASIA 60, 64, 66, 122, 224, 235, 357, 435; ASIA/GEOG 447; ASIA/HIST 138, 139, 275, 276, 277, 536, 537, 538; ASIA/RELI 180, 181, 584; HEBR 142, 436; RELI 110, 503; SOCI 419
South Asia Courses: ARTH/ASIA 153, 266, 273, 456; ASIA 59, $61,122,152,163,164,224,228,231,232,261,262,331,332$, 333; ASIA/GEOG 267; ASIA/HIST 135, 136; ASIA 300/RELI 283; ASIA/RELI 382, 383, 582, 583; HNUR/RELI 592

Southeast Asia Courses: ANTH/ASIA 375, 429; ASIA 151, 252; ASIA/HIST 131, 132, 539, 570; ASIA/MUSC 240; ASIA/RELI 285; GEOG 266

Other Courses: ARTH/ASIA 158; ASIA 57, 150, 241, 242, 243, $244,350,453,692 H$; ASIA/CMPL 255; ASIA/ECON 469; ASIA/ GEOG 265; ASIA/HIST 134; ASIA/RELI 183, 284, 445, 581; RELI 103, 106, 107, 206, 343, 480, 481, 512, 602. One language course beyond level 4 or a course at level 2 or above in a second Asian language may count as a major course.

A student may not count toward the interdisciplinary major in

Asian studies both of any of the following pairs of courses: ASIA/ HIST 138 and ASIA/RELI 180, ASIA/HIST 139 and ASIA/RELI 181.

ASIA 122 and 224 may be counted for either the Middle East or South Asia region, but not both.

No more than one first-year seminar may be counted among the eight major courses.

With the approval of the associate chair of Asian studies, a student may substitute a course in directed readings (ASIA 496) for one of the major courses. To register for ASIA 496, a student must obtain the approval of the associate chair and the faculty member who will supervise the project.

Of the eight major courses, at least six must be passed with a grade of C (not C-) or better. No major course may be taken Pass/ D+/D/Fail.

## Asian Studies Major, B.A.Arab Cultures Concentration

## Core Requirements

- ARAB 300
- Two additional Arabic language courses beyond ARAB 204. Students whose initial language placement is above ARAB 305 should consult the department.
- One of the following introductory-level classes: ASIA 64, 66; ARAB 150, 151. It is recommended that students take this course either prior to or concurrent with upper-level Arabic literature and culture classes.
- Four Arabic literature and culture courses, of which at least three must be chosen from ARAB 321, 337, 338, 350, 407 (taught in Arabic), 408 (taught in Arabic), 434, 443, 452, 453, 462, 468; ASIA 357, 692 H . At most one course may be chosen from ARAB/ASIA/RELI 681; ARTH 351; ARTH/ASIA 154, 251, 458, 561; ASIA 435; ASIA/GEOG 447; ASIA/HIST 138, 139, 275, 276, 277, 536, 537, 538; ASIA/RELI 180, 181, 581, 582, 584; RELI 480; SOCI 419; or approved courses taken in UNCChapel Hill-sponsored study abroad programs.


## Additional Requirements

- Arabic through level 4

Students majoring in Arab cultures are strongly encouraged to take additional Arabic literature or culture courses as electives or to fulfill General Education requirements.
A student may not count both of any of the following pairs of courses toward the Arab cultures concentration: ASIA/HIST 138 and ASIA/RELI 180, ASIA/HIST 139 and ASIA/RELI 181.
With the approval of the associate chair of Asian studies, a student may count a course in directed readings (ASIA 496 or ARAB 496) in the concentration in Arab cultures. To register for ASIA 496 or ARAB 496, a student must obtain the approval of the associate chair and the faculty member who will supervise the project.
Of the eight courses in the concentration in Arab cultures, at least six must be passed with a grade of C (not C-) or better. No course in the concentration may be taken Pass/D+/D/Fail.

## Asian Studies Major, B.A.Chinese Concentration

The concentration in Chinese can be pursued along one of two tracks, depending on the student's initial Chinese language placement. Students whose initial language placement is above CHIN 305 or 313 should consult the department. Track A is for students who have completed CHIN 204; track B is for students who have completed CHIN 212. Both tracks require eight courses.

## Core Requirements (Track A)

- CHIN 305, 306, 407, and 408
- CHIN 440, 441, 442, 443, 490, 525, 532, or 590
- CHIN 510 or 511
- Two culture courses chosen from ASIA 52, 55, 56, 65, 453, 692H; CHIN 150, 231, 232, 242, 244, 252, 253, 255, 342, 346, 354, 356, 361, 367, 463, 464, 531, 551, 552, 562, 563


## Additional Requirements (Track A)

- CHIN 101, 102, 203, and 204


## Core Requirements (Track B)

- CHIN 313 and 414
- CHIN 510 or 511
- Three courses from CHIN 440, 441, 443, 490, 525, 532, or 590
- Two culture courses chosen from ASIA 52, 55, 56, 65, 453, 692H; CHIN 150, 231, 232, 242, 244, 252, 253, 255, 342, 346, $354,356,361,367,463,464,531,551,552,562,563$


## Additional Requirements (Track B)

- CHIN 111 and 212

Approved courses taken in UNC-Chapel Hill-sponsored study abroad programs may count in the concentration. No more than one first-year seminar or senior honors thesis course may be included among the two culture courses.

Students majoring in Chinese are also encouraged to take the following courses as electives or to fulfill some of the General Education requirements: ANTH/ASIA 545, 574, 578, 682; ASIA/ GEOG 265; ASIA/HIST 133, 134, 282; ASIA/RELI 183, 284.

With the approval of the associate chair of Asian studies, a student may count a course in directed readings (ASIA 496 or CHIN 496) in the concentration in Chinese. To register for ASIA 496 or CHIN 496, a student must obtain the approval of the associate chair and the faculty member who will supervise the project.

Of the eight courses in the concentration in Chinese, at least six must be passed with a grade of C (not C-) or better. No course in the concentration may be taken Pass/D+/D/Fail.

## Asian Studies Major, B.A.Japanese Concentration

## Core Requirements

- JAPN 305 and 306. Students whose initial language placement is above JAPN 305 should consult the department.
- Four advanced Japanese courses from the following list: JAPN 401, 408, 409, 410, 411, 412, 413, 414, 415, 416, 490, 521, 590
- Two culture courses from the following list: ASIA 54, 58, 63, 692H; ASIA/CMPL 379, 380, 481, 483, 486; HIST 271/JAPN 231, HIST 370/JAPN 363; JAPN 150, 160, 161, 162, 165, 246, 258, 261, 277, 333, 375, 376, 377, 381, 384, 451, 482; JAPN/ LING 563


## Additional Requirements

- Japanese through level 4

Approved courses taken in UNC-Chapel Hill-sponsored study abroad programs may count in the concentration. No more than one first-year seminar or senior honors thesis course may be included among the two culture courses.

Students majoring in Japanese are also encouraged to take the following courses as electives or to fulfill some of the General Education requirements: ANTH/ASIA 586; ASIA/GEOG 265; ASIA/HIST 134, 281, 286, 287, 288; ASIA/RELI 183, 284.

With the approval of the associate chair of Asian studies, a student may count a course in directed readings (ASIA 496 or JAPN 496) in the concentration in Japanese. To register for ASIA 496 or JAPN 496, a student must obtain the approval of the associate chair and the faculty member who will supervise the project.

Of the eight courses in the concentration in Japanese, at least six must be passed with a grade of C (not C-) or better. No course in the concentration may be taken Pass/D+/D/Fail.

## Asian Studies Major, B.A.South Asian Studies Concentration

## Core Requirements

- Two Hindi-Urdu courses beyond HNUR 204. Students whose initial language placement is above HNUR 305 should consult the department.
- One of the following introductory courses: ASIA 59, 61, 152; ASIA/GEOG 267; ASIA/HIST 135, 136. It is recommended that students take this course either prior to or concurrent with upperlevel South Asian literature and culture classes.
- Five courses, including at least three numbered 200 or above, from either the list of introductory courses above or the following list: ARTH/ASIA 153, 266, 273, 456; ASIA 122, 163, 164, 224, 228, 231, 232, 261, 262, 331, 332, 333, 453, 692H; ASIA/HIST 135, 136; ASIA/RELI 285, 382, 383, 581, 582, 583; ASIA 300/ RELI 283; HNUR 407, 408, 410, 490; HNUR/RELI 592; RELI 381, 481


## Additional Requirements

- HNUR through level 4
- HNUR 220 (not required if the student has taken HNUR 101)
- HNUR 221

The above additional requirements may also be met by placement.
Approved courses taken in UNC-Chapel Hill-sponsored study abroad programs may count in the concentration. No more than one first-year seminar may be counted among the eight major courses.

With the approval of the associate chair of Asian studies, a
student may count a course in directed readings (ASIA 496 or HNUR 496) in the concentration in South Asian studies. To register for ASIA 496 or HNUR 496, a student must obtain the approval of the associate chair and the faculty member who will supervise the project.

Of the eight courses in the concentration in South Asian studies, at least six must be passed with a grade of C (not C-) or better. No course in the department may be taken Pass/D+/D/Fail.

## Asian Studies Minor

A student may take an interdisciplinary minor in Asian studies by completing five courses from among those accepted for the interdisciplinary Asian studies major. At least two courses must be taken within the Department of Asian Studies, chosen from the list above in the section describing the major. The courses taken for the minor must include one from three of the six regions of Asia (China, Japan, Korea, Middle East, South Asia, Southeast Asia), as defined above in the section describing the major. Students interested in advanced Asian language training should consider the Arabic, Chinese, Hebrew, Hindi-Urdu, Japanese, or Korean minors.

No more than one first-year seminar may be counted toward the minor.
A student may not count toward the interdisciplinary minor in Asian studies both of any of the following pairs of courses: ASIA/ HIST 138 and ASIA/RELI 180, ASIA/HIST 139 and ASIA/RELI 181.

## Arabic Minor

The undergraduate minor in Arabic consists of four courses. Three courses are language courses beyond ARAB 203 (the first semester of Intermediate Arabic). The other course must be chosen from among the following: ARAB $150,151,321,337,338,350,434$, 443, 452, 453, 462, 468; ARAB/ASIA/RELI 681; ARTH 351; ARTH/ASIA 154, 251, 458, 561; ASIA 64, 66, 357, 435; ASIA/ GEOG 447; ASIA/HIST 138, 139, 275, 276, 277, 536, 537, 538; ASIA/RELI 180, 181, 581, 582, 584; RELI 480; SOCI 419.

## Chinese Minor

The undergraduate minor in Chinese consists of five courses. At least three of the courses must be language courses beyond CHIN 203 (the first semester of Intermediate Chinese), chosen from among the following: CHIN 204, 212, 305, 306, 313, 407, 408, $414,440,441,442,443,490,510,511,525,532$, or 590 . The other two courses may be chosen either from the same list or from among the following: ASIA 52, 55, 56, 65, 453; CHIN 150, 231, $232,242,244,252,253,255,342,346,354,356,361,367,463$, $464,531,551,552,562,563$. No more than one first-year seminar may be counted toward the minor.

## Modern Hebrew Minor

The undergraduate minor in Hebrew consists of four courses. Three courses are language courses beyond HEBR 203 (the first semester of Intermediate Hebrew). The other course must be chosen from among the following: ASIA 60, 235, 357; ASIA/HIST 277; HEBR 142, 436; RELI 103, 343, 401, 402, 403, 404.

## Hindi-Urdu Minor

The undergraduate minor in Hindi-Urdu consists of four courses. Three courses are language courses beyond HNUR 203 (the first semester of Intermediate Hindi-Urdu), chosen from among HNUR $204,305,306,407,408,410$, or 490 . The other course must be chosen from among the following: ARTH/ASIA 153, 266, 273, 456; ASIA 59, 61, 152, 163, 164, 224, 228, 231, 232, 261, 262, 331, 332, 333, 453; ASIA/HIST 135, 136; ASIA/RELI 285, 382, 383, 581, 582, 583; ASIA 300/RELI 283; HNUR 592; RELI 381.

## Japanese Minor

The undergraduate minor in Japanese consists of four language courses beyond JAPN 203 (the first semester of Intermediate Japanese), chosen from among the following: JAPN 204, 305, 306, $401,408,409,410,411,412,413,414,415,416,490,521,590$.

## Korean Minor

The undergraduate minor in Korean consists of four courses. Three courses are language courses beyond KOR 203 (the first semester of Intermediate Korean), chosen from KOR 204, 305, 306, 407. The fourth course must be chosen from among the following courses: ARTH/ASIA 158; ECON 469; JAPN 376; KOR 150, 151, 327.

## Advising

All majors and minors have a primary academic advisor in Steele Building. Students are strongly encouraged to meet regularly with their advisor and review their Tar Heel Tracker each semester. All majors are also required to meet each fall with a faculty advisor within the department. Departmental advising is an opportunity to discuss major progress, course selection and planning, study abroad, graduate school, career opportunities, and other matters pertinent to the major field. Advisors are assigned by concentration; advisor listings and contact information may be found on the department's Web site and are also disseminated via the majors' listserv.

## Special Opportunities in Asian Studies

## Honors in Asian Studies

A candidate for honors in Asian studies will write a substantial paper under the guidance of a faculty member. While researching and writing the honors paper, the student will enroll in ASIA 691H and 692 H . ASIA 692 H may count as one of the interdisciplinary courses for the major; ASIA 691 H will count for elective credit only. In the case of the concentrations in Arab cultures, Chinese, Japanese, and South Asian studies, ASIA 692H may count toward the major in the concentration.

A committee composed of at least two faculty members will examine the candidate. To be accepted as an honors candidate, a student must meet the University's requirement of a minimum overall grade point average of 3.3 , secure the consent of a faculty member in the Asian studies field to act as advisor for the project, and submit a proposal to the associate chair of Asian studies for approval.

## Departmental Involvement

The department sponsors a variety of cultural events-lectures, film series, performances, and more-as well as social and informational events where students can get to know each other and faculty members in an informal setting. Faculty members in the department serve as advisors to some of the many Asia-related student organizations on campus, such as the Japan Club, Chinese Conversation Club, and more.

## Languages across the Curriculum

The department participates in the Languages across the Curriculum (LAC) program, offering a one-credit-hour discussion section that is conducted in Arabic but associated with a variety of courses offered in English, both in Asian studies and in such other departments as history or religious studies. This LAC recitation section offers students the opportunity to use their Arabic language skills in a broader intellectual context.

## Libraries

The University has rich collections of books and periodicals on Asia in the relevant Asian languages, as well as in English and other Western languages. Experts in collection development department for Davis Library are available to help students locate the materials they need. The University also has an outstanding collection of Asian films and other audiovisual materials, housed in the Media Resource Center at House Library.

## Speaker Series

The department sponsors an annual speaker series. These events include lectures by prominent artists, scholars, and writers and are often cosponsored by other units on campus.

## Study Abroad

UNC-Chapel Hill sponsors several study programs (summer, semester, and yearlong) in China, Egypt, India, Israel, Japan, Jordan, Korea, Mongolia, Morocco, Nepal, Oman, Singapore, Taiwan, Thailand, Turkey, and Vietnam. Asian studies majors are strongly encouraged to take advantage of these opportunities to live and study in an Asian setting; UNC-approved study abroad programs also satisfy the experiential education requirement. For further information on these programs and other study abroad opportunities in Asia, contact the UNC Study Abroad Office.

## Undergraduate Research

The department actively encourages undergraduate student research. Through classes, advising, and office hours, faculty members guide students toward defining areas of interest, conceptualizing research questions, identifying sources, and writing academic papers. Students may pursue research through independent studies, the senior honors thesis, and study abroad research opportunities such as the Burch Fellowship. Asian studies students have received a variety of competitive research support and travel awards, won regional contests for undergraduate papers, published papers in academic journals, and presented their work at such events as the Senior Colloquium in Asian Studies and the campuswide Annual Celebration of Undergraduate Research in the spring.

## Facilities

Students taking courses in the Department of Asian Studies have support for their work through the Language Resource Center (LRC), housed on the ground floor of Dey Hall. The LRC provides resources and services for language teaching and learning, including audio and video materials; smart classrooms with PCs and projection equipment; listening, viewing, and recording facilities; a walk-in computer lab; and online databases for language learning.

## Graduate School and Career Opportunities

As a liberal arts major, the Asian studies major trains undergraduates to read and think analytically and to present their ideas effectively orally and in writing, essential preparation for a variety of careers and for the responsibilities of living in an interdependent world. Graduates of the program have continued their academic preparation in top-ranked graduate programs across the country while others have built distinguished careers in banking, journalism, international education, and government.

## Faculty

## Associate Professors

Jan Bardsley, Mark Driscoll, Li-ling Hsiao, Wendan Li, Pamela Lothspeich, Morgan Pitelka, Yaron Shemer, Afroz Taj, Robin Visser, Nadia Yaqub, Gang Yue.

## Assistant Professors

Fadi Bardawil, Uffe Bergeton, Zeina Halabi, Ji-Yeon Jo.

## Senior Lecturers

Yuki Aratake, Yuko Kato, Yi Zhou.

## Lecturers

Shahla Adel, Farida Badr, Dongsoo Bang, Luoyi Cai, John Caldwell, Khalid Chahhou, Doria El Kerdany, Lini Ge, Fumi Iwashita, Bud Kauffman, Jia Lin, Reiko Nitta, Elisheva Perelman, Jackie Relyea, Katsu Sawamura, Hanna Sprintzik.

## Affiliated Faculty

Neel Ahuja (English and Comparative Literature), Barbara Ambros (Religious Studies), Glaire Anderson (Art), Lorraine Aragon (Anthropology), Benjamin Arbuckle (Anthropology), Cemil Aydin (History), Inger Brodey (English and Comparative Literature), Yong Cai (Sociology), Xi Chen (Political Science), Jocelyn Chua (Anthropology), Peter A. Coclanis (History), Barbara Entwisle (Sociology), Carl Ernst (Religious Studies), Emma Flatt (History), W. Miles Fletcher (History), Pika Ghosh (Art), Banu Gökariksel (Geography), Guang Guo (Sociology), Juliane Hammer (Religious Studies), Gail Henderson (Social Medicine), Carmen Hsu (Romance Studies), Michelle King (History), Charles Kurzman (Sociology), David Lambert (Religious Studies), Lauren Leve (Religious Studies), Wei-Cheng Lin (Art), Townsend Middleton (Anthropology), Christopher Nelson (Anthropology), Donald M. Nonini (Anthropology), James L. Peacock (Anthropology), Lisa Pearce (Sociology), Ronald Rindfuss (Sociology), Steven Rosefielde (Economics), Omid Safi (Religious Studies), Iqbal Sevea (History), Wenhua Shi
(Communication Studies), Sarah Shields (History), Kumi Silva (Communication Studies), Jennifer Smith (Linguistics), Sara Smith (Geography), Yan Song (City and Regional Planning), Eren Tasar (History), Meenu Tewari (City and Regional Planning), Michael Tsin (History), Margaret Wiener (Anthropology), Jiayun Zhuang (Dramatic Art).

## Professor Emeritus

Jerome P. Seaton.

## Senior Lecturer Emeritus

Eric Henry.

## Contact Information

Department of Asian Studies, CB\# 3267, 113 New West, (919) 962-4294, asia@unc.edu.

## Courses

## ASIA-Asian Studies (in English)

ASIA 52 First-Year Seminar: Food in Chinese Culture (3). Examines the cultural practice and meanings of food, cooking, eating, and drinking through Chinese literature and cinema. Main themes include food and rituals, gourmandism and poetic taste, cannibalism and the grotesque, and hunger and revolution.

## ASIA 54 First-Year Seminar: The American Life of Japanese

 Women (3). Considers how American popular culture has portrayed Japanese women since the 1860s, asking what this reveals about changing American ideas of race, gender, and national identity.ASIA 55 First-Year Seminar: Kung-Fu: The Concept of Heroism in Chinese Culture (3). Film, history, novels, and theater are used to explore the rich, complex kung-fu tradition in Chinese culture from ancient to modern times, as well as its appropriation in foreign films.
ASIA 56 First-Year Seminar: Writing Women in Modern China (3). Compares the rhetoric of equality between the sexes presented by late Qing, May Fourth, and communist thinkers to perspectives on gender and society by 20th-century Chinese women writers.

ASIA 57 First-Year Seminar: Dis-Orienting the Orient (3). Examines how the East is constructed as the Orient in different historical periods: 19th-century European colonialism, 1950s to 1960s Hollywood films, contemporary Japanese animation, and the current global war on terrorism.
ASIA 58 First-Year Seminar: Chasing Madame Butterfly (3). Course explores diverse tales of Madame Butterfly from Puccini's famous opera to productions of M. Butterfly and Miss Saigon, asking questions about constructions of race, gender, nation, travel, and romance.

ASIA 59 First-Year Seminar: Media Masala: Popular Music, TV, and the Internet in Modern India and Pakistan (3). Explores different examples of broadcast and digital media (music videos, soap operas and reality shows, radio and the internet) with respect to history, gender, sexuality, globalization, religion, regionalism, and activism.

ASIA 60 First-Year Seminar: Israeli Culture and Society:
Collective Memories and Fragmented Identities (3). The course explores selected themes and case studies pertinent to culture and society in modern Israel, with emphasis on debates about "Israeliness" in various cultural and social arenas.

ASIA 61 First-Year Seminar: India through the Lens of Master Filmmakers (3). Elements of Indian culture and history are illuminated through works chiefly in the art film genre. Basic film theory is also introduced to help students read the text of film.

ASIA 63 First-Year Seminar: Japanese Tea Culture (3). This seminar explores the history of tea culture in Japan, particularly the emergence in the 16th and 17th centuries of the ritualized practice often referred to in English as the "tea ceremony" (chanoyu). Practitioners included merchants, Buddhist monks, warlords, European Jesuits, and professional tea masters.
ASIA 64 First-Year Seminar: Arab World Photography (3). Introduces students to photography in the Arab world, including colonial and Orientalist photography, indigenous studio and portrait photography, the ethics of photographing disasters, art photography, and photography and revolutions.

## ASIA 65 First-Year Seminar: Philosophy on Bamboo:

Rethinking Early Chinese Thought (3). This course will introduce students to the main works and themes in early Chinese thought from the earliest recorded writings down to the Qin unification in 221 BCE.

ASIA 66 First-Year Seminar: The 2011 Revolution through Egyptian Eyes (3). This seminar explores the historical and political context of the revolution, its representation in the West, the role of social media in events, and the culture that has emerged from it.

ASIA 89 First-Year Seminar: Special Topics (3). Special topics course. Content will vary each semester.

ASIA 122 Introduction to Iranian Culture (3). This course will examine the cultural identity of the country of Iran and its people, from its roots in antiquity to the modern day. Students develop familiarity with cultural facts of life and traditions that have made Iran a significant and distinctive cultural arena for more than 3,000 years.

ASIA 131 Southeast Asia to the Early 19th Century (HIST 131) (3). See HIST 131 for description.

ASIA 132 Southeast Asia since the Early 19th Century (HIST 132, PWAD 132) (3). See HIST 132 for description.
ASIA 133 Introduction to Chinese History (HIST 133) (3). See HIST 133 for description.

ASIA 134 Modern East Asia (HIST 134, PWAD 134) (3). See HIST 134 for description.
ASIA 135 History of the Indian Subcontinent to 1750 (HIST 135) (3). See HIST 135 for description.

ASIA 136 History of India, Pakistan, and Bangladesh: South Asia since 1750 (HIST 136) (3). See HIST 136 for description.

ASIA 138 History of Muslim Societies to 1500 (HIST 138) (3). See HIST 138 for description.

ASIA 139 History of Muslim Societies since 1500 (HIST 139)
(3). See HIST 139 for description.

ASIA 150 Asia: An Introduction (3). The course introduces Asia's historical, cultural, and political diversity by examining some of the global forces that have shaped Asian societies (e.g., colonialism, orientalism, and neoliberalism).

ASIA 151 Literature and Society in Southeast Asia (3). This course is an introduction to the societies of Southeast Asia through literature. Background materials and films will supplement the comparative study of traditional works, novels, short stories, and poems.

ASIA 152 Survey of South Asian Cultural History (3). Readings from diverse disciplines illuminate the broad features of South Asia throughout history. Topics include political history and social thought, including gender and caste, and religious and imaginative literature.

ASIA 153 Introduction to South Asian Art (ARTH 153) (3). See ARTH 153 for description.
ASIA 154 Introduction to Art and Architecture of Islamic Lands (Eighth-16th Centuries CE) (ARTH 154) (3). See ARTH 154 for description.
ASIA 155 Anthropology of South Asia (ANTH 155) (3). See ANTH 155 for description.

ASIA 158 Introduction to East Asian Art and Architecture (ARTH 158) (3). See ARTH 158 for description.

ASIA 163 Hindi-Urdu Poetry in Performance (3). This course examines the connection between poetry and performance in the context of Hindi-Urdu literature, particularly the genres of Sufi poetry (qawwali), Bhakti poetry, and the ghazal.

ASIA 164 Music of South Asia (3). This course provides a comprehensive overview of the music of South Asia, focusing on India, Pakistan, and Bangladesh. The entire spectrum of musical genres will be covered.
ASIA 180 Introduction to Islamic Civilization (RELI 180) (3). See RELI 180 for description.
ASIA 181 Modern Muslim Societies (RELI 181) (3). See RELI 181 for description.

ASIA 183 Asian Religions (RELI 183) (3). See RELI 183 for description.

ASIA 224 Introduction to Iranian Cinema (3). This course will offer students an opportunity to study selected, socially engaged Iranian films. By watching, contextualizing, and discussing films that explore cultural and historical issues affecting modern-day Iran, we will discover themes of politics, religion, gender, class, and history.
ASIA 228 Contested Souls: Literature, the Arts, and Religious Identity in Modern India (3). An analysis of how historical interactions between Hinduism and Islam have inspired the creation of philosophies and great works of literature and art that continue to inform Indian society today.
ASIA 231 Bollywood Cinema (3). This course explores the
development of the Indian cinema, with particular emphasis on the Hindi-Urdu films produced in Mumbai (Bollywood).

ASIA 232 Cities and Villages of South Asia: A Historical and Cultural Tour (3). The history, cultures, and societies of South Asia are explored through virtual visits to various cities, towns, and villages of the region. An interdisciplinary approach will be employed.

ASIA 235 Israeli Cinema: Gender, Nation, and Ethnicity (3). The course explores major periods and trends in Israeli cinema. Focus is given to issues pertaining to gender, ethnicity, and the construction of national identity

ASIA 240 Performance in Southeast Asia: Gongs, Punks, and Shadow Plays (MUSC 240) (3). See MUSC 240 for description.

ASIA 241 Asian Literature/Study Abroad Program (3-6). This course, taught in a study abroad program in Asia, will focus on topics related to Asian literature.

ASIA 242 Asian Fine Arts/Study Abroad Program (3-6). This course, taught in a study abroad program in Asia, will focus on topics related to Asian fine arts.

ASIA 243 Asian Societies/Study Abroad Program (3-6). This course, taught in a study abroad program in Asia, will examine Asian society from a social science perspective.

ASIA 244 Asian History/Study Abroad Program (3-6). This course, taught in a study abroad program in Asia, will focus on topics related to Asian history.

ASIA 251 Art and Architecture in the Age of the Caliphs (Seventh-12th Centuries CE) (ARTH 251) (3). See ARTH 251 for description.

ASIA 252 Popular Culture in Modern Southeast Asia (CMPL 252) (3). This course examines popular culture in Southeast Asia as a response to colonialism, nationalism, modernization, the state, and globalization. Topics include theater, film, pop songs, television, rituals, and the Internet.

ASIA 255 The Feast in Film, Fiction, and Philosophy (CMPL 255) (3). See CMPL 255 for description.

ASIA 261 India through Western Eyes (3). Examines Western views of India and Indian culture and how these views differ from the way Indians in India and Indian immigrants in the West understand themselves and express their relationship to India through novels and travelogues.

ASIA 262 Nation, Film, and Novel in Modern India (3). Focus on how modern Indian writers and filmmakers have represented the creation of an Indian national identity through such historical periods as British colonialism, the Rebellion of 1857, the Indian Independence Movement, the Partition, and the eras of national integration and globalization.

ASIA 265 Eastern Asia (GEOG 265) (3). See GEOG 265 for description.

ASIA 266 Arts of Early and Medieval Asia (ARTH 266) (3). See ARTH 266 for description.

ASIA 267 South Asia (GEOG 267) (3). See GEOG 267 for
description.
ASIA 273 Arts under the Mughal Dynasty in India (ARTH 273) (3). See ARTH 273 for description.

ASIA 275 History of Iraq (HIST 275, PWAD 275) (3). See HIST 275 for description.

ASIA 276 The Modern Middle East (HIST 276) (3). See HIST 276 for description.

ASIA 277 The Conflict over Israel/Palestine (HIST 277, PWAD 277) (3). See HIST 277 for description.

ASIA 281 The Pacific War, 1937-1945: Its Causes and Legacy (HIST 281, PWAD 281) (3). See HIST 281 for description.

ASIA 282 China in the World (HIST 282) (3). This course explores the evolution of China as a geopolitical entity from global perspectives, 1350 to the present.

ASIA 284 The Buddhist Tradition: East Asia (RELI 284) (3). See RELI 284 for description.

ASIA 285 The Buddhist Tradition: Southeast Asia and Sri Lanka (RELI 285) (3). See RELI 285 for description.

ASIA 287 Japan's Modern Revolution (HIST 287) (3). See HIST 287 for description.
ASIA 288 Japan in the 20th Century (HIST 288) (3). See HIST 288 for description.

ASIA 300 The Buddhist Tradition: India, Nepal, and Tibet (RELI 283) (3). See RELI 283 for description.

ASIA 301 Premodern Japanese Religions (RELI 286) (3). See RELI 286 for description.

ASIA 302 Modern Japanese Religions (RELI 287) (3). See RELI 287 for description.

ASIA 303 Chinese Religions (RELI 288) (3). See RELI 288 for description.

ASIA 331 Cracking India: Partition and Its Legacy in South Asia (3). What happened when the British carved Pakistan out of the Muslim-dominated corners of India? Readings and films focus on the causes and consequences of this event, the Partition of India.

ASIA 332 The Story of Rama in India (3). Centered on the story of the Hindu god Rama, this course explores Valmiki's Ramayana, alternate versions of the story, its performance in theatre, and its role in politics. Students may not receive credit for both ASIA 332 and 382.

ASIA 333 The Mababharata: Remembered and Reimagined
(3). This course offers an introduction to the Sanskrit Mahabharata as well as modern retellings of the epic in contemporary literature, film, and theatre of India. Students may not receive credit for both ASIA 333 and 383.

ASIA 350 The Asian American Experience (3). The course addresses the history and sociology of Asian immigration and experience in the United States, as well as the formation of diasporic identities among Asian Americans.

ASIA 357 The Arab-Jews: Culture, Community, and
Coexistence (3). This course is designed to examine Jewish life in

Arab lands in the last century by examining culture, language, and the communal life that the Arab-Jews shared with their neighbors.

ASIA 360 Contemporary Asian American Literature and Theory (ENGL 360) (3). See ENGL 360 for description.
ASIA 375 Memory, Massacres, and Monuments in Southeast Asia (ANTH 375) (3). See ANTH 375 for description.

ASIA 379 Cowboys, Samurai, and Rebels in Film and Fiction (CMPL 379) (3). See CMPL 379 for description.

ASIA 380 Almost Despicable Heroines in Japanese and Western Literature (CMPL 380, WMST 380) (3). See CMPL 380 for description.

ASIA 382 The Story of Rama in Indian Culture-Experiential (RELI 382) (3). Centered on the story of the Hindu god Rama, this course explores Valmiki's Ramayana, alternate versions of the story, its performance in theater, and its role in politics. Students will work outside of class to perform in a theatrical event called Ramlila, open to the public. Students may not receive credit for both ASIA 332 and 382.

ASIA 383 The Mababharata: Remembered and ReimaginedExperiential (RELI 383) (3). This course offers an introduction to the Sanskrit Mahabharata as well as modern retellings of the epic in contemporary literature, film, and theater of India. Students will work outside to class to stage a modern play based on the Mahabharata, open to the public. Students may not receive credit for both ASIA 333 and 383.

ASIA 390 Seminar in Asian Studies (3). Permission of the instructor. When offered, the topic will vary with the instructor. The class will be limited to a seminar size.

ASIA 429 Culture and Power in Southeast Asia (ANTH 429, FOLK 429) (3). See ANTH 429 for description.
ASIA 435 The Cinemas of the Middle East and North Africa (3). This course explores the social, cultural, political, and economic contexts in which films are made and exhibited and focuses on shared intraregional cinematic trends pertaining to discourse, aesthetics, and production.

ASIA 445 Asian Religions in America (RELI 445) (3). See RELI 445 for description.
ASIA 447 Gender, Space, and Place in the Middle East (GEOG 447) (3). See GEOG 447 for description.

ASIA 453 Global Shangri-La: Tibet in the Modern World (3).
An examination of the history, society, and culture of modern Tibet and its imagination in the context of international politics and from a multidisciplinary perspective.
ASIA 456 Art and Visual Culture of South Asia (ARTH 456) (3). See ARTH 456 for description.

ASIA 458 Islamic Palaces, Gardens, and Court Culture (Eighth-16th Centuries CE) (ARTH 458) (3). See ARTH 458 for description.

ASIA 468 Visual Arts and Culture in Modern and Contemporary China (ARTH 468) (3). See ARTH 468 for description.

ASIA 469 Western and Asian Economic Systems (ECON 469) (3). See ECON 469 for description.

ASIA 481 Rhetoric of Silence: Cross-Cultural Theme and Technique (CMPL 481) (3). See CMPL 481 for description.
ASIA 483 Cross-Currents in East-West Literature (CMPL 483) (3). See CMPL 483 for description.

ASIA 486 Literary Landscapes in Europe and Japan (CMPL 486) (3). See CMPL 486 for description.

ASIA 487 Mountains, Pilgrimage, and Sacred Places in Japan (RELI 487) (3). See RELI 487 for description.
ASIA 488 Shinto in Japanese History (RELI 488) (3). See RELI 488 for description.

ASIA 489 Animals in Japanese Religion (RELI 489). See RELI 489 for description.
ASIA 490 Advanced Topics in Asian Studies (1-4). The course topic will vary with the instructor.
ASIA 496 Independent Readings (1-3). Permission of the department. For the student who wishes to create and pursue a project in Asian studies under the supervision of a selected instructor. Course is limited to three credit hours per semester.
ASIA 536 Revolution in the Modern Middle East (HIST 536) (3). See HIST 536 for description.

ASIA 537 Women in the Middle East (HIST 537, WMST 537) (3). See HIST 537 for description.

ASIA 538 The Middle East and the West (HIST 538) (3). See HIST 538 for description.
ASIA 539 The Economic History of Southeast Asia (HIST 539) (3). See HIST 539 for description.

ASIA 545 The Politics of Culture in East Asia (ANTH 545) (3). See ANTH 545 for description.

ASIA 561 Art and Society in Medieval Islamic Spain and North Africa (ARTH 561) (3). See ARTH 561 for description.
ASIA 570 The Vietnam War (HIST 570, PWAD 570) (3). See HIST 570 for description.
ASIA 574 Chinese World Views (ANTH 574, RELI 574) (3). See ANTH 574 for description.

ASIA 578 Chinese Diaspora in the Asia Pacific (ANTH 578) (3). See ANTH 578 for description.

ASIA 581 Sufism (RELI 581) (3). See RELI 581 for description.
ASIA 582 Islam and Islamic Art in South Asia (RELI 582) (3). See RELI 582 for description.
ASIA 583 Religion and Culture in Iran, 1500-Present (RELI 583) (3). See RELI 583 for description.

ASIA 584 The Qur'an as Literature (RELI 584) (3). See RELI 584 for description.

ASIA 586 The Gardens, Shrines, and Temples of Japan (ANTH 586) (3). See ANTH 586 for description.

ASIA 681 Readings in Islamicate Literatures (ARAB 681, RELI 681) (3). See RELI 681 for description.

ASIA 682 Contemporary Chinese Society (ANTH 682) (3). See ANTH 682 for description.

ASIA 691H Senior Honors Thesis I (3). Permission of the department. Required for honors students in Asian studies.
ASIA 692H Senior Honors Thesis II (3). Permission of the department. Required for honors students in Asian studies.

## ARAB-Arab World (in English)

ARAB 150 Introduction to Arab Cultures (3). Introduction to the cultures of the Arab world and of the Arabs in diasporas: art, literature, film, music, dance, food, history, religion, folklore, etc.

ARAB 151 Arabic Literature through the Ages (3). Introduces the rich literary heritage of the Arabic language from pre-Islamic to modern times and covers major genres. Emphasis on critical thinking, literary analysis, and academic writing.

## ARAB 321 Visions of Emancipation in Modernist Arab

Thought (3). This course examines key questions that animated Arab intellectuals in the past century and the diverse intellectual and political traditions-such as Liberalism, Arab Nationalism, and Marxism-that they engaged with. We will read theoretical treatises, newspaper articles, political party tracts, and interviews with leading thinkers and politicians.
ARAB 337 Borders and Walls in the Arab World (3). Can art, film, and literature undo cultural, social, and political divisions created by borders and walls in the Arab world? Cannot be taken for credit by students who have taken ARAB 338.
ARAB 338 Borders and Walls in the Arab World-Experiential (3). Can art, film, and literature undo cultural, social, and political divisions created by borders and walls in the Arab world? Includes service learning. Cannot be taken for credit by students who have taken ARAB 337.

ARAB 350 Women and Leadership in the Arab World (3). A service-learning, study abroad course focusing on women and leadership in the Arab world. Topics include women and religion, family, community and selfhood, citizenship and legal rights, and politics.
ARAB 434 Modern Arabic Literature in Translation (3). Course treats a variety of themes and genres of Arabic literature from the mid-20th century to the present.
ARAB 443 Dissident Voices in Arab Cultures (3). Examines alternative interpretations of Arab history, culture, and identity that challenge our understanding of contemporary Arab cultures. Traces how Arab writers and filmmakers simultaneously engage and subvert questions of identity and representation.

ARAB 452 Imagining Palestine (PWAD 452) (3). Explores how Palestine is portrayed in writings, films, and other creative works and how Palestinian portrayals of homeland affect others' perceptions of the Palestinian-Israeli conflict and the Arab World.
ARAB 453 Film, Nation, and Identity in the Arab World (3). Introduction to history of Arab cinema from 1920s to present. Covers film industries in various regions of the Arab world and transnational Arab film. All materials and discussion in English.

ARAB 462 Global Perspectives on Arab Cultures and Societies (3). We will focus on anthropological and historical works that unearth veins of research on the Arab world whose horizons transcend the frontiers of nation-states and the boundaries of religious traditions. We will read works which explore lives, ideas, practices, and institutions through situating them within global processes.

## ARAB 468 Modernity and Its Discontents in Arabic

 Literature and Culture (3). This course probes the different conceptualizations of Arab modernity beginning from the colonial era and ending with the contemporary critiques of modernity in history, literature, and cinema.
## CHIN-China (in English)

CHIN 150 Introduction to Chinese Civilization (3). A course designed to introduce students to the Chinese world of past and present. Chinese civilization is explored from a variety of perspectives: political, social, cultural, intellectual, and economic.

CHIN 231 Chinese Literature in Translation through the T'ang (3). A survey of Chinese literature from the classical period to the end of the T'ang dynasty ( 906 CE ).

CHIN 232 Chinese Literature in Translation since the Sung (3). A survey of Chinese literature from the Sung Dynasty to 1949.
CHIN 242 Chinese Qin Music (3). This course offers students an opportunity to learn the aesthetics, culture, and history of qin, and study the music through learning the beginning levels of qin pieces.

CHIN 244 Introduction to Modern Chinese Culture through Cinema (3). This course uses select feature and documentary films, supplemented by texts of critical and creative literature, to introduce students to a broad overview of modern China since the mid-19th century, focusing on the major events that have shaped a turbulent course of decline, revolution, and resurgence.

## CHIN 252 Introduction to Chinese Culture through Narrative

(3). This course shows how Chinese historical legends define and transmit the values, concepts, figures of speech, and modes of behavior that constitute Chinese culture.

CHIN 253 Chinese Language and Society (3). Prerequisite, CHIN 102 or 111. Chinese language in social, cultural, historical, and political contexts in China. Topics include basic linguistic features, dialects, writing, literacy, and language reform in the era of modernization and globalization.
CHIN 255 Bandit or Hero: Outlawry in Chinese Literature and Films (3). This course explores the idea of outlaws as hero in the 16th-century kung-fu novel Outlaws of the Marsh and its influence on modern kung-fu and gangster films.

CHIN 342 The Rise of China: A Global and Multidisciplinary Approach (3). The rise of China has altered the economic and political order of the post-Cold War world. This course examines the historical context and trajectory of China's rise, its internal dynamics, and the challenges it poses to the rest of the world.
CHIN 346 History as Fiction or Fiction as History? Early Chinese History in Film and Literature (3). Through analysis of the role movies play in the formation of popular perceptions of the past, this course provides an introduction to the history of the Qin
and Han dynasties.
CHIN 354 Chinese Culture through Calligraphy (3). Prerequisite, CHIN 102, CHIN 111, or JAPN 102. An introduction to the basic skills of brush writing and the cultural, historical, and artistic aspects of Chinese calligraphy.
CHIN 356 Chinese Environmental Literature (3). Introduces students to Chinese and Taiwanese cultural understandings of human relations to the natural environment. Analyzes classical and modern environmental literature (poetry, essays, fiction, and philosophy) and evaluates how contemporary building practices, governmental policies, and green technologies may be influenced by diverse Chinese philosophical traditions.

CHIN 361 Chinese Traditional Theater (3). This course introduces traditional Chinese theater from its earliest development to modern times by examining the interrelation of its elementsmusic, dance, poetry, and illustration-with performance footage, visual art, and dramatic texts.

CHIN 367 Illustration and the Animation of Text (3). This course examines illustration as both a form of literary criticism and a narrative tradition in its own right.

CHIN 463 Narrative Ethics in Modern China (3). By exploring intersections of the narrative and the normative, this course considers relations between text, ethics, and everyday life in 20thcentury China by reading texts on aesthetics.
CHIN 464 The City in Modern Chinese Literature and Film (3). This course analyzes historical changes of the city through examining the individual, national, and global identity of Shanghai, Beijing, Taipei, and Hong Kong as reflected in their histories, politics, built environment, ethos, language, and culture.

CHIN 531 The Chinese Zither in Poetry and Painting (3). This course explores zither as a cultural locus of traditional China and contemplates the relations between musical and poetic expressions, abstract musical and visual representation, and word and image.
CHIN 551 Chinese Poetry in Translation (3). Selected topics in Chinese poetry concentrating on one period or one genre.

CHIN 552 Chinese Prose in Translation (3). Selected topics in Chinese fiction, historical writing, and prose belles lettres, concentrating on one period or one genre.
CHIN 562 Contemporary Chinese Urban Culture and Arts (3). This course analyzes contemporary Chinese urban art, architecture, cinema, and fiction to elucidate dynamics between the built environment and subjectivity. Students analyze how social, economic, and political factors shape environments, and debate whether new urban spaces create social conflict or new civil possibilities.

CHIN 563 Post-Mao Chinese Literature in Translation (3). A study of Chinese literature since 1977, its historical context in the New Era of reform, and influences from modern Western literature.

## HEBR-Israel (in English)

HEBR 142 Jerusalem in Israeli Literature, Cinema, and Art (3). A focus on stories, poems, essays, paintings, and films in which Jerusalem and its people figure prominently. Course will address the
multifaceted and often schizophrenic description of the city.
HEBR 436 Language, Exile, and Homeland in Zionist Thought and Practice (3). Employing Zionist and post- and anti-Zionist documents, treatises, and mostly literary and cinematic texts, this class will focus on the relations between language, Jewish-Israeli identity, and the notion of homeland.

## HNUR-India/Pakistan (in English)

## HNUR 592 Religious Conflict and Literature in India (RELI

592) (3). Historical causes of violence between Hindus and Muslims in modern India. Short stories, poetry, and novels in translation are used to explore how conflicts over religious sites, religious conversion, image worship, and language contributed to a sense of conflicting religious identity.

## JAPN-Japan (in English)

JAPN 150 Introduction to Japanese Culture (3). Introduces students to major periods, themes, and issues in Japanese culture and history, from prehistoric times to the present.
JAPN 160 Introduction to Japanese Literature in Translation (3). The major genres, aesthetic concepts, and classic and modern works of Japanese literature in English translation.

JAPN 161 Geisha in History, Fiction, and Fantasy (3). Explores the artistic traditions of Japanese performers known as geisha. Sources include woodblock prints, novels, photographs, academic studies, and popular Japanese and American films.
JAPN 162 Japanese Popular Culture (3). This course will examine how and why Tokyo emerged as a dominant locale in global mass culture. Students will be introduced to major figures and genres in Japanese pop culture.
JAPN 165 Gods, Ghosts, and Heroes: Myths and Legends in Japanese History and Culture (3). Introduces students to the gods, ghosts, and heroes of premodern Japanese literature and culture. We will focus on early myths and works of literature, medieval plays and folktales, and early modern novels and woodblock prints.
JAPN 231 Premodern Japanese History and Culture (HIST 271) (3). This survey examines Japanese history from early times to the Tokugawa settlement of 1603 . We will consider the archaeology of prehistoric Japan; the first great capitals at Nara and Heian; the rise of the samurai; and the tenuous medieval balance of power between the court, warrior government, and Buddhist institutions.

## JAPN 246 Early Modern Japanese History and Culture (HIST

247) (3). This course focuses on Japan's early modern period (16001868) and explores the historicism of the artist Hon'ami Koetsu; the status system and village life; the writings of Matsuo Basho; dramatic culture and the life of the city; and the interplay between sex, gender, and commerce.
JAPN 258 Death and Dying: Mortality, Culture, and Society in Japan (3). This discussion-based course will allow students to examine representations of mortality and its value to the living and the dying in Japan during the modern period (from the Meiji era [1868-1912] to the present).

JAPN 261 Japanese Theater (3). Explores the major forms
of classical Japanese theater (Noh, Kabuki, Bunraku), modern innovations in dramatic art, and contemporary reinventions of the classical theater in Japanese animated film.

JAPN 277 Empire of Sex: Eroticism, Mass Culture, and Geopolitics in Japan, 1945-Present (3). Tokyo, Japan, became the center of global pornographic culture after the United States occupation ended in 1952. This course will use film, animation, and historical texts to try to understand how and why this happened. Moreover, we will identify how this phenomenon impacted the lives of Japanese men and women.

JAPN 333 Six Diseases That Changed Japan (3). Students in this course will analyze the impact disease has on Japanese culture, society, and nation (and the cultures, societies, and nations impacted by Japan) at different historical moments.

JAPN 363 Samurai, Monks, and Pirates: History and Historiography of Japan's Long 16th Century (HIST 370) (3). This course will examine Japan's long 16th century. Introduces students to the history of, and historiographical problems with the representation of, some of the most fascinating characters in Japanese history, including pirates, warlords, tea masters, Jesuit monks, Buddhist priests, and peripatetic artists.

JAPN 375 The Culture of Modern, Imperial Japan, 1900-1945 (3). This course will examine the various expressions of cultural modernity in Japan with a focus on film, literature, and popular culture from 1900 to the end of the Pacific War.

JAPN 376 Colonial East Asia/Postcolonial Japan (3). Focusing on literary, philosophical, and media works, this course will first examine Japanese colonialism from 1895 to 1940 and then the postcolonial effects of that colonialism within Japan after 1945.

JAPN 377 Cultural Studies of Early Modern Japan (3).
Introduction to political, aesthetic, and intellectual works of Japan's Tokugawa period (1603-1868). Examines the characteristics of Tokugawa cultural works alongside developments in critical thought in ethics, economics, and social philosophy.
JAPN 381 Women and Work in Japan (WMST 381) (3). Examines construction of traditional women's roles in Japan and feminist challenges to them by exploring various aspects of "women's work." Interdisciplinary readings consider law, social custom, media representations, and feminist activism.

JAPN 384 Women Writers in Japanese Society (WMST 384) (3). Examines Japanese literature and culture through fiction and poetry by women. Explores ideas in contemporary feminist criticism in Japan and the West as a means to read Japanese women's writing.
JAPN 451 Swords, Tea Bowls, and Woodblock Prints: Exploring Japanese Material Culture (3). This course surveys Japanese material culture. Each week we will examine a different genre of visual or material culture in terms of its production, circulation through time and space, and modern deployment in narratives of national identity. This course includes regular engagement with the Ackland Art Museum at UNC.

JAPN 482 Embodying Japan: The Cultures of Beauty, Sports, and Medicine in Japan (3). Explores Japanese culture and society
through investigating changing concepts of the human body. Sources include anthropological and history materials, science fiction, and film.

JAPN 563 Structure of Japanese (LING 563) (3). See LING 563 for description.

## KOR-Korea (in English)

KOR 150 History, Memory, and Reality in Contemporary Korea (3). This course will provide an introduction to Korean studies and examine contemporary issues in Korean society and culture through social and cultural movements, multiple genres of texts, and artistic manifestations.

KOR 151 Education and Social Changes in Contemporary Korea (3). This course will provide an introduction to Korean studies and examine contemporary issues in Korean society through policies and systems in education, social and cultural trends and phenomena, and globalism.

KOR 327 Korean Diasporas (3). This course will explore multiple contexts of the Korean diaspora such as historical, political, social, and educational contexts. Examines uniqueness and commonalities among various Korean diasporic communities around the world.

## ARAB-Arabic (Language Courses)

ARAB 101 Elementary Arabic I (4). Introduction to Modern Standard Arabic, including the Arabic script, basic grammar, and vocabulary, and developing skills in reading, writing, listening, and speaking.

ARAB 102 Elementary Arabic II (4). Prerequisite, ARAB 101. Introduction to Modern Standard Arabic, including the Arabic script, basic grammar, and vocabulary, and developing skills in reading, writing, listening, and speaking.

ARAB 123 Conversational Arabic Abroad (3). Conversational course introducing one of the major dialects of Arabic. Only offered within the context of a University faculty-led study abroad program in the Arab world.

ARAB 203 Intermediate Arabic I (4). Prerequisite, ARAB 102. A proficiency-based course centered on reading, writing, speaking, and listening to Modern Standard Arabic with an emphasis on understanding the application of grammatical structures and vocabulary development.

ARAB 204 Intermediate Arabic II (4). Prerequisite, ARAB 203. A proficiency based course centered on reading, writing, speaking, and listening to Modern Standard Arabic with an emphasis on understanding the application of grammatical structures and vocabulary development.

ARAB 300 Arabic Grammar and Composition (3). Prerequisite, ARAB 204. Intensive grammar review and composition to improve accuracy and develop writing skills in Modern Standard Arabic.

ARAB 305 Advanced Arabic I (3). Prerequisite, ARAB 204. Intensive reading of a variety of texts; films, oral presentations, and writing; extensive vocabulary development.

ARAB 306 Advanced Arabic II (3). Prerequisite, ARAB 305. Intensive reading of a variety of texts; films, oral presentations, and writing; extensive vocabulary development.

ARAB 308 Arabic Languages across the Curriculum Recitation (1). Prerequisite, ARAB 204. Arabic recitation offered in conjunction with selected content courses. Weekly discussion and readings in Arabic relating to attached content courses.

ARAB 407 Readings in Arabic I (3). Prerequisite, ARAB 306. Classical and/or modern readings in Arabic, according to the students' interest.

ARAB 408 Readings in Arabic II (3). Prerequisite, ARAB 306. Classical and/or modern readings in Arabic, according to the students' interest.

ARAB 496 Independent Readings in Arabic (1-3). Permission of the department. For the student who wishes to create and pursue an independent project in Arabic under the supervision of a selected instructor. Maximum three credit hours per semester.

## ARAB 681 Readings in Islamicate Literatures (ASIA 681,

 RELI 681) (3). See RELI 681 (only when offered in Arabic) for description.
## CHIN-Chinese (Language Courses)

CHIN 101 Elementary Chinese I (4). Introduction to Mandarin Chinese, focusing on pronunciation, simple conversation, and basic grammar. Reading and writing Chinese characters are also taught. Four hours per week.
CHIN 102 Elementary Chinese II (4). Prerequisite, CHIN 101. Continued training in listening, speaking, reading, and writing on everyday topics. Four hours per week.

CHIN 111 Elementary Written Chinese (3). Designed for students who already understand and speak some Chinese; entry to this course is by placement only. The training in the course centers on reading and writing. This course is taught in Chinese. CHIN 111 is equivalent to CHIN 101 and 102. CHIN 111 does not count toward the Chinese minor. Three hours per week.

CHIN 123 Chinese Character Writing (3). Entry to this course is by placement only. This course focuses on writing and memorizing Chinese characters. It is intended for students who have basic speaking and listening skills but do not know how to write characters.

CHIN 203 Intermediate Chinese I (4). Prerequisite, CHIN 102. Second-year level of modern standard Chinese. Four hours per week.

CHIN 204 Intermediate Chinese II (4). Prerequisite, CHIN 203. Second-year level of modern standard Chinese. Four hours per week.

CHIN 212 Intermediate Written Chinese (3). Prerequisite, CHIN 111. Designed for students who already understand and speak some Chinese. The training in the course centers on reading and writing. This course is taught in Chinese. CHIN 212 is equivalent to CHIN 203 and 204. Three hours per week.
CHIN 305 Advanced Chinese I (3). Prerequisite, CHIN 204. Permission of the instructor for students lacking the prerequisite. This course emphasizes the development of conversational skills and vocabulary building with readings on everyday topics. Three hours per week.

CHIN 306 Advanced Chinese II (3). Prerequisite, CHIN 305. Permission of the instructor for students lacking the prerequisite. This course provides training in advanced conversation and composition with readings that cover a range of topics on Chinese society, economics, history, politics, etc. Three hours per week.
CHIN 313 Advanced Written Chinese (3). Prerequisite, CHIN 212. This is the third course in modern written Chinese for heritage students. The material covered is comparable to the material dealt with in the third year of the regular Chinese language sequence. Three hours per week.

CHIN 407 Readings in Modern Chinese I (3). Prerequisite, CHIN 306. Readings selected from high quality authentic texts of modern Chinese, including newspaper articles and published writings of literary, cultural, and social interest relating to modern Chinese society. This course is taught in Chinese, with further training in speech and writing.
CHIN 408 Readings in Modern Chinese II (3). Prerequisite, CHIN 407. Readings selected from high quality authentic texts of modern Chinese, including newspaper articles and published writings of literary, cultural, and social interest relating to modern Chinese society. This course is taught in Chinese, with further training in speech and writing.

CHIN 414 Advanced Reading and Composition (3).
Prerequisite, CHIN 313. Fourth course for heritage students, comparable to fourth year of the regular sequence. Focuses on reading and writing skills in modern Chinese, using authentic reading materials. Three hours per week.
CHIN 440 Advanced Chinese Grammar (3). Prerequisite, CHIN 407 or 414 . An overview of major grammatical features of Mandarin Chinese and how they differ from English. The textbook is written in relatively simple Chinese; class discussion is also in Chinese. Coursework includes grammatical exercises, class presentations, and writing assignments.

CHIN 441 Chinese-English Translation and Interpreting (3). Prerequisite or corequisite, CHIN 407 or 414. Instruction and practice in Chinese-to-English translation (written) and interpreting (oral), designed for second-language learners of Chinese. Students work with materials covering many fields.
CHIN 442 Modern Chinese Society (3). Prerequisite or corequisite, CHIN 408. This is a theme-based and proficiencyoriented advanced Chinese conversation course designed for nonheritage students. The purpose of the course is to train students in the skills of composing formal speech.

CHIN 443 Business Communication in Chinese (3). Pre- or corequisite, CHIN 407 or 414 . The goal of this course is to improve students' overall language proficiency using Chinese for business purposes. They will develop enhanced skills of reading business journalism and case studies and writing business letters or email messages.
CHIN 490 Topics in Chinese Literature and Language (3). Preor corequisite, CHIN 407 or 414 . Readings in Chinese literature and language on varying topics. May be taken more than once for credit as topics change.

CHIN 496 Independent Readings in Chinese (1-3). Permission of the department. For the student who wishes to create and pursue an independent project in Chinese under the supervision of a selected instructor. Maximum three credit hours per semester.

CHIN 510 Introduction to Classical Chinese (3). Pre- or corequisite, CHIN 408 or 414. Advanced study of Chinese classics.

CHIN 511 Literary Chinese (3). Prerequisite or corequisite, CHIN 408 or 414. Introduction to the classical Chinese language through reading short essays and poems. Instruction focuses on the similarities and differences between classical and modern Chinese in sentence structure and vocabulary.

CHIN 525 Ancient Philosophers and Their Modern
Reincarnation (3). Prerequisite, CHIN 408 or 414.
Recommended preparation, CHIN 510 or 511 . This course examines the reinterpretation and appropriation of ancient Chinese philosophy in contemporary China, on such themes as Confucian ethics and Daoist metaphysics and aesthetics.

CHIN 532 Modernizing the Chinese Language (3). Prerequisite, CHIN 510 or 511. An overview of the development of Chinese language during the 20th century. Topics include the unique features of Chinese, the role of Chinese language in education, Chinese language change and modern history, regional dialects, spoken versus written language, and language planning.

CHIN 590 Advanced Topics in Chinese Literature and Language (3). Prerequisite, CHIN 408 or 414 . This is an advanced topics course in Chinese literature and language, culture and society. The instruction is entirely in Chinese with the use of authentic materials. Three hours per week.

## HEBR-Hebrew (Language Courses)

HEBR 101 Elementary Modern Hebrew I (JWST 101) (4). Introduces the essential elements of modern Hebrew structure and vocabulary and aspects of modern Israeli culture. Aural comprehension, reading, speaking, and writing are stressed.

HEBR 102 Elementary Modern Hebrew II (JWST 102) (4). Prerequisite, HEBR 101. Continued instruction in the essential elements of modern Hebrew structure and vocabulary and aspects of modern Israeli culture. Aural comprehension, reading, speaking, and writing are stressed.

HEBR 203 Intermediate Modern Hebrew I (JWST 203) (4).
Prerequisite, HEBR 102. Second-year level instruction in the essential elements of modern Hebrew structure and vocabulary and aspects of modern Israeli culture. Aural comprehension, reading, speaking, and writing are stressed. An introduction to representative literary works is included.

HEBR 204 Intermediate Modern Hebrew II (JWST 204) (4). Prerequisite, HEBR 203. Continued instruction in the essential elements of modern Hebrew structure and vocabulary and aspects of modern Israeli culture. Aural comprehension, reading, speaking, and writing are stressed. An introduction to representative literary works is included.

HEBR 305 Advanced Modern Hebrew I (JWST 305) (3). Prerequisite, HEBR 204. Third year of instruction in modern

Hebrew with an emphasis on Israeli culture, literature, and media.
HEBR 306 Advanced Modern Hebrew II (JWST 306) (3). Prerequisite, HEBR 305. Third year of instruction in modern Hebrew with an emphasis on Israeli culture, literature, and media.

## HNUR-Hindi-Urdu (Language Courses)

HNUR 101 Elementary Hindi-Urdu I (4). Introduction to modern spoken and written Hindi-Urdu. Speaking and listening practice, basic sentence pattern exercises, grammar fundamentals, the writing system, and creative applications exploring South Asian culture are included.

HNUR 102 Elementary Hindi-Urdu II (4). Prerequisite, HNUR 101. Continued instruction in modern spoken and written HindiUrdu. Sessions include speaking and listening drills, skits, role-play, and discussion of video and audio materials.

HNUR 203 Intermediate Hindi-Urdu I (4). Prerequisite, HNUR 102. Second year of instruction in modern spoken and written Hindi-Urdu, including situational speaking and listening practice, complex sentence pattern exercises and idioms, vocabulary building, intermediate grammar topics, and reading exercises.

HNUR 204 Intermediate Hindi-Urdu II (4). Prerequisite, HNUR 203. Continued second year of instruction in modern spoken and written Hindi-Urdu. Students practice writing short essays and letters and continue to develop mature oral competency in Hindi-Urdu.

HNUR 220 Introduction to the Hindi Script (Devanagari) (1). In this course, students will master the Hindi alphabet, the Sanskrit-based Devanagari writing system. This course complements the regular Hindi-Urdu language sequence. Prior knowledge of spoken Hindi or Urdu is required; entry to this class is by placement only.
HNUR 221 Introduction to the Urdu Script (Nastaliq) (1). This course introduces the Urdu alphabet (Nastaliq). Prior knowledge of spoken Urdu or Hindi is required; entry to this class is by placement only.

HNUR 305 Advanced Hindi-Urdu I (3). Prerequisite, HNUR 204. Third year of instruction in spoken and written Hindi-Urdu with an emphasis on the reading and discussion of short stories, prose articles, and interviews.

HNUR 306 Advanced Hindi-Urdu II (3). Prerequisite, HNUR 305. Third year of instruction in spoken and written Hindi-Urdu with an emphasis on the reading and analysis of poetry.

HNUR 407 Readings in Hindi-Urdu Poetry (3). Prerequisite, HNUR 306. Introduces the development of Hindi and Urdu poetry from the 15 th century to the present, including the epic, devotional, dramatic, and romantic genres.

HNUR 408 Readings in Hindi-Urdu Prose (3). Prerequisite, HNUR 306. Introduces the range of Hindi-Urdu prose genres: the short story, the romance, the novel, and the autobiography.

## HNUR 410 Seminar on the Urdu-Hindi Ghazal (3).

Prerequisite, HNUR 306. Ghazal is the most important genre of Urdu-Hindi poetry from the 18th century to the present. This course, taught in Hindi-Urdu, concerns the analysis and
interpretation of ghazals.
HNUR 490 Topics in Hindi-Urdu Literature and Language (3). Directed readings in Hindi-Urdu literature and language on topics not covered by scheduled classes. Possible areas of study include Indian film and literature, Hindi-English translations, the Indian diaspora, Hindi journalism, and readings in comparative religions.

## HNUR 496 Independent Readings in Hindi-Urdu (1-3).

Permission of the department. For the student who wishes to create and pursue an independent project in Hindi-Urdu under the supervision of a selected instructor. Maximum three credit hours per semester.

## JAPN-Japanese (Language Courses)

JAPN 101 Elementary Japanese I (4). Introduction to modern Japanese with text and supplementary materials. Hiragana, katakana, and basic kanji are introduced. Weekly class hours devoted to basic sentence pattern exercises, speaking and writing practice, and creative application. Participation in relevant extracurricular activities encouraged.

JAPN 102 Elementary Japanese II (4). Prerequisite, JAPN 101. Continued beginning course of modern Japanese with text and supplementary materials. Approximately 150 additional kanji are introduced. Focus on basic sentence pattern exercises, speaking and writing practice, and creative application. Participation in relevant extracurricular activities encouraged.
JAPN 203 Intermediate Japanese I (4). Prerequisite, JAPN 102. Emphasis on situational expressions, mastery of basic structures, and approximately 150 new kanji. Conversation practice, reading and writing of passages, and creative application expected. Participation in relevant extracurricular activities encouraged.

JAPN 204 Intermediate Japanese II (4). Prerequisite, JAPN 203. Continued emphasis on situational expressions, mastery of basic structures, and approximately 150 to 200 new kanji. Conversation practice, reading and writing of passages, and creative application expected. Participation in relevant extracurricular activities encouraged.

JAPN 305 Advanced Japanese (3). Prerequisite, JAPN 204. Advanced written and spoken Japanese introduced to students who have learned more than 500 kanji. Emphasis is placed on advanced expressions, conversation for a variety of situations, reading and writing longer texts, and approximately 150 additional kanji. Class conducted in Japanese. Participation in relevant extracurricular activities encouraged.
JAPN 306 Advanced Japanese II (3). Prerequisite, JAPN 305. Second semester of third-year Japanese, continuing the study of written and spoken Japanese at the advanced level. Participation in relevant extracurricular activities encouraged.
JAPN 401 Gateway to Mastering Japanese (3). Prerequisite, JAPN 306. This course reviews the key grammar, vocabulary, and characters from the first three years of Japanese in preparation for the more advanced work of fourth-year elective courses.

JAPN 408 Japanese Journalism (3). Prerequisite, JAPN 306. Uses newspaper and magazine articles and television broadcasts to
introduce journalistic writing and speech as well as contemporary social and cultural issues. Class conducted in Japanese. Participation in relevant extracurricular activities encouraged.

JAPN 409 Japanese Modernism (3). Prerequisite, JAPN 306. This course instructs students in how to read prewar forms of modern Japanese and introduces them to the writers and ideas of the Modern influential between the years 1907 and 1930. Class conducted in Japanese. Participation in relevant extracurricular activities encouraged.

JAPN 410 Topics in Contemporary Japanese Literature (3). Prerequisite, JAPN 306. This course introduces students to the popular writing, both fiction and nonfiction, designed for massmarket consumption in contemporary Japan. Class conducted in Japanese. Participation in relevant extracurricular activities encouraged.
JAPN 411 Food and Culture in Japan (3). Prerequisite, JAPN 306. Advanced Japanese course designed to develop Japanese skills and deepen appreciation of Japanese cooking. Students will develop the ability to discuss and write about topic-oriented issues in Japanese.

JAPN 412 Making Music in Japan (3). Prerequisite, JAPN 306. Students will learn a history of postwar Japanese music as an integral part of Japanese society and culture, and try to understand what messages each song attempts to communicate.
JAPN 413 Fashioning Japan: Gender, Nation, and Dress (3). Prerequisite, JAPN 306. This course explores the language of fashion in modern Japan through advertising, film, fiction, and magazines. How do fashion trends shape notions of gender, race, class, national identity, and global citizenship?

JAPN 414 Manga as a Japanese Art and Culture (3).
Prerequisite, JAPN 306. This course explores contemporary Japanese language and culture through the pop cultural media of manga and anime. Topics include manga history, production, and various genres of Japanese comic books, manga.
JAPN 415 Sports in Japanese Culture (3). Prerequisite, JAPN 306. Introduces students to the unique Japanese cultural perspective on sports, while introducing new kanji and grammar structures and improving reading, speaking, and writing abilities.

JAPN 416 Understanding Japanese Business Culture and Its Practice (3). Prerequisite, JAPN 306. Students will learn about business culture in Japan, including customs and rules, in order to broaden their understanding of Japanese culture and people, while improving their language skills.
JAPN 490 Topics in Japanese Language and Literature (3). Prerequisite, JAPN 306. Possible areas of study include popular culture, business Japanese, and Japanese-English translation. Course may be repeated for credit as topic changes. Participation in relevant extracurricular activities encouraged.

JAPN 496 Independent Readings in Japanese (1-3). Permission of the department. For the student who wishes to create and pursue an independent project in Japanese under the supervision of a selected instructor. Maximum three credit hours per semester.
JAPN 521 Investigating Japanese Culture through TV Dramas
(3). Prerequisite, JAPN 401, 408, 409, 410, 411, 412, 413, $414,415,416$, or 490 . Students will improve Japanese language skills while they develop an understanding of Japanese culture through TV dramas. Exercises include intensive listening, reading and analyzing drama scripts, writing summaries, and frequent discussions on various topics.

JAPN 590 Advanced Topics in Japanese Language and Literature (3). Prerequisite, JAPN 306. Topic varies by instructor. Possible topics include Japanese literature, popular culture, and media. Course may be repeated for credit as topic changes. Participation in relevant extracurricular activities encouraged.

## KOR-Korean (Language Courses)

KOR 101 Elementary Korean I (4). Introduction to the basics of modern Korean, including the pronunciation of spoken Korean, the writing system of Hangul, communication and reading skills in controlled contexts, and fundamentals of grammar.

KOR 102 Elementary Korean II (4). Prerequisite, KOR 101. Develops speaking and listening skills for everyday communication, reading skills for simple narratives and descriptive texts, and understanding for core grammatical patterns.

KOR 203 Intermediate Korean I (4). Prerequisite, KOR 102. Continues developing reading and writing skills for narrative and descriptive texts and increasing communicative competence in applied social contexts.
KOR 204 Intermediate Korean II (4). Prerequisite, KOR 203. Develops and applies comprehensive grammatical knowledge and vocabularies in complex listening, speaking, reading, and writing contexts. Emphasis on Korean cultural and historical understanding.

KOR 305 Advanced Korean I (3). Prerequisite, KOR 204. Advanced study of written and spoken Korean language and Korean culture. Three hours per week.
KOR 306 Advanced Korean II (3). Prerequisite, KOR 305. Advanced study of written and spoken Korean language and Korean culture. Three hours per week.

KOR 407 Modern Korean Literature and Culture (3). Prerequisite, KOR 306. Modern Korean literature by major authors, from around 1940 to the present. Emphasis on reading, translation, and criticism. Students will improve their written and oral communication skills in Korean through the study of literary works in their social, cultural, and historical context.

KOR 496 Independent Readings in Korean (1-3). Permission of the department. For the student who wishes to create and pursue an independent project in Korean under the supervision of a selected instructor. Maximum three credit hours per semester.

## PRSN-Persian (Language Courses)

PRSN 101 Elementary Persian I (3). Introduction to the spoken and written Persian (Farsi) language.

PRSN 102 Elementary Persian II (3). Prerequisite, PRSN 101. Introduction to the spoken and written Persian (Farsi) language.

PRSN 203 Intermediate Persian I (3). Prerequisite, PRSN 102.

Permission of the instructor for students lacking the prerequisite. Second-year instruction in the spoken and written Persian (Farsi) language.
PRSN 204 Intermediate Persian II (3). Prerequisite, PRSN 203. Second-year instruction in the spoken and written Persian (Farsi) language.

## TURK-Turkish (Language Courses)

TURK 101 Elementary Turkish I (3). Introduces the essential elements of Turkish structure and vocabulary and aspects of Turkish culture. Aural comprehension, reading, speaking, and writing are stressed.

TURK 102 Elementary Turkish II (3). Prerequisite, TURK 101. Continued instruction in the essential elements of Turkish structure and vocabulary and aspects of Turkish culture. Aural comprehension, reading, speaking, and writing are stressed.

TURK 203 Intermediate Turkish I (3). Prerequisite, TURK 102. Second-year level instruction in the essential elements of Turkish structure and vocabulary and aspects of Turkish culture. Aural comprehension, reading, speaking, and writing are stressed. Introduces representative literary works.
TURK 204 Intermediate Turkish II (3). Prerequisite, TURK 203. A proficiency-based course centered on reading, writing, speaking, and listening to Turkish with an emphasis on understanding the application of grammatical structures and vocabulary development through the study of literature.

## Department of Biochemistry and Biophysics

www.med.unc.edu/biochem
Genetic Medicine Building, CB\# 7260; (919) 962-8326

## LESLIE V. PARISE, Chair

The Department of Biochemistry and Biophysics (in the UNC School of Medicine) offers a number of courses to undergraduate students, but offers only advanced degrees and not a B.A. or B.S. degree. Undergraduate students interested in these areas should take relevant courses in the biochemical division of the Department of Chemistry and the Department of Physics. The department serves undergraduate students who are interested in biochemical research or health-related careers. It offers a series of undergraduate biochemistry classes, research opportunities, and counseling to students taking premedical, predental, prenursing, prepharmacy, or public health curricula.

## BIOC-Biochemistry

BIOC 107 Introduction to Biochemistry (4). Recommended preparation, one year of high school chemistry. Designed for prenursing, predental hygiene, allied health, and other students who desire a background in biochemistry as it relates to the human body. Brief review of inorganic and organic chemistry, followed by a survey of biochemistry (survey continues in BIOC 108).

BIOC 108 Introduction to Biochemistry (4). Designed for prenursing, predental hygiene, allied health, and other students who desire a background in biochemistry as it relates to the human body. Continuation of BIOC 107; covers basic and clinically relevant aspects of biochemistry. Three lecture hours and one twohour laboratory a week.

## BIOC 442 Biochemical Toxicology (ENVR 442, TOXC 442)

(3). See ENVR 442 for description.

## BIOC 601 Enzyme Properties, Mechanisms, and Regulation

 (3). Prerequisite, CHEM 430. Permission of the instructor for students lacking the prerequisite. Focuses on enzyme architecture to illustrate how the shapes of enzymes are designed to optimize the catalytic step and become allosterically modified to regulate the rate of catalysis.BIOC 631 Advanced Molecular Biology I (BIOL 631, GNET 631, MCRO 631) (3). See GNET 631 for description.

BIOC 632 Advanced Molecular Biology II (BIOL 632, GNET 632, MCRO 632) (3). See GNET 632 for description.

## BIOC 643 Cell Structure, Function, and Growth Control I (CBIO 643, MCRO 643, PHCO 643, PHYI 643) (3). See CBIO 643 for description.

## BIOC 644 Cell Structure, Function, and Growth Control II (CBIO 644, MCRO 644, PHCO 644, PHYI 644) (3). See CBIO 644 for description.

BIOC 650 Basic Principles: From Basic Models to Collections of Macromolecules (1.5). Prerequisite, CHEM 430. Required preparation, two semesters of physical chemistry or permission of the instructor. Basic molecular models and their use in developing statistical descriptions of macromolecular function. Course intended primarily for graduate students.

## BIOC 651 Macromolecular Equilibria: Conformation,

 Change, and Binding (1.5). Prerequisite, CHEM 430. Required preparation, two semesters of physical chemistry or permission of the instructor. Macromolecules as viewed with modern computational methods. Course intended primarily for graduate students.BIOC 652 Macromolecular Equilibria (1.5). Prerequisite, CHEM 430. Required preparation, two semesters of physical chemistry or permission of the instructor. Stability of macromolecules and their complexes with other molecules. Course intended primarily for graduate students.
BIOC 655 Case Studies in Structural Molecular Biology (3). Prerequisite, CHEM 430. Permission of the instructor for students lacking the prerequisite. Principles of macromolecular structure and function with emphasis on proteins, molecular assemblies, enzyme mechanisms, and ATP enzymology.

BIOC 660 Introduction to Light Microscopy (1). Prerequisites, BIOC 650-653. Permission of the instructor for students lacking the prerequisites. Fundamentals of optics and light microscope design for the novice student.
BIOC 662 Macromolecular Interactions (1). Prerequisites, BIOC 650-653. Permission of the instructor for students lacking the
prerequisites. Theory and practice of biophysical methods used in the study of interactions between macromolecules and their ligands, including surface plasmon resonance, analytical ultracentrifugation, and calorimetry.

BIOC 663A Macromolecular NMR (1). Prerequisites, BIOC 650-653. Permission of the instructor for students lacking the prerequisites. Principles and practice of nuclear magnetic resonance spectroscopy: applications to biological macromolecule structure and dynamics in solution. Course intended primarily for graduate students.

BIOC 663B Macromolecular NMR Practice (1). Prerequisite, BIOC 653. Permission of the instructor for students lacking the prerequisite. Lab section for BIOC 663A. Course intended primarily for graduate students.

BIOC 664 Macromolecular Spectroscopy (1). Prerequisite, CHEM 430. Required preparation, two semesters of physical chemistry or permission of the instructor. Principles of UV, IR, Raman, fluorescence, and spin resonance spectroscopies; applications to the study of macromolecules and membranes. Course intended primarily for graduate students.

BIOC 665 Advanced NMR Spectroscopy Course (1). Advanced NMR spectroscopy.

BIOC 666 X-Ray Crystallography of Macromolecules (1). Prerequisites, BIOC 650-653. Permission of the instructor for students lacking the prerequisites. Principles of protein crystallography, characterization of crystals, theory of diffraction, phasing of macromolecular crystals and structure refinement. Course intended primarily for graduate students.

BIOC 667 Macromolecular Crystallographic Methods (2). Prerequisite, BIOC 666. Permission of the instructor for students lacking the prerequisite. A combined lecture/laboratory workshop for serious students of protein crystallography. Course intended primarily for graduate students.
BIOC 668 Principles of and Simulation of Macromolecular Dynamics (1). Prerequisites, BIOC 650-653. Permission of the instructor for students lacking the prerequisites. A combined lecture/computer lab treatment of the principles of macromolecular dynamics and structure as approached using the tools of molecular dynamics simulations. Course intended primarily for graduate students.

BIOC 670 Biomolecular Informatics (1). Prerequisites, BIOC 650-653. Permission of the instructor for students lacking the prerequisites. A combined lecture/computer lab course introducing the methods and principles of biological data management as this relates to macromolecular sequence analysis. Course intended primarily for graduate students.

## BIOC 673 Proteomics, Protein Identification and

 Characterization by Mass Spectrometry (1). Prerequisites, BIOC 650-653. Required preparation, one semester of physical chemistry or permission of the instructor. A lecture module that introduces students to the basics of mass spectrometry as applied to protein science. Course intended primarily for graduate students.BIOC 674 Ion Channels Transporters (1). Ion channels transporters.

BIOC 678 Electrical Signals from Macromolecular Assemblages (2). Prerequisites, BIOC 650-653. Permission of the instructor for students lacking the prerequisites. An intensive, six-hour per week introduction to the fundamentals of ion channel biophysics, including laboratory sessions to demonstrate principles and methods. Course intended primarily for graduate students.

## Department of Biology

bio.unc.edu
Coker Hall, 120 South Road, CB\# 3280; (919) 962-2077
VICTORIA L. BAUTCH, Chair

## Introduction

Biology is the study of life from both basic and applied perspectives across a broad range of analytical levels, from the molecule and cell to the organism and ecosystem. The major in biology provides a liberal education directed toward an appreciation of the complexity of nature and prepare students for careers in the biological, environmental, and medical sciences. The B.S. and B.A. majors in biology train students for careers in the health professions (including medical, dental, and veterinary) and in research, teaching, or medical practice in institutions of higher education, government, and private industry. Professional (M.D., D.V.M., D.D.S., and D.D.M.) and advanced academic (M.A., M.S., and Ph.D.) degree programs in the health and life sciences usually require knowledge of biological processes provided by the degree programs in biology.

Departmental majors gain a firm foundation in essential areas of biology through the core curriculum and have ample opportunity to specialize in animal behavior, biomechanics, botany, cell biology, developmental biology, ecology, evolutionary biology, genetics, genomics, marine biology, microbiology, molecular biology, neurobiology, organismal biology, physiology, and plant biology. There are many opportunities for mentored undergraduate research and internships.

## Biology Major, B.S.

This program is designed for students who intend to continue graduate study in biological or health sciences.

## Core Requirements

- BIOL 101/101L (gateway course, with a C grade or better in BIOL 101)
- BIOL 201, 202, and 205 (the core courses)
- One organismal structure and diversity course chosen from 271/271L, 272, 273, 274/274L, 277/277L, 278/278L, 279/279L, 471/471L, 472, 473/473L, 474/474L, 475, 476/476L, 478, 479/479L, or 579
- Four biology electives (each of three or more credits) numbered above 205 (not including 213, 291, 292, 293, 294, 296, 353, and 495), at least two of them with a laboratory. A total of six hours from BIOL 295, 395, and/or 692H count as a laboratory course requirement. One additional elective may consist of a total of three hours of courses numbered above 600 (not including BIOL 692H).
- At least two courses out of the five courses (four electives and one organismal course) must be numbered above 400 (not including BIOL 501 and 692H).


## Additional Requirements

- CHEM 101/101L. A grade of C or better in CHEM 101 or 102 is required for BIOL 201 and 202.
- CHEM 102/102L, 241/241L, 261, 262/262L
- MATH 231 or 241, and one of the following: MATH 232 or 283; COMP 110 or 116; STOR 155 or 215
- PHYS 104 or 114 or 116 or 118 , and 105 or 115 or 117 or 119
- A choice of two additional allied sciences electives selected from the course list below
- Enough free electives to accumulate 123 academic hours


## Suggested Program of Study for B.S. Majors

## First Year

- BIOL 101/101L; CHEM 101/101L, 102/102L; ENGL 105; language levels 2 and 3; MATH 231 or 241 plus a second course in mathematics, computer science, or statistics/operations research; lifetime fitness


## Sophomore Year

- Two of the three biology core courses (BIOL 201, 202, 205); CHEM 241/241L, 261, 262/262L; Approaches (one course)


## Junior Year

- Remaining biology core course, organismal biology course, biology electives (three courses); PHYS 114 or 118, and 115 or 119; Approaches and Connections (three courses)


## Senior Year

- Biology electives (two courses); natural science or biology electives (two courses); Approaches and Connections (two courses); free electives as needed to complete 123 academic hours


## Biology Major, B.S.-Quantitative Biology Track

This program is designed for students with a strong interest in a multidisciplinary approach to biological problems in preparation for graduate study in biological or health sciences.

## Core Requirements

- BIOL 101/101L (gateway course, with a C grade or better in BIOL 101)
- BIOL 201, 202, and 205 (core courses for biology majors)
- Two laboratory courses. One must be a quantitative laboratory chosen from BIOL 226/226L, 452/452L, 525/525L, 526, $527 / 527 \mathrm{~L}$, or 528 . The other can be any biology laboratory course, including two semesters of BIOL 395.
- A choice of three biology electives (each of three or more credits), of which at least two quantitative electives must be chosen from BIOL 226*, 431, 452*, 454, 465, 525*, 526*, 527*, 528*, 542, $551,562,563$, or 642 (*asterisked courses cannot count as both a quantitative laboratory and a quantitative elective). A total of six hours from BIOL 295, 395, and/or 692H count as a laboratory course requirement. One additional elective may consist of a total of three hours of courses numbered above 600 (not including BIOL 692H).


## Additional Requirements

## - BIOS 600 or STOR 155

- CHEM 101/101L. A grade of C or better in CHEM 101 or 102 is required for BIOL 201 and 202.
- CHEM 102/102L and 261
- COMP 116 or 401
- MATH 231 or 241, and MATH 232 or 283, and MATH 233
- PHYS 104 or 114 or 116 or 118 , and PHYS 105 or 115 or 117 or 119
- A choice of two additional allied sciences electives chosen from the course list below. Premedical students are encouraged to take CHEM 241/241L and 262/262L.
- Enough free electives to accumulate 127 academic hours

Suggested Program of Study for the Quantitative Track

## First Year

- BIOL 101/101L; CHEM 101/101L, 102/102L; ENGL 105; language levels 2 and 3; MATH 231 or 241, 232 or 283; lifetime fitness; Approaches (two courses)


## Sophomore Year

- Two of three biology core courses (BIOL 201, 202, 205); BIOS 600 or STOR 155; CHEM 261, 262/262L if premed; COMP 116 or 401; MATH 233; Approaches (one course)


## Junior Year

- Remaining biology core course; biology electives including one quantitative laboratory (three courses); PHYS 114 or 118, and 115 or 119; Approaches and Connections (three courses)


## Senior Year

- Second laboratory course; biology electives (two courses); allied sciences elective (CHEM 241/241L if premed); Approaches and Connections; electives to accumulate 127 academic hours


## Biology Major, B.A.

This program is designed to provide greater flexibility than the B.S. degree in meeting broad student interests.

## Core Requirements

- BIOL 101/101L (gateway course, with a C grade or better in BIOL 101)
- BIOL 201, 202, and 205 (the core courses)
- One organismal structure and diversity course chosen from 271/271L, 272, 273, 274/274L, 277/277L, 278/278L, 279/279L, 471/471L, 472, 473/473L, 474/474L, 475, 476/476L, 478, 479/479L, or 579
- Three biology electives (each of three or more credits) numbered above 205 (not including 213, 291, 292, 293, 294, 296, 353 , and 495), at least one with a laboratory. A total of six hours from BIOL 295, 395, and/or 692H count as a laboratory course requirement. One additional elective may consist of a total of three hours of courses numbered above 600 (not including BIOL 692H).
- At least one course out of the four courses (three electives and one organismal course) must be numbered above 400 (not including BIOL 501 and 692H).


## Additional Requirements

- CHEM 101/101L. A grade of C or better in CHEM 101 or 102 is required for BIOL 201 and 202.
- CHEM 102/102L
- One of COMP 110, 116; MATH 130, 152, 231, 241; STOR 155 or 215
- Four additional allied science electives chosen from the course list below
- Students must fulfill all General Education requirements, including Supplemental General Education.
- General electives to complete the 120 academic hours required for graduation


## Suggested Program of Study for B.A. Majors

## First Year

- BIOL 101/101L; CHEM 101/101L, 102/102L; ENGL 105; language levels 2 and 3; Foundations quantitative reasoning requirement as specified above; lifetime fitness


## Sophomore Year

- Two of the three biology core courses (BIOL 201, 202, 205); natural sciences electives (two courses); Approaches and Connections (four courses)


## Junior Year

- Remaining biology core course, organismal biology course, biology electives (two courses); natural sciences electives (two courses); Approaches and Connections (two courses); Supplemental General Education requirement or free electives (two courses)


## Senior Year

- Biology electives (two courses); Approaches and Connections (one course); Supplemental General Education requirement and free electives as needed to complete 120 academic hours and other requirements


## Allied Science Electives

All allied science elective courses need to have a minimum of three credit hours.

- ANTH 143, 148, 298, 315, 317, 318, 412, 414, 415, 416, 470, 623
- Any ASTR course above 99
- Any BIOL course above 101, except BIOL 213, 291, 292, 294, 296, and 495
- Any BIOS course
- BMME 510
- Any CHEM course above 101
- Any COMP course above 100, except COMP 380
- ENEC 202, 256, 403, 406, 410, 411, 415, 471, 489
- EXSS 175, 276
- GEOG 110, 111, 112, 253, 445
- Any GEOL course above 100
- Any MASC course above 100
- Any MATH course above 110, except MATH 129P
- MCRO 251, 255
- NUTR 240
- PHIL 155
- PHYI 202
- Any PHYS course above 99, except 132
- PSYC 101, 210, 220, 222, 225, 230, 400, 401, 402, 403
- Any STOR course above 151
- SPHS 570


## Biology Major, NUS Joint Degree

Biology B.S. majors may wish to consider applying for the Joint Degree Program, an innovative joint undergraduate degree program between the University of North Carolina at Chapel Hill and the National University of Singapore. UNC-Chapel Hill undergraduates spend anywhere from two to four semesters at the National University of Singapore and receive a joint bachelor of science degree from both institutions. For further information, contact the Study Abroad Office.

## Biology Minor

A student may minor in biology by taking four biology courses beyond BIOL 101/101L distributed as follows:

- Two of the three core courses: BIOL 201, 202, and 205
- One course with a laboratory
- One course numbered above 400


## Advising

The biology department offers intensive advising services for our undergraduate students. The departmental advisor, Dr. Gidi Shemer (213A Coker Hall, bishemer@email.unc.edu), will be happy to assist with course planning, career development, finding research opportunities, and any other question or concern with regards to the major. Biology majors interested in study abroad should contact Dr. Elaine Yeh (yeh@email.unc.edu) to learn about opportunities and transfer credits. For general assistance with registration in courses and various forms, please contact the biology undergraduate student services registrar, Ms. Summer Montgomery in 213 Coker Hall (sundance@unc.edu).

## Special Opportunities in Biology

Students are encouraged to speak with their advisor about opportunities to serve as peer advisors in the Health Professions Advising Office, or to join Tri-Beta, the National Biological Sciences Honor Society.

## Honors in Biology

Candidates for honors or highest honors must secure approval from the departmental honors advisor. They must have three hours of BIOL 395, take BIOL 692 H , and maintain an overall grade point average of 3.3 and a grade point average in biology courses (exclusive of BIOL 692 H and including only one semester of BIOL 395 ) of at least 3.4 (for honors) or 3.85 (for highest honors) at the end of the semester preceding the semester in which they graduate. Other requirements are detailed at bio.unc.edu/undergraduate/ honors-info.

## Experiential Education

After completing BIOL 201 or 202, students are encouraged to consider how they plan to meet the experiential education requirement. BIOL 293 Undergraduate Internship in Biology, BIOL 295 Undergraduate Research in Biology, and BIOL 395 Undergraduate Research in Biology all fulfill this requirement and also connect students' academic coursework to current biological research and inquiry.

## UNC-BEST

The UNC Baccalaureate Education in Science and Teaching (UNC-BEST) Program is a collaboration between the School of Education and the College of Arts and Sciences and is designed to allow undergraduate science majors interested in teaching high school science the opportunity to earn their science degree and obtain licensure as a North Carolina high school science teacher in four years. UNC-BEST students meet all the degree requirements for their biology degree using BIOL 410 as one of their upper-level biology courses. UNC-BEST students also fulfill teaching licensure coursework requirements as well as many General Education and elective requirements as they complete 10 credit hours in teaching and learning, including EDUC 403, 516 or 689, 532, 533, and 601. During their final semester, students engage in a full-time student teaching internship (EDUC 593) and participate in an education leadership seminar (EDUC 503). For more details on admission requirements, application deadlines, and submitting an online application, visit the biology BEST Web site (www.unc. edu/uncbest) and the School of Education Web site (soe.unc.edu/ services/apply/ug).

## Laboratory Teaching Apprenticeships and Assistantships

Opportunities exist for assisting graduate instructors (and for instruction in undergraduate laboratories). Interested students should contact the instructor of the course or obtain approval from either the departmental director of undergraduate studies or the department chair.

## Undergraduate Awards

All awards include a personal plaque, a monetary gift, and a place on Coker Hall's list of department honorees. The awards include

- The Stephen G. Brantley Award in honor of Henry Van Peters Wilson, given annually to a senior biology major for excellence in research in molecular and cellular biology.
- The Robert Ervin Coker Award, given annually to a senior biology major for excellence in research in organismal biology and ecology.
- The John N. Couch Award, given annually to a senior biology major with interests in plant biology who has demonstrated the highest ideals of scholarship and research.
- The Irvine R. Hagadorn Award, given annually to the junior biology major based on academic and research excellence. This award is also recognized by the UNC Chancellor at the Annual Chancellor's Awards Ceremony.
- The Francis J. LeClair Award, given annually to a senior biology major for academic excellence in biology with an emphasis in plant sciences.


## Undergraduate Research

An undergraduate research experience is extremely valuable to a student who intends to pursue postgraduate work in the biological sciences. Undergraduates may participate directly in the research of faculty in the Department of Biology. This research opportunity allows students to put their knowledge of biology into practice through participation in a biological research program and is encouraged by faculty. Students' participation in research can begin as early as their second year by registration in BIOL 395.

Undergraduates with a 3.0 or higher grade point average in biology courses are encouraged to enroll in BIOL 395. Information concerning the procedure for enrolling in a research course can be obtained from the chair of the department's undergraduate honors research program. Additional information can be found at bio.unc. edu/undergraduate/research.

## Facilities

The Department of Biology occupies parts of four buildings: Wilson Hall and its annex, Coker Hall, Fordham Hall, and the Genome Sciences Building. The department is served by the Kenan Science Library, located in Venable Hall and Wilson Annex, which provides research information services and resources for the basic sciences. In addition, the department has greenhouses on the fifth floor of the Genome Sciences Building, a microscopy facility that contains three confocal microscopes and associated support facilities, a P3 laboratory, a small-mammal facility, insect culturing rooms, marine aquaria, and a microarray facility.

## Graduate School and Career Opportunities

Those who plan careers in health sciences, including dentistry, medicine, and veterinary medicine, should consult with advisors in the Health Professions Advising Office in Hanes Hall. Those interested in science teaching can take the educational coursework required for a high school science teaching license through the UNC Baccalaureate Education in Science and Teaching (UNCBEST) program (www.unc.edu/uncbest). Special courses in marine science are offered through the Department of Biology and the Department of Marine Sciences at the Institute of Marine Sciences, Morehead City, NC.

## Faculty

## Professors

Shawn Ahmed, Albert S. Baldwin Jr., Victoria L. Bautch, Kerry S. Bloom, John F. Bruno, Frank L. Conlon, Jeffrey L. Dangl, Robert
J. Duronio, Patricia G. Gensel, Robert P. Goldstein, Albert K. Harris, Alan M. Jones, Joseph J. Kieber, William M. Kier, Joel G. Kingsolver, Kenneth J. Lohmann, A. Gregory Matera, Steven W. Matson, Ann G. Matthysse, Robert K. Peet, Mark A. Peifer, Charles H. Peterson, David W. Pfennig, Jeff J. Sekelsky, Maria R. Servedio, Darrel W. Stafford, Peter S. White.

## Associate Professors

Christina L. Burch, Sabrina E. Burmeister, Gregory P. Copenhaver, Ty L. Hedrick, Corbin D. Jones, Laura Miller, Charles E. Mitchell, Karin S. Pfennig, Jason W. Reed, Stephen L. Rogers, Lillie L. Searles, Kevin C. Slep, Keith W. Sockman, Todd J. Vision.

## Assistant Professors

Terrence S. Furey, Allen H. Hurlbert, Alain Laederach, Amy S. Maddox, Paul S. Maddox, Daniel R. Matute, Daniel J. McKay, Elizabeth A. Shank.

## Teaching Professor

Jean S. DeSaix.

## Senior Lecturers

Kelly A. Hogan, Corey S. Johnson.

## Lecturers

Jennifer S. Coble, Catherine M.F. Lohmann, Gidi Shemer.

## Affiliated Faculty

Stephen T. Crews, Sarah R. Grant, William F. Marzluff, Punita Nagpal, Edward D. Salmon, Barbara D. Stegenga, James A. Umbanhower, Alan S. Weakley, Christopher S. Willett, Elaine Y. Yeh.

## Professors Emeriti

Edward G. Barry, Aristotle Domnas, J. Alan Feduccia, Lawrence I. Gilbert, Max H. Hommersand, Gustavo P. Maroni, Donald W. Misch, Helmut C. Mueller, Clifford R. Parks, Patricia J. Pukkila, Seth R. Reice, Tom K. Scott, Alan E. Stiven, R. Haven Wiley.

## Contact Information

Dr. Gidi Shemer, Lecturer and Departmental Advisor, Department of Biology, CB\# 3280, 213A Coker Hall, (919) 962-0684, bishemer@ email.unc.edu.

Dr. Elaine Y. Yeh, Research Associate Professor, Abbey Fellow, Biology Study Abroad and Career Advising. Biology majors may contact Department of Biology, CB\# 3280, 603 Fordham Hall, (919) 9622331, yeh@email.unc.edu.

Ms. Summer Montgomery, Assistant for Undergraduate Services, Department of Biology, CB\# 3280, 213 Coker Hall, (919) 962-3390, sundance@unc.edu.
Dr. Jason W. Reed, Associate Professor and Director of Undergraduate Studies, Department of Biology, CB\# 3280, 305 Coker Hall, (919)
962-5640, jreed@email.unc.edu.

## Course List and Description

Stated prerequisites are understood to mean "or equivalent" and may be waived by the course instructor for students who are adequately prepared. BIOL 101/101L is the prerequisite for most advanced work
in biology. Entering first-year students may earn By-Examination (BE) credit for BIOL 101/101L by either 1) scoring 3 or higher on the Biology Advanced Placement examination or 2) taking and passing the Department of Biology placement test offered several times during the year. Sophomores, juniors, and seniors can earn only placement credit (PL, 0 hours) for passing the departmental examination. Additional information is available on the Web at bio. unc.edu/undergraduate/biology-101-placement-exam.
Course numbers in the Department of Biology have been assigned according to the following principles:

## First Digit

Under 100: first-year seminars
100 to 199: first-year courses
200 to 299: second-year courses
300 to 399: advanced undergraduates only
400 to 599: courses for advanced undergraduates and graduate students

600 to 699: courses for graduate students that are open to exceptionally well-prepared undergraduates

700 and above: courses for graduate students only

## Second Digit

$0-1$ general topics courses
2 genetics and molecular genetics
3 molecular biology and biochemistry
4 cell and developmental biology
5 organismal and ecological courses
6 ecology courses
7 courses that fulfill the organismal biology requirement
8 special courses
9 special topics and research

## BIOL-Biology

BIOL 53 First-Year Seminar: Biotechnology: Genetically
Modified Foods to the Sequence of the Human Genome (3).
Restricted to first-year students. Introduction, in a first-year seminar, to recent advances in genetics and cell biology, and discussion and debate concerning how these advances are changing medicine, agriculture, and other aspects of our lives.

## BIOL 55 First-Year Seminar: The Roots and Flowering of

 Civilization: A Seminar on Plants and People (3). Restricted to first-year students. The focus of this first-year seminar will be on the transition from hunter-gatherer, the interchange of crops, medicinal and psychoactive plants, and organic vs. industrial farming methods.BIOL 57 First-Year Seminar: Detecting the Future: Human
Diseases and Genetic Tests (3). Restricted to first-year students. A first-year seminar focusing on the future of human diseases and genetic tests.
BIOL 61 First-Year Seminar: Sea Turtles: A Case Study in the

Biology of Conservation (3). Restricted to first-year students. An examination of the biology and conservation of sea turtles, with an emphasis on how current scientific research informs conservation practices.

BIOL 62 First-Year Seminar: Mountains beyond Mountains: Infectious Disease in the Developing World (3). Restricted to first-year students. In this course we will examine the challenges of treating infectious disease in the developing world, and explore the root causes of global health care inequity.

BIOL 65 First-Year Seminar: Pneumonia (3). Restricted to firstyear students. Pneumonia will be a lens to examine a thread of history of biology and medicine. Current research to understand the condition, discover treatment, and enact prevention options will be examined.

BIOL 81 First-Year Seminar: Intuition, Initiative, and Industry: Biologists as Entrepreneurs (3). Successful biologists are necessarily entrepreneurs. This course will explore the parallels between biology and entrepreneurship. We follow these steps: generating ideas, marketing those ideas, testing them, and producing a product.

BIOL 89 First-Year Seminar: Special topics (3). Restricted to firstyear students. This is a special topics course; content will vary.
BIOL 101 Principles of Biology (3). Open to all undergraduates. This course is the prerequisite to most higher courses in biology. An introduction to the fundamental principles of biology, including cell structure, chemistry, and function; genetics; evolution; adaptation; and ecology. (See department concerning Advanced Placement credit.) Three lecture hours a week.

BIOL 101L Introductory Biology Laboratory (1). Pre- or corequisite, BIOL 101. An examination of the fundamental concepts in biology with emphasis on scientific inquiry. Biological systems will be analyzed through experimentation, dissection, and observation. Three laboratory hours a week.
BIOL 113 Issues in Modern Biology (3). For students not majoring in biology. Students who have taken any other course in the Department of Biology may not register for this course. Recent advances in the understanding of major principles in biology. Emphasis on genetics and medicine. Does not count as a course in the major. Three lecture hours a week.

BIOL 128 Biology of Human Disease (PATH 128) (3). Open to all undergraduates. An overview of basic human molecular and cellular biology in the setting of common human diseases. The course emphasizes how an understanding of disease mechanisms provides the knowledge base for informed use of modern health care. Does not count as a course in the major.
BIOL 159 Prehistoric Life (GEOL 159) (3). See GEOL 159 for description. Does not count as a course in the major.

BIOL 190 Special Topics in Biology at an Introductory Level (3). Special topics in biology at an introductory level. This course does not count as a course in the biology major.
BIOL 190L Laboratory in Special Topics in Biology at an
Introductory Level (1). Laboratory in special topics in biology at an introductory level. This course does not count as a course in the biology major.

BIOL 195 Introduction to Research (1). The research work must involve at least four hours per week of mentored research in a campus research laboratory. Does not count as a course in the major.
BIOL 201 Ecology and Evolution (4). Prerequisites, BIOL 101 and CHEM 101 or 102. A grade of C or better in BIOL 101 and CHEM 101 or 102 required. Principles governing the ecology and evolution of populations, communities, and ecosystems, including speciation, population genetics, population regulation, and community and ecosystem structure and dynamics. Three lecture hours and one recitation-demonstration-conference hour a week.

BIOL 202 Molecular Biology and Genetics (4). Prerequisites, BIOL 101 and CHEM 101 or 102. A grade of C or better in BIOL 101 and CHEM 101 or 102 is required. Structure and function of nucleic acids, principles of inheritance, gene expression, and genetic engineering. Three lecture hours and one recitation-demonstrationconference hour a week.

BIOL 205 Cellular and Developmental Biology (4). Prerequisite, BIOL 202. Fundamentals of cell structure and activity in relation to special functions, metabolism, reproduction, embryogenesis, and with an introduction to the experimental analysis of cell physiology and development. Three lectures and one recitation-demonstrationconference hour a week.

BIOL 211 Introduction to Research in Biology (3). Prerequisite, BIOL 201 or 202. Not open to seniors. Permission of the instructor for students lacking the prerequisite. Seminar based on current investigations at UNC. Students examine sources of scientific information, explore the logic of investigation, and develop proposals. Students with BIOL 211 credit may take a maximum of three hours of BIOL 395.

BIOL 213 Evolution and Life (3). Prerequisite, BIOL 101. Permission of the instructor for students lacking the prerequisite. For students not majoring in biology. Introduction to the scientific study of biological evolution and its applications. The mechanisms that cause evolution and general patterns of evolution during the history of life. Does not count as a course in the major.
BIOL 217 The Physician's Garden (3). Prerequisite, BIOL 101. First-year transfer students only. This course combines human cell biology and classical botany elaborating the mode of action of plant metabolites in humans. Hands-on experience includes visits to a pharmaceutical company, a botanical garden, and maintaining the campus medicinal garden.

## BIOL 226 Mathematical Methods for Quantitative Biology

(3). Prerequisites, BIOL 201 or 202, and MATH 232 or 283. Corequisite, BIOL 226L. Introduction to quantitative biology with emphasis on applications that use mathematical modeling, linear algebra, differential equations, and computer programming. Applications may include neural networks, biomechanics, dispersion, and systems of biochemical reactions. Three lecture hours a week.

BIOL 226L Mathematical Methods for Quantitative Biology Laboratory (1). Prerequisites, BIOL 201 or 202, and MATH 232 or 283. Corequisite, BIOL 226. Introduction to quantitative biology with emphasis on applications that use mathematical
modeling, linear algebra, differential equations, and computer programming. Applications may include neural networks, biomechanics, dispersion, and systems of biochemical reactions. Three laboratory hours a week.
BIOL 251 Introduction to Human Anatomy and Physiology (3). This course relates the way in which the human body is constructed to the way in which it functions and is controlled. Credit for only one of BIOL 251 and 252. Only offered through Continuing Studies.

BIOL 251L Human Physiology Virtual Laboratory (1). Pre- or corequisite, BIOL 251. Permission of the instructor for students lacking the prerequisite. This is a course of simulated laboratory measurements exercises using typical data derived from actual physiological measurements on human subjects. Only offered though continuing education. May not be taken in addition to 252 .
BIOL 252 Fundamentals of Human Anatomy and Physiology (3). Prerequisite, BIOL 101. Corequisite, BIOL 252L. One biology course over 200 recommended. An introductory but comprehensive course emphasizing the relationship between form and function of the body's organ systems. Three lecture hours each week.

BIOL 252L Fundamentals of Human Anatomy and Physiology Laboratory (1). Prerequisite, BIOL 101 and 101L. Corequisite, BIOL 252. Organ level human structure and function. Three laboratory hours a week.
BIOL 256 Mountain Biodiversity (ENEC 256) (4). See ENEC 256 for description.

BIOL 271 Plant Biology (3). Prerequisites, BIOL 101 and 101L. Corequisite, BIOL 271L. Designed for students with an interest in natural sciences. An introduction to the principles of botany including structure, function, reproduction, heredity, environmental relationships, evolution and classification of plants. Three lecture hours a week.

BIOL 271L Plant Biology Laboratory (1). Prerequisites, BIOL 101 and 101L. Corequisite, BIOL 271. Designed for students with an interest in natural sciences. An introduction to the principles of botany including structure, function, reproduction, heredity, environmental relationships, evolution and classification of plants. Three laboratory hours a week.

BIOL 272 Local Flora (4). Prerequisites, BIOL 101 and 101L. Open to all undergraduates. North Carolina's flora: recognition, identification, classification, evolution, history, economics, plant families, ecology, and conservation. Three lecture and three laboratory hours per week.
BIOL 273 Horticulture (4). Prerequisite, BIOL 101. The cultivation, propagation, and breeding of plants, with emphasis on ornamentals. Control of environmental factors for optimal plant growth. Laboratory exercises include plant culture, propagation, pruning, and identification of common ornamentals. Two lecture, one recitation, and three laboratory hours a week.

BIOL 274 Plant Diversity (3). Prerequisites, BIOL 101 and 101L. Corequisite, BIOL 274L. Survey of major groups of plants emphasizing interrelationships and comparative morphology. Culturing techniques and field work included. Three lecture hours
a week.
BIOL 274L Plant Diversity Laboratory (1). Prerequisites, BIOL 101 and 101L. Corequisite, BIOL 274. Survey of major groups of plants emphasizing interrelationships and comparative morphology. Culturing techniques and field work included. Three laboratory hours a week.

BIOL 277 Vertebrate Field Zoology (3). Prerequisites, BIOL 101 and 101L. Introduction to the diversity, ecology, behavior, and conservation of living vertebrates. Three lecture hours a week.

BIOL 277L Vertebrate Field Zoology Laboratory (1).
Corequisite, BIOL 277. Permission of the instructor for students lacking the corequisite. Study of the diversity of vertebrates in the field. Three laboratory and field hours a week, including one or two weekend trips.
BIOL 278 Animal Behavior (3). Prerequisites, BIOL 101 and 101L. Introduction to animal behavior with emphases on the diversity and adaptation of behavior in natural conditions. Three lecture hours a week.

BIOL 278L Animal Behavior Laboratory (1). Pre- or corequisite, BIOL 278. Techniques of observation and experiments in animal behavior. Three laboratory hours a week.
BIOL 279 Seminar in Organismal Biology (2-3). Permission of the instructor. An undergraduate course devoted to consideration of pertinent aspects of a selected organismal biological discipline.

BIOL 279L Topics in Organismal Biology Laboratory (1-2). Permission of the instructor. An undergraduate laboratory course covering aspects of a specific organismal biological discipline. Laboratory reports will be required. Research work is not included in this course.

BIOL 290 Special Topics in Biology (1-3). Permission of the instructor. An undergraduate seminar course devoted to consideration of pertinent aspects of a selected biological discipline.

BIOL 290L Special Topics in Biology Laboratory (1-2). Permission of the instructor. An undergraduate laboratory course covering aspects of a specific biological discipline. Laboratory reports will be required. Research work is not included in this course.

BIOL 291 Teaching Apprentice in Biology (1). Permission required. 3.0 or higher in course taught. Experience includes preparations, demonstrations, assistance, and attendance at weekly meetings. Apprentices will not be involved in any aspects of grading. May be repeated for credit.

BIOL 292 Teaching Assistant in Biology (2). Permission required. 3.0 in course taught. Experience includes weekly meetings, preparations, demonstrations, instruction, and grading. May be repeated for credit. Six hours per week.

BIOL 293 Undergraduate Internship in Biology (3). Prerequisite, BIOL 201 or 202. Permission of the instructor. Biology majors only. The sponsored, off-campus work must involve at least 135 hours. Does not count as a course in the major.
BIOL 294 Service Learning in Biology: APPLES (1-2).

Permission of the instructor. APPLES service-learning component for students enrolled in biology courses. Does not count as a course in the major.

BIOL 295 Undergraduate Research in Biology (3). Prerequisite, BIOL 201 or 202. Permission of the instructor. Junior and senior biology majors only. The work must involve at least 135 hours of research effort in which students learn to ask appropriate questions and place results in a suitable framework.

BIOL 296 Directed Reading in Biology (1-3). Permission of the instructor. Extensive and intensive reading of the literature of a specific biological field directly supervised by a member of the biology faculty. Written reports on the readings, or a literature review paper will be required. Cannot be used as a course toward the major.
BIOL 350 Oceanography (ENVR 417, GEOL 403, MASC 401) (3). See MASC 401 for a description.

BIOL 352 Human Anatomy and Physiology Part I (3). Prerequisites, BIOL 101 and 101L; corequisite, BIOL 352L. BIOL 205 recommended. A comprehensive study of the structure and function of the human body. Includes comprehensive study of tissues and the integumentary, skeletal, muscular, and nervous systems. Three lecture hours each week. May not be taken in addition to BIOL 252.

BIOL 352L Human Anatomy and Physiology Part I Laboratory (1). Prerequisites, BIOL 101L; corequisite, BIOL 352. A hands-on study of the structure and function of the human body. Includes comprehensive study of the skeletal, muscular, and nervous systems. Three laboratory hours each week.

BIOL 353 Human Anatomy and Physiology Part II (3). Prerequisite, BIOL 352; corequisite, BIOL 353L. Studies the structure, function, and development of the human body: endocrine, cardiovascular, lymphatic/immune, respiratory, digestive, urinary, reproductive systems. Three lecture hours each week. Can be used as an allied science elective but not a biology course for the major. Cannot be taken in addition to BIOL 252.

## BIOL 353L Human Anatomy and Physiology Part II

Laboratory (1). Prerequisite, BIOL 352L; corequisite, BIOL 353. A hands-on study of the structure and function of the human body. Includes study of the cardiovascular, respiratory, digestive, urinary, reproductive systems. Three laboratory hours each week.

BIOL 395 Undergraduate Research in Biology (1-3).
Prerequisite, BIOL 201 or 202. Permission of the instructor. Majors only. Overall 3.0 GPA required. Laboratory study addressing biological questions. Requires final written report. Repeatable for six credit hours. One through five hours counts as a lecture course. Six hours (or BIOL 211 and three hours of BIOL 395) counts as a lecture/laboratory course.
BIOL 402 Infectious Disease in the Developing World (3). Prerequisites, BIOL 202 and 205. We will explore the challenges of infectious disease in the developing world, focusing on tuberculosis, HIV, and malaria. We will also examine the economics of different approaches to health care.

BIOL 410 Principles and Methods of Teaching Biology (4).

Prerequisites, two of the three biology core courses: BIOL 201, 202, and/or 205. This course will develop the knowledge and skills teachers need to implement inquiry-based biology instruction: rich, conceptual knowledge of biology and mastery of inquiry-based teaching methods. Does not count as a laboratory course.
BIOL 421L Microbiology Laboratory with Research (2). Preor corequisite, BIOL 422. Sterile technique, bacterial growth, physiology, genetics and diversity, and bacteriophage, and research in bacterial genetics.

BIOL 422 Microbiology (3). Prerequisite, BIOL 202. Permission of the instructor for students lacking the prerequisite. Bacterial form, growth, physiology, genetics, and diversity. Bacterial interactions including symbiosis and pathogenesis (animal and plant). Use of bacteria in biotechnology. Brief introduction to viruses.

BIOL 422L Microbiology Laboratory (1-2). Pre- or corequisite, BIOL 422. Sterile technique, bacterial growth and physiology, bacterial genetics, bacteriophage, and bacterial diversity.
BIOL 423L Laboratory Experiments in Genetics (4). Prerequisite, BIOL 205. Experiments using a range of organismsfrom bacteria to Drosophila, higher plants, and man-to sample organismal and molecular genetics. One lecture hour, four laboratory hours.

BIOL 424 Microbial Ecology (3). Prerequisite, BIOL 201. Permission of the instructor for students lacking the prerequisite. Class emphasizes the creativity of the scientific process, using primary scientific literature as a framework to discuss topics in microbial ecology, including microbial diversity, distributions, genomics, and co-evolution; host-microbe and microbe-microbe interactions; nutrient cycling; and degradation of plant matter and biofuels.

BIOL 425 Human Genetics (GNET 425) (3). Prerequisite, BIOL 202. Permission of the instructor for students lacking the prerequisite. Pedigree analysis, inheritance of complex traits, DNA damage and repair, human genome organization, DNA fingerprinting, the genes of hereditary diseases, chromosomal aberrations, cancer and oncogenes, immunogenetics and tissue transplants. Three lecture hours a week.
BIOL 426 Biology of Blood Diseases (PATH 426) (3). See PATH 426 for description.

BIOL 427 Human Diversity and Population Genetics (3). Preor corequisites, BIOL 201 and 202. Permission of the instructor for students lacking the prerequisites. This course investigates the facts, methods, and theories behind human population genetics, evolution, and diversity. Specifically, it addresses questions of human origins, population structure, and genetic diversity.
BIOL 430 Introduction to Biological Chemistry (CHEM 430)
(3). See CHEM 430 for description.

BIOL 431 Biological Physics (PHYS 405) (3). See PHYS 405 for description.

BIOL 434 Molecular Biology (3). Prerequisites, BIOL 202 and CHEM 261. Permission of the instructor for students lacking the prerequisites. Advanced studies in molecular biology from an
experimental approach.
BIOL 439 Introduction to Signal Transduction (3).
Prerequisites, BIOL 202 and 205. Permission of the instructor for students lacking the prerequisites. This course presents an introduction to signal transduction pathways used by higher eukaryotes. Several signaling paradigms will be discussed to illustrate the ways that cells transmit information. Three lecture hours per week.
BIOL 441 Vertebrate Embryology (3). Prerequisite, BIOL 205 or 252. Permission of the instructor for students lacking the prerequisite. Principles of development with special emphasis on gametogenesis, fertilization, cleavage, germ layer formation, organogenesis, and mechanisms, with experimental analysis of developmental processes. Three lecture hours a week.

BIOL 441L Vertebrate Embryology Laboratory (1). Pre- or corequisite, BIOL 441. Descriptive and some experimental aspects of vertebrate development. Three laboratory hours a week.

BIOL 443 Developmental Biology (3). Prerequisites, BIOL 205 and CHEM 261. Permission of the instructor for students lacking the prerequisites. An experimental approach to an understanding of animals and plants. The approach covers developmental processes, molecular, genetic, cell biological and biochemical techniques, with an emphasis on the molecules involved in development.
BIOL 444 Molecular Basis of Disease (3). Prerequisite, BIOL 205. This course investigates the biological causes behind human diseases via critical thinking and analysis of experimental research outcomes. We will approach topics from a research perspective similarly as in a graduate seminar course. Topics covered include genetic/inherited diseases, metabolic diseases, immunological disorders, infectious diseases, cancer, cardiovascular diseases, and neurological diseases.

BIOL 445 Cancer Biology (3). Prerequisites, BIOL 202 and 205. Selected examples will be used to illustrate how basic research allows us to understand the mechanistic basis of cancer and how these insights offer hope for new treatments.
BIOL 446 Unsolved Problems in Cellular Biology (3). Prerequisite, BIOL 205. Permission of the instructor for students lacking the prerequisite. A survey of areas of current interest in cytology, embryology, and genetics with concentration on problems that remain unsolved but that appear to be near solution. Three lecture and discussion hours a week.

BIOL 447 Laboratory in Cell Biology (4). Prerequisite, BIOL 205. Required preparation, a grade of C or better in BIOL 205. Modern methods to study cells, technical skills necessary for research in cell and molecular biology, knowledge of good lab practice, operation of technical instrumentation. Three lecture and three laboratory hours a week.
BIOL 448 Advanced Cell Biology (3). Prerequisite, BIOL 205. Permission of the instructor for students lacking the prerequisite. An advanced course in cell biology, with emphasis on the biochemistry and molecular biology of cell structure and function. Three lecture hours a week.

BIOL 449 Introduction to Immunology (MCRO 449) (3)
Prerequisite, BIOL 205. Permission of the instructor for students lacking the prerequisite. This course provides a general overview of the evolution, organization, and function of the immune system. Instruction will be inquiry-based with extensive use of informational and instructional technology tools.

BIOL 450 Introduction to Neurobiology (3). Recommended preparation, BIOL 205. Survey of neurobiological principles in vertebrates and invertebrates, including development, morphology, physiology, and molecular mechanisms. Three lectures a week.

BIOL 451 Comparative Physiology (3). Prerequisites, BIOL 101 and 101L, and either PHYS 104 or 116 and either PHYS 105 or 117. An examination of the physiology of animals using a comparative approach. Both invertebrate and vertebrate animals are discussed in order to elucidate general principles.

BIOL 451L Comparative Physiology Laboratory (1). Pre- or corequisite, BIOL 451. The fundamental principles of physiology are explored using physical models, animal experiments, and noninvasive experiments on humans, reinforcing the understanding of concepts presented in lecture.

BIOL 452 Mathematical and Computational Models in Biology (MATH 452) (3). Prerequisites, BIOL 201 and 202, MATH 231, and either MATH 232 or STOR 155. Corequisite, BIOL/ MATH 452L. Permission of the instructor for students lacking the prerequisites. This course will introduce analytical, computational, and statistical techniques, such as discrete models, numerical integration of ordinary differential equations, and likelihood functions, to explore various fields of biology.
BIOL 452L Mathematical and Computational Models in Biology Laboratory (MATH 452L) (1). Prerequisites, BIOL 201 and 202, MATH 231, and either MATH 232 or STOR 155. Corequisite, BIOL/MATH 452. Permission of the instructor for students lacking the prerequisites. This lab teaches students to analytically and numerically analyze discrete and continuous time biological problems using Mathematica and MATLAB.

BIOL 453 Animal Societies and Communication (3). Preor corequisite, BIOL 278. Permission of the instructor for students lacking the pre- or corequisite. Comparative review of animal societies; diversity of social structure, social dynamics, communication, ecology, and evolution of social organization. Three lecture hours a week.

BIOL 454 Evolutionary Genetics (3). Prerequisites, BIOL 201 and 202. Permission of the instructor for students lacking the prerequisites. The roles of mutation, migration, genetic drift, and natural selection in the evolution of the genotype and phenotype. Basic principles are applied to biological studies. Three lecture hours a week.

BIOL 455 Behavioral Neuroscience (3). Prerequisite, BIOL 205. Permission of the instructor for students lacking the prerequisite. The neurobiological basis of animal behavior at the level of single cells, neural circuits, sensory systems, and organisms. Lecture topics range from principles of cellular neurobiology to ethological field studies.

BIOL 456 Marine Phytoplankton (ENEC 444, MASC 444) (3). See MASC 444 for description.

BIOL 457 Marine Biology (MASC 442) (3). See MASC 442 for description.

## BIOL 458 Sensory Neurobiology and Behavior (3).

Recommended preparation, BIOL 205. An exploration of sensory systems and sensory ecology in animals. Topics range from neurophysiological function of sensory receptors to the role of sensory cues in animal behavior.
BIOL 459 Field Biology at Highlands Biological Station (1-4). Prerequisite, BIOL 101. Permission of the instructor for students lacking the prerequisite. Content varies. Summer field biology at the Highlands Biological Station focuses on the special faunal and floristic processes and patterns characteristic of the southern Appalachian Mountains. Five lecture and three to five laboratory and field hours per week, depending on credit.

BIOL 461 Fundamentals of Ecology (ENEC 461) (4). Prerequisite, BIOL 201. Students will develop a comprehensive understanding of the field of ecology, including modern and emerging trends in ecology. They will develop literacy in the fundamental theories and models that capture ecological processes; emphasis will also be placed on the relevance of ecology and ecological research for human society.

BIOL 462 Marine Ecology (MASC 440) (3). Prerequisite, BIOL 201 or 475 . Survey of the ecological processes that structure marine communities in a range of coastal habitats. Course emphasizes experimental approaches to addressing basic and applied problems in marine systems.

BIOL 463 Field Ecology (4). Prerequisite, BIOL 201. Application of ecological theory to terrestrial and/or freshwater systems. Lectures emphasize quantitative properties of interacting population and communities within these systems. Required laboratory teaches methodology applicable for analysis of these systems. Projects emphasize experimental testing of ecological theory in the field. Two lecture and six field hours a week.

BIOL 464 Global Change Ecology (3). Prerequisite, BIOL 201. Responses of plants, animals, and communities to climate and other global changes, emphasizing ecology, physiology, behavior, and evolution. Investigation of past responses and tools for predicting future responses.

BIOL 465 Global Biodiversity and Macroecology (3).
Prerequisite, BIOL 201. Permission of the instructor for students lacking the prerequisite. We will explore global patterns of diversity of plants, animals, fungi, and microbes, and the insights gained by taking a statistical approach to describing these and other broadscale ecological patterns.
BIOL 469 Behavioral Ecology (3). Prerequisite, BIOL 201. BIOL 278 recommended but not required and can be taken concurrently. Behavior as an adaptation to the environment. Evolution of behavioral strategies for survival and reproduction. Optimality and games that animals play. Three lecture hours a week.

BIOL 471 Evolutionary Mechanisms (3). Prerequisites, BIOL 201 and 202; corequisite, BIOL 471L. Permission of the instructor
for students lacking the prerequisites. Introduction to mechanisms of evolutionary change, including natural selection, population genetics, life history evolution, speciation, and micro- and macroevolutionary trends. Three lecture hours a week.

BIOL 471L Evolutionary Mechanisms Laboratory (1). Prerequisites, BIOL 201 and 202; corequisite, BIOL 471. Permission of the instructor for students lacking the prerequisites. Introduction to mechanisms of evolutionary change, including natural selection, population genetics, life history evolution, speciation, and micro- and macroevolutionary trends. Three laboratory hours a week.

BIOL 472 Introduction to Plant Taxonomy (4). Prerequisites, BIOL 271 and/or 272. Permission of the instructor for students lacking the prerequisites. Introduction to the taxonomy of vascular plants. Principles of classification, identification, nomenclature, and description. Laboratory and field emphasis on phytography, families, description, identification, and classification of vascular plant species. Three lecture and three laboratory hours a week.
BIOL 473 Mammalian Morphology and Adaptation (3). Prerequisite, BIOL 252 or 474 . An in-depth examination of the morphological adaptations of mammals. Particular attention will be given to osteology, the locomotor system, and craniofacial structures.

## BIOL 473L Mammalian Morphology Laboratory (1-2).

Prerequisite, BIOL 252 or 474L. Laboratory includes a detailed dissection of a representative mammal, emphasizing the common structure of mammals. Opportunity for independent investigation of specific functional adaptations of specialized forms.
BIOL 474 Evolution of Vertebrate Life (3). Prerequisite, BIOL 201 or 202. Permission of the instructor for students lacking the prerequisite. Evolutionary history of the vertebrates. Emphasis on anatomical, physiological, behavioral adaptations accompanying major transitions: the move from water to land, the development of complex integrating systems.

BIOL 474 L Vertebrate Structure and Evolution Laboratory (1). Pre- or corequisite, BIOL 474. Vertebrate comparative anatomy of organ systems and their evolution with emphasis on human anatomy. Three laboratory hours a week.

BIOL 475 Biology of Marine Animals (4). Prerequisites, BIOL 101 and 101L. Required preparation, one additional course in biology. An introduction to the major animal phyla emphasizing form, function, behavior, ecology, evolution, and classification of marine invertebrates. Three lecture and three laboratory hours per week.

BIOL 476 Avian Biology (3). Prerequisites, BIOL 101 and 101L; corequisite, BIOL 476L. A study of avian evolution, anatomy, physiology, neurobiology, behavior, biogeography, and ecology. Three lecture hours a week.

BIOL 476L Avian Biology Laboratory (1). Corequisite, BIOL 476. Techniques for the study of avian evolution, ecology, and behavior with emphasis on North Carolina birds. Three laboratory or field hours a week, including one or two weekend field trips.

BIOL 478 Invertebrate Paleontology (GEOL 478) (4). See GEOL 478 for description.

BIOL 479 Topics in Organismal Biology at an Advanced Level (3). Topics in organismal biology at an advanced undergraduate or graduate student level.

BIOL 479L Laboratory in Organismal Biology: Advanced
Topics (1-2). Laboratory in special topics in organismal biology for advanced undergraduates and graduate students.

BIOL 490 Advanced Topics in Biology (3). Permission of the instructor. Content will vary. Three lecture and discussion hours per week by visiting and resident faculty.

BIOL 495 Undergraduate Research in Biology (1-3).
Prerequisite, BIOL 395. Permission of the instructor. Majors only. An overall 3.0 grade point average required. Laboratory study on a selected topic and directed readings. A final written report is required each term. May be repeated. This course is offered for pass/fail credit only.
BIOL 501 Ethical Issues in Life Sciences (3). Permission of the instructor. A consideration and discussion of ethical issues in life sciences including cloning humans, genetic engineering, stem cell research, organ transplantation, and animal experimentation. Counts as a course numbered below 400 for biology major requirements.

BIOL 514 Evolution and Development (3). Prerequisites, BIOL 201, 202, and 205. Permission of the instructor for students lacking the prerequisites. The course examines the mechanisms by which organisms are built and evolve. In particular, it examines how novel and complex traits and organisms arise from interactions among genes and cells.

BIOL 522 Bacterial Genetics (3). Prerequisite, BIOL 422. Permission of the instructor for students lacking the prerequisite. Genetics of eubacteria with emphasis on molecular genetics including regulation of gene expression, transposons, operons, regulons, plasmids, transformation, and conjugation. Computer analysis of DNA sequences.

BIOL 524 Strategies of Host-Microbe Interactions (3). Prerequisite, BIOL 205. Permission of the instructor for students lacking the prerequisite. There is great variety in how microbes colonize and live with their hosts. The course will summarize strategies of pathogenicity, symbiosis, commensalism and mutualism. Evolutionary, cellular, and molecular aspects will be analyzed.

BIOL 525 Computational Analyses and Resources in Genomics (3). Prerequisites, BIOL 202, COMP 116, and STOR 155; corequisite, BIOL 525L. Practical introduction to computational techniques for the analysis of large-scale genomics data, particularly from high-throughput sequencing technologies. Basic knowledge of molecular biology, beginning level programming skills, and familiarity with basic statistical concepts are expected. Three lecture hours a week.

## BIOL 525L Computational Analyses and Resources in

 Genomics Laboratory (1). Prerequisites, BIOL 202, COMP 116, and STOR 155; corequisite, BIOL 525. Computer lab will provide students with experience designing, programming, and using computational analysis software for genomics applications. Basic knowledge of molecular biology, beginning level programmingskills, and familiarity with basic statistical concepts are expected. Three laboratory hours a week.

BIOL 526 Computational Genetics (4). Pre- or corequisites, BIOL 202, and either BIOL 226 or COMP 116, and STOR 155. Permission of the instructor for students lacking the prerequisites. Graduate enrollment allowed with permission of the instructor. Introduction to computational principles underlying sequence alignment and phylogenetics, genome assembly and annotation, analysis of gene function, and other bioinformatics applications. Includes a one-hour computer laboratory.

BIOL 527 Seminar in Quantitative Biology (3). Prerequisites, COMP 114, and MATH 232 or 283. Permission of the instructor for students lacking the prerequisites. Seminar in quantitative biology for advanced students. The course counts as a quantitative biology course for the major.
BIOL 527L Laboratory in Quantitative Biology (1). Laboratory in quantitative biology for advanced students. The laboratory will involve mathematical analysis and modeling of biological systems and processes.

BIOL 528 Systems Biology of Genetic Regulation (4). Prerequisites, BIOL 202, and either BIOL 226 or COMP 116, and STOR 155. The course will focus on mathematical and informatics approaches to modeling biological systems in particular gene networks. Students are expected to have some experience with programming.
BIOL 529 Clinical and Counseling Aspects of Human Genetics (GNET 635) (3). See GNET 635 for description.

BIOL 532 Recent Discoveries in Molecular Biology (3). Prerequisites, BIOL 202 and either BIOL 205 or a 400 -level BIOL course. Permission of the instructor for students lacking the prerequisites. This course examines recent insights into molecular and cellular processes obtained through modern experimental approaches. Extensive reading of primary literature, discussed in a seminar format.

BIOL 535 Molecular Biology Techniques (4). Permission of the instructor. Recommended preparation, BIOL 434. Experiments with bacterial phage, nucleic acid isolation and properties, recombinant DNA techniques, and DNA sequencing. Additional hours in laboratory will be necessary to complete assignments.

BIOL 542 Light Microscopy for the Biological Sciences (3). Prerequisite, BIOL 205 for undergraduates. Permission of the instructor. Introduction to various types of light microscopy, digital and video imaging techniques, and their application in biological sciences.

BIOL 551 Comparative Biomechanics (3). Prerequisites, BIOL 101 and 101L, and PHYS 104 or PHYS 116. Recommended preparation, PHYS 105. The structure and function of organisms in relation to the principles of fluid mechanics and solid mechanics.

BIOL 552 Behavioral Endocrinology (3). Undergraduates need permission of the instructor to enroll. The study of the interactions among hormones, the brain, and behavior from how hormones shape the development and expression of behaviors to how behavioral interactions regulate endocrine physiology.

BIOL 555 Paleobotany: An Introduction to the Past History of Plants (GEOL 555) (3). Prerequisites, BIOL 202 and one other BIOL course above 200; corequisite, BIOL 555L. Permission of the instructor for students lacking the requisites. An introduction to the fossil record of plants, investigating how plants originated and changed through geological time to produce the modern flora. Both macrofossils and microfossils will be considered. Three lecture hours a week.

BIOL 555L Paleobotany: An Introduction to the Past History of Plants Laboratory (1). Prerequisites, BIOL 202 and one other BIOL course above 200; corequisite, BIOL 555. The laboratory involves learning how to locate, collect, prepare, and analyze fossil plants; it also provides fossils that illustrate topics covered in lecture. Students will be involved in field trips to fossil sites and museums to learn about fossil curation and display of fossils for public education. Three laboratory hours a week.

BIOL 556 Seminar on the Evolution of Animal Flight (3). Prerequisites, BIOL 201 and PHYS 104 or 116. Additional required preparation, a 400 -level BIOL course or permission of the instructor. An examination of the origin and evolution of animal flight and how scientific understanding of this topic has changed from the mid-1800s to the present day.

BIOL 561 Ecological Plant Geography (3). Prerequisite, BIOL 101 or GEOG 110. Permission of the instructor for students lacking the prerequisite. Description of the major vegetation types of the world including their distribution, structure, and dynamics. The principal causes for the distribution of plant species and communities, such as climate, soils, and history will be discussed.
BIOL 562 Statistics for Environmental Scientists (ENEC 562)
(4). See ENEC 562 for description.

BIOL 563 Statistical Analysis in Ecology and Evolution (ENEC 563) (4). Prerequisites, MATH 231 and STOR 151. Permission of the instructor for students lacking the prerequisites. Application of modern statistical analysis and data modeling in ecological and evolutionary research. Emphasis is on computer-intensive methods and model-based approaches. Familiarity with standard parametric statistics is assumed.

BIOL 565 Conservation Biology (3). Prerequisite, BIOL 201. Permission of the instructor for students lacking the prerequisite. The application of biological science to the conservation of populations, communities, and ecosystems, including rare species management, exotic species invasions, management of natural disturbance, research strategies, and preserve design principles.

BIOL 567 Evolutionary Ecology (3). Prerequisite, BIOL 471. Permission of the instructor for students lacking the prerequisite. Advanced consideration of the evolution of form and function. May include issues in life-history evolution, evolutionary physiology, evolutionary morphology, and the evolution of complexity. Three lecture hours per week.
BIOL 568 Disease Ecology and Evolution (3). Prerequisites, BIOL 201 and MATH 231. Permission of the instructor for students lacking the prerequisites. Recommended preparation, one course above 400 in ecology or evolution. An advanced class covering the causes and consequences of infectious disease at
the levels of whole organisms, populations, communities, and ecosystems.

BIOL 579 Organismal Structure and Diversity in the Southern Appalachian Mountains (4). Permission of the instructor. An examination of the field biology of selected fungi, plants, or animals of the Appalachian Mountains. The morphology, taxonomy, ecology, life history, and behavior of the organisms will be explored both in the laboratory and in the field.

BIOL 590 Advanced Special Topics in Biology (3). Special topics in biology for advanced undergraduate students and graduate students.

BIOL 590L Laboratory in Advanced Special Topics in Biology
(1). Laboratory at an advanced level in special topics in biology. Students should have had considerable previous laboratory experience.
BIOL 602 Professional Development Skills for Ecologists and Biologists (ECOL 602) (3). The goal of this course is to help students who intend to become professional ecologists or biologists acquire critical skills and strategies needed for achieving their career goals.

BIOL 621 Principles of Genetic Analysis I (GNET 621) (3). Prerequisite for undergraduates, BIOL 202. Permission of the instructor for undergraduates. Genetic principles of genetic analysis in prokaryotes and lower eukaryotes.
BIOL 622 Principles of Genetic Analysis II (GNET 622) (4). See GNET 622 for description.

BIOL 624 Developmental Genetics (GNET 624) (3). Permission of the instructor for undergraduates. Genetic and molecular control of plant and animal development. Extensive reading from primary literature.

BIOL 625 Seminar in Genetics (GNET 625) (2). Permission of the instructor for undergraduates. Current and significant problems in genetics. May be repeated for credit.

BIOL 631 Advanced Molecular Biology I (BIOC 631, GNET 631, MCRO 631) (3). See GNET 631 for description.

BIOL 632 Advanced Molecular Biology II (BIOC 632, GNET 632, MCRO 632) (3). See GNET 632 for description.
BIOL 639 Seminar in Plant Molecular and Cell Biology (1). Permission of the instructor for undergraduates. May be repeated for credit. Current and significant problems in plant molecular and cell biology are discussed in a seminar format. Does not count as a course in the major.

BIOL 642 Advanced Studies of Cell Division (3). Prerequisite, BIOL 205. Permission of the instructor for students lacking the prerequisite. An advanced course in cell and molecular biology integrating genetic, biochemical, and structural aspects of the cell cycle. Principles derived from a variety of biological systems. Extensive reading of classic papers as well as recent literature.
BIOL 643 Molecular Mechanisms of the Cytoskeleton (3). Prerequisites, BIOL 205 and CHEM 430. Permission of the instructor for students lacking the prerequisites. This seminar examines the cytoskeletal systems of eukaryotes and prokaryotes
via primary literature. Architectures of cytoskeletal components are compared and contrasted along with their regulators, nucleators, and molecular motors.

BIOL 648 Palynology (5). Permission of the instructor. A consideration of various aspects of palynology, including the morphology, structure, development, systematics, evolution, preparation techniques, and analysis of living and fossil pollen grains, spores, and other palynomorphs. Two lecture and six laboratory hours a week.

BIOL 649 Seminar in Cell Biology (2). Prerequisite, BIOL 205. Permission of the instructor for students lacking the prerequisite. May be repeated for credit. Does not count as a course in the major.
BIOL 657 Biological Oceanography (ENVR 520, MASC 504) (4). See MASC 504 for description.

BIOL 659 Seminar in Evolutionary Biology (2). Permission of the instructor. Advanced studies in evolutionary biology. Does not count as a course in the major.

BIOL 661 Plant Ecology (4). Prerequisite, BIOL 201.
Permission of the instructor for students lacking the prerequisite. Consideration of terrestrial, vascular plant ecology including environmental physiology, population dynamics, and community structure. Laboratory stresses collection and interpretation of field data. Three lecture and three laboratory hours a week.
BIOL 662 Field Plant Geography (2). Prerequisite, BIOL 561 or 661. Permission of the instructor. Intensive literature and field study of the plant geography and ecology of a selected region. Weekly seminar-style discussion followed by approximately nine days' field experience. May be repeated for credit.

BIOL 669 Seminar in Ecology (ECOL 669) (1-3). Prerequisite, BIOL 201. Permission of the instructor for students lacking the prerequisite. May be repeated for credit.
BIOL 690 Advanced Special Topics with an Emphasis on Recent Research (3). Permission of the instructor. Special topics in biology with an emphasis on recent research. For advanced undergraduates and graduate students.

BIOL 692H Senior Honors Thesis in Biology (3). Permission of a faculty research director and three credit hours of BIOL 395 in the same laboratory required. Must be taken in the final semester of senior year. Fall and spring only.

## Department of Biomedical Engineering

www.bme.unc.edu
NANCY ALLBRITTON, Chair
Richard L. Goldberg, Director of Undergraduate Studies at UNC-Chapel Hill
Lianne Cartee, Director of Undergraduate Studies at NC State

## Introduction

The joint Department of Biomedical Engineering (BME) is a department of both the University of North Carolina at Chapel Hill and North Carolina State University. The department oversees a joint graduate program at these institutions. However, the undergraduate biomedical engineering program at UNC-Chapel Hill is separate and distinct from the undergraduate program at NCSU.

Biomedical engineering is a profession that develops and applies engineering knowledge and experience to solve problems in biology and medicine and to enhance health care. Biomedical engineers are professionally trained to combine the rigors of medical and biological studies with the power of engineering analysis and design. People become biomedical engineers to be of service to others, to enjoy the excitement of understanding living systems, and to use state-of-the-art science and technology to solve the complex problems of medical care. The emphasis in biomedical engineering is on finding solutions by researching, testing, and applying medical, biological, chemical, electrical, and materials engineering approaches. Biomedical engineers are unique individuals who make contributions to health care that are both satisfying to themselves and beneficial to others.

## Applied Science Major, B.S.Biomedical Engineering Track ( 124 hours)

In this major, students learn to apply engineering principles to solve problems in medicine and biology. This is a field of great breadth that incorporates medical imaging, informatics, micro and nanosystems, prosthetics, medical devices, tissue engineering and genomics, drug delivery, and applications of signal processing and control.

The first two years of study have many courses in common with the B.S. programs in chemistry, physics, computer science, or mathematical sciences. The curriculum, as for all sciences, is vertically structured, with experience and knowledge from each course serving as a foundation for subsequent courses. Students' attention to prerequisites is important. The specific requirements are listed below. Students are also encouraged to engage in research in a laboratory at UNC-Chapel Hill or elsewhere, or have an internship experience in industry.

## Core Requirements

- BMME 150 Introduction to Materials Science
- BMME 160 Statics
- BMME 210 BME Design and Manufacturing I
- BMME 310 BME Design and Manufacturing II
- Choose one of BMME 341 Thermodynamics and Kinetics Applied to Solids, BMME 455 Biofluid Mechanics, or BMME 475 Transport Processes. After fulfilling this requirement, students may take additional courses from this list as biomedical specialty electives (see below).
- BMME 410 Systems and Signals
- BMME 465 Biomedical Instrumentation I
- BMME 697 Senior Design Project I
- BMME 698 Senior Design Project II
- BIOL 202 and 252
- MATH 528
- BMME 350 Electronics for BME
- BMME 351 Human Physiology and Biological Measurements for Engineers
- Choose one statistics class from STOR 435 or 455


## Additional Requirements

- A choice of four biomedical specialty electives: Any BMME above 400, or PHYS 301, or ENVR 452/GEOL 560/MASC 560/ PHYS 660

Students should take the following courses, preferably in their first two years:

- COMP 116
- BIOL 101/101L
- CHEM 101/101L (physical and life sciences with laboratory Approaches requirement)
- CHEM 102/102L
- MATH 231 and 232 (quantitative reasoning Foundations and quantitative intensive Connections requirements)
- MATH 233 and 383
- PHYS 116 or 118 (physical and life sciences Approaches requirement)
- PHYS 117 or 119

Students must satisfy all Foundations, Approaches, and Connections requirements, as outlined elsewhere in this bulletin. Some General Education requirements should be met with specific courses as listed above.

## Advising

For the first two years all majors have a primary academic advisor in Steele Building. Students are strongly encouraged to meet regularly with their advisor and review their Tar Heel Tracker each semester. Students who have questions that their advisor cannot answer can schedule an appointment with the department's director of undergraduate studies.

In the spring of the sophomore year, all majors will be assigned to a biomedical engineering faculty advisor. From this point onward, students are required to meet with their departmental advisor every semester in order to be cleared to register for classes.

Further information on courses, undergraduate research opportunities, the honors program, careers, and graduate schools may be obtained from the department's Web site.

## Special Opportunities in Biomedical Engineering

## Honors in Applied Sciences: Biomedical Engineering

Students who successfully complete a research project and have a sufficiently outstanding academic record are eligible for graduation with honors or highest honors. The requirements of the curriculum for graduation with honors or highest honors are 1) overall grade point average of 3.3 or higher, 2) completion of a two-semester research project, with course credit given in BMME 691H and $692 \mathrm{H}, 3)$ presentation of the research to a committee of three faculty, both as an oral presentation and a written honors thesis, and 4) approval by that committee. For consideration for highest
honors, the research project must be judged to be of publishable quality.

Students wishing to be considered for graduation with honors should apply to the director of undergraduate studies by September 15 for those who are graduating in May or August, or by January 15 for those who are graduating in December.

## Departmental Involvement

Student organizations include the BME club. This is an official UNC-Chapel Hill club that organizes speakers, outreach to industry and medical school, and mentoring, among other activities.

## Experiential Education

All students in biomedical engineering participate in a capstone design experience in which they develop a device or system that has biomedical applications. This project fulfills the General Education experiential education requirement.

## Undergraduate Awards

One cash award is given annually for excellent scholarship and research. The Flexcell Award is given through a corporate donation from Flexcell International Corporation, a company started by Albert Banes, a faculty member in biomedical engineering.

## Undergraduate Research

Students are strongly encouraged to undertake a research project at any time during their education, but particularly during their junior and/or senior years. Through the challenge of a research project, students come face to face with the leading edge of an area, gain expertise with state-of-the-art techniques and instrumentation, and experience a professional scientific career firsthand. A number of faculty members on campus (particularly those in the School of Medicine, School of Dentistry, School of Pharmacy, and in the Departments of Chemistry, Physics and Astronomy, Computer Science, and Biomedical Engineering) conduct research projects related to biomedical engineering.

The department helps to coordinate research activities and facilitates connections between students and research laboratories. This is accomplished through communication via e-mail and the department Web site. Also, the department organizes laboratory "open houses," in which students can visit faculty laboratories and learn about their research opportunities. The UNC-Chapel Hill Office for Undergraduate Research is also an excellent resource for finding research opportunities.

## Facilities

The Department of Biomedical Engineering houses an undergraduate student design laboratory. It contains equipment for rapid manufacturing (three-dimensional printer and laser cutter) as well as electronics and microcontroller design and development. Students also use facilities in other departments that have laboratory-based courses.

## Graduate School and Career Opportunities

Many students from this program have pursued further education in graduate school in biomedical engineering. Our alumni have
attended many of the top-ranked biomedical engineering programs. In addition, some students have pursued graduate degrees in other disciplines in engineering, as well as related fields such as microbiology, sports physiology, public health, and business/ engineering management among others. Students have also been accepted into clinical programs such as medical, dental, physical therapy, and pharmacy schools (in many cases, the student must take several additional courses to meet the requirements for clinical programs).

For those interested in going directly into a career, biomedical engineering is one of the fastest growing career opportunities. Graduates are employed by hospitals, pharmaceutical companies, medical device and testing companies, government agencies, universities, and medical schools.

## Faculty

## Professors

Nancy Allbritton, Paul Dayton, M. Gregory Forest, Edward Grant, Leaf Huang, Mike Jay, Frances Ligler, Weili Lin, Elizabeth Loboa, Terry Magnuson, Matthew Mauro, Russell Mumper, H. Troy Nagle, Roger Narayan, Harold Pillsbury, J. Michael Ramsey, Steven Soper.

## Associate Professors

Ted Bateman, Lianne Cartee, Ke Cheng, Jacqueline Cole, Bob Dennis, Andrew DiMeo, Oleg Favorov, Caterina Gallippi, Michael Gamcsik, Richard Goldberg, Shawn Gomez, Helen Hunag, Albena Ivanisevic, David Lalush, Jeffrey Macdonald, Hatice Ozturk, Mark Tommerdahl, Glenn Walker, Paul Weinhold.

## Assistant Professors

Matthew Fisher, Zhen Gu, Greg McCarty, Gianmarco Pinton, Gregory Sawicki, Anne Marion Taylor.

## Lecturer

Kenneth Donnelly, Devin Hubbard.

## Professors Emeriti

Charlie Frank Abrams, Albert Banes, Carol Lucas.

## Contact Information

Richard Goldberg, Director of Undergraduate Studies, CB\# 7575, 149-B Macnider Hall, r.goldberg@unc.edu.

## Courses

## BMME-Biomedical Engineering

BMME 89 First-Year Seminar: Special Topics (3). Special topics course. Content will vary each semester.

BMME 101 Frontiers of Biomedical Engineering (1). An introduction to the groundbreaking tools and topics of biomedical engineering, including medical imaging, medical robotics, rehabilitative engineering, regenerative medicine, and medical device design.
BMME 150 Introduction to Materials Science (3). Prerequisite, CHEM 102; pre- or corequisites, MATH 383 and PHYS 117.

The materials science of electronic, metallic, polymeric, ceramic, and composite materials and their processing are introduced. The electronic, optical, magnetic, and structural properties of materials are related to their uses.

BMME 160 Statics (3). Prerequisites, MATH 232 and PHYS 116. The resolution, distribution, and transfer of forces in rigid structural bodies.

BMME 190 Special Topics in Biomedical Engineering (1-3). A study in the special fields under the direction of the faculty. Offered as needed for presenting material not normally available in regular BMME courses.

BMME 210 BME Design and Manufacturing I (2). Corequisite, PHYS 116 or 118 . Students will learn to use design software: SolidWorks and support/analysis programs such as COSMOS. Basic techniques for directly measuring solid objects using digital calipers, gauges, and identification of standard components to reverse-engineer the dimensions of the object. Specific topics covered: generation of designed solid model, three-view drawings, dimensions, tolerances, etc.

BMME 310 BME Design and Manufacturing II (2). Prerequisite, BMME 210. Students learn basic tools and procedures of modern design practice traditional and modern rapid manufacturing technologies/techniques. Laboratory exercises and Web-based instructional content.

BMME 341 Thermodynamics and Kinetics Applied to Solids (3). Prerequisites, BMME 150, MATH 383, and PHYS 117. The elements of thermodynamics and phenomenological kinetics of diffusion appropriate to solids are examined. Topics include equations of state, heat capacity, polyphase equilibria, phase transitions, diffusion, and interfaces.

BMME 350 Electronics for Biomedical Engineers (4).
Prerequisite, PHYS 119. Fundamentals of analog and digital circuit analysis and design as applied to biomedical instrumentation and measurement of biological potentials. Class will consist of lectures and problem solving of analog and digital circuits. In lab students will design, develop, and test circuits, and acquire data to a computer using labview.

## BMME 351 Human Physiology and Biological Measurements

for Engineers (4). A course on the quantitative aspects of basic human physiology. Class work will provide students with a basic understanding of human anatomy and physiology. A laboratory portion will explore actual physiological measurement techniques and quantitatively evaluate human physiology using statistical analyses.

BMME 395 Research in Biomedical Engineering for
Undergraduates (1-4). Permission of the director of undergraduate studies. At least nine hours of independent work a week. May be repeated for elective credit. Work may be counted towards graduation with honors or highest honors by petition to the curriculum chair. Further details are available from the curriculum office.

BMME 396 Independent Study in Biomedical Engineering (1-3). Permission of the director of undergraduate studies. Independent study under a member of the biomedical engineering faculty.

BMME 410 Systems and Signals (4). Prerequisite, MATH 383.
Analysis of linear systems by transform methods to networks, including stability analysis. Survey of numerical methods for network solutions.

BMME 445 Systems Neuroscience (3). Introduction to methodologies used to characterize a) the aggregate behavior of living neural networks and $b$ ) the changes in that behavior that occur as a function of stimulus properties, pharmacological manipulations, and other factors that dynamically modify the functional status of the network.

BMME 455 Biofluid Mechanics (3). This course introduces students to basics of fluid mechanics (steady and pulsatile flows, laminar and turbulent flows, and Newtonian and non-Newtonian flows). Students learn the fundamental relationships and governing equations describing these types of flows and the basic physiology of certain systems that are highly associated with fluid flows.
BMME 460 Analytical Microscopy (3). The purpose of this course is to present microscopy techniques utilized in the analysis of biological and chemical samples. This course provides a systematic and in-depth examination of light and electron microscopy, including their various components, for example, detectors, light sources, and lenses. For graduate students and advanced undergraduates.

BMME 465 Biomedical Instrumentation I (4). Prerequisite, PHYS 351. Topics include basic electronic circuit design, analysis of medical instrumentation circuits, physiologic transducers (pressure, flow, bioelectric, temperate, and displacement). This course includes a laboratory where the student builds biomedical devices.
BMME 470 Tissue Engineering (3). Lectures in this course address how functional tissues can be fabricated from synthetic and biosynthetic materials. The course provides an overview of the field, commercial success and failure, and design principles that must be met to develop a process or fabricate a functional tissue-engineered part.

BMME 475 Transport Processes (3). This course serves as introduction for engineers pursuing transport phenomena and for future pharmaco-engineers requiring predictive models of mass transfer or pharmacodynamic models. Material is designed to address heat and mass transfer issues in nanotechnology, microfabrication, mems, cell therapies, bioartificial organs, as well as pharmacodynamic modeling of dynamic "omics" datasets.

BMME 485 Biotechnology (3). This course is designed to prepare a biomedical engineering student with the survey tools to understand key components in modern biotechnologies. Fundamental concepts, theory, design, operation, and analysis of the most common biotechnologies in bioengineering will be presented.
BMME 490 Special Topics in Biomedical Engineering (3-9). A study in the special fields under the direction of the faculty. Offered as needed for presenting material not normally available in regular BME department.
BMME 505 Biomechanics (3). Prerequisites, MATH 383, and PHYS 116 or 118 . Fundamental principles of solid and fluid mechanics applied to biological systems. Human gait analysis,
joint replacement, testing techniques for biological structures, and viscoelastic models are presented. Papers from current biomechanics literature will be discussed.

BMME 510 Biomaterials (3). Prerequisite, BIOL 101. Chemical, physical engineering, and biocompatibility aspects of materials, devices, or systems for implantation in or interfering with the body cells or tissues. Food and Drug Administration and legal aspects.

BMME 515 Introduction to Systems Biology (3). Prerequisite, MATH 383 or 528. Cells, tissues, organs, and organisms have been shaped through evolutionary processes to perform their functions in robust, reliable manners. This course investigates design principles and structure-function relationships of biomolecular networks. Emphasis will be placed on gene- and protein-circuits and their role in controlling cellular behavior and phenotype.

BMME 520 Fundamentals of Materials Engineering (3). The structure, defects, thermodynamics, kinetics, and properties (mechanical, electrical, thermal, and magnetic) of matter (metals, ceramics, polymers, and composites) will be considered.

BMME 530 Digital Signal Processing I (3). Prerequisite, COMP 110 or 116. This is an introduction to methods of automatic computation of specific relevance to biomedical problems. Sampling theory, analog-to-digital conversion, digital filtering will be explored in depth.

## BMME 550 Medical Imaging: Ultrasonic, Optical, and

 Magnetic Resonance Systems (3). Prerequisites, BIOS 550 and 430, and PHYS 128. Physical and mathematical foundations of ultrasonic, optical, and magnetic resonance imaging systems in application to medical diagnostics. Each imaging modality is examined, highlighting critical system characteristics: underlying physics of the imaging system, including mechanisms of data generation and acquisition; image creation; and relevant image processing methods, such as noise reduction.BMME 551 Medical Device Design I (3). Student multidisciplinary teams work with local medical professionals to define specific medical device concepts for implementation.
BMME 552 Medical Device Design II (3). Device prototypes designed in the first course in series. Good manufacturing practices; process validation; FDA quality system regulations; design verification and validation; regulatory approval planning; and intellectual property protection.
BMME 560 Medical Imaging: X-Ray, CT, and Nuclear Medicine Systems (3). Prerequisites, BIOS 550, BMME 410, and PHYS 128. Overview of medical imaging systems using ionizing radiation. Interaction of radiation with matter. Radiation production and detection. Radiography systems and applications. Tomography. PET and SPECT systems and applications.
BMME 565 Biomedical Instrumentation I (4). Prerequisite, PHYS 351. Topics include basic electronic circuit design, analysis of medical instrumentation circuits, physiologic transducers (pressure, flow, bioelectric, temperate, and displacement). This course includes a laboratory where the student builds biomedical devices.

BMME 576 Mathematics for Image Computing (COMP 576)
(3). See COMP 576 for description.

BMME 580 Microcontroller Applications I (3). Introduction to digital computers for real-time processing and control of signals and systems. Programming input and output devices using C and assembly language is stressed. Case studies are used to present software design strategies for real-time laboratory systems.
BMME 581 Microcontroller Applications II (3). Prerequisites, BMME 465 and 580. Problems of interfacing computers with biomedical and systems are studied. Students collaborate to develop a new biomedical instrument. Projects have included process control, data acquisition, disk systems interfaces, and DMW interfaces between interconnected computers.

BMME 691H Honors Thesis (3). Research honors course. Prior approval needed from the chair or associate chair of the program for topic selection and faculty research mentor. Minimum GPA requirement, written report, and abstract requirements as set forth by the honors program.
BMME 692H Honors Thesis (3). Research honors thesis continuation with required GPA, research topic selection with approved faculty mentor. Written abstract and report per honors program guidelines submitted by specific deadlines.

BMME 697 Senior Design Project I (2). Prerequisite, BMME 310. Conceptual prelude and preparation to BMME 698, in which the theoretical and practical knowledge acquired during the undergraduate tenure is applied to develop a solution to a realworld problem.
BMME 698 Senior Design Project II (4). Prerequisite, BMME 697. Implementation phase of the senior design experience. Students apply the theoretical and practical knowledge they have acquired in their previous seven semesters to the design and implementation of a solution to a real-world problem.

## Department of Cell Biology and Physiology

www.med.unc.edu/cellbiophysio
5200 Medical Biomolecular Research Building, CB\# 7545; (919) 966-5241

## KATHLEEN CARON, Chair

The Department of Cell Biology and Physiology in the UNC School of Medicine was formed in July 2012 through the merger of the Department of Cell and Developmental Biology and the Department of Cell and Molecular Physiology. The department offers courses for premedical, predental, nursing, pharmacy, physical therapy, and allied health students, as well as students pursuing science majors. However, the department does not offer a formal program leading to an undergraduate degree. Students interested in independent research may register for PHYI 395 Undergraduate Research in Physiology for directed readings or laboratory study with a member of the faculty. The following courses are open to undergraduate students majoring in the sciences.

## CBIO-Cell and Development Biology

CBIO 423 Developmental Toxicology and Teratology (TOXC 423) (3). Emphasizes topics of current research interest relative to the genesis of environmentally caused and genetically based birth defects. One two-hour session per week (evening).

CBIO 607 Gross Anatomy (2-4). Permission of the instructor. Primarily for graduate students. Enrollment by availability of space and material.

CBIO 627 Regional Anatomy (3). Permission of the instructor. For students of oral surgery, surgical residents, and graduate students.

## CBIO 643 Cell Structure, Function, and Growth Control I

 (BIOC 643, MCRO 643, PHCO 643, PHYI 643) (3). Required preparation, undergraduate cell biology or biochemistry or permission of the instructor. Comprehensive introduction to cell structure, function, and transformation.
## CBIO 644 Cell Structure, Function, and Growth Control II

(BIOC 644, MCRO 644, PHCO 644, PHYI 644) (3). Required preparation, undergraduate cell biology or biochemistry or permission of the instructor. Comprehensive introduction to cell structure, function, and transformation.

## PHYI-Physiology

PHYI 50 First-Year Seminar: Human Physiology (3). Clinical cases are used to introduce the study of physiology. Students develop learning objectives and research selected topics in health and disease. Final class project is a group endeavor.

PHYI 202 Introduction to Physiology (5). Prerequisites, CHEM 101 and 102 (or BIOC 107 and 108) and BIOL 252. A course in human physiology exploring physiological processes from molecular to organ systems levels including regulation and interrelationships. Five lecture hours a week.

## PHYI 395 Undergraduate Research in Physiology (1-6).

Prerequisites, BIOL 101/101L and CHEM 101/101L. Permission of the instructor. Directed readings or laboratory study on a selected topic. Final written report required in each term. At least three hours of independent work per week for each unit of credit.
PHYI 643 Cell Structure, Function, and Growth Control I (BIOC 643, CBIO 643, MCRO 643, PHCO 643) (3). See CBIO 643 for description.
PHYI 644 Cell Structure, Function, and Growth Control II (BIOC 644, CBIO 644, MCRO 644, PHCO 644) (3). See CBIO 644 for description.

## Department of Chemistry

www.chem.unc.edu
Caudill and Kenan Laboratories, CB\# 3290; (919) 843-7100
VALERIE S. ASHBY, Chair

## Introduction

Chemistry is the scientific study of the composition and properties of matter and the investigation of the laws that govern them. Classically, chemistry is divided into several subdisciplines. Organic chemistry deals primarily with carbon compounds; inorganic chemistry, with compounds of the other elements. Physical chemistry seeks to describe relationships between the chemical and physical properties of all substances. Analytical chemistry studies the analysis of the chemical composition of all substances. Biological chemistry pursues the chemistry of living organisms. At the borders of these subdisciplines are many hybrid areas of study: physical organic, organometallic, bioinorganic, and others. At the interface of chemistry with other sciences, there are active fields fueled by insights gained from two ways of thinking about things: for example, chemical physics, chemical biology, organic geochemistry, and the extensive chemical problems in biotechnology, nanotechnology, material sciences, and molecular medicine. In all of these areas the chemist's approach may be theoretical, experimental, or both.
All chemists have a common core of knowledge, learned through a highly structured sequence of undergraduate courses in which the content is divided into the classical subdisciplines. Toward the end of students' progress through their four years of undergraduate study, they may choose to concentrate in one or more areas of chemistry through the courses selected to fulfill the chemistry elective requirements and through undergraduate research.

## Chemistry Major, B.A.

## Core Requirements

- CHEM 101 and 101L (gateway)
- CHEM 102 or $102 \mathrm{H}, 102 \mathrm{~L}$
- CHEM 241, 241L or 245L
- CHEM 251, 430, 480 or 481, and 550L
- CHEM 261
- CHEM 262, 262L or 263L
- One course from the following list (three hours): CHEM 395, 410, 420, 421, 441, 450, 451, 460, 482. Other courses numbered above 420 may be substituted with the permission of the instructor.


## Additional Requirements

- MATH 231, 232; PHYS 104, 114, 116, or 118; 105, 115, 117 , or 119
The recommended course sequence for the bachelor of arts degree: ${ }^{1}$


## First Year

- Quantitative reasoning: MATH 231, $232^{8}$
- English composition and rhetoric: ENGL 105
- Foreign language through level 3
- Lifetime fitness: one hour
- Physical and life sciences: CHEM 101/101L and an additional PL or PX course (e.g., BIOL 101)
- CHEM 102 or $102 \mathrm{H}, 102 \mathrm{~L}$
- Approaches: three courses, nine hours


## Sophomore Year

- CHEM 241, 241L or 245L, 251, 261, 262, 262L or 263L
- PHYS 104, 114, 116, or $118 ; 105,115,117$, or $119^{2}$
- Approaches: three courses, nine hours


## Junior and Senior Years

- CHEM 430
- CHEM 480 or 481
- One course from CHEM 395, 410, 420, 421, 441, 450, 451, 460, 482. ${ }^{3}$ Other courses numbered above 420 may be substituted with permission of the instructor, three hours.
- CHEM 550L
- Other Connections; Supplemental General Education; three courses, nine hours


## Chemistry Major, B.S. ${ }^{4}$

## Core Requirements

- CHEM 101 and 101L (gateway)
- CHEM 102 or $102 \mathrm{H}, 102 \mathrm{~L}$
- CHEM 241, 241L or 245L
- CHEM 251, 430, 441, 441L, 450, 481, 481L, 482, 482L, and 550L
- CHEM 261
- CHEM 262, 262L or 263L
- Ten hours of advanced chemistry elective courses (one must be a laboratory) from the following list: CHEM 395 or 396 (not both), CHEM 410, and any course numbered 420 or higher


## Additional Requirements

- BIOL 101
- MATH 232, 233, $383^{8}$; PHYS 116 or 118, and 117 or 119

The recommended course sequence for the bachelor of science degree: ${ }^{1}$

## First and Sophomore Years

- English composition and rhetoric: ENGL 105
- Foreign language through level 3
- Lifetime fitness: one hour
- Quantitative reasoning: MATH 231
- Physical and life sciences: BIOL 101, CHEM 101/101L
- CHEM 102 or $102 \mathrm{H}, 102 \mathrm{~L}$
- CHEM 241, 241L or $245 \mathrm{~L}, 251,261,262$ or $262 \mathrm{H}, 262 \mathrm{~L}$ or 263L
- MATH 232, 233, $383^{8}$; and PHYS 116 or 118 , and 117 or 119
- Approaches: three courses, nine hours
- Other Connections


## Junior and Senior Years

- CHEM 430 and 450
- CHEM 441 and 441L
- CHEM 481, 481L, 482, and 482L
- CHEM 550L
- Advanced chemistry electives (10 hours, one must be a laboratory) ${ }^{5}$
- Approaches: three courses, nine hours
- Other Connections


## Chemistry Major, B.S.-Biochemistry Track ${ }^{4}$

## Core Requirements

- CHEM 101 and 101L (gateway)
- CHEM 102 or $102 \mathrm{H}, 102 \mathrm{~L}$
- CHEM 241, 241L or 245L
- CHEM 251, 430, 431, 432, 481, 481L, 482, 530L, and 550L
- CHEM 261
- CHEM 262, 262L or 263L
- One advanced chemistry elective course from the following list: BIOC 601, 650; BIOL 422; CHEM 395, 396, 410; or any twoor three-credit chemistry course numbered 420 or higher


## Additional Requirements

- BIOL 101, 101L, 202 and 205
- MATH 232, 233, $383^{8}$; PHYS 116 or 118, and 117 or 119

The recommended course sequence for the bachelor of science (biochemistry track) degree: ${ }^{1}$

## First and Sophomore Years

- Quantitative reasoning: MATH 231
- English composition and rhetoric: ENGL 105
- Foreign language through level 3
- Physical and life sciences: BIOL 101/101L, CHEM 101/101L
- Lifetime fitness: one hour
- BIOL 202 and 205
- CHEM 102 or $102 \mathrm{H}, 102 \mathrm{~L}$
- CHEM 241, 241L or 245L, 251, 261, 262, and 262L or 263L
- MATH 232, 233, and $383^{8}$
- PHYS 116 or 118 , and 117 or 119
- Approaches: three courses, nine hours
- Other Connections


## Junior and Senior Years

- CHEM 430, 481, 481L, 482, and 530L
- CHEM 431 and 432
- CHEM 550L
- Advanced chemistry elective: two or three hours ${ }^{5,6}$
- Approaches: three courses, nine hours
- Other Connections


## Chemistry Major, B.S.-Polymer Track ${ }^{4}$

## Core Requirements

- CHEM 101 and 101L (gateway)
- BMME 150 or CHEM 470
- CHEM 102 or $102 \mathrm{H}, 102 \mathrm{~L}$
- CHEM 241, 241L or 245L
- CHEM 251, 430, 481, 481L, 482, 482L, 520L, and 550L
- CHEM 261
- CHEM 262, 262L or 263L
- Three advanced polymer chemistry electives from CHEM 420, 421, 422, 423, 425
- One advanced chemistry elective from CHEM 395, 396, 410, or any chemistry course numbered higher than 420 (at least three hours)


## Additional Requirements

- BIOL 101, 101L
- MATH 232, 233, $383^{8}$; PHYS 116 or 118, and 117 or 119

The recommended course sequence for the bachelor of science (polymer track) degree: ${ }^{1}$

## First and Sophomore Years

- Quantitative reasoning: MATH 231
- English composition and rhetoric: ENGL 105
- Foreign language through level 3
- Physical and life sciences: BIOL 101/101L, CHEM 101/101L
- Lifetime fitness: one hour
- CHEM 102 or 102H, 102L
- CHEM 241, 241L or 245L, 251, 261, 262, and 262L or 263L
- MATH 232, 233, and $383^{8}$
- PHYS 116 or 118 , and 117 or 119
- Approaches: three courses, nine hours
- Other Connections


## Junior and Senior Years

- BMME 150 or CHEM 470
- CHEM 430, 481, 481L, 482, 482L, 520L, and 550L
- Polymer electives: three courses from CHEM 420, 421, 422, 423
- Advanced chemistry elective: three hours ${ }^{5,7}$
- Approaches: three courses, nine hours
- Other Connections


## Chemistry Minor

The minor in chemistry consists of the following seven courses: CHEM 102 or $102 \mathrm{H}, 102 \mathrm{~L}, 241,241 \mathrm{~L}$ or $245 \mathrm{~L}, 261,262,262 \mathrm{~L}$ or 263 L .

## Course Sequencing

Careful attention should be given to prerequisites and course timing when planning a long-term schedule. A C- or better grade in CHEM 101 is required to continue into CHEM 102/102L. CHEM 102 is a prerequisite for CHEM 241/241L, 251, and 261. A C- or better grade in CHEM 102 is required to continue into ANY higher-level chemistry course. A C- or better grade in CHEM 261 is a prerequisite for CHEM 262, and CHEM 241L is a prerequisite for CHEM 262L. Students intending to take pregraduate or preprofessional exams (such as the GRE or MCAT) should plan accordingly.

## Notes

1. At least 18 semester hours of credit in chemistry courses above CHEM 101/101L with individual grades of C or better are required. Grades of C- do not satisfy this requirement. Courses in chemistry and other courses specifically required (and designated by number) may not be taken Pass/D+/D/Fail.
2. PHYS 118 and 119 are encouraged for those students considering careers as professional chemists or those students who want the option to switch from the B.A. program to the B.S. program.
3. With the permission of the course instructor, CHEM 420 or other chemistry courses numbered above 420 may be substituted for the listed courses.
4. This program meets the requirements of the American Chemical Society for the training of professional chemists.
5. CHEM 395 and 396 may be taken for credit as many times as desired but may be counted for no more than nine hours of total credit toward fulfillment of graduation requirements. Additionally, CHEM 395 may not be counted more than once as an advanced chemistry elective in the B.S. chemistry degree, B.S. chemistry degree (biochemistry track), or B.S. chemistry degree (polymer track). Only one of CHEM 395 or 396 (not both) may be counted as an advanced chemistry elective. Students must sign up for CHEM 395 and 396 within the first week of classes.
6. One course must be taken from the following list: BIOC 601, 650; BIOL 422; CHEM 395; or any two- or three-credit chemistry lecture course numbered 420 or above that is not already required.
7. CHEM 395 or 396 and chemistry courses numbered 420 or higher.
8. Placement (PL) credits (zero hours) for MATH 232, 233, or 383 do not satisfy chemistry major requirements.

## Advising

Faculty advisors are available in the Department of Chemistry for both walk-in meetings and scheduled advising appointments. The departmental advisors assist students with a variety of areas: course planning for the chemistry major, career/graduate school planning, study abroad opportunities, undergraduate research opportunities, and how to deal with academic difficulties. Chemistry majors are required to meet with a departmental advisor by appointment prior to registering for any semester beyond the fourth term in residence. The faculty advisors also schedule many events for the majors.

## Special Opportunities in Chemistry

## Honors in Chemistry

Upon the recommendation of the Department of Chemistry, the B.A. or B.S. degree with a major in chemistry may be awarded with honors in chemistry or highest honors in chemistry.

Highest honors in chemistry is a distinction bestowed on a truly exceptional student who has excelled in coursework and who has completed a research project of considerable depth and significance. To attain this distinction the candidate must have nominally satisfied the following guidelines:

- B.A. candidates must have achieved a chemistry major grade point average of 3.85 or higher; B.S. candidates, a chemistry major grade point average of 3.75 or higher.
- Have completed at least five courses in chemistry numbered 420 or above. For B.A. candidates one of these may be a laboratory course; for B.S. candidates they must all be lecture courses.
- Have completed or be about to complete a research project certified to be of publishable quality by the research advisor and two faculty members appointed by the director of undergraduate studies
Honors in chemistry is a distinction bestowed on an outstanding student who has demonstrated marked competence in the coursework and who has completed a research project of considerable merit. To attain this distinction the candidate must
have nominally satisfied the following guidelines:
- Have achieved a chemistry major grade point average of 3.40 or higher
- Have received no grade below B- in junior- or senior-level chemistry courses
- Have completed at least three lecture courses in chemistry numbered 420 or above
- Have completed or be about to complete a research project certified to be of honors quality by the research advisor and two faculty members appointed by the vice chair for undergraduate studies
Students who wish to qualify for either of these awards should begin planning their course programs and research activities in the junior year so that ample time and effort may be devoted to succeeding in upper-level courses and research.


## Departmental Involvement

Majors are encouraged to participate in AXE (chemistry fraternity) and the undergraduate advisory board.

## Laboratory Teaching Internships and Assistantships

Undergraduates have the opportunity to serve as laboratory teaching assistants for entry-level undergraduate laboratory courses.

## Special Topics

Special topics not offered through the normal course sequence may be pursued through directed reading and registration in CHEM 396 with the approval of the supervising faculty member, advisor, and vice chair for undergraduate studies. An approved learning contract is required, and students must be registered no later than the end of the first week of classes.

## Undergraduate Awards

Excellent performances by undergraduates in chemistry are recognized by the department through the following awards:

- Francis P. Venable Medal: A medallion and cash award are presented to the two most outstanding graduating seniors majoring in chemistry in honor of Dr. Francis P. Venable, who was chair of the department, president of the University from 1900 to 1914, and president of the American Chemical Society.
- Emmett Gladstone Rand Premedical Scholarship: A scholarship is presented to an exceptionally talented graduating senior intending to pursue a career in medicine.
- Jason D. Altom Memorial Award for Undergraduate Research:

This cash award recognizes research potential of an undergraduate chemistry major.

- J. Thurman Freeze Scholarship: This scholarship serves to fund summer research between a student's junior and senior years.
- E.C. Markham Summer Research Fund: The department chair selects the recipient of this award, who will use the salary to perform research between the junior and senior years.
- Carrie Largent Award for Research Excellence: This award is given annually to a graduating senior who has excelled in research.
- David L. Stern Scholar: Top students from upper-division laboratory courses are chosen for this cash award.
- Undergraduate Award for Excellence in Physical Chemistry: This cash award is given to the top student in physical chemistry courses.
- AXE Sophomore Chemist Award: A cash award and certificate are presented to an outstanding sophomore chemistry major.
- James H. Maguire Memorial Award: This award goes to an outstanding and academically gifted junior honors student majoring in chemistry.
- Tanya R. Ellison Scholarship: A female, junior or senior B.S. chemistry major is selected for this cash award on the basis of character and academic commitment.
- Hypercube Scholar Award: An outstanding senior majoring in chemistry is given this chemical software package.


## Undergraduate Research

Almost every undergraduate chemistry major who has undertaken a research project has found it to be an exciting and rewarding experience. The reasons are many. One certainly is that it affords an opportunity to make pioneering discoveries at the forefront of science, using instrumentation and techniques far more sophisticated than those usually encountered in standard laboratory courses.

More than 80 students are involved in undergraduate research projects in chemistry each year. Although successful completion of an undergraduate research project is a requirement for graduation with honors or highest honors (see above), it is not necessary to be a participant in Honors Carolina to undertake a research project.

The usual mechanism for getting involved in a research project is to register for CHEM 395. This process begins well in advance of a preregistration or registration period with a visit to the Chemistry Student Services office, where a student may obtain a list of undergraduate research opportunities and a form titled Request for Registration in CHEM 395.

Most students begin research during the spring semester of their junior year and continue throughout their senior year. CHEM 395 Research in Chemistry for Undergraduates and 396 Special Problems in Chemistry together may be taken for credit as many times as desired but may be counted for no more than nine hours total credit toward graduation in either the B.A. or B.S. traditional and polymer tracks and for no more than six hours in the B.S. biochemistry track. In the B.S. curriculum CHEM 395 may be counted no more than once as an advanced chemistry elective.

## UNC-BEST

The UNC Baccalaureate Education in Science and Teaching (UNC-BEST) Program is a collaboration between the School of Education and the College of Arts and Sciences and is designed to allow undergraduate science majors interested in teaching high school science the opportunity to earn their science degree and obtain licensure as a North Carolina high school science teacher in four years. UNC-BEST students meet all the degree requirements for their chemistry degree using CHEM 410 as one of their upperlevel chemistry courses. UNC-BEST students also fulfill teaching licensure coursework requirements as well as many General Education and elective requirements as they complete 10 credit hours in teaching and learning, including EDUC 403, 516 or 689, 532,533 , and 601 . During their final semester students engage in a full-time student teaching internship (EDUC 593) and participate in an education leadership seminar (EDUC 503). For more details on admission requirements, application deadlines, and instructions
for submitting an online application, visit the School of Education Web site: soe.unc.edu/services/apply/ug.

## Graduate School and Career Opportunities

An undergraduate degree tailored according to the student's interests can open doors to graduate programs in many academic disciplines: chemistry, environmental science, materials science, polymer science, chemical engineering, geochemistry, chemical physics, and several disciplines at the interface between biology and chemistry. A technically oriented administrator in the chemical industry might choose to obtain a master's degree in business administration. More than 100 schools in the United States offer graduate programs in chemistry and related areas, and the usual practice is to complete a graduate degree at an institution different from the undergraduate institution. It is necessary to specialize in graduate study, either within one of the branches previously mentioned or at the interface between two of them. A student admitted to a graduate program in chemistry in the United States is usually offered a teaching assistantship or fellowship.

Chemists have a wide choice of academic, governmental, or industrial positions. By far the greatest percentage accept industrial positions, mostly in chemical manufacturing or the petroleum, food, and pharmaceutical industries, where they may be developing new products to benefit humanity or assessing the level of risk in the processes for some proposed production methods, for example. Most government chemists are employed in agriculture, health, energy, environmental, and defense-related areas. In the academic field, with such a broad spectrum of colleges and universities in this country, chemists can set career goals with varying levels of emphasis on training students in research and teaching in the classroom and instructional laboratory.

## Faculty

## Professors

Nancy L. Allbritton, Valerie S. Ashby, Tomas Baer, Max L. Berkowitz, Maurice S. Brookhart, Michael T. Crimmins, Joseph M. DeSimone, Dorothy A. Erie, Malcolm D.E. Forbes, Michel R. Gagné, Gary L. Glish, Jeffrey S. Johnson, James W. Jorgenson, Harold L. Kohn, Paul J. Kropp, David S. Lawrence, Gerald J. Meyer, Thomas J. Meyer, Royce W. Murray, John M. Papanikolas, Gary J. Pielak, J. Michael Ramsey, Matthew R. Redinbo, Michael Rubinstein, Edward T. Samulski, Mark H. Schoenfisch, Sergey S. Sheiko, Linda L. Spremulli, Joseph L. Templeton, Nancy L. Thompson, Marcey L. Waters, Kevin M. Weeks, R. Mark Wightman, Richard V. Wolfenden.

## Associate Professors

Erik J. Alexanian, Andrew M. Moran, Cindy K. Schauer, Wei You.

## Assistant Professors

Joanna M. Atkin, Eric M. Brustad, James F. Cahoon, Jillian L. Dempsey, Leslie M. Hicks, Yosuke Kanai, Bo Li, Matthew R. Lockett, Simon J. Meek, Alexander J.M. Miller, David A. Nicewicz, Scott C. Warren.

## Research Assistant Professors

Todd L. Austell, Brian P. Hogan, Domenic J. Tiani.

## Lecturers

Carribeth L. Bliem, Thomas C. Freeman, Jennifer R. Krumper, Carolyn J. Morse, Cheryl Moy.

## Contact Information

Donnyell Batts and Jill Fallin, Chemistry Student Services
Coordinators, C140 Kenan Labs, (919) 843-7827 or (919) 8437826, chemus@unc.edu.

Dr. Erik J. Alexanian, Director of Undergraduate Studies, 2202H Murray Hall, (919) 962-4976, eja@email.unc.edu.

## Courses

## CHEM-Chemistry

CHEM 70 First-Year Seminar: You Don't Have to Be a Rocket Scientist (3). The goal of this seminar is to develop tools for extracting information from or finding flaws in news reports and popular science writing. Group work on such issues as biomass fuels, the hydrogen economy, and other alternative energy sources will develop an understanding of their economic and environmental impact.

## CHEM 71 First-Year Seminar: Foundations of Chemistry:

A Historical and Modern Perspective (3). Students will learn about ways in which scientists think. They will explore how new knowledge is generated and examine the impact of science on society. Topics to be considered include the nature of gases, atomic structure and radioactivity, and molecules and the development of new materials.

CHEM 72 First-Year Seminar: From Imagination to Reality: Idea Entrepreneurism in Science, Business, the Arts (3).
Bringing ideas to fruition is a multistep process. In the present knowledge economy, high value is placed on individuals who both formulate new concepts and bring them to reality. This process requires a number of important skills that will be explored in this course.

CHEM 73 First-Year Seminar: From Atomic Bombs to Cancer Treatments: The Broad Scope of Nuclear Chemistry (3). A course engaging the topic of nuclear chemistry on the introductory chemistry course level (e.g., CHEM 101/102). Atomic structure, nuclear fission, and nuclear fusion processes will be introduced to provide the background necessary to understand applications of the processes. Applications discussed will include power generation, medical treatments, weapons, and more.
CHEM 89 First-Year Seminar: Special Topics (3). Special topics course. Content will vary each semester.

CHEM 101 General Descriptive Chemistry I (3). Prerequisite, MATH 110. The first course in a two-semester sequence. See also CHEM 102. Atomic and molecular structure, stoichiometry and conservation of mass, thermochemical changes and conservation of energy.

CHEM 101L Quantitative Chemistry Laboratory I (1). Pre- or corequisite, CHEM 101. Computerized data collection, scientific measurement, sensors, thermochemistry, spectroscopy, and conductometric titration. Laptop computer required. One fourhour laboratory each week.
CHEM 102 General Descriptive Chemistry II (3). Prerequisites, CHEM 101 and 101L. C- or better required in CHEM 101. The course is the second in a two-semester sequence. See also CHEM 101. Gases, intermolecular forces, solutions, reaction rates, chemical equilibria including acid-base chemistry, thermochemistry, electrochemistry.

## CHEM 102H Advanced General Descriptive Chemistry (3).

Prerequisite, placement credit for CHEM 101 and 101L; pre- or corequisite, MATH 231. Permission of the instructor for students lacking the prerequisites. One semester course for first-year students with strong backgrounds in chemistry and mathematics. Byexamination credit for CHEM 101 and 101L is awarded upon satisfactory completion of CHEM 102 H .
CHEM 102L Quantitative Chemistry Laboratory II (1). Prerequisite, CHEM 101L; pre- or corequisite, CHEM 102 or 102 H . Computerized data collection, gas laws, intermolecular forces, redox reactions, chemical kinetics, and acid-base titrations. Laptop computer required. One four-hour laboratory each week.

CHEM 190 Special Topics in Chemistry (3). An undergraduate seminar course that is designated to be a participatory intellectual adventure on an advanced, emergent, and stimulating topic within a selected discipline in chemistry. This course does not count as credit towards the chemistry major.
CHEM 200 Extraordinary Chemistry of Ordinary Things (3). Prerequisite, MATH 110. Coregistration in CHEM 200 and 101L fulfills the physical and life science with a laboratory requirement (PX). This course helps students understand the chemistry behind important societal issues and the consequences of actions aimed at addressing the issues. Students who have taken CHEM 200 cannot take CHEM 101 for credit.

## CHEM 241 Modern Analytical Methods for Separation

 and Characterization (2). Prerequisite, CHEM 102 or 102H. C- or better required in prerequisite. Analytical separations, chromatographic methods, spectrophotometry, acid-base equilibria and titrations, fundamentals of electrochemistry.
## CHEM 241L Laboratory in Separations and Analytical

 Characterization of Organic and Biological Compounds (1). Prerequisite, CHEM 102L; pre- or corequisite, CHEM 241 or 241 H . Applications of separation and spectrophotometric techniques to organic compounds, including some of biological interest. One three-hour laboratory each week.CHEM 245L Honors Laboratory in Separations and Analytical Characterization of Organic and Biological Compounds (1). Prerequisite, CHEM 102L; pre- or corequisite, CHEM 241H. Applications of separation and spectrophotometric techniques to samples from the real world, including some of biological interest. Final portion of course consists of group research projects presented to the Department of Chemistry in poster session format. Honors equivalent of CHEM 241L. One three-hour laboratory each week.

CHEM 251 Introduction to Inorganic Chemistry (2). Prerequisite, CHEM 102 or 102 H . C- or better required in prerequisite. Chemical periodicity, introductory atomic theory and molecular orbital theory, structure and bonding in solids, descriptive nonmetal chemistry, structures and reactions of transition metal complexes, applications of inorganic complexes and materials.

CHEM 261 Introduction to Organic Chemistry I (3). Prerequisite, CHEM 102 or 102 H . C- or better required in prerequisite. Molecular structure and its determination by modern physical methods, correlation between structure and reactivity and the theoretical basis for these relationships, classification of reaction types exhibited by organic molecules using as examples molecules of biological importance.

## CHEM 262 Introduction to Organic Chemistry II (3).

Prerequisite, CHEM 261 or 261 H . C- or better required in prerequisite. Continuation of CHEM 261, with particular emphasis on the chemical properties of organic molecules of biological importance.
CHEM 262L Laboratory in Organic Chemistry (1). Prerequisites, CHEM 102L, and CHEM 241L or 245L; pre- or corequisite, CHEM 262 or 262H. Continuation of CHEM 241L or 245 L with particular emphasis on organic chemistry synthesis protocols, separation techniques, and compound characterization using modern spectroscopic instrumentation. This course serves as an organic chemistry laboratory for premedical and predental students. One three-hour laboratory each week.
CHEM 263L Honors Laboratory in Organic Chemistry (1). Prerequisites, CHEM 102L, and CHEM 241L or 245L; preor corequisite, CHEM 262 H . Permission of the instructor for students lacking CHEM 262H. Continuation of CHEM 245L with particular emphasis on organic chemistry synthesis protocols, separation techniques, and compound characterization using modern spectroscopic instrumentation. An organic chemistry laboratory for premedical and predental students. Honors equivalent of CHEM 262L. One three-hour laboratory each week.

## CHEM 291 Seminar on Academic Mentoring (1-3).

Prerequisites, CHEM 102 or 102 H , and MATH 231. Permission of the instructor. GPA above 3.0 required. Experience includes academic mentoring for small groups, preparing review sessions, and facilitating lecture hall activity. Direct instruction in pedagogy, leadership, communication, and group dynamics. Does not fulfill chemistry major requirements.
CHEM 395 Research in Chemistry for Undergraduates (3). Required preparation, one CHEM course 420 or higher and permission of the instructor. For advanced chemistry and applied sciences majors conducting on-campus research. Students prepare a report for their faculty supervisor and present their work at a poster session. May count only once as a chemistry elective.

CHEM 396 Special Problems in Chemistry (1-3). Permission of the director of undergraduate studies. Literature or lab work equivalent of one to three hours each week.
CHEM 397H Honors Colloquium in Chemistry (1).
Corequisite, CHEM 395H. Weekly meetings complement research
carried out under CHEM 395H. Expands students' exposure to specialized areas of research through guided readings and seminars with invited speakers. Aids students in preparing their research for evaluation. CHEM 395 H and 397 H together can contribute no more than nine total hours toward graduation.

CHEM 410 Instructional Methods in the Chemistry Classroom (4). Prerequisites, CHEM 241, 251, 262, and 262L. Permission of the instructor. This course explores secondary school chemical education through current chemical education theory and classroom teaching. Students will develop a comprehensive approach to teaching chemistry content through student-centered activities.

CHEM 420 Introduction to Polymer Chemistry (APPL 420)
(3). Prerequisite, CHEM 261 or 261 H ; pre- or corequisites, CHEM 262 or 262 H , and 262L or 263L. Chemical structure and nomenclature of macromolecules, synthesis of polymers, characteristic polymer properties.

CHEM 421 Synthesis of Polymers (APPL 421) (3). Prerequisites, CHEM 251, and 262 or 262 H . Synthesis and reactions of polymers; various polymerization techniques.

CHEM 422 Physical Chemistry of Polymers (APPL 422) (3). Prerequisites, CHEM 420 and 481. Polymerization and characterization of macromolecules in solution.

CHEM 423 Intermediate Polymer Chemistry (APPL 423) (3). Prerequisite, CHEM 422. Polymer dynamics, networks and gels.

CHEM 425 Polymer Materials (3). Prerequisite, CHEM 421 or 422. Solid-state properties of polymers; polymer melts, glasses and crystals.

CHEM 430 Introduction to Biological Chemistry (BIOL 430) (3). Prerequisites, BIOL 101 and CHEM 262 or 262 H . The study of cellular processes including catalysts, metabolism, bioenergetics, and biochemical genetics. The structure and function of biological macromolecules involved in these processes is emphasized.
CHEM 431 Macromolecular Structure and Metabolism (3). Prerequisites, BIOL 202 and CHEM 430. Structure of DNA and methods in biotechnology; DNA replication and repair; RNA structure, synthesis, localization and transcriptional reputation; protein structure/function, biosynthesis, modification, localization, and degradation.

## CHEM 432 Metabolic Chemistry and Cellular Regulatory

Networks (3). Prerequisite, CHEM 430. Biological membranes, membrane protein structure, transport phenomena; metabolic pathways, reaction themes, regulatory networks; metabolic transformations with carbohydrates, lipids, amino acids, and nucleotides; regulatory networks, signal transduction.

CHEM 433 Transport in Biological Systems (1). Prerequisites, CHEM 430 and MATH 383. Permission of the instructor for undergraduates. Diffusion, sedimentation, electrophoresis, flow. Basic principles, theoretical methods, experimental techniques, role in biological function, current topics.

CHEM 441 Intermediate Analytical Chemistry (2). Prerequisites, CHEM 241 (or 241 H ), 241L (or 245L) and 262 (or 262 H ) and 480 (or 481). Spectroscopy, electroanalytical chemistry, chromatography, thermal methods of analysis, signal processing.

CHEM 441L Intermediate Analytical Chemistry Laboratory (2). Corequisite, CHEM 441. Experiments in spectroscopy, electroanalytical chemistry, chromatography, thermal methods of analysis, and signal processing. One four-hour laboratory and one one-hour lecture each week.

CHEM 444 Separations (3). Prerequisites, CHEM 441 and either 480 or 481 . Theory and applications of equilibrium and nonequilibrium separation techniques. Extraction, countercurrent distribution, gas chromatography, column and plane chromatographic techniques, electrophoresis, ultra-centrifugation, and other separation methods.

CHEM 445 Electroanalytical Chemistry (3). Prerequisite, CHEM 480 or 481. Basic principles of electrochemical reactions, electroanalytical voltammetry as applied to analysis, the chemistry of heterogeneous electron transfers, and electrochemical instrumentation.

CHEM 446 Analytical Spectroscopy (3). Prerequisites, CHEM 441 and 482 . Optical spectroscopic techniques for chemical analysis including conventional and laser-based methods. Absorption, fluorescence, scattering and nonlinear spectroscopies, instrumentation and signal processing.

CHEM 447 Bioanalytical Chemistry (3). Prerequisite, CHEM 441. Principles and applications of biospecific binding as a tool for performing selective chemical analysis.
CHEM 448 Mass Spectrometry (3). Prerequisite, CHEM 480 or 481. Fundamental theory of gaseous ion chemistry, instrumentation, combination with separation techniques, spectral interpretation for organic compounds, applications to biological and environmental chemistry.

CHEM 449 Microfabricated Chemical Measurement Systems (3). Prerequisite, CHEM 441. Introduction to micro and nanofabrication techniques, fluid and molecular transport at the micrometer to nanometer length scales, applications of microtechnology to chemical and biochemical measurements.

CHEM 450 Intermediate Inorganic Chemistry (3). Prerequisite, CHEM 251. Introduction to symmetry and group theory; bonding, electronic spectra, and reaction mechanisms of coordination complexes; organometallic complexes, reactions, and catalysis; bioinorganic chemistry.

CHEM 451 Theoretical Inorganic Chemistry (3). Prerequisites, CHEM 262 or 262 H and 450 . Chemical applications of symmetry and group theory, crystal field theory, molecular orbital theory. The first third of the course, corresponding to one credit hour, covers point symmetry, group theoretical foundations and character tables.
CHEM 452 Electronic Structure of Transition Metal Complexes
(3). Prerequisite, CHEM 451. A detailed discussion of ligand field theory and the techniques that rely on the theoretical development of ligand field theory, including electronic spectroscopy, electron paramagnetic resonance spectroscopy, and magnetism.

CHEM 453 Physical Methods in Inorganic Chemistry (3). Prerequisite, CHEM 451. Introduction to the physical techniques used for the characterization and study of inorganic compounds. Topics typically include nuclear magnetic resonance spectroscopy,
vibrational spectroscopy, diffraction, Mossbauer spectroscopy, X-ray photoelectron spectroscopy, and inorganic electrochemistry.

CHEM 460 Intermediate Organic Chemistry (3). Prerequisite, CHEM 262 or 262H. Modern topics in organic chemistry.
CHEM 465 Mechanisms of Organic and Inorganic Reactions (4). Prerequisite, CHEM 450. Kinetics and thermodynamics, free energy relationships, isotope effects, acidity and basicity, kinetics and mechanisms of substitution reactions, one- and two-electron transfer processes, principles and applications of photochemistry, organometallic reaction mechanisms.

CHEM 466 Advanced Organic Chemistry I (3). Prerequisite, CHEM 460. A survey of fundamental organic reactions including substitutions, additions, elimination, and rearrangements; static and dynamic stereochemistry; conformational analysis; molecular orbital concepts and orbital symmetry.

CHEM 467 Advanced Organic Chemistry II (2). Prerequisite, CHEM 466. Spectroscopic methods of analysis with emphasis on elucidation of the structure of organic molecules: 1 H and 13 C NMR, infrared, ultraviolet, ORD-CD, mass, and photoelectron spectroscopy. CHEM 446 and 467 may not both be taken for academic credit.

CHEM 468 Synthetic Aspects of Organic Chemistry (3). Prerequisite, CHEM 466. Modern synthetic methods and their application to the synthesis of complicated molecules.
CHEM 469 Organometallics and Catalysis (3). Prerequisites, CHEM 450 and 466 . Structure and reactivity of organometallic complexes and their role in modern catalytic reactions.

CHEM 470 Fundamentals of MTSC (APPL 470) (3). Prerequisite, CHEM 482; or prerequisite, PHYS 128 and pre- or corequisite, PHYS 341. Crystal geometry, diffusion in solids, mechanical properties of solids, electrical conduction in solids, thermal properties of materials, phase equilibria.
CHEM 471 Mathematical Techniques for Chemists (3). Prerequisite, MATH 383. Permission of the instructor for students lacking the prerequisite. Knowledge of differential and integral calculus. Chemical applications of higher mathematics.

CHEM 472 Chemistry and Physics of Electronic Materials Processing (APPL 472, PHYS 472) (3). See PHYS 472 for description.
CHEM 473 Chemistry and Physics of Surfaces (APPL 473)
(3). Prerequisite, CHEM 470. The structural and energetic nature of surface states and sites, experimental surface measurements, reactions on surfaces including bonding to surfaces and adsorption, interfaces.

CHEM 480 Introduction to Biophysical Chemistry (3).
Prerequisites, CHEM 261 or 261H, MATH 232, and PHYS 105. Does not carry credit toward graduate work in chemistry or credit toward any track of the B.S. degree with a major in chemistry. Application of thermodynamics to biochemical processes, enzyme kinetics, properties of biopolymers in solution.
CHEM 481 Physical Chemistry I (3). Prerequisites, CHEM 102 or 102 H , PHYS 116; pre- or corequisites, MATH 383 and

PHYS 117. C- or better required in chemistry course prerequisites. Thermodynamics, kinetic theory, chemical kinetics.

CHEM 481L Physical Chemistry Laboratory I (2). Prerequisite, CHEM 482. Experiments in physical chemistry. Solving thermodynamic and quantum mechanical problems using computer simulations. One three-hour laboratory and a single onehour lecture each week.

CHEM 482 Physical Chemistry II (3). Prerequisite, CHEM 481. Introduction to quantum mechanics, atomic and molecular structure, spectroscopy, and statistical mechanics.

CHEM 482L Physical Chemistry Laboratory II (2). Prerequisite, CHEM 482; pre- or corequisite, CHEM 481L. Experiments in physical chemistry. One four-hour laboratory each week.
CHEM 484 Thermodynamics and Introduction to Statistical Thermodynamics (1-21). Prerequisite, CHEM 482.
Thermodynamics, followed by an introduction to the classical and quantum statistical mechanics and their application to simple systems. The section on thermodynamics can be taken separately for one hour credit.

CHEM 485 Chemical Dynamics (3). Prerequisites, CHEM 481 and 482. Experimental and theoretical aspects of atomic and molecular reaction dynamics.
CHEM 486 Introduction to Quantum Chemistry (3). Prerequisites, CHEM 481 and 482. Introduction to the principles of quantum mechanics. Approximation methods, angular momentum, simple atoms and molecules.

CHEM 487 Introduction to Molecular Spectroscopy (3). Prerequisite, CHEM 486. Interaction of radiation with matter; selection rules; rotational, vibrational, and electronic spectra of molecules; laser based spectroscopy and nonlinear optical effects.
CHEM 488 Quantum Chemistry (3). Prerequisite, CHEM 486. Applications of quantum mechanics to chemistry. Molecular structure, time-dependent perturbation theory, interaction of radiation with matter.

CHEM 489 Statistical Mechanics (3). Prerequisite, CHEM 484. Applications of statistical mechanics to chemistry. Ensemble formalism, condensed phases, nonequilibrium processes.
CHEM 520L Polymer Chemistry Laboratory (APPL 520L) (2). Pre- or corequisite, CHEM 420 or 421 or 425 . Various polymerization techniques and characterization methods. One fourhour laboratory each week.

CHEM 530L Laboratory Techniques for Biochemistry (3). Pre- or corequisite, CHEM 430. An introduction to chemical techniques and research procedures of use in the fields of protein and nucleic acid chemistry. Two four-hour laboratories and one one-hour lecture each week.

CHEM 541 Analytical Microscopy (3). Introduction to microscopy techniques utilized in the analysis of chemical and biological samples with a focus on light, electron, and atomic force microscopy. Permission of instructor required for those missing prerequisites.

## CHEM 550L Synthetic Chemistry Laboratory I (2).

Prerequisites, CHEM 241L (or 245L), 251, and 262L (or 263L). A laboratory devoted to synthesis and characterization of inorganic complexes and materials. A four-hour synthesis laboratory, a characterization laboratory outside of the regular laboratory period, and a one-hour recitation each week.

CHEM 560L Synthetic Organic Laboratory (2). Prerequisites, CHEM 241L, 245L, 262L, 263L. An advanced synthesis laboratory focused on topics in organic chemistry. A four-hour synthesis laboratory, a characterization laboratory outside of the regular laboratory period, and a one-hour recitation each week.

CHEM 692H Senior Honors Thesis (3). Prerequisite, six credit hours of CHEM 395. CHEM 395 must have been in the same laboratory as 692 H . Senior majors only. Required of all candidates for honors or highest honors.

## Department of City and Regional Planning

www.planning.unc.edu
New East Building, CB\# 3140; (919) 962-3983
ROBERTO G. QUERCIA, Chair

## Introduction

City and regional planning is an interdisciplinary field that seeks to improve the quality of life for people in human settlements. Planners are involved, for example, in forecasting what futures may hold for a region, guiding the type and location of new development, analyzing transportation systems, encouraging economic development, protecting the environment, mediating diverse interests, and revitalizing urban neighborhoods. They are involved in designing solutions to pressing societal problems such as urban sprawl, unemployment, homelessness, environmental pollution, and urban decay.

City and regional planners work for a variety of public and private organizations. In the public sector local, state, and federal governments all employ city and regional planners. In the private sector, planners work for development companies, consulting firms, and a variety of nonprofit organizations.

For undergraduates the Department of City and Regional Planning offers basic coursework, opportunities for supervised practical experience, and an academic minor. Undergraduate students take courses in the department for several reasons: to learn about cities and planning systems, to enrich or expand their current area of interest in different aspects of urbanization, or to explore the possibility of graduate work leading to a career in planning. Planning courses allow students to see how the arts and sciences can be applied to improve the prosperity and livability of cities, towns, and rural areas. In this way they help students deepen their appreciation of their major field of study. Some planning courses may fulfill General Education requirements.

## Urban Studies and Planning Minor

Five courses ( 15 credit hours) are needed to fulfill the requirements for the minor in urban studies and planning. The minor requires all students to take a two-course core in urban studies and planning: PLAN 246 Cities of the Future and PLAN 247 Solving Urban Problems. After taking the core courses, students can select three additional PLAN courses numbered 200 through 699. Students can also choose from PLAN courses at the 700- and 800-level with instructor permission.

## Advising

The department's director of dual-degree and undergraduate programs serves as the primary point of contact for students participating in the minor (see "Contact Information" below). Student advising and approval of equivalent courses are handled through the director. Students also have a primary academic advisor in Steele Building.

## Facilities

The Department of City and Regional Planning is located in New East Building on Cameron Avenue. An important resource available to the department is the Center for Urban and Regional Studies, located in Hickerson House, where the research and service programs of the department are housed. The department has strong ties to the Institute for the Environment. Other research centers that are of interest are Center for Community Capital, Program on Chinese Cities, Carolina Transportation Program, and the UNC Hazards Center.

## Graduate School and Career Opportunities

Undergraduates interested in a career in city and regional planning can pursue postgraduate work in planning at UNC-Chapel Hill. The Department of City and Regional Planning offers several degree programs at the graduate level. A two-year program preparing students for advanced positions in professional practice in city and regional planning leads to the degree of master in city and regional planning. A program leading to the degree of doctor of philosophy prepares for careers in teaching and research. Dual graduate degree programs are offered in collaboration with related professional programs (law, business, public administration, public health, landscape architecture, and environmental sciences and engineering).

## Faculty

## Professors

Emil E. Malizia, Roberto G. Quercia, Daniel A. Rodriguez, William M. Rohe, Yan Song, Dale Whittington.

## Associate Professors

Todd BenDor, Nichola Lowe, Noreen McDonald, Mai Nguyen, Meenu Tewari.

## Assistant Professors

Nikhil Kaza, T. William Lester, Danielle Spurlock, Andrew Whittemore.

## Research Professors

David J. Brower, David H. Moreau, Gavin Smith.

## Affiliated Faculty

Richard N.L. Andrews (Public Policy), Michele Berger (Women's and Gender Studies), Maryann Feldman (Public Policy), David J. Hartzell (Kenan-Flagler Business School), Judith W. Wegner (School of Law), Jesse White (School of Government).

## Professors Emeriti

Raymond J. Burby, F. Stuart Chapin Jr., David R. Godschalk, Edward J. Kaiser.

## Contact Information

Nikhil Kaza, Director of Undergraduate Studies, nkaza@unc.edu.
Candice Jones, Student Services Manager, CB\# 3140, 109 New East, (919) 962-4784.

## Courses

## PLAN-City and Regional Planning

PLAN 50 First-Year Seminar: This Land Is Your Land (3). An issue encountered in managing urban communities and environmental quality concerns rights to land ownership. Environmental regulations limit people's rights to use land as they see fit. This seminar explores processes whereby rights to land, water, and environmental resources of the United States have been acquired, reserved, distributed, and regulated.

PLAN 51 First-Year Seminar: Envisioning Community (3). How is "community" understood as a concept used to describe towns, universities, and other forms of social interaction? This seminar introduces students to urban planning, higher education, and social capital and provides students with opportunities to explore and document local leaders' views concerning the towns' futures and the University's growth.

PLAN 52 First-Year Seminar: Race, Sex, and Place in America (WMST 51) (3). This first-year seminar will expose students to the complex dynamics of race, ethnicity, and gender and how these have shaped the American city since 1945.

PLAN 53 First-Year Seminar: The Changing American Job (3). Explores the changing nature of the American job and the transformative forces-from global trade and outsourcing to corporate restructuring and new skill demands-that have influenced this change.

PLAN 54 First-Year Seminar: Bringing Life Back to Downtown: Commercial Redevelopment of Cities and Towns (3). The seminar seeks to understand the current realities of North Carolina's inner-city communities in the context of their historical evolution and the current proposals for revitalization. Each student selects one city or town for a case study.

PLAN 55 First-Year Seminar: Sustainable Cities (3). How can the sustainability of cities and their ability to meet the needs of disadvantaged groups be improved? In this seminar students will
look at the evolution of cities throughout history to find out how they have coped with threats to sustainability.

PLAN 57 First-Year Seminar: What Is a Good City? (3). After studying the forces that have produced the American urban landscape, we will explore the city from the normative perspectives of urban historians, planners and architects, social scientists, social critics, and futurists, as a way for each student to develop her/his own perspective about what a "good city" might be.

PLAN 58 First-Year Seminar: Globalization and the Transformation of Local Economies (3). Using directed readings, participative class exercises, and cases that cut across developed and developing countries, this seminar will focus on how global pressures and economic integration is changing local economies.

PLAN 89 First-Year Seminar: Special Topics (3). Content varies each semester.

PLAN 246 Cities of the Future (3). Introduction to the evolution of cities in history, to the concept of urban morphology or form, and to the different elements or subsystems of the urban system and how they have changed over time.

PLAN 247 Solving Urban Problems (3). Introduction to methods used for solving urban problems. Covers methods employed in subfields of planning to develop an ability to critically evaluate different techniques and approaches used within these disciplines.

## PLAN 317 Introduction to Site Planning and Urban Design

 (3). This course examines site planning as a process of creating the built environment. A site planner considers many things, including site hydrology, topography, building form, access, and regulation. Students will review the theories of urban design that guide site planning, conduct a site analysis and propose a site plan.PLAN 326 Social Ventures (PLCY 326) (3). Examines students' knowledge and understanding of social entrepreneurship as an innovative approach to addressing complex social needs. Affords students the opportunity to engage in a business planning exercise designed to assist them in establishing and launching a social purpose entrepreneurial venture.

PLAN 330 Principles of Sustainability (ENEC 330) (3). See ENEC 330 for description.

PLAN 420 Community Design and Green Architecture (ENEC 420) (3). See ENEC 420 for description.

PLAN 428 Urban Social Geography (GEOG 428) (3). See GEOG 428 for description.

PLAN 491 Introduction to GIS (GEOG 491) (3). See GEOG 491 for description.

## PLAN 526 Principles of Public Finance for Public Policy

 and Planning (1.5). Provides the foundation of state and local government finance necessary to understand new developments in the provision of infrastructure for economic development.PLAN 547 Energy, Transportation, and Land Use (3). This course explores the reciprocal connections between energy (production/conversion, distribution, and use), land use, environment, and transportation. Evaluation of federal, state,
and local policies on energy conservation and alternative energy sources are emphasized. Students gain skills to analyze impacts, interdependencies, and uncertainties of various energy conservation measures and production technologies.

PLAN 550 Evolution of the American City (3). Examines shaping the urban built environments of the United States from the colonial era to present day. Critically examines forces that shaped our cities, and studies the values, ideals, and motivations underlying efforts to plan and direct physical development of American cities.

PLAN 574 Political Economy of Poverty and Inequality (3). Introduces students to the political economy of poverty alleviation programs. Uses comparative cases to explore what types of projects, tasks, and environments lead to effective and equitable outcomes, and why.

PLAN 575 Real Estate Development (3). Rigorous examination of real estate development from the entrepreneurial and public perspectives. Emphasis on risk management and the inherent uncertainties of development. The four dimensions of real estate are addressed: economic/market, legal/institutional, physical, and financial.

PLAN 585 American Environmental Policy (ENST 585, ENVR 585, PLCY 585) (3). See ENVR 585 for description.

PLAN 590 Special Topics Seminar (1-9). Original research, fieldwork, readings, or discussion of selected planning issues under guidance of a member of the faculty.

PLAN 591 Applied Issues in Geographic Information Systems (3). Prerequisite, GEOG 370 or 491 . Applied issues in the use of geographic information systems in terrain analysis, medical geography, biophysical analysis, and population geography.

PLAN 596 Independent Study (1-9). This course permits fulltime undergraduate students enrolled in the Department of City and Regional Planning who wish to pursue independent research or an independent project to do so under the direction of a member of the department faculty.

PLAN 636 Urban Transportation Planning (3). Fundamental characteristics of the urban transportation system as a component of urban structure. Methodologies for the analysis of transportation problems, planning urban transportation, and the evaluation of plans.

PLAN 637 Public Transportation (3). Alternative public urban transportation systems including mass transit, innovative transit services, and paratransit, examined from economic, land use, social, technical, and policy perspectives.

PLAN 638 Pedestrian and Bike Transportation (3). This graduate-level course examines the importance of multimodal transportation planning and provides a comprehensive overview of best planning practices to support increased walking and bicycling.

PLAN 641 Ecology and Land Use Planning (3). Integration of the structure, function, and change of ecosystems with a land use planning framework. How land use planning accommodates human use and occupancy within ecological limits to sustain longterm natural system integrity.

PLAN 651 Urban Form and the Design of Cities (3). Lecture course on comparative urbanism and the global evolution of the city form. Examines values and ideals embedded in urban landscapes, seeking to understand how social, economic, and political forces have influenced the development of cities through history.

PLAN 662 Gender Issues in Planning and Development (WMST 662) (3). Permission of the instructor for undergraduates. Examination of the environmental and health risks, policy institutions, processes, instruments, policy analysis, and major elements of American environmental policy. Lectures and case studies.

PLAN 663 Diversity and Inequality in Cities (3). Permission of instructor needed for undergraduates. Introduces students in planning to issues related to diversity and inequality. Different aspects of diversity (e.g., gender, class, race, ethnicity, sexuality, nationality/citizenship) will be explored. Examines the relationship between diversity and the unequal distribution of resources and life trajectories.

## PLAN 685 Water and Sanitation Planning and Policy in

 Less Developed Countries (ENVR 685) (3). Permission of the instructor. Seminar on policy and planning approaches for improved community water and sanitation services in developed countries. Topics include the choice of appropriate technology and level of service; cost recovery; water venting; community participation in the management of water systems; and rent-seeking behavior in providing water supplies.PLAN 686 Policy Instruments for Environmental Management (ENST 686, ENVR 686, PLCY 686) (3). See PLCY 686 for description.

PLAN 687 International Development and Social Change (3). Permission of the instructor. Course explores effect of the global economy on national and community development, effect of environmental degradation processes on development, and strategies to guide social change.
PLAN 691H Honors Seminar in Urban and Regional Studies
(3). Permission of the instructor. An overview of the subject matter and methods of investigation for the study of cities and regions. Presentations of original papers prepared by students.

## Department of Classics

classics.unc.edu
212 Murphey Hall, CB\# 3145; (919) 962-7191
JAMES B. RIVES, Chair

## Introduction

Classics is the study of the ancient Greek and Roman world; the Greek and Latin languages and literature; and the history, art, and culture that have been fundamental in shaping modern society. A genuine understanding of the past can be gained only through a wide-ranging approach, encompassing words, thoughts, events, and objects. For this reason, the field of classical studies is interdisciplinary in nature.

## Classics Major, B.A.-Classical Archaeology

## Core Requirements

- CLAR 244, and 245 or 247
- CLAR 411 or ANTH 220
- CLAS 391
- Four additional courses in classical archaeology, including two numbered between 400 and 699 (CLAS 691 H and 692 H can be used to satisfy this requirement, but CLAR 120 cannot)
- HIST 225 or 226


## Additional Requirements

- GREK or LATN up to 204 or 205

This concentration focuses on the material remains of prehistoric and classical antiquity, while also providing a background in civilization, history, and at least one classical language. The program of study is designed to give students a basic knowledge of the art and architecture of the Greeks and Romans and to introduce them to the use of archaeology in the reconstruction of the past, including Egypt and the ancient Near East. Majors in classical archaeology may not elect a minor in the classical language that they use to satisfy their major requirements, although they may elect a minor in the other classical language. Students interested in majoring in classical archaeology should consult the department as early as possible.

## Classics Major, B.A.-Classical Civilization

## Core Requirements

- CLAS 121 and 122
- CLAS 391
- One of the three following courses: CLAR 244, 245, 247
- One GREK or LATN course numbered 204 or higher, except LATN 212
- Four additional courses chosen from the following list: any CLAR or CLAS course at the 200 level or above; any GREK or LATN course numbered 221 or higher; courses in ancient history at the 200 level or above (HIST 225, 226, 420, 421, 422, 423, 424, 425, 427, 428); courses in ancient philosophy at the 200 level or above (PHIL 210, 411, 412)


## Additional Requirements

- GREK or LATN 101, 102, and 203

This concentration is designed to provide students with a broad, basic knowledge of the classical world and with skills in analysis, written and oral communication, and logical argument that will be applicable in any profession. The civilization program is not designed to lead to graduate work in classics, although students do sometimes go on in the field, and it is often taken as part of a double major. Majors in classical civilization may not elect a minor in the classical language that they use to satisfy their major requirements, although they may elect a minor in the other classical language. Students considering a major in classical civilization should consult the department as soon as possible.

## Classics Major, B.A.-Greek

## Core Requirements

- CLAS 391
- GREK 204 or 205
- Five additional courses in Greek above GREK 205 (CLAS 691H or 692 H may on petition to the department count towards this requirement)
- HIST 225 or a course numbered 400 or above in Greek history


## Additional Requirements

- GREK 101, 102, and 203

The goal of the concentration in Greek is the development of a basic command of the language and a solid knowledge of the literature, history, and culture of the Greeks. Students interested in an undergraduate major in Greek or in a combined major in Greek and Latin should consult the department by the second semester of the sophomore year. For Greek as satisfying the language requirement for the B.A. degree, see the section "General Education Requirements" in this bulletin.

## Classics Major, B.A.-Latin

## Core Requirements

- CLAS 391
- HIST 226 or a course numbered 400 or above in Roman history
- LATN 204 or 205
- Six additional courses in Latin above LATN 205 (CLAS 691H or 692 H may on petition to the department count towards this requirement)


## Additional Requirements

- LATN 101, 102, and 203

The goal of the concentration in Latin is the development of a basic command of the language and a solid knowledge of the literature, history, and culture of the Romans. Students interested in an undergraduate major in Latin or a combined major in Latin and Greek should consult the department by the second semester of the sophomore year. For Latin as satisfying the language requirement for the B.A. degree, see the section "General Education Requirements" in this bulletin.

## Classics Major, B.A.- <br> Combined Greek and Latin

## Core Requirements

- Greek emphasis: five Greek courses above GREK 205; three Latin courses above LATN 205; CLAS 391; and HIST 225 or 226
- Latin emphasis: five Latin courses above LATN 205; three Greek courses above GREK 205; CLAS 391; and HIST 225 or 226
- CLAS 691 H or 692 H may on petition to the department substitute for one course above 205 in either the Greek emphasis or the Latin emphasis.


## Additional Requirements

- GREK 101, 102, 203, and 204 or 205
- LATN 101, 102, 203, and 204 or 205

This is not a double major, but a concentration designed to develop facility in both ancient languages and in the literatures of both Greece and Rome. This program is recommended for students who have a strong interest in continuing classical languages at the graduate level. In this major students emphasize one language yet acquire facility in the other.

## Classical Humanities Minor

The undergraduate minor in classical humanities consists of five courses:

- CLAR 244 Greek Archaeology, 245 Archaeology of Italy, or 247 Roman Archaeology
- CLAS 121 The Greeks or 122 The Romans
- CLAS 131 Classical Mythology
- Two additional courses: any CLAR or CLAS course numbered above 132 or any GREK or LATN course not being used to fulfill the foreign language General Education requirement


## Greek Minor

The undergraduate minor in Greek consists of four courses in Greek, including GREK 204 or 205 and three courses numbered 221 or higher. The minor in Greek may not be used as an option for majors in classical archaeology or classical civilization who have chosen that language to fulfill degree requirements in that major.

## Latin Minor

The undergraduate minor in Latin consists of four courses in Latin numbered 221 or higher. The minor in Latin may not be used as an option for majors in classical archaeology or classical civilization who have chosen that language to fulfill degree requirements in that major.

## Advising

All majors and minors have a primary academic advisor in Steele Building. Students are strongly encouraged to meet regularly with their advisor and review their Tar Heel Tracker each semester. The department's director of undergraduate studies works with current and prospective majors by appointments (see "Contact Information" below). Departmental academic advising is particularly important for those majors who are considering
going on to graduate school. Further information on courses, undergraduate research opportunities, the honors program, careers, and graduate schools may be obtained from the department's Web site.

## Special Opportunities in Classics

## Honors in Classics

Classics majors wishing to take part in the departmental honors program during their senior year must have a grade point average of at least 3.3 at the beginning of their senior year and maintain an average no lower than this through their final semester in order to be eligible for honors consideration.

The program consists of two courses, CLAS 691 H and 692 H , taken sequentially in the fall and spring semesters. CLAS 691H involves a directed reading in Greek, Latin, or archaeology in a general area of the student's interest and is conducted under the supervision of a faculty member chosen by the student to serve as the honors advisor. Requirements of the course include the preparation of a thesis prospectus with accompanying bibliography and a preliminary oral examination by the student's thesis committee. A grade for CLAS 691 H is assigned on the basis of the total semester's work. CLAS 692 H entails the writing of the thesis under the direction of the honors advisor and a final oral defense before the candidate's committee. This body, in turn, reports its judgment to the department. If a degree with honors is to be awarded, a recommendation for either honors or, for particular merit, highest honors is made.

## Additional Opportunities

The Department of Classics supports a number of activities, including informal reading groups; the local chapter of Eta Sigma Phi, the national undergraduate classics honorary society; and annual oral performances and prize competitions in reciting and translating Greek and Latin texts. Several of the prize competitions involve substantial cash awards. Opportunities for undergraduate research include especially the senior honors thesis and participation in archaeological fieldwork as research assistants. The department encourages majors and minors to take part in summer archaeological field projects; there are current field projects directed or codirected by department faculty and associates at Azoria in Crete and at Huqoq and Omrit in Israel. Other opportunities for study abroad include the programs of the Intercollegiate Center for Classical Studies in Rome and the College Year in Athens, and the exchange with King's College London. There are a number of departmental fellowships and other funding opportunities that can help support participation in archaeological field projects and other research projects. Lastly, the Duke-UNC Consortium for Classical and Mediterranean Archaeology provides archaeology students access to coursework, seminars, excavations and other research opportunities, academic advising, and developing avenues for curricular and extracurricular interaction across both institutions. For further information about prizes and fellowships and opportunities for research and study abroad, see the departmental Web site at classics.unc.edu/academics/undergraduate-program-inclassics.

## Graduate School and Career Opportunities

The undergraduate curriculum prepares students for specialized graduate study in classical studies: classical philology, comparative literature, archaeology (prehistoric, classical, and Byzantine), medieval studies, philosophy, art history, ancient history, or linguistics. While many graduating students go on to graduate programs in the humanities and social sciences, others pursue careers in a wide range of fields, including law, medicine, business, archaeology, and secondary education. Students who wish to be certified to teach in public high schools should major in Latin and then apply for admission to the M.A.T. program in the School of Education. They also should discuss their plans with an adviser in the School of Education no later than their junior year.

## Faculty

## Professors

Robert Babcock, Donald C. Haggis, James J. O’Hara, William H. Race, James B. Rives, G. Kenneth Sams.

## Associate Professors

Emily Baragwanath, Sharon James.

## Assistant Professors

Janet Downie, Jennifer E. Gates-Foster, Luca Grillo.

## Professors Emeriti

Edwin L. Brown, Carolyn L. Connor, George W. Houston, George Kennedy, Jerzy Linderski, Sara Mack, Kenneth J. Reckford, Peter M. Smith, Philip A. Stadter, William C. West, Cecil W. Wooten.

## Contact Information

Donald Haggis, Director of Undergraduate Studies, CB\# 3145, 226 Murphey Hall, dchaggis@email.unc.edu.

## Courses

## CLAR-Classical Archaeology

CLAR 50 First-Year Seminar: Art in the Ancient City (3). The course offers a comparative perspective on the archaeology of ancient Egypt and Bronze Age Greece (3000-1100 BCE) exploring the public art produced by these two early Mediterranean societies: the Aegean Bronze Age palace centers of Crete and Mainland Greece and the territorial state of ancient Egypt.

CLAR 51 First-Year Seminar: Who Owns the Past? (3).
Archaeology is all about the past, but it is embedded in the politics and realities of the present day. This course introduce students to the ethical, moral, and political dimensions of archaeological sites and artifacts, especially in situations where the meaning and stewardship of ancient artifacts is under dispute.
CLAR 110 The Archaeology of Palestine in the New Testament Period (JWST 110, RELI 110) (3). See RELI 110 for description.

CLAR 120 Ancient Cities (3). An introduction to Mediterranean archaeology through the examination of archaeological sites from the Neolithic period (ca. 9000 BCE) to the Roman Empire (fourth century CE). The sites, geographic and cultural areas, and
chronological periods of study vary depending on instructor. Does not satisfy classical archaeology major requirements.

CLAR 241 Archaeology of Ancient Near East (3). A survey of the cultures of the ancient Near East, Mesopotamia, Anatolia (modern Turkey) and the Levant, from the first settled villages of the ninth millennium to the Persian conquest of Babylon in 539 BCE.

CLAR 242 Archaeology of Egypt (3). A survey of the archaeological remains of ancient Egypt, from the earliest settlements of the Neolithic period until the end of the New Kingdom.
CLAR 243 Minoans and Mycenaeans: The Archaeology of Bronze Age Greece (3). A survey of the material culture of Greece, the Cyclades, and Crete from the Paleolithic period (ca. 50,000 years ago) until the end of the Bronze Age (ca. 1200 BCE). Primary focus will be the urbanized palatial centers that emerged in mainland Greece (Mycenaean) and the island of Crete (Minoan).

CLAR 244 Greek Archaeology (3). The historical development of the art and architecture of Greece from the Bronze Age through the Hellenistic period.

CLAR 245 Archaeology of Italy (3). The historical development of the Italian peninsula as seen in its physical remains, with emphasis upon Etruscan and Roman sites.
CLAR 246 History of Early Christian and Byzantine Art (3). An introduction to the history of Christian art in Italy and the eastern Mediterranean from the time of Constantine (ca. 300) to the end of the Byzantine Empire (fall of Constantinople in 1453). Major monuments and art forms will be studied with an emphasis on their historical and cultural context.

CLAR 247 Roman Archaeology (3). This course explores the archaeology of the Roman world between the eighth century BCE and the fifth century CE, focusing on issues of urbanization, trade and consumption, colonization, and the Roman army.
CLAR 262 Art of Classical Greece (ARTH 262) (3). See ARTH 262 for description.

CLAR 263 Roman Art (ARTH 263) (3). The arts of Rome, particularly architecture, sculpture, and painting, preceded by a survey of Etruscan and Hellenic art and their influence on Rome.
CLAR 268 Hellenistic Art and Archaeology (350-31 BCE) (3). Survey of the archaeology of the Hellenistic Mediterranean from the time of Alexander the Great until the Roman conquest (350-31 BCE), with emphasis on art and architecture of cities and sanctuaries.

CLAR 375 Archaeology of Cult (RELI 375) (3). This course examines the archaeological context of Greek religion, cults, and associated rituals from the Bronze Age until the Hellenistic period with emphasis on urban, rural, and panhellenic sanctuaries, and methods of approaching ancient religion and analyzing cult practices.
CLAR 396 Independent Study in Classical Archaeology (3). Special readings and research in a selected field or topic under the direction of a faculty member. Permission of the instructor and the Director of Undergraduate Studies.

CLAR 411 Archaeological Field Methods (3). Systematic introduction to archaeological field methods, especially survey and excavation techniques.

CLAR 440 Problems in the History of Classical Ideas (3). Permission of the department.
CLAR 460 Greek Painting (ARTH 460) (3). See ARTH 460 for description.

CLAR 461 Archaic Greek Sculpture (ARTH 461) (3). See ARTH 461 for description.

CLAR 462 Classical Greek Sculpture (ARTH 462) (3). Permission of the instructor. A focused study of Greek sculpture during the classical period.

CLAR 463 Hellenistic Greek Sculpture (ARTH 463) (3). See ARTH 463 for description.

CLAR 464 Greek Architecture (ARTH 464) (3). Prerequisite, CLAR 244. Permission of the instructor for students lacking the prerequisite. A survey of Greek architectural development from the Dark Ages through the fourth century BCE. Special topics include the beginnings of monumental architecture, the development of the orders, and interpretations of individual architects in terms of style and proportions.

CLAR 465 Architecture of Etruria and Rome (ARTH 465) (3). Prerequisite, CLAR 245. Permission of the instructor for students lacking the prerequisite. The development of architecture in the Roman world from the ninth century BCE through the fourth century CE. The course focuses on the development of urbanism and the function, significance, and evolution of the main building types and their geographic distribution.
CLAR 470 History and Archaeology of Bathing (3). Crosscultural survey of the sociocultural and archaeological history of bathing from antiquity ( 500 BCE ) to today, including bathing customs, baths, bathing images, and toilets of different cultures around the world.

CLAR 474 Roman Sculpture (ARTH 474) (3). Survey of Roman sculpture ( $200 \mathrm{BCE}-300 \mathrm{CE}$ ), including portraiture, state reliefs, funerary monuments, and idealizing sculpture, with emphasis on style, iconography, and historical development of sculpture in its sociocultural, political, and religious contexts.

CLAR 475 Rome and the Western Provinces (3). Survey of the material remains of the western provinces of the Roman Empire, with attention to their historical context and significance.

CLAR 476 Roman Painting (ARTH 476) (3). Surveys Roman painting from 200 BCE to 300 CE , with emphasis on style, iconography, historical development of painting in its sociocultural, political, and religious contexts. Treats current debates in scholarship.

CLAR 488 The Archaeology of the Near East in the Iron Age (3). Prerequisite, CLAR 241. Permission of the instructor for students lacking the prerequisite. A survey of the principal sites, monuments, and art of the Iron Age Near East, ca. 1200 to 500 BCE.

CLAR 489 The Archaeology of Anatolia in the Bronze and Iron Ages (3). Prerequisite, CLAR 241. Permission of the instructor for students lacking the prerequisite. A survey of Anatolian archaeology from the third millennium through the sixth century BCE.
CLAR 491 The Archaeology of Early Greece (1200-500
BCE) (3). This course surveys the development of Greek material culture from 1200 to 500 BCE , exploring the origins of Greek art, architecture, cities, and sanctuaries in the Aegean and eastern Mediterranean.

CLAR 512 Ancient Synagogues (JWST 512, RELI 512) (3). See RELI 512 for description.

CLAR 561 Mosaics: The Art of Mosaic in Greece, Rome, and Byzantium (3). Required preparation, any course in classics, art history, or religious studies. Traces the development of mosaic technique from Greek antiquity through the Byzantine Middle Ages as revealed by archaeological investigations and closely analyzes how this dynamic medium conveyed meaning.

CLAR 650 Field School in Classical Archaeology (6). This course is an introduction to archaeological field methods and excavation techniques, through participation in archaeological excavation.

CLAR 683 Etruscan Art (ARTH 683) (3). Survey of the art, architecture, and archaeology of the Italian peninsula before the Roman Republic, focusing primarily on Villanovan and Etruscan material culture and its relationship to contemporary cultural influences and crosscurrents in the Mediterranean in the first millennium BCE .

## CLAS-Classics in English/Classical Civilization

CLAS 55 First-Year Seminar: Three Greek and Roman Epics
(3). This first-year seminar will involve a close reading of Homer's Iliad and Odyssey and Vergil's Aeneid, and as a transition from Homer to Vergil, students will also read the tragedies of Sophocles from fifth-century Athens.

## CLAS 56 First-Year Seminar: Women and Men in Euripides

 (3). What can be learned from Greek tragedy about human nature? This first-year seminar will serve, first of all, as an introduction to Euripidean drama in its cultural and historical setting in fifthcentury Athens.CLAS 58 First-Year Seminar: What's So Funny? Women and Comedy from Athens to Hollywood (3). This first-year seminar will consider what Greeks and Romans found funny, as well as how that humor translated (or not) into modern America. Students will write and present publicly a short comic play that represents the themes they identify and study in this seminar.

CLAS 60 First-Year Seminar: Love, War, Death, and Family Life in Classical Myth (3). This first-year seminar studies parentchild relations, gender dynamics, and conflict in mythic families. Students will study these mythic families, looking especially at parent-child relations, gender dynamics, and conflict; the seminar will ask what aspects of ancient culture are revealed by these legends and stories.

CLAS 61 First-Year Seminar: Writing the Past (3). Translated works of three Greek historians-Herodotus, Thucydides, and

Polybius-will provide a lens through which to explore the capacity for literature and other modes of representation to convey history.

CLAS 62 First-Year Seminar: Barbarians in Greek and Roman Culture (3). A study of Greek and Roman depictions of nonGreeks and non-Romans in both literary and visual sources, with consideration of their origin, development, and social roles.

CLAS 63 First-Year Seminar: The Politics of Persuasion in the Ancient and Modern Worlds (3). Are there rules for crafting a successful speech? The art and the mechanisms of persuasion will be considered both as a discipline with its own laws and practices and as a window into the values and debates that animate the public life of diverse civilizations.

## CLAS 64 First-Year Seminar: Cinema and the Ancient World

(3). In this first-year seminar, students will investigate what films set in classical Roman antiquity say about contemporary culture, and will also attempt to understand their impact on the shaping of our sense of history.

CLAS 65 First-Year Seminar: The City of Rome (3). This firstyear seminar is an introduction to the history and art of Rome from antiquity through the present. Students will survey the entire period, but will look in particular at four specific periods in the city's life from the early second century CE until the present day.

CLAS 71 First-Year Seminar: The Architecture of Empire
(3). The goal of the first-year seminar will be to examine the architecture of ancient empires, beginning with that of Egypt and ending with the Roman Empire. Analysis will be particularly concerned with the use of architecture as an instrument of empire.

CLAS 73 First-Year Seminar: Life in Ancient Pompeii (3). A study of this well-preserved ancient site provides an understanding of life in an Italian town during the early Roman empire. Students will study town planning, architecture, the arts, social organization, politics, entertainment, artisanry, commerce, and family life in this first-year seminar.

CLAS 89 First-Year Seminar: Special Topics (3). Special topics course; contents will vary each semester.

CLAS 111 Grammar (1). This course provides a systematic review of English grammar and style for students of Latin and Greek.

CLAS 121 The Greeks (3). Introduction to the history, literature, religion, philosophy, science, art, and architecture of Greece from Homer to Alexander the Great. Emphasis on primary sources.
CLAS 122 The Romans (3). A survey of Roman civilization from the beginning to the late empire, dealing with history, literature, archaeology, philosophy and religion, technology, the economy, and social and political institutions.

CLAS 123 Summer Study Abroad in Greece (3). Introduction to the history and culture of ancient Greece, from the Bronze Age to the end of the Roman period, through field study of historical and archaeological sites in Greece.

CLAS 125 Word Formation and Etymology (3). Systematic study of the formation of words from Greek or Latin to build vocabulary and recognition. For medical terminology see CLAS 126.

CLAS 126 Medical Word Formation and Etymology (3). Systematic study of the formation of medical terms from Greek and Latin roots, to build vocabulary and recognition. For general etymology see CLAS 125.

CLAS 131 Classical Mythology (3). An introduction to the mythology of the ancient Greek and Roman world. Readings may include selections from Homer, Hesiod, Greek tragedy, and Vergil.

CLAS 133H Epic and Tragedy (3). First-year honors students only. Study of classical epic and tragedy. Special emphasis on Homer's Iliad and Odyssey, and on the rethinking of Homeric epic in the tragedies of Aeschylus, Sophocles, and Euripides.

CLAS 231 The Theater in the Greek and Roman World (3). The physical setting and techniques of classical theater: tragedy, comedy, and other public spectacles in Greece and Rome.

## CLAS 240 Women in Greek Art and Literature (WMST 240)

(3). Course examines law, religion, medicine, social practices, and ideologies in the lives of women in ancient Greece, from Homer to Hellenistic Egypt, using literature, art, and epigraphy.

CLAS 241 Women in Ancient Rome (WMST 241) (3). Course examines the life of women in ancient Rome, from the first beginnings of the organized community in Rome through the early Empire, a period of about 900 years. Also explores aspects of the lives of women in provinces governed by Rome.
CLAS 242 Sex and Gender in Antiquity (WMST 242) (3). Exploration of gender constructs, what it meant to be a woman or a man, in antiquity, as revealed in literary, historical, and archaeological sources. Readings from Homer, Euripides, Plato, Ovid, Virgil, Juvenal, Petronius, and other ancient authors.

CLAS 253 The Age of Pericles (3). An introduction to classical civilization through study of its most important period in Greece. Attention to history, philosophy, and art. Lecture and discussion.
CLAS 254 Alexander and the Age of Hellenism (3). An introduction to classical civilization through study of the period in which it spreads beyond mainland Greece to influence and partially merge with the cultures of the Near East, Egypt, and Rome. Attention to history, literature, philosophy, and art. Lectures and discussion.

CLAS 257 The Age of Augustus (3). An introduction to classical civilization through study of the literature, history, and art of one of the most crucial periods in Roman history. Lectures and discussion.
CLAS 258 The Age of the Early Roman Empire (3). An introduction to the civilization of the Roman Empire through study of the literature, history, and archaeology of its most colorful period.

CLAS 259 Pagans and Christians in the Age of Constantine (3). Introduction to the literature and culture of the time of the Roman Emperor Constantine. Special attention to the fundamental cultural and social changes resulting from the Christianization of the Empire.
CLAS 263 Athletics in the Greek and Roman World (3). Study of athletics as a unifying force in ancient society, emphasizing the Olympic games and other religious festivals. Consideration of
athletic professionalism, propaganda, and social trends using literary and archaeological sources.

CLAS 265 Technology and Culture in the Roman Empire (3). A survey of the state of technology in Rome during the first three centuries CE . Consideration of the interrelationships of technology and government, art, economics, and the quality of life.

CLAS 361 Homer and the Heroic Age of Greece (3). The Iliad, the Odyssey, Hesiod, heroic and oral poetry. The archaeology of Homeric Greece, the study and influence of the Homeric poems in modern times.

CLAS 362 Greek Tragedy (3). An introduction to the three great tragedians of ancient Greece and to their historical and cultural context. Discussion is based on close readings of the English translations of selected plays by Aeschylus, Euripides, and Sophocles.

CLAS 363 Latin and Greek Lyric Poetry in Translation (3). Introduction to the lyric and elegiac poetry of antiquity in English translation, including Hesiod, Sappho, Catullus, Ovid, and Horace.

CLAS 364 The Classical Background of English Poetry (CMPL 364) (3). Study of classical writers' influence on selected genres of English poetry.
CLAS 391 Junior Seminar (3). Junior standing required. All departmental majors will jointly explore the history, archaeology, art, and literature of one or more geographical regions of the Mediterranean. Several oral and written reports; seminar format.

CLAS 396 Independent Study in Classical Studies (3). Students may suggest to the chair of the department topics for individual or group study. Advance arrangements required.

CLAS 409 Historical Literature Greek and Roman (3). The study in English translation of selections from Herodotus, Thucydides, Livy, Tacitus, and others, with consideration of their literary qualities and their readability as historians.

CLAS 415 Roman Law (3). Introduction to Roman law, public and private. On the basis of Roman texts in translation (or the original if desired), consideration of the principles of Roman constitutional law and the legal logic and social importance of Roman civil law.

CLAS 540 Problems in the History of Classical Ideas (3). Permission of the department.

CLAS 541 Problems in the History of Classical Ideas (3). Permission of the department.

CLAS 547 Approaches to Women in Antiquity (3). Permission of the instructor. Graduate students and senior classics majors. Intensive interdisciplinary introduction to women in antiquity, using literary, historical, and visual materials.
CLAS 691H Honors Course (3). Honors course for departmental majors in classical archaeology, classical civilization, Greek, and Latin.

CLAS 692H Honors Course (3). Honors course for departmental majors in classical archaeology, classical civilization, Greek, and Latin.

## GREK-Greek

GREK 101 Elementary Classical Greek I (4). Comprehensive coverage of basic grammar and syntax in two semesters, preparing students for reading Plato or Xenophon in GREK 203 (and with the instructor's permission, New Testament Greek in GREK 205).

GREK 102 Elementary Classical Greek II (4). Comprehensive coverage of basic grammar and syntax in two semesters, preparing students for reading Plato or Xenophon in GREK 203 (and with the instructor's permission, New Testament Greek in GREK 205).

GREK 121 Elementary Modern Greek I (4). Essential elements of the structure and vocabulary of modern Greek and aspects of Greek culture. Aural comprehension, speaking, reading, and writing are stressed in that order. Continues proficiency-based instruction, with emphasis on development and refinement of speaking, listening, reading, and writing skills including a review and continuation of grammar.

GREK 122 Elementary Modern Greek II (4). Continuation of GREK 121.

GREK 203 Intermediate Greek I (3). Prerequisites, GREK 101 and 102. Review of fundamentals; reading in selected classical texts, such as Xenophon, Plato, Euripides, or others.
GREK 204 Intermediate Greek II (3). Continuation of GREK 203.

GREK 205 Greek New Testament (3). Prerequisite, GREK 203.
GREK 221 Advanced Greek I (3). Substantial readings from Homer's Iliad or Odyssey, the remainder of the selected poems to be read in translation.

GREK 222 Advanced Greek II (3). Readings from one or more Greek tragedies.

GREK 351 Classical Greek Prose (3). Prerequisite, GREK 221.
Readings in Herodotus, Thucydides, Plato, or other authors. With permission of the department, this course may be repeated for credit.

GREK 352 Greek Poetry (3). Prerequisite, GREK 222. Readings in Sappho, Aeschylus, and other authors. With permission of the department, this course may be repeated for credit.

GREK 396 Special Readings in Greek Literature (3).
Prerequisite, GREK 222.
GREK 409 Greek New Testament (RELI 409) (3). See RELI 409 for description.
GREK 506 Greek Dialects (LING 506) (3). Permission of the instructor. Survey of the major dialects of Classical Greek and study of their derivation from Common Greek. Texts include both literary and epigraphical sources from the eighth century BCE to the Hellenistic period.

GREK 507 Greek Composition (3). Prerequisite, GREK 221.
GREK 508 Readings in Early Greek Poetry (3). Prerequisite, GREK 221 or 222.

GREK 509 Readings in Greek Literature of the Fifth Century (3). Prerequisite, GREK 221 or 222.

GREK 510 Readings in Greek Literature of the Fourth Century (3). Prerequisite, GREK 221 or 222.

GREK 540 Problems in the History of Classical Ideas (3). Permission of the department.
GREK 541 Problems in the History of Classical Ideas (3). Permission of the department.

## LATN-Latin

LATN 101 Elementary Latin I (4). The basic elements of Latin grammar, practice in reading and writing Latin, introduction to Roman civilization through a study of the language of the Romans.

LATN 102 Elementary Latin II (4). The basic elements of Latin grammar, practice in reading and writing Latin, introduction to Roman civilization through a study of the language of the Romans.

LATN 111 Accelerated Beginning Latin (4). Permission of the instructor. Taught in conjunction with LATN 601 in the fall and independently in the spring. Introduction to Latin grammar (the material covered in LATN 101 and 102). Students meet for a fourth session dedicated to Latin prose composition.

LATN 203 Intermediate Latin I (3). Review of fundamentals. Reading in selected texts such as Catullus, Ovid, Cicero, or others.

LATN 204 Intermediate Latin II (3). Review of fundamentals. Reading in selected texts such as Catullus, Ovid, Cicero, or others.

LATN 205 Medieval Latin (3). Prerequisite, LATN 203.
LATN 212 Accelerated Intermediate Latin (4). Prerequisite, LATN 102 or 111. Permission of the instructor. Taught in conjunction with LATN 602 in the spring. Review of Latin grammar, vocabulary building, and development of reading and translation skills. Students meet for a fourth session devoted to grammar, style, and poetics.

LATN 221 Vergil (3). Prerequisite, LATN 204. Systematic review of Latin grammar. Reading in Virgil's Aeneid, normally two books in Latin, and the remainder in translation. First-year and sophomore elective.
LATN 222 Cicero: The Man and His Times (3). Prerequisite, LATN 204. Careful reading of selected works of Cicero, exercises in Latin composition.

LATN 223 Ovid (3). Prerequisite, LATN 204. Systematic review of Latin grammar. Reading in Ovid's Metamorphoses, normally two books in Latin, and the remainder in translation. First-year and sophomore elective.
LATN 331 Roman Historians (3). Prerequisite, LATN 221. Readings in Caesar, Sallust, and/or Livy.

LATN 332 Roman Comedy (3). Prerequisite, LATN 221. Readings in Plautus and Terence, or both.

LATN 333 Lyric Poetry (3). Prerequisite, LATN 221. Readings in Catullus and Horace.

LATN 334 Augustan Poetry (3). Prerequisite, LATN 221. Readings in Ovid, Tibullus, Propertius, or other poets.

LATN 335 Roman Elegy (3). Prerequisite, LATN 221. Permission of the instructor for students lacking the prerequisite. This course
studies Ovid, Propertius, and Tibullus, focusing on themes such as love, male-female relations, politics, war, Roman culture, and poetry itself.
LATN 351 Lucretius (3). Prerequisite, LATN 221. Readings in Lucretius and related works.

LATN 352 Petronius and the Age of Nero (3). Prerequisite, LATN 221.

LATN 353 Satire (Horace and Juvenal) (3). Prerequisite, LATN 221.

LATN 354 Tacitus and Pliny's Letters (3). Prerequisite, LATN 221.

LATN 396 Special Readings in Latin Literature (3). Prerequisite, LATN 221. Permission of the instructor for students lacking the prerequisite.

LATN 510 Introductory Latin Composition (3). Prerequisite, LATN 222. Review of Latin grammar and idiom, exercises in composition, introduction to stylistics.
LATN 511 Readings in Latin Literature of the Republic (3). Prerequisite, LATN 221 or 222.

LATN 512 Readings in Latin Literature of the Augustan Age (3). Prerequisite, LATN 221 or 222.

LATN 513 Readings in Latin Literature of the Empire (3). Prerequisite, LATN 221 or 222.
LATN 514 Readings in Latin Literature of Later Antiquity (3). Prerequisite, LATN 221 or 222.

LATN 530 An Introduction to Medieval Latin (3). Prerequisite, LATN 221 or 222. Survey of medieval Latin literature from its beginnings through the high Middle Ages.
LATN 540 Problems in the History of Classical Ideas (3). Permission of the department.
LATN 541 Problems in the History of Classical Ideas (3). Permission of the department.

## Department of Communication Studies

comm.unc.edu
115 Bingham Hall, CB\# 3285; (919) 962-2311
KEN HILLIS, Chair

## Introduction

The study of communication is essential for participating in an increasingly complex and mediated global environment. Through its teaching, research, and service, the Department of Communication Studies addresses the many ways communication functions to create, sustain, and transform personal life, social relations, political institutions, economic organizations, and cultural and aesthetic conventions in society; promotes competencies required for various
modes of mediated and nonmediated communication; and develops skills for analyzing, interpreting, and critiquing communication problems and questions.

The programs of study offered by the department thus provide a firm foundation for enriched personal living, for professional effectiveness regardless of the specific career one may pursue, and for informed participation in the human community.

## Communication Studies Major, B.A.

## Core Requirements

- Three courses from the following with a grade of C or better in each: COMM 120, 140, 160, or 170
- Four COMM courses in a concentration
- Three COMM electives
- A minimum of 10 COMM courses, except for those students pursuing the new media option in the media and technology studies and production concentration described below
- Three COMM courses must be numbered 400 or higher.

A maximum of 15 COMM courses ( 45 hours) may be applied toward the B.A. degree.

Students are invited to work closely with faculty in courses and through independent study, cocurricular programs, and research projects. Many courses are also open to nonmajors whose personal and professional goals require an understanding of human communication (consult course descriptions for restrictions).

## Pre-Selected Concentrations in Communication Studies

Students should select one of the following concentrations and take a minimum of four courses within that concentration. Core courses do not count as one of the four required courses within the selected concentration. Additional courses that are not listed under any concentration may be used to meet major requirements.

- Interpersonal and Organizational Communication (COMM/ MNGT 120 is a prerequisite for most of the interpersonal and organizational communication courses; consult course descriptions): COMM 312, 390 (based on topic), 411, 422, 423, 490 (based on topic), 521, 523, 524, 525, 526, 527, 610, 620, 624, 625, 690 (based on topic); COMM/MNGT 223, 325; COMM/WMST 224
- Media and Technology Studies and Production (COMM 140 is a prerequisite for most of the media studies courses; consult course descriptions): ARTS/COMM 636; COMM 130, 142, 150, 230, $249,251,330,390$ (based on topic), 411, 412, 413, 431, 432, $450,452,453,454,490$ (based on topic), 534, 545, 546, 547, 548, 549, 550, 551, 635, 638, 645, 646, 647, 650, 652, 653, 654, 655, 681, 682, 683, 690 (based on topic); COMM/WMST 345, COMM 436/WMST 437. Please note that enrollment in advanced media and technology production classes is limited, and many production classes have prerequisites.
- New Media: Students wishing to pursue the new media option in the media and technology studies and production concentration should consult the departmental advisor. In addition to the preliminary core requirements (including COMM 140) above, students must take COMM 150 and COMP 110, as well as two approved courses from the Department of Computer Science (COMP) or the School
of Information and Library Science (INLS). The remaining three classes will be COMM classes above 400. Recommended COMM classes include ARTS/COMM 636; COMM 431, 490 (based on topic), 638, 646, 650, 654, 690 (based on topic). Recommended cross-disciplinary classes include COMP 180, 185, 380, 382, and 416; and INLS 151, 161, 201, 318, 560, and 572.
- Performance Studies (COMM 160 is a prerequisite for most of the performance studies courses; consult course descriptions): COMM 260, 262, 263, 364, 365, 390 (based on topic), 411, 435, 437, 463, 464, 466, 490 (based on topic), 532, 563, 564, 568, 660, 661, 662, 664, 665, 667, 668, 690 (based on topic), 695; COMM/DRAM 666; COMM 362/FOLK 565; COMM/ FOLK/HIST/WMST 562; COMM/WMST 561
- Rhetorical Studies (COMM 170 is a prerequisite for most of the rhetorical studies courses; consult course descriptions): COMM $171,312,371,372,374,390$ (based on topic), 470, 471, 472, 490 (based on topic), 500, 571, 572, 573, 575, 576, 577, 690 (based on topic); COMM/ENEC 375; COMM/PWAD 355, 376, 574


## Specialized Concentration in Communication Studies

Students may create their own concentrations by selecting at least four courses that constitute a coherent program of study. The courses selected in this concentration must be justified by the student and must be approved by the director of undergraduate studies.

## Interdisciplinary Studies Major, B.A.Cultural Studies

The cultural studies program is designed to give students the opportunity to create a rigorous, interdisciplinary/multidisciplinary program organized around a particular theme, question, problem, or interest (e.g., third world/ethnic studies, technology, science studies, theory, neoliberalism, labor, disability, popular culture, etc.), or to establish links across a range of classes that define a specific intellectual focus. Cultural studies offers a home to students united by questions of the complex, dynamic workings of culture in contexts of power.
The major is designed for undergraduate students who wish to combine the strengths of various departments and curricula in the College of Arts and Sciences. Students in the cultural studies program tend to be strongly motivated, self-disciplined, intellectually curious, and able to assume greater responsibility for their education. The program is distinguished by intensive advising, collaboration across disciplinary perspectives, and opportunities to extend learning beyond the space of the classroom. Students interested in cultural studies should meet with one of the directors of the program to explore their interests and choose an advisor.

## Core Requirements

- COMM 350 Practices of Cultural Studies
- Seven additional courses approved by a faculty advisor (appointed by director in consultation with student)
Students are strongly encouraged to take at least one course on matters of social/cultural difference/diversity such as ANTH 380, COMM 318, or RELI 323. Students are also strongly encouraged
to take at least one course on contemporary theory such as COMM 412.

Students are required to take classes in at least three departments. No more than four courses (12 hours) in the same department may count toward the major. A student should strengthen his or her course of study by choosing Approaches, Connections, and elective courses that complement courses in cultural studies.

Students with an overall grade point average of 3.3 or above and a grade point average of 3.3 or above in cultural studies courses are encouraged to undertake an honors thesis project during the senior year for a total of six credit hours (COMM 691H and 692H). These hours will be in addition to the 24 hours (eight courses) minimally required for the major.

For additional information, contact Larry Grossberg, docrock@ email.unc.edu, or Christian Lundberg, clundber@email.unc.edu, Cultural Studies Program, Department of Communication Studies, CB\# 3285, Bingham Hall.

## Writing for the Screen and Stage Minor

Writing for the screen and stage is an interdisciplinary program drawing upon the faculties and resources of the Department of Communication Studies, the Department of Dramatic Art, and the Creative Writing Program of the Department of English and Comparative Literature. The minor provides students from all disciplines the opportunity to focus on the craft of dramatic writing and is designed for those considering writing careers in theater, film, television, or the Web. Candidates must be first-year or sophomore students with a 2.4 grade point average or better to begin the minor and must have taken one of COMM 330, DRAM 231, ENGL 130 , or ENGL 132 H . The prerequisite may be waived with the approval of the director of the minor. An application is required for acceptance; please visit comm.unc.edu/undergraduate-studies/ writing-for-the-screen-and-stage-minor to review this process. Continued participation in the minor is based on the student's work and the recommendation of the program's instructors. Students must achieve a C grade or better in core requirements.

## Core Requirements

- COMM/DRAM 131 Writing for the Screen and Stage
- COMM 430 History of American Screenwriting
- COMM 433 Intermediate Screenwriting
- COMM 537 Master Screenwriting
- DRAM 120 Play Analysis

COMM/DRAM 131, COMM 433, and COMM 537 must be taken in consecutive semesters.

The following sequence of courses is recommended:

## Junior (or Sophomore) Year Fall Semester

- COMM/DRAM 131
- DRAM 120

Junior (or Sophomore) Year Spring Semester

- COMM 430
- COMM 433

Senior (or Junior) Year Fall Semester

- COMM 537

The following courses are recommended but are not required to
complete the minor:

- COMM 334 Writing the One-Hour TV Drama
- COMM 335 Film Story Analysis
- COMM 535 Introduction to Screen Adaptation
- DRAM 135 Acting for Nonmajors
- DRAM 331 Playwriting II

For additional information, contact Professor Dana Coen, Director, Writing for the Screen and Stage minor, Department of Communication Studies, CB\# 3285, 204 Swain Hall, rcoen@unc.edu.

## Advising

Department advising for the major in communication studies is conducted by 1) a full-time lecturer/advisor who holds office hours in Swain Hall and Steele Building (see the department's Web site for the advisor's office and office hours), 2) the director of undergraduate studies for the Department of Communication Studies (see the department's Web site for the director's office and office hours), and 3) representative faculty members.

## Special Opportunities in Communication Studies

## Honors in Communication Studies

The department participates in the University's Honors Program. Students eligible for the program (see University requirements) may consult with the departmental honors advisor about enrolling in COMM 693 H and 694 H , or COMM 691 H and 692 H for honors students in cultural studies. These courses can be used for elective credit in the major but not for satisfying core course or concentration requirements. Additional information can be found at comm.unc.edu/ undergraduate-studies/honors-thesis.

## Independent Study

Opportunity for independent study is available through enrollment in COMM 396 or 596. Interested students should consult a faculty advisor in the department. Please see comm.unc.edu/undergraduate-studies/independent-study for details.

## Internships

The department has an extensive internship program in mediarelated industries, business, public service, and other organizations. Internships allow students to explore the relationship between communication theory and its practice in everyday life. Credit can be obtained through consultation with the internship advisor and enrollment in COMM 393. More than 100 organizations have participated in the program. The department also offers the Hollywood Internship Program, a summer study and work opportunity for selected students interested in pursuing careers in the film industry. Note: Internship credit counts as elective hours and does not count toward the 30 credit hours required for the major. Information can be found at comm.unc.edu/undergraduate-studies/ internships.

## WUNC Radio and WUNC-TV

Limited opportunities exist for internships and employment with the public radio and television stations in Chapel Hill and in the Research Triangle Park.

## Performance Opportunities

Students are involved in adapting scripts, directing, and staging productions for the public. Additionally, students often appear in regular performances sponsored by graduate students in the Department of Communication Studies and in productions directed by faculty members.

## Student Television (STV)

STV is a student-run video production operation that provides hands-on opportunities in a variety of programming assignments.

## Study Abroad

Students may take coursework toward the major through the University's study abroad program. Departmental approval for major credit is required. The department also offers a London-based summer internship in media production and performance studies for qualified students.

## Undergraduate Awards

The department offers a number of awards for leadership and contributions to the field, in all areas of specialization. Awards are presented at a department ceremony in the spring semester.

## Facilities

The department has extensive media production and performance studies facilities located in Swain Hall and Bingham Hall. Swain Hall is home to state-of-the-art media production equipment, classroom space, and editing suites. It also houses Studio 6, where numerous live performances are staged. Bingham Hall contains the Martha Nell Hardy Performance Space.

## Graduate School and Career Opportunities

Upon completion of their degrees, students are prepared for graduate study and research in communication studies. Advanced study may be pursued in a problem-defined approach to communication research. A substantial number of graduate assistantships allow M.A.-through-Ph.D. and Ph.D.-only candidates to gain experience in research, teaching, production, and administration. Graduate study is characterized by intensive participation in seminars, original research and creative activities, and close work with individual faculty members. Students are also prepared for advanced study in related academic disciplines such as law.

The career outlook for students with degrees in communication studies is promising, and graduates enter a variety of professions that value communication knowledge and skills. Communication studies majors are prepared to serve as communication specialists in business; in federal, state, and local governments and agencies; and in public service. Some of the specific areas in which majors pursue careers are teaching, social advocacy, public relations and advertising, personnel management and training, management consulting, video and film production, and work with emerging technologies.

An understanding of communication provides a strong base for a range of career options. The mission of the department is to go beyond narrow technical training by providing a liberal arts approach to communication. This provides the student with maximum latitude for promotion and advancement and avoids
limited career opportunities resulting from narrow approaches to the field.

The burgeoning growth of communication industries and support fields provides a range of career opportunities. Graduates of the department, who number well over 4,000, are engaged in a variety of occupations ranging from work for international corporations to jobs at local nonprofit organizations.

## Faculty

## Professors

V. William Balthrop, Carole Blair, Cori Dauber, Paul Ferguson, Lawrence Grossberg, Madeline Grumet, Ken Hillis, Dennis K. Mumby, Della Pollock, Lawrence B. Rosenfeld, Francesca Talenti.

## Associate Professors

Richard Cante, Sarah Dempsey, Christian O. Lundberg, Steven K. May, Torin Monahan, Patricia Parker, Tony Perucci, Edward Rankus, Joyce Rudinsky, Sarah R. Sharma, Michael S. Waltman, Eric K. Watts.

## Assistant Professors

Renee Alexander Craft, Julia Haslett, Michael Palm, Kumi Silva, Katie Margavio Striley, Neal Thomas.

## Adjunct Professors

Jonathan Boyarin, Dana Coen, Arturo Escobar, Greg Flaxman, Jacquelyn Hall, Jordynn Jack, Mark Katz, Daniel Kreiss, Federico Luisetti, John McGowan, John Pickles, Jack M. Richman, Barry Saunders, Randall Styers.

## Lecturers

Kristin Hondros, Joseph Megel, Stephen Neigher.

## Professors Emeriti

Beverly Long Chapin, Robert Cox, Howard D. Doll, Gorham A. Kindem, James W. Pence Jr., Julia Wood.

## Contact Information

The Department of Communication Studies, CB\# 3285, 115
Bingham Hall, (919) 962-2311.

## Courses

## COMM-Communication Studies

COMM 51 First-Year Seminar: Organizing and
Communicating for Social Entrepreneurs (3). This course examines the historical and current development of social entrepreneurship as a field of study and practice, with particular attention to successful organizational communication strategies designed to solve community problems.

## COMM 53 First-Year Seminar: Collective Leadership

Models for Community Change (3). This course will explore communication models for collective leadership involving youth and adults in vulnerable communities. Partnering with local youthfocused organizations, students will work in teams to research and design community-based change projects.

COMM 57 First-Year Seminar: Is There Life after College? The Meaning of Work in Contemporary Life (3). Examines the historical emergence of work as a defining feature of contemporary life. The course asks, What is a "career"? How have neoliberalism and post-Fordism influenced understandings of work and career? How have changing conceptions of work influenced other aspects of life, including family, leisure, consumption, and self-identity?
COMM 61 First-Year Seminar: The Politics of Performance (3). In this course students will explore the possibilities of making political performances, or making performances political. We will be particularly concerned with how performance may contribute to processes of social change.

COMM 62 First-Year Seminar: African American Literature and Performance (3). This course examines the question of what characterizes "Blackness" as it manifests through experience, history, and symbol in the United States, as well as the impact of African practices and identities upon blackness in the United States. The course is concerned with what has been termed the "black literary imagination."

## COMM 63 First-Year Seminar: The Creative Process in

 Performance (3). Students will be engaged with multimedia, music, dance, and theater performances. We will explore the creative processes and cultural contexts of these performances and will compare the arts as a way of knowing the world to the creative processes of academic scholarship.
## COMM 70 First-Year Seminar: Southern Writing in

Performance (3). A performance-centered seminar focusing on the works of North Carolina writers, especially those who write fiction and poetry, and on researching, discussing, adapting, and performing that content.
COMM 73 First-Year Seminar: Understanding Place through Rhetoric (3). This seminar explores how we come to understand what places are and how they are meaningful. We will look at places "rhetorically": how they were designed to persuade those who inhabit them, how we actually experience them, and how we make sense of them in our individual lives.

## COMM 82 First-Year Seminar: Globalizing Organizations

(3). In this course, we explore the communication issues that arise within international contexts. Through the analysis of readings and films, we will delve into the contentious debates surrounding globalization and explore the ethical and social issues that arise within global forms of communicating and organizing.

COMM 85 First-Year Seminar: Think, Speak, Argue (3). This is a course in learning to think more critically, speak more persuasively, and argue more effectively by focusing on practical skill development in reasoning and debate.

COMM 86 First-Year Seminar: Surveillance and Society (3). How are surveillance technologies altering social life? This course will explore this question by mapping the complex ways that technologies and societies interact to produce security, fear, control, vulnerability, and/or empowerment.

COMM 89 First-Year Seminar: Special Topics (3). Special topics course. Content will vary each semester.

COMM 100 Communication and Social Process (3). Addresses the many ways our communication-including language, discourse, performance, and media-reflects, creates, sustains, and transforms prevailing social and cultural practices.
COMM 113 Public Speaking (3). Theory and extensive practice in various types of speaking.
COMM 120 Introduction to Interpersonal and Organizational Communication (MNGT 120) (3). An introduction to communication theory, research, and practice in a variety of interpersonal and organizational contexts. This course examines the role of communication in both personal and professional relationships.

COMM 130 Introduction to Media Production (3). Permission of the instructor for nonmajors. Prerequisite for all production courses. Introduces students to basic tools, techniques, and conventions of production in audio, video, and film.

COMM 131 Writing for the Screen and Stage (DRAM 131)
(3). Restricted course. Dramatic writing workshop open only to students in the writing for the screen and stage minor.

COMM 140 Introduction to Media History, Theory, and Criticism (3). An introduction to the critical analysis of film, television, advertising, video, and new media texts, contexts, and audiences.

COMM 142 Popular Music (3). Prerequisite, COMM 140. This class explores the historical, social, political, and cultural significances of popular music as a communicative practice in the United States from 1950 to the present.

COMM 150 Introduction to New Media (3). An introduction to the design, aesthetics, and analysis of various forms of digital media. Hands-on experience with different modes of creation, including graphics, Web-based communication, and social media.
COMM 160 Introduction to Performance Studies (3). As the introductory course in performance studies, students will explore and experiment with performance as ritual, performance in everyday life, and the performance of literature.

COMM 170 Rhetoric and Public Issues (3). Examines the basic nature and importance of rhetoric and argumentation. Attention is devoted to interpreting the persuasive function of texts and their relation to modern forms of life.

COMM 171 Argumentation and Debate (3). Analysis of issues, use of evidence, reasoning, brief making, and refutation. Argumentative speeches and debates on legal cases and on current issues. Designed for prospective law students, public policy students, speech teachers, and college debaters.

COMM 223 Small Group Communication (MNGT 223) (3). Prerequisite, COMM 120. Permission of the instructor for nonmajors. Introduction to the theory and practice of communication in the small group setting. Topics may include group development, conformity and deviation, gender, problem solving, and power and leadership.
COMM 224 Introduction to Gender and Communication (WMST 224) (3). Examines multiple relationships among gender,
communication and culture. Explores how communication creates gender and shapes relationships and how communication reflects, sustains, and alters cultural views of gender.

COMM 230 Audio/Video/Film Production and Writing (3). Prerequisites, COMM 130 and 140. Grade of C or better in COMM 130. Permission of the instructor for students lacking the prerequisites. The material, processes, and procedures of audio, video, and film production; emphasis on the control of those elements of convention that define form in the appropriate medium. Lecture and laboratory hours.

COMM 249 Introduction to Communication Technology, Culture, and Society (3). Historical exploration of the sociocultural import of communication technologies, from the introduction of the telegraph in the mid-1800s through current implications of the Internet and various digital devices.

COMM 251 Introduction to American Film and Culture, 1965-Present (3). An introduction to some key connections between American film history and cultural history since 1965, most of which remain backbones of United States film culture to this day.

COMM 260 Introduction to Performance and Social Change (3). This course addresses the relationship between performance and power, focusing on topics concerned with the potential for performance to contribute to social change.

COMM 262 Introduction to Performance and Culture (3). Introduces students to performance as a way of studying culture in all of its creative, dynamic forms, including family stories, joking, rituals, and practices of everyday life. The course emphasizes field methods and experiential research.

COMM 263 Introduction to the Study of Literature in Performance (3). Study of a variety of literary texts (lyric, epic, dramatic) through the medium of performance.

COMM 312 Persuasion (3). Prerequisite, COMM 120.
Permission of the instructor for nonmajors. Examines contemporary theory and practice of influencing others' attitudes, beliefs, and actions. Focuses particularly on analyzing and developing persuasive messages.

COMM 318 Cultural Diversity (3). Introduction to basic paradigms of thinking about cultural difference, encouraging students to examine how these paradigms shape how we think, act, and imagine ourselves/others as members of diverse cultures.

COMM 325 Introduction to Organizational Communication (MNGT 325) (3). Prerequisite, COMM 120. Permission of the instructor for nonmajors. The course explores the historical and theoretical developments in the research and practice of organizational communication.

COMM 330 Introduction to Writing for Film and Television (3). An introduction to screenwriting for film and television.

COMM 331 Writing the Short Film (3). Students practice and learn the craft of narrative, short film writing by conceptualizing, outlining, writing, and rewriting three short film scripts. They include one three-minute silent, one five-minute script with dialogue, and one 15 -minute script with dialogue.

COMM 333 Writing the Feature Film (3). Prerequisite, COMM 330. Students complete the feature-length screenplay started in COMM 330 by finishing and rewriting it in a workshop setting. All students must have already completed an outline and the first 15 to 17 pages of their work.

COMM 334 Writing the One-Hour TV Drama (3). Prerequisite, COMM 330. Students in this class will live the life of a writing staff on a just-picked-up, fictional, one-hour television series. As if on a real series, they will individually and cooperatively create story ideas, treatments, and outlines, as well as write scenes, acts, and entire scripts.

COMM 335 Film Story Analysis (3). A variety of feature films (both domestic and foreign) are screened in class and analyzed from a storytelling perspective. Emphasis is on the range of possibilities the screenwriter and film director face in the process of managing the audience's emotional involvement in a story.
COMM 345 Women in Film (WMST 345) (3). See WMST 345 for description.

COMM 350 Practices of Cultural Studies (3). Introduces students to the history, methods, and central intellectual questions of cultural studies.

COMM 355 Terrorism and Political Violence (PWAD 355) (3). This course is a multidisciplinary analysis of the phenomena of terrorism and political violence, their history, causes, the threat they pose, and what steps the United States can take in response.

COMM 362 Ritual, Theatre, and Performance Art (FOLK 565) (3). Prerequisite, COMM 160. Permission of the instructor for students lacking the prerequisite. Explores how each of these forms of performance communicates meaning and feeling and points to possibility. Students develop performances in each mode, informed by readings in anthropology and directing theory.

COMM 364 Production Practices (3). This course introduces students to the process of creating and producing technical aspects for live performance. Students engage in all practical and artistic aspects of production. Course includes a laboratory requirement.

COMM 365 The Constructed Actor: Masks and Objects in Performance (3). Prerequisite, COMM 160; DRAM 135, 145, or 150; EXSS 191; or PHYA 224. This course provides a performancebased instruction in the development of mask, puppet, and performing object skills.

COMM 371 Argumentation (3). This course examines the theory and practice of argument and deliberation in communication studies, drawing from resources in rhetorical studies, informal logic, and argumentation. Intended for prelaw, public policy, and other students interested in argumentation.

COMM 372 The Rhetoric of Social Movements (3). Explores the discourse of dissident voices in American society, particularly as they speak about grievances pertaining to race, gender, the environment; focuses on rhetorical strategies that initiate and sustain social movements.

COMM 374 The Southern Experience in Rhetoric (3). Examines recurrent themes in the rhetoric of significant Southerners and important campaigns. Considers both the rhetoric of the establishment and the rhetoric of change.

COMM 375 Environmental Advocacy (ENEC 375) (3).
Explores rhetorical means of citizen influence of practices affecting our natural and human environment; also, study of communication processes and dilemmas of redress of environmental grievances in communities and workplace.
COMM 376 The Rhetoric of War and Peace (PWAD 376) (3). Explores philosophical assumptions and social values expressed by advocates of war and peace through a critical examination of such rhetorical acts as speeches, essays, film, literature, and song.

COMM 390 Special Topics in Communication Study (3). A special topics course on a selected aspect of communication studies.

COMM 393 Internships (1-3). Permission of the department. Majors only. 2.5 cumulative grade point average required.
Individualized study closely supervised by a faculty advisor and by the departmental coordinator of internships. Cannot count toward the COMM major.

COMM 396 Independent Study and Directed Research (1-3). Permission of the department. Majors only. 3.0 cumulative grade point average and 3.5 communication studies grade point average required. For communication studies majors who wish to pursue independent research projects or reading programs under the supervision of a selected instructor. Intensive individual research on a problem designed by instructor and student in conference.
COMM 411 Critical Perspectives (3). This course explores theories of criticism and symbolic action through readings, lecture, and practical criticism of literature, media, discourse, and other symbolic acts.
COMM 412 Critical Theory (3). Overview of those realms of modern and contemporary thought and writing that are known as, and closely associated with, "critical theory."

COMM 413 Freud (3). Examination of Freudian thought within and across historical contexts, with special attention to the centrality of gender and sexuality in the operations of the "human organism."

COMM 422 Family Communication (3). Prerequisite, COMM 120. Growth in technologies, more frequent travel, and movements of products and people across the borders of nation-states change concepts of family and community. Foregrounded by these realities, this course combines theories of family and communication with documentation of lived experience to interrogate family communication patterns in contemporary culture.

COMM 423 Critical Perspectives on Work, Labor, and Professional Life (3). This upper-level seminar develops a critical perspective on work, labor, and professional life within the global context. Throughout, we will engage in moral and philosophical debates about the status of labor and the meanings of work in our daily lives.

COMM 430 History of American Screenwriting (3). This viewing and research-intensive course examines the history of American narrative film through the screenwriter's experience, using a decade-by-decade approach to examine the political, social, global, psychological, religious, and cultural influences on the art, process, and careers of screenwriters.

COMM 431 Advanced Audio Production (3). Prerequisite,

COMM 130 or 150 . Grade of C or better in COMM 130.
Permission of the instructor for students lacking the prerequisite. Advanced analysis and application of the principles and methods of audio production.

COMM 432 Visual Culture (3). Prerequisite, COMM 140. Permission of the instructor for students lacking the prerequisite. Course provides an overview of theories of visual culture. We apply these theories to better understand contemporary visual media and technologies, along with the everyday media practices they support.

COMM 433 Intermediate Scriptwriting (3). Prerequisite, COMM 131. Open only to students in the writing for the screen and stage minor. Conceiving and outlining a feature length screenplay.

COMM 435 Memory Acts (3). Advanced introduction to foundational work in memory and performance studies, emphasizing theory and practice of various forms of remembering.

## COMM 436 Gender, Science Fiction, and Film (WMST 437)

(3). See WMST 437 for description.

## COMM 437 United States Black Culture and Performance

(3). Prerequisite, COMM 160. Examines how the United States Black experience is constituted in and through performance across a range of cultural contexts including the antebellum South, Reconstruction, the Harlem Renaissance, the Black Aesthetic, and contemporary urban life.
COMM 450 Media and Popular Culture (3). Prerequisite, COMM 140. Permission of the instructor for nonmajors. Examination of communication processes and cultural significance of film, television, and other electronic media.

COMM 452 Film Noir (3). Prerequisite, COMM 140. Permission of the instructor for nonmajors. Course combines reading about and viewing of 1940 s and 1950 s films combining narrative techniques of storytelling, novels, and the stage with purely filmic uses of spectacle, light, editing, and image.

## COMM 453 The History of New Media Technology in

Everyday Life (3). Prerequisite, COMM 140. The starting point for this course, chronologically and conceptually, is the emergence of popular media technology. Our purview includes transformative innovations in mediated communication, such as telephony and email, alongside familiar media technologies such as televisions and computers.

COMM 454 Media and Activism (3). A study of the electronic media as a feedback mechanism for community organization and social change. A variety of broadcast and nonbroadcast uses of the media are studied.

COMM 463 Creating the Solo Performance (3). Prerequisite, COMM 160, DRAM 120, or ENGL 206, 207, or 208. Permission of the instructor for students lacking the prerequisite. This course examines processes of creating and performing solo work. Students engage a variety of performances: autobiographical, representation of the lives of other/s, and exploration of cultural or political ideas.
COMM 464 Performance Composition (3). Theory and practice of collaborative performance, emphasizing image, intertextual adaptation, site-specific and installation work, avant-garde
traditions, and the play of time and space.
COMM 466 Advanced Study of Literature in Performance (3). Prerequisite, COMM 160. This course engages the theory and embodiment of prose fiction, poetry, and other kinds of literary texts, including nonfiction. Students practice adaptation and script preparation, solo/group performance, and performance critique.

COMM 470 Political Communication and the Public Sphere (3). A course covering the relationship between communication and political processes and institutions. Topics include media coverage and portrayal of political institutions, elections, actors, and media influence on political beliefs.

COMM 471 Rhetorics of Public Memory (3). Takes up the fundamental assumptions of contemporary memory studies and the centrality of rhetoric to memory. Research focus on how constructions of the past respond to the present and the future.

COMM 472 Rhetorical Criticism (3). Prerequisite, COMM 170. Approaches to the analysis and assessment of rhetorical practice with a focus on how rhetoric reflects and shapes public culture.

COMM 490 Topics in Communication Studies (3). Permission of the instructor for nonmajors. A special topics course on a selected aspect of communication studies.
COMM 493 Production and Practice (3). Prerequisite, COMM 230. Permission of the instructor for students lacking the prerequisite. Course serves as a "production house" for projects that serve the UNC and broader communities. Students will serve on professionally run crews, spend two weeks determining what the projects will be, and devote the remainder of the semester making the projects.

COMM 500 Visual and Material Rhetoric (3). Prerequisite, COMM 170. This course explores the use of rhetorical criticism as a way to understand how the visual and material are used for symbolic and political purposes. Examples ranging from news images to public art will be studied.

COMM 521 Communication and Social Memory (3).
Permission of the instructor for nonmajors. An investigation of psychological aspects of communication, particularly the perceptual and interpretive processes underlying the sending and receiving of messages.

COMM 523 Communication and Leadership (3). Prerequisite, COMM 120. Permission of the instructor for nonmajors. Critical examination of alternative theories of leadership and trends in the study of leadership; focuses on the communicative dimensions of leadership.

COMM 524 Gender, Communication, and Culture (3). Prerequisites, COMM 224 and 372. Permission of the instructor for nonmajors. Course examines the speeches and other texts that announced and embodied the goals and political strategies of multiple branches of three waves of feminist activism in the United States.

COMM 525 Organizational Communication (3). Prerequisites, COMM 120 and 325. Permission of the instructor for nonmajors. Provides a critical exploration of organizational communication theory, research, and application, examining the factors involved in
the functioning and analysis of complex organizations.
COMM 526 Critical-Cultural Approaches to Organizational Communication (3). Prerequisite, COMM 325. Permission of instructor for students lacking the prerequisite. The study of organizational culture operates on a set of assumptions distinct from traditional management perspectives. This course explores the cultural perspective as an alternative approach to understanding organizational communication processes.

COMM 527 Organizational Ethics (3). Prerequisite, COMM 325. A critical examination of the theory, research, and practice of organizational ethics.

COMM 532 Performing the Screenplay (3). Introduces students to approaches for creating performance from screenplays and other texts for electronic media forms, focusing on scripts as literature and the tensions between live and electronically delivered performances.

COMM 534 Aesthetic and Technical Considerations in Making Short Videos (3). Prerequisite, COMM 230. The course examines the aesthetic and technical elements at work and play in cinematic storytelling. The student is required to complete three projects and will gain hands-on experience in narrative filmmaking.

COMM 535 Introduction to Screen Adaptation (3).
Prerequisite, COMM 131, 330, ENGL 130, or 132H. Students practice the craft of screen adaptation by conceptualizing, outlining, and writing scenes based on material from another medium (both fiction and nonfiction). Work is presented, discussed, and performed in a workshop environment.

COMM 537 Master Screenwriting (3). Prerequisite, COMM 433. Open only to students in the writing for the screen and stage minor. Students will write and workshop a full-length feature film screenplay. In addition, students will learn about the film and television business through a combination of research, in-class discussions, and live interactive interviews with industry insiders.

COMM 545 Pornography and Culture (3). Examines the social, cultural, political, legal, historical, and aesthetic implications of pornography.

COMM 546 History of Film I, 1895 to 1945 (3). Prerequisite, COMM 140. Studies the development of the art of film through World War II by examining individual films and filmmakers and the emergence of national cinemas through interaction among aesthetic, social, economic, and technological factors.

COMM 547 History of Film II, 1945 to Present (3). Prerequisite, COMM 140. Study of the development of the art of film from the end of World War II to the present day by examining individual films and filmmakers and the emergence of national cinemas through interaction among aesthetic, social, economic, and technological factors.

COMM 548 Humor and Culture (3). Prerequisite, COMM 140. Permission of the instructor for nonmajors. Investigates how humor, comedy, and laughter function socially and culturally through close examination of selected United States popular media texts and the primary modern theoretical writings on these issues.

COMM 549 Sexuality and Visual Culture (3). Examines
questions about sexuality and how it has changed over time, through various media of visual communication.

COMM 550 American Independent Cinema (3). Prerequisite, ARTH 159, COMM 140, or ENGL 142. Permission of the instructor for students lacking the prerequisite. Intensive investigation of some particularly influential strains for United States independent narrative cinema, with a focus on sociocultural contexts and the fuzziness of the word "independent."

COMM 551 Hitchcock and the Sign (3). Prerequisite, ARTH 159, COMM 140, or ENGL 142. Permission of the instructor for students lacking the prerequisite. Course gives Alfred Hitchcock's cinema careful attention while tracking longstanding debates about signification and reference from philosophy, semiotics, literary theory, narratology, and visuality into recent critical and cultural theory.
COMM 561 Performance of Women of Color (WMST 561) (3). Prerequisite, COMM 160. Explores through performance contemporary poetry, fiction, nonfiction, and feminist thought by women of color in the United States.

COMM 562 Oral History and Performance (FOLK 562, HIST 562, WMST 562) (3). This course combines readings and field work in oral history with study of performance as a means of interpreting and conveying oral history texts.
COMM 563 Performance of Children's Literature (3). Prerequisite, COMM 160. Permission of the instructor for students lacking the prerequisite. The course explores advanced performance theory while focusing exclusively on contemporary poetry, prose fiction, and drama intended for young audiences. Both solo and group performances for young viewers are included.

COMM 564 Performance and Popular Culture (3). Prerequisite, COMM 160. Critical examination of the operation of performance as a cultural phenomenon, with an emphasis on meaning, power, and resistance in cultural events, social practices, and media spectacles.
COMM 568 Adapting and Directing for the Stage (3). Prerequisite, COMM 160. This course introduces students to practices in adapting and directing literary texts for live ensemble performance. Students will create original performance work, engage in collaborative critique, and discuss the development of aesthetic value.

COMM 571 Rhetorical Theory and Practice (3). Prerequisite, COMM 170. Investigates the theoretical definitions and uses of rhetorical interpretation and action in spoken, written, visual, material practices, discourses, and events.
COMM 572 Public Policy Argument (3). Prerequisite, COMM 170. Analyzes argument in a variety of contexts with an emphasis on public policy and exploring tensions involved in addressing both expert and public audience in the political sphere.

COMM 573 The American Experience in Rhetoric (3).
Prerequisite, COMM 170. Examines public discourse from the colonial period to the present. Discourses, critical perspectives, and historical periods studied will vary.
COMM 574 War and Culture (PWAD 574) (3). Examines

American cultural myths about war generally and specifically about the causes of war, enemies, weapons, and warriors, and the way these myths constrain foreign and defense policy, military strategy, and procurement.

COMM 575 Presidential Rhetoric (3). Prerequisite, COMM 170 . The power of the presidency depends in part upon the president's ability to rally public opinion, which depends upon the president's ability to use the "bully pulpit." This course examines the hurdles presidents face and the steps presidents take to shape opinion.

COMM 576 Making and Manipulating "Race" in the United
States (3). This course will examine how tropes of "race" are symbolically invented and experienced psychologically and emotionally. This course assesses how "race" reflects and shapes cultural politics.
COMM 577 Rhetoric and Black Culture (3). This course will explore the complex ways in which Black aesthetic forms and creative expression function as public discourse.

## COMM 596 Advanced Independent Study/Directed Reading

(1-3). Permission of the department. Majors only. 3.0 cumulative grade point average and 3.5 communication studies grade point average required. For the communication studies major who wishes to pursue an advanced independent research project under the supervision of a selected instructor. Intensive individual research on a problem designed by instructor and student in conference.
COMM 610 Reading Quantitative Research in Communication Studies (3). Permission of the instructor for nonmajors. Review of the basics of quantitative research (e.g., scientific method, modes of data collection, instrument development, data analysis techniques) with the goal of gaining skill in reading published articles in communication studies journals.

## COMM 620 Theories of Interpersonal Communication

(3). Prerequisite, COMM 120. Permission of the instructor for nonmajors. Course focuses on how communication is used to build and sustain interpersonal relationships. Forms and functions of communication are examined as a means of testing and defining relationships.
COMM 624 Hate Speech (3). The primary focus of hate speech is on the ways that interactants manipulate hatred to accomplish a variety of social and personal goals. The pursuit of this focus will allow the student to appreciate the operation of hatred in a variety of contexts. Often taught as a service-learning course.

## COMM 625 Communication and Nonprofits in the Global

Context (3). Introduces students to the opportunities, challenges, and rewards of participation within the nonprofit/NGO sector. The course also equips students with the skills needed to design and conduct engaged scholarship.
COMM 635 Documentary Production (3). Prerequisite, COMM 230. A workshop in the production of video and/or film nonfiction or documentary projects. The course will focus on narrative, representational, and aesthetic strategies of documentary production.

COMM 636 Interactive Media (ARTS 636) (3). Explores interactive media through creative projects that include sound, video, and graphic elements. Technical information will serve the broader goal of understanding the aesthetics and critical issues of interactive media.

COMM 638 Game Design (3). Prerequisite, COMM 150. Permission of the instructor for nonmajors. Studio course that explores gaming critically and aesthetically. Practice in game design and production including three-dimensional worlds and scripting.

COMM 642 Special Topics in Cultural Studies (3). Prerequisite, COMM 350. Permission of the instructor for nonmajors. This course will explore various specific topics, theories, and methodologies in cultural studies.

COMM 645 The Documentary Idea (3). Prerequisite, COMM 140. Permission of the instructor for nonmajors. Historical and theoretical examination of expressions of the documentary idea in different eras and various modes including film, television, and radio.

COMM 646 Introduction to the Art and Mechanics of TwoDimensional Digital Animation (3). Prerequisite, COMM 130 or 150 with a grade of C or better. Students use Adobe After Effects and Adobe Photoshop as their primary image software to create several original animations. Assignments are given weekly, and a substantial final project is expected.

COMM 647 Advanced Projects in Media Production (3). Prerequisites, COMM 230 and one of COMM 534, 635, 646, 653 , or 654 . Recommended preparation, several production courses above COMM 230. Course provides a structured environment, instructor and peer feedback, along with production and postproduction resources for completing an advanced near-tograduation media project. Projects can be narrative, documentary, experimental, or interactive.

COMM 650 Cultural Politics of Global Media Culture (3). Prerequisite, COMM 140. Permission of the instructor for students lacking the prerequisite. Primary subjects will be popular culture and media technology, and guiding questions will be organized around the relationships of each to commerce and/as social change.
COMM 652 Media and Difference (3). Prerequisite, COMM 140. Permission of the instructor for nonmajors. This course examines critical and theoretical issues concerning the representation and study of various modes of difference, such as sexuality, race, and gender, in specific media texts.

COMM 653 Experimental Video (3). Prerequisite, COMM 230. Permission of the instructor for students lacking the prerequisite. This course allows students to create video productions that play with forms that lie outside of mainstream media.

## COMM 654 Motion Graphics, Special Effects, and

 Compositing (3). Prerequisite, COMM 130 with a grade of C or better, or COMM 150. Permission of the instructor for students lacking the prerequisite. In this course students learn a wide range of video postproduction techniques working mostly with the application After Effects.COMM 655 Television Culture (3). Prerequisite, COMM 140. This course introduces students to critical television studies. The course emphasizes not television or culture as separate entities but instead "Television Culture." The focus of the class is on the interrelationship between television and contemporary culture.

COMM 660 Advanced Projects in Performance Studies (3). Prerequisite, COMM 160. Course provides a workshop setting for the process of creation, dramaturgy, development, analysis, and critique of graduates' and undergraduates' original performance work, focusing on the needs of each project in progress.

COMM 661 Race and Ethnicity (3). Prerequisite, COMM 160. Examines race and ethnicity in specific geopolitical contexts as discursive formations, performative identities, and lived realities. Studies disciplinary/political boundaries that are produced and maintained through acts of performance.

COMM 662 Black/African Diaspora Performance (3). Recommended preparation, COMM 160. Relying on critical race theories, colonial and postcolonial theories, and theories of performance, this course engages comparative discourses of Black/ African diaspora citizenship through the literature, poetry, fiction, nonfiction, drama, and cultural performances of people of African descent, particularly in Africa, Europe, and the Americas.

COMM 664 Paranoia in Performance (3). Prerequisite, COMM 160 or 464. The study of "paranoia" as a form of discourse and practice of resistance through the study of fiction, critical texts, film, and contemporary United States history. Course focuses on the creation of original, collectively-devised performance work as a means of engaging with course materials.

COMM 665 Performing Consumer Culture (3). Prerequisite, COMM 160. Course addresses the operation of corporate power and consumer practices as political and cultural performances, and performance as a means of pursuing social and economic justice.

COMM 666 Media in Performance (DRAM 666) (3). See DRAM 666 for description.
COMM 667 Performance Activism (3). Prerequisite, COMM 160 or 260 . History and practice of performance in contemporary social movements. Practical exploration of direct action, guerilla theatre, and performance interventions.

COMM 668 The Ethnographic Return (3). This course explores the intersection of ethnographic theory/practice and discourses of sustainable community change with the aim of making appropriate and effective contributions to community development.

COMM 681 Contemporary Film Theory (3). Prerequisite, ARTH 159, COMM 140, or ENGL 142. Permission of the instructor for students lacking the prerequisite. Overview of poststructuralist, or "contemporary" film theory. Traces its development, its techniques, fierce critiques lobbed at it since the early 1980s, and its points of continuing importance.

COMM 682 History of the Moving Image: Pasts, Presents,
Futures (3). Prerequisite, ARTH 159, COMM 140, or
ENGL 142. Permission of the instructor for students lacking the prerequisite. Theories of moving images and imaging
technologies-from the primitive to the not-yet-existing-that focus on their multifaceted relations with various registers of time, memory, flux, and futurity.

COMM 683 Moving-Image Avant-Gardes and Experimentalism (3). Prerequisite, ARTH 159, COMM 140, or ENGL 142. Permission of the instructor for students lacking the prerequisite. History and theory of international avant-garde and experimentalist movements in film, video, intermedia, multimedia, and digital formats. Content and focus may vary from semester to semester.

COMM 690 Advanced Topics in Communication Studies (3). Permission of the instructor for nonmajors. A special topics course on a selected aspect of communication studies. May be repeated.

COMM 691H Honors in Cultural Studies (3). Permission of the instructor. Required of all senior honors candidates in cultural studies. First semester of senior honors thesis.

COMM 692H Honors in Cultural Studies (3). Permission of the instructor. Required of all senior honors candidates in cultural studies. Second semester of senior honors thesis.

COMM 693H Honors (3). Permission of the department. Majors only. Cumulative grade point average must meet University standard. Individual projects designed by students and supervised by a faculty member.
COMM 694H Honors (3). Permission of the department. Majors only. Cumulative grade point average must meet University standard. Individual projects designed by students and supervised by a faculty member.

COMM 695 Field Methods (3). Recommended preparation, COMM 562 or 841. A bridge course designed to offer graduate students and advanced undergraduates a practicum in fieldwork methods and performance ethnography.

## Department of Computer Science

www.cs.unc.edu
Brooks Computer Science Building, 201 S. Columbia Street, CB\# 3175; (919) 590-6000

KEVIN JEFFAY, Chair

## Introduction

The Department of Computer Science offers instruction and performs research in the essential areas of computer science. Majors receive rigorous training in the foundations of computer science and the relevant mathematics, then have ample opportunity to specialize in software systems, programming languages, theoretical computer science, or applications of computing technology.

Majors can receive credit for practical training as a computing professional through an internship with a company or organization in the computing or information technology fields. Internships typically are paid positions and involve the student working off
campus. All internships for credit must be approved in advance by the director of undergraduate studies. Students interested in pursuing such an internship should contact the director of undergraduate studies prior to the start of the internship.

Majors who excel in the program also have the opportunity to perform undergraduate research in computer science. Research projects may be pursued in conjunction with an existing graduate research group in the department and/or may be used as a vehicle for graduating with honors as described below.

Students who wish to use computers vocationally and desire a technical introduction to computing should take one or more of the introductory courses, COMP 110,116 , and 401 , and one or two more advanced courses such as COMP 410 or 411 . Students can minor in computer science with five courses, as described below.

The department offers COMP 101 for all students who wish to develop the ability to use a personal computer for common applications. COMP 380 and COMP 388 are philosophical and moral reasoning Approaches courses that have no programming prerequisite. Many other courses satisfy quantitative General Education requirements.

Students with interests in the cognitive, social, and organizational roles of information should consider the information science major in the School of Information and Library Science. This program is described elsewhere in this bulletin.

## Computer Science Major, B.A.

The bachelor of arts degree with a major in computer science is the preferred degree for those whose interests in computing span the boundaries of multiple disciplines and who wish to integrate their study of computing with study in a related discipline. The B.A. degree will prepare the undergraduate student for a career in either a traditional computing field or a field in which computing is a significant enabling technology.

## Core Requirements

- COMP 401, 410, and 411
- Six additional COMP courses numbered 426 or higher (excluding courses for honors thesis, internships, independent study, and COMP 690). Any single offering of COMP 590 may be counted toward this requirement without prior approval. Additional offerings of COMP 590 may be counted toward this requirement with the approval of the director of undergraduate studies. Up to two courses from other departments may also be used to satisfy this requirement. These courses must be approved by the director of undergraduate studies and must have a significant computer science or computing technology component. A list of previously approved courses is maintained by the department.
- Students must earn a grade of C or better in 18 hours of courses fulfilling the core requirements.


## Additional Requirements

- COMP 283 or MATH 381
- MATH 231
- STOR 155 or 435
- B.A. majors in computer science must fulfill all Foundations, Approaches, Connections, and Supplemental General Education requirements.


## Suggested Plans of Study

The following is a suggested four-year plan of study for B.A. majors.

## First Year

- ENGL 105 (composition and rhetoric Foundations); foreign language level 2 and 3 (Foundations); lifetime fitness; first-year seminar or COMP 110 or COMP 116 (if needed); COMP 401; MATH 231 (quantitative reasoning Foundations course)


## Sophomore Year

- An appropriate physical and life sciences Approaches course; COMP 283, 410, and 411; four additional Approaches and Connections courses


## Junior Year

- STOR 155 or 435; three COMP courses numbered 426 or higher; three additional Approaches and Connections courses; Supplemental General Education


## Senior Year

- Three COMP courses numbered 426 or higher; Connections and free elective courses (four courses); free electives
The following is a suggested plan of study for students initiating coursework for the B.A. major in their junior years. This is an accelerated plan appropriate for students who have already completed most if not all of their general education requirements and COMP 110 or COMP 116 (if needed).


## Junior Year

- COMP 401; COMP 283; STOR 155 or 435; MATH 231 (if needed); COMP 410; COMP 411; Supplemental General Education


## Senior Year

- Six COMP courses numbered 426 or higher; Connections and free elective courses


## Computer Science Major, B.S.

The bachelor of science with a major in computer science is the preferred degree both for graduate study in computer science and for technical careers in software development, computational science, networking, information systems, and electronic commerce. Graduates of the program are well-suited for professional employment in traditional computer and communications industries, as well as in such diverse industries as financial services and consulting practices in which computing and information management are central to the operation of the enterprise. Students who desire a more in-depth knowledge of computing have the option of receiving a bachelor's degree and a master's degree in as few as five years.

## Core Requirements

- COMP 455 and 550
- MATH 547
- STOR 435
- Five additional three or more credit hour COMP courses numbered 426 or higher (excluding courses for honors thesis,
internships, independent study, and COMP 690). Any single offering of COMP 590 may be counted toward this requirement without prior approval. Additional offerings of COMP 590 may be counted toward this requirement with the approval of the director of undergraduate studies.


## Additional Requirements

- COMP 283 or MATH 381
- COMP 401, 410, and 411
- MATH 231, 232, 233
- PHYS 116 or 118 and a second science course chosen from ASTR 101/101L; BIOL 101/101L, 202, or 205; CHEM 101/101L, 102/102L; GEOL 101/101L; PHYS 117 or 119
- A grade of C or better is required in each of COMP 283 (or MATH 381), 401, 410, 411; MATH 231, 232, 233; PHYS 116 or 118; and the second science course.
- B.S. majors in computer science must fulfill all Foundations, Approaches, and Connections requirements.


## Suggested Plan of Study

The following is a suggested plan of study for B.S. majors.

## First Year

- ENGL 105 (composition and rhetoric Foundations); foreign language level 2 and 3 (Foundations); COMP 110, 401; MATH 231, 232 (quantitative reasoning Foundations and quantitative intensive Connections courses)


## Sophomore Year

- COMP 283, 410, 411; MATH 233; PHYS 116 or 118 and the second science course (physical and life sciences Approaches course); three additional Approaches and Connections courses


## Junior Year

- COMP 455, 550; MATH 547; two courses numbered COMP 426 or greater, three additional Approaches and Connections courses


## Senior Year

- STOR 435, three courses numbered COMP 426 or greater, Connections and free elective courses (four courses)


## Notes on the Suggested Plan of Study

A first formal course in computer programming (such as COMP 110 Introduction to Programming) is a prerequisite for COMP 401. Students with no programming experience should begin their program of study with COMP 110. The department assumes (but does not require) that prospective majors will have acquired sufficient knowledge of programming basics prior to enrolling at UNC-Chapel Hill to start with COMP 401. Students who are unsure if their background preparation enables them to begin their studies with COMP 401 are encouraged to consult a departmental advisor.
Students who are able to begin with COMP 401 may take it in their first semester and either advance the suggested program of study by one semester (giving themselves an extra free elective in their junior/senior years) or take another appropriate course such as a first-year seminar as an elective in the first year. In either case, neither COMP 110 nor a first-year seminar is a required course in
the major.
This plan of study further assumes that students will place out of foreign language 1 . If this is not the case, then the student should start with foreign language 1 (and have one fewer free elective in the senior year).

## Dual Bachelor's-Master's Degree Program

Students in the B.S. degree program with a GPA of 3.2 or better after five or more semesters of study have the option of applying to the dual B.S.-M.S. program at UNC-Chapel Hill to pursue graduate coursework leading to the degree of master of science. Such students must complete the requirements for the bachelor of science degree within eight semesters. Upon completion of the B.S. degree, students then enroll as a graduate student to continue work towards the master of science degree.

The requirements for the master of science degree can be found in the Graduate Record (www.unc.edu/gradrecord). Generally, the master's degree requires 30 additional hours of computer science coursework. Up to nine credit hours of computer science coursework taken while an undergraduate can be applied to the master's degree if the coursework is not also used to satisfy the graduation requirements for the bachelor's degree. The requirements for the master's can be completed in as few as two additional semesters, for a total of 10 semesters of study.
Students interested in the dual-degree program should have completed (or be on track to complete) seven computer science courses at the 400 level or higher by the end of their sixth semester. Students must formally apply for admission to the combined B.S.-M.S. program, and it is expected that the application process would take place in the student's sixth semester. Students applying in their sixth semester of study will be notified of the outcome of their application by the end of their sixth semester.

Students interested in the dual-degree program are strongly advised to consult the director of undergraduate studies in the Department of Computer Science in their sophomore year to discuss eligibility and an appropriate plan of study.

## Computer Science Minor

A student may minor in computer science by completing five courses within these restrictions:

- COMP 401, 410, and 411
- Any two additional COMP courses from the following list:

COMP 283, 426, 431, 521, and 550
A grade of C or better is required in at least 12 hours of the minor courses. Alternatives to these requirements must be approved by the director of undergraduate studies.

## Advising

All computer science majors and minors are assigned an advisor in Steele building. In addition, all majors and minors are assigned a faculty advisor in the computer science department. Departmental advisors deal with all requirements specific to the major or minor. Beyond course selection, advisors are also available for discussing internships, study abroad in computer science, honors projects, and
undergraduate research opportunities.

## Special Opportunities in Computer Science

## Honors in Computer Science

Students are eligible for graduation with honors if they complete the following requirements:

- A cumulative grade point average of 3.3 or better
- A grade point average of 3.3 or better from among the set of COMP, MATH, PHYS, and STOR courses taken to fulfill the graduation requirements for the major
- Graduation with honors requires the completion of two semesters of research including COMP 692H. In addition, students must submit a written honors thesis and complete an oral public presentation of the thesis. Graduation with highest honors in computer science is possible for those students whose honors project and thesis are judged by a faculty committee to be particularly distinguished.
Students interested in pursuing honors in computer science are encouraged to contact the director of undergraduate studies.


## Departmental Involvement

Undergraduates participate in many department and university activities. Department-organized activities, such as the annual ACM programming contest, give students the chance to test their skills and knowledge against their peers at other universities.

## Experiential Education

When arranged in advance with a supervising faculty member, COMP 493 can be used to earn credit for appropriate work experience in the summer. COMP 493 satisfies the experiential education requirement. COMP 495 and 691 H can also be used to satisfy the experiential education requirement. Another possibility is through study abroad (see below).

## Laboratory Teaching Internships and Assistantships

In addition to their classroom experiences, undergraduates may enhance their learning experience as laboratory assistants or teaching assistants for computer science courses. They can gain valuable work experience as assistants on the department's computer services staff. The department also encourages students to pursue internship experiences. Carolina's proximity to Research Triangle Park means that computer science majors have many internship and postgraduation opportunities available in their own backyard.

## Study Abroad

Study abroad opportunities with priority for computer science students are offered through University College London (UCL) and the National University of Singapore (NUS) School of Computing.

UCL can accept UNC-Chapel Hill students for either a semester or yearlong exchange. For semester-only programs, UCL recommends registering for spring semester rather than fall as it better matches their academic calendar. Many courses satisfying the computer science B.S. requirements can be completed at UCL. UCL is located in the heart of London and is just a few blocks away from UNC-Chapel Hill's European Study Center in Winston House.

NUS can accept UNC-Chapel Hill students for fall or spring semester, or a yearlong exchange. This exchange allows Carolina
students to enroll directly into the NUS School of Computing and choose their courses from among the full offering. On a case-by-case basis, students may also be able to take other courses at NUS outside of the School of Computing. Study abroad at NUS is eligible for the Phillips Ambassadors Scholarship. Please see phillips. unc.edu for more information.

Specific course equivalences for both schools are posted on the department's Web site. Students interested in taking a course not listed should contact the director of undergraduate studies before registering for courses at the school.

Application for both programs is through the University's Study Abroad Office. Application to the UCL programs and the NUS fall and yearlong programs takes place early in the spring of each year. Application for the NUS spring program takes place early in the fall of each year. Applicants for exchange participation must have completed at least one year of study at UNC-Chapel Hill and must have declared a computer science or precomputer science major. Study abroad satisfies the experiential education General Education requirement of the undergraduate curriculum.

## Undergraduate Awards

The department awards two yearly prizes to computer science majors. In conjunction with SAS Institute, the department annually presents the Charles H. Dunham Scholarship. The Dunham scholarship includes a cash award to the student and a summer internship at SAS and is awarded in the spring semester to a student in their junior year. The department also annually presents the Stephen F. Weiss Award for Outstanding Achievement in Computer Science, which includes a cash prize. The Weiss award is presented to a student in the fall of the senior year.

## Undergraduate Research

Undergraduate students can participate in nationally recognized research programs or use the department's facilities to pursue selfdirected research with a faculty member. Much of its research is accessible to undergraduates and focuses on solving real-world problems.

## Facilities

The department maintains a number of computer servers to support programming projects in advanced COMP courses. Within Sitterson Hall and the Brooks Computer Science Building, computer science majors have access to additional facilities, including projection facilities for pair programming and researchcomputing equipment for students engaged in supervised research projects.

## Graduate School and Career Opportunities

The computer science B.S. degree program provides excellent preparation for students interested in advanced study in computing in graduate school. The department's graduates are competitive nationally for admission to the top graduate schools, including UNC-Chapel Hill's graduate program. As described above, a combined B.S.-M.S. degree program in computer science is also an option.

Graduates typically enjoy a range of career opportunities as computing professionals in such diverse fields as software
development, information systems management, electronic commerce, education, and financial transaction processing. In addition, computer science majors have consistently ranked at or near the top of recent surveys of starting salary offers.

## Faculty

## Professors

Stan Ahalt, James Anderson, Sanjoy K. Baruah, Gary Bishop, Frederick P. Brooks Jr., Prasun Dewan, Henry Fuchs, Kevin Jeffay, Anselmo Lastra, Ming C. Lin, Dinesh Manocha, Fabian Monrose, Stephen M. Pizer, David A. Plaisted, Jan F. Prins, Michael K. Reiter, Jack S. Snoeyink, David Stotts.

## Associate Professors

Jan-Michael Frahm, Jasleen Kaur, Ketan Mayer-Patel, Leonard McMillan, Marc Niethammer, Montek Singh.

## Assistant Professors

Ron Alterovitz, Alex Berg, Tamara Berg, Vladimir Jojic, Cynthia Sturton.

## Research Professors

Diane Pozefsky, F. Donelson Smith.
Research Associate Professor
Mary C. Whitton.

## Research Assistant Professors

Jay Aikat, Enrique Dunn, Martin Styner.

## Adjunct Professors

Robert Fowler, Guido Gerig, J. Stephen Marron, John McHugh, Steven E. Molnar, Marc Pollefeys, John Poulton, Julian Rosenman, Richard Superfine, Russell M. Taylor II, Alexander Tropsha, Wei Wang, Sean Washburn, Gregory F. Welch, Turner Whitted.

## Adjunct Associate Professors

Stephen Aylward, Shawn Gomez, Chris Healey, Hye-Chung Kum, Lars Nyland, Dinggang Shen.

Adjunct Assistant Professors
Derek Chiang, Brad Davis, Mark Foskey, Svetlana Lazebnik, Yun Li, Ipek Oguz, Beatriz Paniagua, William Valdar.

## Lecturers

Tessa Nicholas, Leandra Vicci.

## Professor of the Practice

Michael Fern.

## Professors Emeriti

Peter Calingaert, John Halton, Gyula A. Magó, Timothy L. Quigg, John B. Smith, Donald F. Stanat, Stephen Weiss, William A. Wright.

## Contact Information

Diane Pozefsky, Director of Undergraduate Studies, pozefsky@cs.unc.edu, (919) 590-6117.

Jodie Turnbull, Student Services Manager, turnbull@cs.unc.edu, (919) 590-6200.

## Courses

## COMP-Computer Science

COMP 60 First-Year Seminar: Robotics with LEGO® (3). This seminar explores the process of design and the nature of computers by designing, building, and programming LEGO® robots. Competitions to evaluate various robots are generally held at the middle and at the end of the semester. Previous programming experience is not required.

COMP 65 First-Year Seminar: Folding, from Paper to Proteins (3). Explore the art of origami, the science of protein, and the mathematics of robotics through lectures, discussions, and projects involving artistic folding, mathematical puzzles, scientific exploration, and research.

## COMP 80 First-Year Seminar: Enabling Technology-

 Computers Helping People (3). Service-learning course exploring issues around computers and people with disabilities. Students work with users and experts to develop ideas and content for new technologies. No previous computer experience required.COMP 85 First-Year Seminar: The Business of Games (3). This seminar will study the concepts associated with video gaming by having small teams design a game, build a prototype, and put together a business proposal for the game.
COMP 89 First-Year Seminar: Special Topics (3). Content will vary each semester.

COMP 101 Fluency in Information Technology (3). The nature of computers, their capabilities, and limitations. How computers work, popular applications, problem-solving skills, algorithms and programming. Lectures and laboratory assignments.

COMP 110 Introduction to Programming (3). Introduction to computer use. Approaches to problem solving; algorithms and their design; fundamental programming skills. Students can receive credit for only one of COMP 110, 116, or 121.

COMP 116 Introduction to Scientific Programming (3). Prerequisite, MATH 231. An introduction to programming for computationally oriented scientists. Fundamental programming skills, using MATLAB or Python. Problem analysis, algorithm design, plotting and visualizing data, with examples drawn from simple numerical and discrete problems. Students can receive credit for only one of COMP 110, 116, or 121.
COMP 180 Enabling Technologies (3). We will investigate ways computer technology can be used to mitigate the effects of disabilities and the sometimes surprising response of those we intended to help.
COMP 185 Serious Games (3). Concepts of computer game development and their application beyond entertainment to fields such as education, health, and business. Course includes team development of a game. Excludes COMP majors.

COMP 190 Topics in Computing (3). Permission of the instructor. Special topics in computing targeted primarily for
students with no computer science background. This course has variable content and may be taken multiple times for credit. As the content will vary with each offering, there are no set prerequisites, but permission of the instructor is required.

COMP 222 ACM Programming Competition Practice (1). Structured practice to develop and refine programming skills in preparation for the ACM programming competition.

COMP 283 Discrete Structures (3). Prerequisite, MATH 231 or 241. Introduces discrete structures (sets, tuples, relations, functions, graphs, trees) and the formal mathematics (logic, proof, induction) used to establish their properties and those of algorithms that work with them. Develops problem-solving skills through puzzles and applications central to computer science.
COMP 380 Computers and Society (3). An introduction to digital technology and computer science issues in society. Topics may include Internet history, privacy, security, usability, graphics, games, computers in the media, development, economics, social media, AI, IP, computer and Internet ethics, global ethics, current legal issues, etc.

COMP 381 Ethics in the Digital Age (3). Prerequisite, COMP 401. Overview of the impact of computers and technology on society's institutions, beliefs, values, tastes, activities, ideals, paradigms, and processes. Programming knowledge assumed, permitting topics beyond COMP 380.
COMP 382 Introduction to Cyberculture (3). Prerequisite, COMP 380. Permission of the instructor for students lacking the prerequisite. Explores cultural and ethical issues arising from individuals' and societies' use of information and computing technologies. Includes computer ethics; Internet history; IP, DRM, social media; gaming, virtual worlds; privacy; security; anonymity; net neutrality; AI, the technological singularity. Lecture and discussion.

COMP 388 Advanced Cyberculture Studies (3). Prerequisite, COMP 380 or 382 . Permission of the instructor for students lacking the prerequisite. Explores Internet history and cyberphilosophy; online identify construction, community, communication, creativity; bodies/cyborgs; intelligence and AI. Students perform independent research into and analyze virtual worlds, social media, anonymous bulletin boards, mobile media, and more, and create digital art and literature. Seminar-style; students collaborate on designing and leading class.

COMP 390 Computer Science Elective Topics (3-12). Elective topics in computer science for computer science majors. May not be used to satisfy any degree requirements for a computer science major. This course has variable content and may be taken multiple times for credit.

COMP 393 Software Engineering Practicum (1-3). Students develop a software program for a real client under the supervision of a faculty member. Projects may be proposed by the student but must have real users. Course is intended for students desiring practical experiences in software engineering but lacking the experience required for external opportunities. Majors only. Pass/ Fail.

COMP 401 Foundation of Programming (4). Required preparation, a first formal course in computer programming (e.g., COMP 110, COMP 116). Advanced programming: object-oriented design, classes, interfaces, packages, inheritance, delegation, observers, MVC (model view controller), exceptions, assertions.

COMP 410 Data Structures (3). Prerequisite, COMP 401. The analysis of data structures and their associated algorithms. Abstract data types, lists, stacks, queues, trees, and graphs. Sorting, searching, hashing.

COMP 411 Computer Organization (4). Prerequisite, COMP 401. Digital logic, circuit components. Data representation, computer architecture and implementation, assembly language programming.

COMP 416 Introduction to WWW Programming (3). Prerequisite, COMP 401. Developing browser-based applications for the World Wide Web. Introduction to XHTML, CSS, HTTP, and client-side programming. This course is intended for nonmajors and prospective minors and does not count toward the major.

COMP 426 Advanced WWW Programming (3). Prerequisite, COMP 410. Developing applications for the World Wide Web including both client-side and server-side programming. Emphasis on Model-View-Controller architecture, AJAX, RESTful Web services, and database interaction.

COMP 431 Internet Services and Protocols (3). Prerequisites, COMP 410 and 411. Application-level protocols HTTP, SMTP, FTP, transport protocols TCP and UDP, and the network-level protocol IP. Internet architecture, naming, addressing, routing, and DNS. Sockets programming. Physical-layer technologies. Ethernet, ATM, and wireless.

COMP 455 Models of Languages and Computation (3). Prerequisites, COMP 110 or 401, and COMP 283 or MATH 381. Introduction to the theory of computation. Finite automata, regular languages, pushdown automata, context-free languages, and Turing machines. Undecidable problems.

## COMP 486 Applications of Natural Language Processing

 (INLS 512) (3). See INLS 512 for description.COMP 487 Information Retrieval (INLS 509) (3). See INLS 509 for description.

COMP 493 Computer Science Internship (3). Prerequisites, COMP 410 and 411. Permission of the director of undergraduate studies. Computer science majors only. Work experience in nonelementary computer science. May be repeated for up to six credits.

COMP 495 Mentored Research in Computer Science (3). Independent research conducted under the direct mentorship of a computer science faculty member. This course cannot be counted toward the completion of the major or minor. For computer science majors only.

COMP 496 Independent Study in Computer Science (1-3). Permission of the director of undergraduate studies. Computer science majors only. For advanced majors in computer science who
wish to conduct an independent study or research project with a faculty supervisor. May be taken repeatedly for up to a total of six credit hours.

COMP 520 Compilers (3). Prerequisites, COMP 410, 411, and 455. Design and construction of compilers. Theory and pragmatics of lexical, syntactic, and semantic analysis. Interpretation. Code generation for a modern architecture. Run-time environments. Includes a large compiler implementation project.

COMP 521 Files and Databases (3). Prerequisites, COMP 410 and 411, and COMP 283 or MATH 381. Placement of data on secondary storage. File organization. Database history, practice, major models, system structure and design.

COMP 523 Software Engineering Laboratory (4). Prerequisites, COMP 410, 411, and at least two three-credit COMP courses numbered 426 or higher. Organization and scheduling of software engineering projects, structured programming, and design. Each team designs, codes, and debugs program components and synthesizes them into a tested, documented program product.

COMP 524 Programming Language Concepts (3). Prerequisite, COMP 410. Concepts of high-level programming and their realization in specific languages. Data types, scope, control structures, procedural abstraction, classes, concurrency. Run-time implementation.

COMP 530 Operating Systems (3). Prerequisites, COMP 410 and 411 . Types of operating systems. Concurrent programming. Management of storage, processes, devices. Scheduling, protection. Case study. Course includes a programming laboratory.

COMP 533 Distributed Systems (3). Prerequisite, COMP 431 or 530. Permission of the instructor for students lacking the prerequisite. Distributed systems and their goals; resource naming, synchronization of distributed processes; consistency and replication; fault tolerance; security and trust; distributed objectbased systems; distributed file systems; distributed Web-based systems; and peer-to-peer systems.
COMP 535 Introduction to Computer Security (3). Prerequisites, COMP 410, and COMP 283 or MATH 381. Principles of securing the creation, storage, and transmission of data and ensuring its integrity, confidentiality, and availability. Topics include access control, cryptography and cryptographic protocols, network security, and online privacy.

COMP 541 Digital Logic and Computer Design (4).
Prerequisite, COMP 411. This course is an introduction to digital logic as well as the structure and electronic design of modern processors. Students will implement a working computer during the laboratory sessions.
COMP 550 Algorithms and Analysis (3). Prerequisites, COMP 410, and COMP 283 or MATH 381. Formal specification and verification of programs. Techniques of algorithm analysis. Problem-solving paradigms. Survey of selected algorithms.

COMP 555 Bioalgorithms (3). Prerequisites, COMP 410, and COMP 283 or MATH 381. Bioinformatics algorithms. Topics include DNA restriction mapping, finding regulatory motifs, genome rearrangements, sequence alignments, gene prediction,
graph algorithms, DNA sequencing, protein sequencing, combinatorial pattern matching, approximate pattern matching, clustering and evolution, tree construction, hidden Markov models, randomized algorithms.

COMP 560 Artificial Intelligence (3). Prerequisites, COMP 410 and MATH 231. Introduction to techniques and applications of modern artificial intelligence. Combinatorial search, probabilistic models and reasoning, and applications to natural language understanding, robotics, and computer vision.

COMP 562 Introduction to Machine Learning (3). Prerequisites, COMP 410, MATH 233, and STOR 435. Permission of the instructor for students lacking the prerequisites. Machine learning as applied to speech recognition, tracking, collaborative filtering and recommendation systems. Classification, regression, support vector machines, hidden Markov models, principal component analysis, and deep learning.
COMP 575 Introduction to Computer Graphics (3). Prerequisites, COMP 410 and MATH 547. Hardware, software, and algorithms for computer graphics. Scan conversion, twodimensional and three-dimensional transformations, object hierarchies. Hidden surface removal, clipping, shading, and antialiasing. Not for graduate computer science credit.

COMP 576 Mathematics for Image Computing (BMME 576) (3). Prerequisites, COMP 116 or 401, and MATH 233. Mathematics relevant to image processing and analysis using real image computing objectives and provided by computer implementations.
COMP 580 Enabling Technologies (3). Prerequisite, COMP 410. We will investigate ways computer technology can be used to mitigate the effects of disabilities and the sometimes surprising response of those we intended to help.

COMP 581 Introduction to Robotics (4). Prerequisites, COMP 401 and 410. Permission of the instructor for students lacking the prerequisites. Hands-on introduction to robotics with a focus on the computational aspects. Students will build and program mobile robots. Topics include kinematics, actuation, sensing, configuration spaces, control, and motion planning. Applications include industrial, mobile, personal, and medical robots.
COMP 585 Serious Games (3). Prerequisite, COMP 410 or 411. Concepts of computer game development and their application beyond entertainment to fields such as education, health, and business. Course includes team development of a game.

COMP 590 Topics in Computer Science (3). Permission of the instructor. This course has variable content and may be taken multiple times for credit.
COMP 631 Computer Networks (3). Required preparation, a first course in operating systems, a first course in networking (e.g., COMP 431 and 530), and knowledge of probability and statistics. Topics in computer networks, including link layer protocols, switching, IP, TCP, and congestion control. Additional topics may include peer-to-peer infrastructures, network security, and multimedia applications.

COMP 633 Parallel and Distributed Computing (3). Required
preparation, a first course in operating systems and a first course in algorithms (e.g., COMP 530 and 550). Principles and practices of parallel and distributed computing. Models of computation. Concurrent programming languages and systems. Architectures. Algorithms and applications. Practicum.
COMP 651 Computational Geometry (3). Required preparation, a first course in algorithms (e.g., 550). Design and analysis of algorithms and data structures for geometric problems. Applications in graphics, CAD/CAM, robotics, GIS, and molecular biology.
COMP 655 Cryptography (3). Prerequisites, COMP 455 and STOR 435. Permission of the instructor for students lacking the prerequisites. Introduction to the design and analysis of cryptographic algorithms. Topics include basis of abstract algebra and number theory, symmetric and asymmetric encryption algorithms, cryptographic hash functions, message authentication codes, digital signature schemes, elliptic curve algorithms, sidechannel attacks, and selected advanced topics.
COMP 662 Scientific Computation II (ENVR 662, MATH 662) (3). See MATH 662 for description.

COMP 665 Images, Graphics, and Vision (3). Required preparation, a first course in data structures and a first course in discrete mathematics (e.g., COMP 410 and MATH 383). Display devices and procedures. Scan conversion. Matrix algebra supporting viewing transformations in computer graphics. Basic differential geometry. Coordinate systems, Fourier analysis, FDFT algorithm. Human visual system, psychophysics, scale in vision.
COMP 691H Honors Thesis in Computer Science (3). For computer science majors only and by permission of the department. Individual student research for students pursuing an honors thesis in computer science under the supervision of a departmental faculty advisor.

COMP 692H Honors Thesis in Computer Science (3). Permission of the department. Required of all students in the honors program in computer science. The construction of a written honors thesis and an oral public presentation of the thesis are required.

## Curriculum in Contemporary European Studies

europe.unc.edu/euro
FedEx Global Education Center Room 3207, CB\# 3449; (919) 962-6765

JOHN STEPHENS, Director

## Introduction

The Curriculum in Contemporary European Studies is designed to provide students with 1) a broad interdisciplinary understanding of modern Europe and the European Union; 2) a focused understanding of contemporary Europe from the perspective of a selected social science discipline; and 3) advanced proficiency in a
modern European language. Students are especially encouraged to combine the major with a second major in a noninterdisciplinary field such as political science, economics, or history. Through its unique combination of advanced coursework and language training, the curriculum provides the intellectual building blocks to study contemporary Europe through a sophisticated framework. Students completing the major will be well prepared for graduate or professional study of contemporary Europe and for a range of international careers.

## Contemporary European Studies Major, B.A.

## Core Requirements

- EURO/HIST 159
- EURO/POLI 239
- Four courses from one of the two themes listed below (asterisked courses require approval, based on topic)
- One course chosen from the other theme
- One additional course from Theme 1, Theme 2, or the list of approved elective courses on contemporary Europe
Of the total eight courses required for the major, three must be numbered 400 or above

Theme I. Contemporary Europe: Integration and Enlargement
ECON 461, 560; ECON/EURO/PWAD 460; EURO/POLI 442; GEOG 464; POLI 190*, 232, 236, 433, 438, 490*, 630, 631, 632; POLI/PWAD/RUES 469; POLI/PWAD/RUES/SOCI 260

## Theme II. Contemporary Europe: Histories and Cultures

ANTH 377; ASIA 452, 490*; CMPL 270/GERM 270/JWST 239/ RELI 239; EURO/SPAN 362; FREN 331, 377, 383, 504; GERM 349; GERM/HIST/POLI/SOCI 257; HIST 260, 390H*, 398*, 490*; HIST/JWST/PWAD 262; HIST/WMST 259; ITAL 343; PWAD/SLAV 467; SPAN 340

## Elective Courses on Contemporary Europe

ANTH 449; ARTH 283; CMPL 375, 385, 466, 468; CMPL/ EURO/FREN 332H; CMPL 374/WMST 373; DRAM 289; ECON 434; ENGL/PWAD 659; FREN 372, 373, 388, 398*; GERM 255, 275, 280, 350, 381, 382, 390*; GERM/PWAD 283; GERM/SLAV 251; GERM/WMST 250; HIST 466; HUNG 280; ITAL 242, 331, 333, 335, 382, 398*; JWST/PLSH 412; MUSC 253, 284, 285; PHIL 224, 229, 494; POLI 432, 472; ROML 500; SLAV 101

New courses may be added to this list annually, as they are developed. An updated list of approved courses may be obtained from the contemporary European studies Web site (europe.unc.edu/ euro). Other courses relevant to the study of contemporary Europe may be taken for credit in the major, if approved by the curriculum advisor.

## Additional Requirements

- A modern European foreign language through level 5, chosen from the following languages: Bulgarian, Czech, French, German, Hungarian, Italian, Macedonian, Polish, Portuguese, Russian, SerboCroatian, Spanish. Please see the list of foreign language courses in the "General Education Requirements" section of this bulletin.

Contemporary European studies majors are required to complete a minimum of five semesters of a modern European language, or document fifth-semester proficiency through university placement tests. One approved literature course taught in the language may also count as a theme or elective course if included in the course listings above. Majors are strongly encouraged to apply their language proficiency skills in languages across the curriculum (LAC) courses and complete a UNC-approved study abroad program in the target language.

The Curriculum in Contemporary European Studies does not offer an honors program. Students who wish to pursue an honors thesis are advised to do so in association with a double major in another department or curriculum.

## Advising

In addition to the guidance provided by the primary academic advisors in Steele Building, contemporary European studies majors receive individualized advising at all stages of academic planning, including considering courses, internships, study abroad options, graduate programs, and career paths. Students interested in pursuing a major in contemporary European studies are encouraged to meet with the curriculum advisor as early as possible in their undergraduate career to design a comprehensive and efficient course plan and take full advantage of study abroad and other international education opportunities. Consult the curriculum Web site for further information on courses, funding awards, and campus resources.

## Special Opportunities in

## Contemporary European Studies

Students may be interested in the resources available through UNC's Center for European Studies (CES), a United States Department of Education Title VI National Resource Center and a European Union Center of Excellence funded by the European Commission. CES offers a range of ongoing programs, including guest speakers, film festivals, conferences, and cultural events. The Center also houses the Transatlantic Master's Program (TAM), a graduate degree program that may be of particular interest to students who have completed the major in contemporary European studies.

## Faculty

## Advisory Committee

Chad Bryant (History), Libby Chenault (Davis Library), Liesbet Hooghe (Political Science), Anne Johnston (Media and Journalism), Klaus Larres (History), Federico Luisetti (Romance Studies), Saule Omarova (Law), John Pickles (Geography), Donald Reid (History), Donald Searing (Political Science).

## Affiliated Faculty

Christopher Armitage (English and Comparative Literature), Frank Baumgartner (Political Science), Susan Bickford (Political Science), Christopher Browning (History), Erin Carlston (English and Comparative Literature), Dino Cervigni (English and Comparative Literature; Romance Studies), Marsha Collins (English and

Comparative Literature), Patrick Conway (Economics), Pamela Cooper (English and Comparative Literature), Michael Corrado (Law), Eric Downing (English and Comparative Literature), Dominique Fisher (Romance Studies), Banu Gökariksel (Geography), Karen Hagemann (History), Jonathan Hess (Germanic and Slavic Languages and Literatures), Konrad Jarausch (History), Robert Jenkins (Political Science), Clayton Koelb (English and Comparative Literature; Germanic and Slavic Languages and Literatures), Lloyd Kramer (History), Richard Langston (Germanic and Slavic Languages and Literatures), Klaus Larres (History), Diane Leonard (English and Comparative Literature), Gary Marks (Political Science), Rahsaan Maxwell (Political Science), Timothy McKeown (Political Science), Hassan Melehy (Romance Studies), Layna Mosley (Political Science), Thomas Oatley (Political Science), Susan Pennybacker (History), Gerald Postema (Philosophy), Peter Redfield (Anthropology), Graeme Robertson (Political Science), Mary Sheriff (Art), Milada Vachudova (Political Science).

## Contact Information

Center for European Studies, FedEx Global Education Center, CB\# 3449, (919) 962-1602, euro@unc.edu.

## Courses

EURO-Contemporary European Studies
EURO 159 20th-Century Europe (HIST 159) (3). See HIST 159 for description.

EURO 239 Introduction to European Government (POLI 239) (3). See POLI 239 for description.

EURO 252 Politics, Society and Culture in Modern Germany (1871-1945) (HIST 252) (3). See HIST 252 for description.
EURO 332H Cultural Diversity in Francophone Cinema (CMPL 332H, FREN 332H) (3). See FREN 332H for description.

EURO 362 The Quest for Identity in Contemporary Spain (SPAN 362) (3). See SPAN 362 for description.

EURO 442 International Political Economy (POLI 442) (3). See POLI 442 for description.

EURO 460 International Economics (ECON 460, PWAD 460)
(3). See ECON 460 for description.

# Department of Dramatic Art 

drama.unc.edu
Center for Dramatic Art, CB\# 3230; (919) 962-1132
ADAM N. VERSÉNYI, Chair

## Introduction

The study of dramatic art focuses upon the great dramatic texts of the classical and modern periods and introduces the student to the variety of artistic endeavors necessary to realize the text in theatrical performance. Majors concentrate on the literature and history of the theatre while investigating the processes involved in acting, directing, design, costume, and technical production.

Courses focus on the connections between theatre and society, between theatrical performance and the visual arts, and between dramatic literature and philosophy, history, and other literary forms. The study of theatre embraces a range of subjects in the humanities and fine arts, including literature, language, aesthetics, culture, and performance.

## Dramatic Art Major, B.A.

## Core Requirements

- DRAM 120 Play Analysis
- Three courses in dramatic literature/theatre history/criticism. Two courses must be chosen from DRAM 281, 282, and 283. The remaining course can be chosen from DRAM 281, 282, 283, 284, 285, 286, 287, 289, 291, 292, 297, 298, 486, 488, or 489.
- Two courses in acting (DRAM 150), directing (DRAM 300), and design (DRAM 277, 465, 466, 467, 468). Only one course from each area may be counted toward the major.
- One course in costume production or technical production: DRAM 191 or 192
- Production Practicum: DRAM 193 Production Practicum with PlayMakers Repertory Company (transfer credit not allowed). This course fulfills the General Education experiential education requirement.
Students planning to major in dramatic art should complete DRAM 120 preferably during their first year. The major provides a broad basis for understanding and appreciating theatre as a cultural entity and as an artistic process. The program also provides opportunities for students to learn and develop basic skills in the various areas of theatre practice. All General Education requirements apply.

Because the College of Arts and Sciences allows a total of 45 credit hours ( 15 three-hour courses) in a student's major to count toward graduation, as many as seven electives can be selected from the range of offerings in the department. Students may choose to concentrate on an area (or areas) of special interest within the major: acting, directing, voice, movement, technical production, design (scenic, costume, sound, and lighting), costume history, costume construction, dramatic literature and criticism, dramaturgy, stage management, theatre management, and playwriting.

Students majoring in dramatic art cannot pursue the minor in dramatic art.

## Dramatic Art Minor

The minor in dramatic art consists of four courses. Students select four courses from one of the following concentrations:

- Dramaturgy: DRAM 120 Play Analysis, and three courses chosen from DRAM 281, 282, 283, 284, 285, 286, 287, 289, 291, 292, 297, 298, 486, 488, 489
- Theatrical design: DRAM 120 Play Analysis, and three courses chosen from DRAM 277, 280, 465, 466, 467, 468, 470, 475, 480, 566, 567
- Theatrical production: DRAM 191 or 192 (related to area of concentration), and three courses chosen from DRAM 193, 277, $460,465,466,467,468,473,474,567,650$
- Theatre management: DRAM 193 Production Practicum (related to area of concentration), and DRAM 279, 491, and 493
Students pursuing the theatre management concentration are strongly encouraged to complete a fifth elective course chosen from ECON 101, BUSI 101, 405, 406.


## Writing for the Stage and Screen Minor

The minor in writing for the stage and screen is an interdisciplinary program drawing upon the faculties and resources of the Department of Dramatic Art, Department of Communication Studies, and the Creative Writing Program of the Department of English and Comparative Literature. For additional information, please see the Department of Communication Studies in this bulletin.

## Advising

All majors and minors have a primary academic advisor in Steele Building. Students are strongly encouraged to meet regularly with their advisor and review their Tar Heel Tracker each semester. Every student whose primary major is dramatic art will also be assigned a departmental advisor, beginning in the junior year. The department's director of undergraduate studies and undergraduate advisor work with current and prospective majors by appointment. Please contact the department at CB\# 3230, (919) 962-1132. Further information on courses, undergraduate research opportunities, the honors program, careers, and graduate schools may be obtained from the department's Web site: drama.unc.edu.

## Special Opportunities in Dramatic Art

## Honors in Dramatic Art

In order to receive departmental honors, students must have a 3.3 overall grade point average, a 3.6 grade point average in dramatic art, and complete at least five of the eight core courses in the major by the end of the junior year. Students enroll in DRAM 691 H (three hours credit) and 692H (three hours credit) during their senior year and complete a special project (essay or creative endeavor) approved by the department. A student may then be designated as a candidate for undergraduate honors or highest honors based on department review of the special project or performance.

## Departmental Involvement

Two undergraduate students are elected each year from among the majors to serve as representatives to the faculty. They attend faculty meetings and host events that bring students and faculty together.

## Performance/Production Opportunities

The Department of Dramatic Art's Kenan Theatre Company (KTC), offers many opportunities for interested students-majors and nonmajors alike-to participate in performance and production. Each year the department supports four to six full productions in the Elizabeth Price Kenan Theatre. Seasons may include classic plays, contemporary plays, musicals, and original works. A faculty and peer-elected board of five undergraduate students act as producing directors for KTC and oversee the department season. Productions are directed by faculty and guest artists as well as by students. Undergraduate students are involved in the technical components of production as designers, carpenters, painters, electricians, seamstresses, and sound engineers. The KTC producers select an undergraduate prop supervisor, wardrobe supervisor, master electrician, master carpenter, and a technical director for the entire season. Designers are selected on a per show basis and can include undergraduates, graduate students, and faculty.

## PlayMakers Repertory Company

Several types of student involvement with PlayMakers Repertory Company (PRC, a professional LORT/AEA theatre on campus) are possible. Technical assistance, running crews, internships in administration, and assistant stage management positions are open to undergraduates. Auditions are held during the year for appropriate supporting and understudy roles. PRC engages resident and guest professionals active in regional and commercial theatres as guest actors, directors, and designers. Students have opportunities to associate with and learn from these professionals throughout the year.

## Study Abroad

With more than 300 programs available in 70 countries, there are many international experiences structured to enhance the student's undergraduate career. Major and minor credit is available as well as General Education credit. Departmental approval for theatre courses is arranged with the director of undergraduate studies and is coordinated by the Study Abroad Office.

Specific study abroad opportunities for dramatic art students include, but are not limited to, a semester or yearlong exchange program at Trinity College Dublin, the National University of Ireland in Galway, or Queen's University in Belfast, North Ireland; a summer or semester at the Gaiety School of Acting; or a summer or semester taking coursework and pursuing a drama-related internship in Dublin or London. Students are also eligible for the Elizabeth Malone Roughton Study Abroad Scholarship, a scholarship awarded to a dramatic art student studying in Ireland for a semester and completing a theatre-related internship as part of the program.

## Undergraduate Awards

Each spring the Department of Dramatic Art awards several monetary prizes to its undergraduate majors (and graduate students) who are continuing into the next academic year. The prizes have been endowed by generous alumni and friends, including Andy

Griffith and George Grizzard. In addition, the Sam Selden Prize in Playwriting, the Wes Egan Award in Design, and the Lillian Chason Scholarship are awarded competitively each year.

## Undergraduate Research

Faculty and departmental advisors are available to help students define areas of interest, understand the existing knowledge base in a particular area, and develop a plan for meaningful undergraduate research. These goals can be realized through departmental independent study and honors research. See the director of undergraduate studies and the honors advisor for more information. Additional resources are available through the Office for Undergraduate Research at unc.edu/depts/our.

## Facilities

The Department of Dramatic Art's offices, classrooms, studios, rehearsal hall, and construction shops are located in the Center for Dramatic Art. Each year the Department of Dramatic Art's Kenan Theatre Company (KTC) supports four to six full productions in the Elizabeth Price Kenan Theatre. The Department also sponsors a variety of other productions such as student-directed work in the smaller classroom environment. The department provides showcase venues for new student writing, including readings, fully produced plays, and the Samuel Selden Playwriting Contest.

## Graduate School and Career Opportunities

The dramatic art major is associated with a variety of career opportunities, including graduate study, public relations, communications, arts management, public service, teaching, and theatre-related careers, including literary management, stage management, acting, design, publicity, marketing, fund-raising, technical production, sound and lighting technology, box office management, costuming, electrics, and stage craft.

## Professors

McKay Coble (Milly S. Barranger Distinguished Term Professor), Raymond E. Dooley, Roberta A. (Bobbi) Owen (Michael R. McVaugh Distinguished Professor in Dramatic Art), Kathy A. Perkins, Craig W. Turner, Adam N. Versényi.

## Associate Professors

Janet A. Chambers, Michael J. Rolleri.

## Assistant Professors

Julia Gibson, David B. Navalinsky, Karen O’Brien, John Patrick, Jiayun Zhuang.

## Professors of the Practice

Judith L. Adamson, Joseph Haj.

## Senior Lecturers

Jeffrey Blair Cornell, Julie Fishell, Gregory Kable.

## Lecturers

David A. Adamson, Kimball King (Professor Emeritus of English), Adam Maxfield, Mark Perry, Rachel Pollock, Kathryn Williams.

## Adjunct Assistant Professor

## Professors Emeriti

Milly S. Barranger (Alumni Distinguished Professor), Russell B. Graves, David A. Hammond, Leon Katz, Bonnie N. Raphael.

## Contact Information

Director of Undergraduate Studies, Center for Dramatic Art, (919) 962-1132, dramatic_art@unc.edu.

## Courses

## DRAM-Dramatic Art

DRAM 80 First-Year Seminar: Psychology of Clothes: Motivations for Dressing Up and Dressing Down (3). The course seeks to help students find ways to articulate their own motivations for dress and then apply the ideas they have discovered to the ways in which individuality as well as group attitudes are expressed through clothing.
DRAM 81 First-Year Seminar: Staging America: The American Drama (3). This seminar examines American drama from its colonial origins to the present as both a literary and commercial art form. The focus throughout will be on the forces that shaped American drama as well as drama's ability to shed light on the national experience.

DRAM 82 First-Year Seminar: All the World's a Stage: Drama as a Mirror of Society (3). This seminar examines how theatre evolves from and reflects the society that generates it, and how understanding that society can enrich our responses to plays.
DRAM 83 First-Year Seminar: Spectacle in the Theatre (3). This course examines how the theatrical designer uses scenery, costumes, and lighting to help create a production. Students will apply these techniques in creating their own design projects.

DRAM 84 First-Year Seminar: The Inherent Qualities of Theatrical Space (3). This course examines what elements contribute to the theatricality of space. Through research and creative projects, students will gauge how a space informs what goes on inside it.

DRAM 85 First-Year Seminar: Documentary Theatre (3). This course explores the political and social ramifications of documentary theatre in the United States. Students will investigate a local community of their choosing and create an interview-based performance.

DRAM 86 First-Year Seminar: Rediscovering the Mind-Body
Connection (3). This seminar will focus on developing our unique mind-body connection. By encouraging small and large changes in behavior students will learn how their body is used to create their world.
DRAM 87 First-Year Seminar: Style: A Mode of Expression (3). This seminar studies the elements of design in their pure form, surveys a history of period styles and theatre, and identifies their causes.

DRAM 88 First-Year Seminar: Ecology and Performance (3). This seminar will guide students through researching, developing, and producing new performance works inspired by socio-ecological
issues. This task involves student-directed research and experiential learning. Students will integrate an understanding of performance techniques, "green theatre," and notions of sustainability into an ecologically-driven work for performance.

DRAM 89 First-Year Seminar: Special Topics (3). This is a special topics course. Content will vary.
DRAM 115 Perspectives in Drama (3). A survey of plays from the Greeks to the present, analyzed through such elements of the dramatic text as action, character, structure, and language.

DRAM 116 Perspectives in the Theatre (3). A survey of the interrelationships of acting, directing, designing, and playwriting through the study of major periods of theatrical expression and representative plays.
DRAM 117 Perspectives in World Drama (3). A survey of nonWestern drama and theatre with emphasis on the historical and aesthetic development of those regions.

DRAM 120 Play Analysis (3). DRAM 120 is the first course in the major and the minor in dramatic art. Development of the skill to analyze plays for academic and production purposes through the intensive study of representative plays.
DRAM 131 Writing for the Screen and Stage (COMM 131) (3). See COMM 131 for description.

DRAM 134 Theatrical Auditions (3). Permission of the instructor. Practice in the techniques necessary for successful auditions for the theatre.

DRAM 135 Acting for Nonmajors (3). Introduction to basic processes and techniques of acting for the stage.
DRAM 140 Voice Training I (3). Fundamental principles underlying the effective use of voice and speech in performance.

DRAM 145 Acting for the Screen and Stage (3). The course focuses on developing acting techniques for use in front of the camera and the way they are differentiated from those used on stage.
DRAM 150 Beginning Acting for the Major (3). Prerequisite, DRAM 120. Introduction to acting tools, emphasizing playing actions and pursuing an objective within personalized given circumstances. Performance work drawn from short scripted, improvised, and contemporary scenes.

DRAM 155 Movement for the Actor (3). Introduction to physical training. Individual/group exercises explore relaxation, breath, concentration, flexibility, and imaginative response that become physical tools for acting. May include stage combat, juggling, mime, improvisation, games, and yoga.
DRAM 160 Stagecraft (3). General survey of materials, equipment, and processes used in technical theatre.

DRAM 165 Stage Makeup (1-3). Students cannot receive credit for both DRAM 164 and 165. A study of principles and techniques for stage, film, and television makeup, including corrective makeup, old age, 3-D, casting for prosthetic pieces, and methods for creating fantasy forms. Also applicable to film and television.
DRAM 191 Technical Methods: Scenery (3). DRAM 191 or

192 required for dramatic art majors. Permission of the instructor for nonmajors. Introduction to equipment, procedures, and personnel in the design and execution of plans for scenery, lighting, properties, and sound for theatrical productions.

DRAM 192 Technical Methods: Costume (3). DRAM 191 or 192 required for dramatic art majors. Permission of the instructor for nonmajors. Introduction to equipment, procedures, and personnel in the design and execution of costumes for theatrical productions.

DRAM 193 Production Practicum (3). Permission of the instructor for nonmajors. Required for the dramatic art major. Practicum in production with PlayMakers Repertory Company in costuming, scenery, lighting, sound, or theatre management.

DRAM 196 Dramatic Art Projects (1-3). Permission of the department. May be repeated for credit. Restricted to juniors and seniors majoring in dramatic art. Intensive individual work in major areas of theatrical production: design, technical, directing, acting, playwriting, management.

DRAM 215 Studies in Western Drama (3). A study of the thematic and formal developments of Western drama, tracing legacies from classical Greece to the contemporary stage.

DRAM 231 Playwriting I (3). Permission of the department. A practical course in writing for the stage with studio productions of selected works.

DRAM 235 Acting for Nonmajors II (3). Prerequisite, DRAM 135. A further exploration of basic processes and techniques of acting for the stage.

DRAM 240 Voice Training II (3). Prerequisite, DRAM 140. A continuation of DRAM 140.

DRAM 245 Acting for the Camera (3). Prerequisite, DRAM 135 or 150. Permission of the instructor for students lacking the prerequisite. The process of acting and its relationship to the technical and artistic demands of television/film production. Problems of continuity and out-of-sequence filming. Concentration and thinking on camera.

DRAM 250 Intermediate Acting for the Major (3). Prerequisite, DRAM 150. A deeper exploration of fulfilled actions prompted by an objective, with emphasis on developing techniques required by more formally structured texts such as Sophocles, Molière, Ibsen, Shaw, and Chekhov.
DRAM 255 Movement for the Actor II (3). Prerequisite, DRAM 155. Permission of the instructor for students lacking the prerequisite. Development of balance, flexibility, strength, focus, grace, and precision through martial art of T'ai Chi Ch'uan. Emphasis on applying T'ai Chi principles to acting. Chinese philosophical bases for T'ai Chi explored.

DRAM 260 Advanced Stagecraft (3). Prerequisite, DRAM 160. Permission of the instructor for students lacking the prerequisite. The course provides practical applications of principles and techniques used in technical theatre. Lectures are supported by individually scheduled workshop sessions where techniques are applied to a theatrical production.
DRAM 277 Introduction to Theatrical Design (3). General
principles of scenic, costume, and lighting design for the theatre.
DRAM 279 Introduction to Theatre Management (3). An overview of the major functions of management in the American nonprofit theatre including marketing, fundraising, finances, strategy and operations. Presentation skills will be practiced.
DRAM 280 Period Styles for the Theatre (3). Students may not receive credit for both DRAM 280 and 480 . A study of visual, cultural, and social styles through history as the forms developed, and as they relate to stylistic production for the theatre.

DRAM 281 Theatre History and Literature I (3). Prerequisite, DRAM 120. Survey of theatre practice and writing from the Greeks to 1700 .

DRAM 282 Theatre History and Literature II (3). Prerequisite, DRAM 120. Survey of theatre practice and writing from 1700 to 1920.

DRAM 283 Theatre History and Literature III (3). Prerequisite, DRAM 120. Survey of theatre practice and writing from 1930 to the present.

DRAM 284 Studies in Dramatic Theory and Criticism (3). May be repeated for credit. Seminar in dramatic theory and criticism with emphasis on the modern period.

DRAM 285 Modern British Drama (3). Evolution of modern British drama from 1956 through the present.

DRAM 286 Modern Irish Drama (3). This course surveys Irish drama from the 1890s to the 1980s, investigating a broad range of plays in relationship to the sociopolitical and theatrical conditions of their emergence and reception.
DRAM 287 African American Theatre (3). This course investigates the history and legacy of African American drama through the study of its literary texts, performance styles, and cultural history.

DRAM 288 Theatre for Social Change (3). This course assesses different models of theatre for social change through change theory, playwriting, and collaboration. Students will be guided through the process of creating new works.
DRAM 289 Contemporary Irish Drama (3). This course investigates Irish drama from the 1990s to the present, exploring how issues and themes of globalization, gender, race, nation, and identity, among others, translate from text to performance.

DRAM 290 Special Topics in Dramatic Art (0.5-3). The study of a topic in dramaturgy, theatrical design, or theatrical production. Content and instructor will vary. May be repeated for credit.
DRAM 291 Re-Playing Shakespeare in East Asia (3). This course investigates how Shakespeare is retold and relived in the Asian theatre vocabulary through examining aesthetic value, cultural and political identity, postcolonial modernity, and spectatorship in theatrical and cinematic interpretations of Shakespeare.

DRAM 292 "Corner of the Sky": The American Musical (3). This course considers the anatomy and diversity of the American musical, exploring its history and aesthetics and employing an interdisciplinary approach to examining and celebrating its shows, sounds, stars, structures, styles, and sensibilities, within the genre's
dominant contexts of Broadway, Hollywood, and Utopia.
DRAM 294 Arts Criticism (3). An introduction to the principles of arts criticism through study of the work of a variety of critics, by distinguishing between the nature of criticism and reviewing the arts (both performing and plastic), and through the students' own practice of critical writing by means of a series of short essays.
DRAM 297 African American Women in Theatre (3). This course examines the lives of African American women through theatre, heightening awareness, understanding, and appreciation of theatre as a tool for social change and eradicating stereotypes. Themes and production aesthetics will be explored in their social and historical contexts.

DRAM 298 African Women in Theatre (3). This course will examine the lives and the theatrical contributions of African women through published and unpublished materials, production recordings, and interviews. Through understanding the diverse cultures of the continent, theatre is seen as entertainment and as a tool for effecting social change and healing.

DRAM 300 Directing (3). Prerequisite, DRAM 120. Permission of the instructor for students lacking the prerequisite. Generally limited to majors. An introductory course in the principles of stage directing; analysis for concept, organization of production, and methodology of staging.
DRAM 331 Playwriting II (3). Prerequisite, DRAM 231. Permission of the instructor for students lacking the prerequisite. A practical course in writing for the theatre, taught at an advanced level.

DRAM 350 Advanced Acting for the Major (3). Prerequisite, DRAM 250. Permission of the instructor for students lacking the prerequisite. Development of the actor's technique in verse drama with emphasis on scansion and textual analysis as guidelines for actions, characterization, and given circumstances. Scene and monologue work drawn from the works of Shakespeare.

DRAM 393 Professional Theatre Laboratory (1-12). Permission of the department. Individual programs or internship in acting, directing, design, management, and playwriting under the guidance of professional practitioners in conjunction with PlayMakers Repertory Company or other professional theatre organizations.

DRAM 460 Stage Management (3). Permission of the department. A study of the basic principles and practices of modern stage management.

DRAM 465 Sound Design (3). The study of general principles of sound design for the theatre. Theory and application of sound design techniques for the stage, including script analysis, staging concepts, special effects, sound plots, and technology.

DRAM 466 Scene Design (3). Permission of the instructor. General principles of visual design as applied to scenery for the theatre. Instruction in standard techniques of planning and rendering scene design.

DRAM 467 Costume Design I (3). Permission of the instructor. Studies and practicum in play analysis and costume design for the theatre. Instruction in techniques of planning and rendering costume design.

DRAM 468 Lighting Design I (3). Permission of the instructor. General principles of lighting design as applied to the performing arts. Theory and instruction in standard techniques of lighting for the stage.

DRAM 470 Survey of Costume History (3). A survey of historic costume forms from ancient Egypt to the present time.

DRAM 473 Costume Construction I (1-3). Permission of the instructor. Beginning instruction in pattern making through flat pattern for theatrical costume.

DRAM 474 Costume Construction II (1-3). Prerequisite, DRAM 473. Permission of the instructor for students lacking the prerequisite. Beginning instruction in pattern making through draping on a dress form for theatrical costume.
DRAM 475 Costume History: Africa, Asia, and Arabia (3). A survey of the traditional costume forms on the African Continent, in Asia (China, Japan, India), and on the Arabian Peninsula.

DRAM 480 Period Styles for Production (3). Students may not receive credit for both DRAM 280 and 480. A study of the historical development of Western minor arts and the ramifications of reproducing them for the theatre.
DRAM 484 Studies in Dramaturgy and Criticism (3). This seminar seeks to introduce students to the principles of arts criticism through study of the work of a variety of different critics, by distinguishing between the nature of criticism and reviewing the arts, and through the students' own practice of critical writing.

DRAM 486 Latin American Theatre (3). This course explores the historical and aesthetic development of Latin American theatre, focusing on particular factors that distinguish this theatre from the Western European tradition.
DRAM 488 United States Latino/a Theatre (3). Investigation of United States Latino/a theatre texts and performance practices as a discreet genre. United States Latino/a theatre will be distinguished from the dominant culture, and diversity of forms and styles discussed.

DRAM 489 Carnivals and Festivals of the African Diaspora (3). This course will examine the role of Carnival in the African Diaspora, exploring its history, its many theatrical forms and its fusion with European and indigenous American cultures. Through examining published and unpublished texts the development of the Carnival will be understood as an expression of freedom and cultural survival.

DRAM 491 Issues in Arts Management (3). Arts management issues taught through analysis of case studies. Course includes management theories, organizational structures, and current issues.

DRAM 493 Theatre Management (3). Practicum in theatre management procedures and business of the theatre involving box office, audience development, research, publicity, operational, and contract procedures in regard to artists, technicians, managers, and producers. Students actively engage in management areas of the PlayMakers Repertory Company and productions of the Department of Dramatic Art.

DRAM 566 Advanced Scene Design (3). Prerequisite, DRAM 466. Permission of the instructor for students lacking the prerequisite. Advanced study of the principles and practice of designing scenery for the theatre.

DRAM 567 Costume Design II (3). Prerequisite, DRAM 467. Permission of the instructor. Practicum in costume design for the theatre, focusing on the requirements of professional theatre production and alternative costume design solutions.

DRAM 586 Costume Seminars I: Dyeing and Painting (1-3). Prerequisite, DRAM 192. Permission of the instructor. Taught in a four-semester rotation. May be repeated for credit for a total of six hours for undergraduates and 12 hours for graduate students. Series of topics in costume for use in design and production for the stage.

DRAM 587 Costume Seminars II: Millinery and Hair (1-3). Permission of the instructor. Advanced costume production techniques with an emphasis on millinery and hair design.

DRAM 588 Costume Seminars III: Masks and Armor (1-3). Permission of the instructor. Advanced costume production techniques with an emphasis on creating masks and armor.

DRAM 589 Costume Seminars IV: Decorative Arts (1-3). Permission of the instructor. Advanced costume production techniques with an emphasis on decorative arts.
DRAM 590 Advanced Special Topics in Dramatic Art (0.5-3). The study of a topic in dramaturgy, theatrical design, or theatrical production for advanced undergraduates and graduate students. Content and instructor will vary. May be repeated for credit.

DRAM 650 Costume Production I: Couture Methods (0.5-3). Prerequisite, DRAM 192. Advanced construction techniques in theatrical costuming with an emphasis on couture methods.
DRAM 666 Media in Performance (COMM 666) (3). Required preparation, one performance studies course above COMM 400. Permission of the instructor for students lacking the required preparation. Project-based class where students acquire skills and critical approaches to create collaborative, professional, multi-media works.

DRAM 667 Advanced Costume Design I (1-3). Permission of the instructor. Study of costume design for students concentrating in costume production.
DRAM 691H Honors Project in Dramatic Art (3). Required preparation, 3.3 cumulative grade point average and permission of the department. The commencement of a special project (essay or creative endeavor), approved by the department, by a student who has been designated a candidate for undergraduate honors.

DRAM 692H Honors Project in Dramatic Art (3). Prerequisite, DRAM 691H. Permission of the department. The completion of a special project by a student who has been designated a candidate for undergraduate honors.
DRAM 697 Senior Seminar (3). Close study of the interrelationships between theory and practice in contemporary world theatre, placing developments in their cultural contexts, and exploring current theatrical trends in an international framework.

## Department of Economics

econ.unc.edu
107 Gardner Hall, CB\# 3305; (919) 966-2383
PATRICK J. CONWAY, Chair

## Introduction

Economics is commonly defined as the study of how society allocates scarce resources to satisfy unlimited wants. It focuses upon the fact that we wish to maximize our satisfaction through the consumption of goods and services (including leisure time); however, the resources available for production are limited. Hence, decisions must be made regarding what to produce, how to produce it most efficiently, and how to distribute the output among the various members of the society. Economics analyzes the market framework for making such choices.
At the microeconomic or "individual unit" level, economics examines the behavior of consumers, business firms, workers, and individual markets. At the macroeconomic or "aggregate" level, attention is given to the national and international problems of unemployment, inflation, balance of payments, and economic growth.
The courses leading to a B.A. degree with a major in economics comprise a large area of inquiry into the problems and structure of the economic segment of society. The curriculum provides the opportunity to achieve one or more of the following objectives:

- General education for intelligent citizenship with special emphasis on understanding the principles and problems of modern economic life
- Preparation for private employment. In pursuing this objective, supplementary courses in business administration (especially accounting courses) may be selected and integrated with the student's program
- Preparation for government employment
- Preparation for graduate programs in economics, business administration, international studies, law, health and hospital administration, city planning, public policy, and other fields
- Specialized undergraduate programs incorporating double majors and interdisciplinary studies


## Economics Major, B.A.

## Core Requirements

- ECON 101 (gateway course, with a grade of C or better)
- ECON 400, 410, and 420
- Four ECON courses at the 400,500 , or 600 level, with at least one course above the 400 level. Note that 200- and 300-level courses do not count toward the major. ECON 698 will count for 400-level credit only if ECON 384 has been taken; ECON 698 alone will not count toward the major in economics. A grade of C must be attained in at least six of the seven major courses numbered above 101.

STOR 155 and BUSI 410 together will substitute for ECON 400; if this substitution is made, another major-level economics course must be taken in place of ECON 400 so that there are seven economics courses in addition to ECON 101. For majors in the
department's honors program, the minimum is eight economics courses rather than seven courses in addition to ECON 101. The same provisions apply, except that ECON 691H and 692H must constitute two of the eight courses.

An economics major may apply as many as 15 economics courses, or 45 hours, toward the B.A. degree. Students must complete all General Education requirements, including at least one calculus course (MATH 152 or 231; STOR 112 or 113; MATH 231 or STOR 113 is recommended; MATH 116 is not acceptable). STOR 113 is recommended for most economics majors. MATH 231 is recommended for students who plan to take the calculus sequence (MATH 231, 232, and 233). ECON 101 will satisfy the social and behavioral sciences Approaches requirement, and the calculus course will satisfy the quantitative reasoning Foundations requirement. ECON 400 may be taken after completion of a calculus course. Both ECON 400 and 570, appropriate for majors, satisfy the quantitative intensive Connections requirement.

## Economics Major, NUS Joint Degree

UNC-Chapel Hill undergraduates can spend between two and four semesters at the National University of Singapore (NUS) and receive a joint bachelor of arts degree with a major in economics from both institutions. Qualified UNC-Chapel Hill students will have at least a 3.3 grade point average and can apply for the joint degree beginning in the second semester of their first year until the second semester of their junior year. UNC joint-degree students can decide how many semesters (between two and four) and at which point in their undergraduate career they would like to study at NUS, as long as it is after their first year at Carolina.

A minimum of 120 credit hours is required for graduation. They consist of a total of 60 hours in the major (including as many as six to 12 hours of honors work if applicable) and 45 hours of General Education requirements. The remaining 15 hours consist of electives, the Supplemental General Education requirement, and possibly one minor. All General Education and graduation requirements of both UNC-Chapel Hill and NUS must be met. A detailed listing of the requirements for both schools and how to satisfy those requirements is available at the UNC Study Abroad Office.

## Entrepreneurship Minor

This minor is designed for students who wish to remain in another discipline but who have an interest in the process of entrepreneurship. Entrepreneurship is the mechanism by which new products, services, and organizational processes are identified, refined, and ultimately realized as a sustainable part of the society. There is a common process for realizing all types of ventures. The minor will provide the student with the background to undertake entrepreneurial activity in either the business or social realm. The venture workshop course requirement allows students to select an area of focus, including commercial, scientific, social, arts, sport, public health, and social ventures. An internship opportunity is a key component of the minor.

The minor consists of five courses:

- ECON 101 Introduction to Economics (with a grade of C or better)
- ECON 125 Introduction to Entrepreneurship
- ECON 325 Entrepreneurship: Principles and Practice (prerequisite ECON 101) or PLCY 327 Introduction to Entrepreneurship
- ECON 327 Business Venturing Workshop (sections in commercial, arts, and science), EXSS 328 Sport Business Venture, PLCY 326 Social Ventures, or SPHG 780 Entrepreneurship in Public Health
- ECON 393 Practicum in Entrepreneurship

ECON 325, 327, and 393 cannot be counted toward an economics major. Typically, ECON 325 is only offered in the fall, and ECON 327 is only offered in the spring.

For additional information, contact the Department of Economics, (919) 966-2383.

## Advising

All majors and minors have a primary academic advisor in Steele Building. Students are strongly encouraged to meet regularly with their advisor and review their Tar Heel Tracker each semester. The department's director of undergraduate studies and undergraduate advisor work with current and prospective majors by appointment (see "Contact Information" below). Departmental academic advising is particularly important for those majors who are considering going on to graduate school. Further information on courses, undergraduate research opportunities, the honors program, careers, and graduate schools may be obtained from the department's Web site.

## Special Opportunities in Economics

## Honors in Economics

The Department of Economics honors program offers outstanding economics students the opportunity to work closely with an individual faculty member on a specialized research topic of the student's choice during the senior year. Generally, students with a 3.5 grade point average in economics courses and 3.3 in all University coursework may be invited to participate in this twocourse program (ECON 691H and 692H).
In the first semester (ECON 691H), students become familiar with the recent literature on topics of major interest. Each candidate formulates an honors thesis proposal and initiates work on the project. In ECON 692H, the thesis work is conducted under the supervision of a faculty advisor who is a specialist in the general topic area of the research.

Near the end of the second semester (ECON 692H), the student stands for an oral examination on the thesis. Upon successful completion of the program, the student receives the bachelor of arts degree with honors or with highest honors. Students in the honors program are also required to complete at least an eight-course major rather than the minimum seven courses, including ECON 691H and 692 H .

## Departmental Involvement

Undergraduates in economics have organized an active club, the Carolina Economics Club. Seminars, social activities, and greater interaction among students and with faculty have resulted from the formation of this on-going organization. The Club also has
helped the Department of Economics conduct an annual job fair. All majors are invited to participate in this organization's activities. In addition, the local chapter of Omicron Delta Epsilon, the national economics honor society, annually extends membership to those outstanding junior and senior economics majors who have demonstrated strong academic performance both overall and in their economics courses.

## Undergraduate Awards

Each spring the Chancellor awards the Undergraduate Prize in Economics to the undergraduate student majoring in economics who has been judged the most outstanding on the basis of major and related course performances.

## Graduate School and Career Opportunities

Economics students in recent years have frequently pursued graduate work in law and business administration, as well as the Ph.D. degree in economics. Others have entered international affairs/international studies programs. Students planning to pursue graduate work in economics should continue to take mathematics courses beyond the required level, and a minor or second major in mathematics is recommended.

Most students have accepted employment with commercial and investment banks, accounting and insurance firms, and a variety of other corporations. The economics major competes well with other majors (including business administration) in the job market. Employment surveys of recent graduates by UNC-Chapel Hill's University Career Services indicate a relatively high ranking for economics majors in terms of employment rates and starting salaries. Note: Recent majors have found that job possibilities are enhanced if at least one accounting course has been completed at the undergraduate level.

## Faculty

## Professors

Gary A. Biglaiser, Patrick J. Conway, Eric Ghysels, Donna B. Gilleskie, David K. Guilkey, Steven S. Rosefielde, Helen V. Tauchen.

## Associate Professors

Anusha Chari, Neville Francis, Lutz Hendricks, Jonathan Hill, Brian McManus, Peter Norman, William Parke, Sergio Parreiras, Klara Peter, Boone A. Turchi.

## Assistant Professors

Simon Alder, Clement Joubert, Ju Hyun Kim, Fei Li, Toan Phan, Tiago Pires, Valentin Verdier, Andrew Yates.

## Adjunct Faculty

James Anton, Peter Coclanis, Ricardo Colacito, Robert Connolly, Jennifer Conrad, Mariano Massimiliano Croce, Nathan Letts, Gordon Liu, Michael T. Owyang, Billy Pizer, Barry Popkin, Frank Sloan, Sally Stearns, Rachel Willis.

## Lecturers

Michael Aguilar, Rita Balaban, Burton Goldstein, Stephen Lich-Tyler, Charles Merritt, Michelle Sheran-Andrews, Geetha Vaidyanathan.

## Professors Emeriti

John S. Akin, Dennis Appleyard, Arthur Benavie, Stanley W. Black, Ralph Byrns, William A. Darity Jr., Alfred J. Field Jr., James Friedman, Richard T. Froyen, A. Ronald Gallant, Dell B. Johannesen, David McFarland, James L. Murphy, Michael K. Salemi, John Stewart, Vincent Tarascio, Roger Waud, James Wilde, Xiaodong Wu.

## Contact Information

William Parke, Director of Undergraduate Studies, CB\# 3305, 204
Gardner Hall, (919) 966-2383, parke@email.unc.edu.
Stephen Lich-Tyler, Undergraduate Advisor, CB\# 3305, 102
Gardner Hall, (919) 966-2383, swlt@email.unc.edu.

## Courses

ECON 101 or equivalent is a prerequisite to all courses numbered above the 100 level. In addition, University graduation credit will be given for only one course in each of the following sets of courses: ECON 310 and 410, ECON 320 and 420, ECON 320 and 423, ECON 330 and 430, ECON 340 and 440, ECON 345 and 445, ECON 380 and 480.

## ECON-Economics

ECON 50 First-Year Seminar: Future Shock: Global Economic Trends and Prospects (3). Are we heading for global depression and an intensification of international conflict as in the 1930s? Or are we on the threshold of a golden age of peace and prosperity? This course will use the tools of economics and international security analysis to examine the probable directions of that change.

ECON 51 First-Year Seminar: Current Economic Problems: The Economics of North Carolina (3). Basic concepts of economics through the study of basic economic issues facing the residents of North Carolina. Topics will include hog farming, the Carolina Panthers, the outsourcing of manufacturing jobs, the proliferation of Wal-Marts, and more.

ECON 52 First-Year Seminar: The Root of All Evil? Money as a Cultural, Economic, and Social Institution (3). It is amazing that over time people have developed the willingness to exchange valuable goods for useless pieces of paper called money. In this course, students study money as a social, economic, historical, and cultural institution.

## ECON 53 First-Year Seminar: The Costs and Benefits of

 the Drug War (3). The basic question examined in this course will be the costs and benefits of the United States policy of drug prohibition. As a seminar the class will consist of discussions and debates.
## ECON 54 First-Year Seminar: The Entrepreneurial

 Imagination: Turning Ideas into Reality (3). What are the skills and competencies that great entrepreneurs have in common and how might first-year students begin to acquire such skills? This course will answer the question by combining a study of the writings of leading scholars on innovation and entrepreneurship with analytical case studies on successful entrepreneurs.ECON 55 First-Year Seminar: Economics of Sports (3). This course uses a variety of economic tools to analyze selected topics and issues related to professional, collegiate, and recreational athletics.

ECON 56 First-Year Seminar: Entrepreneurship: Asia and the West (3). This course fits the Carolina Entrepreneurial Initiative (CEI), with the communication intensive, global issues framework.

ECON 57H First-Year Seminar: Engines of Innovation: the Entrepreneurial University in the 21st Century (3). Exploring research universities' impact on solving the world's biggest problems. Based on a book coauthored by Buck Goldstein and Chancellor Holden Thorp. Students will work on an entrepreneurial project.

ECON 89 First-Year Seminar: Special Topics (3). This is a special topics course. Content will vary each semester.
ECON 100 Economic Principles (3). Discussion of economic topics of current interest for students with little or no background in economics.

ECON 101 Introduction to Economics (3). Introduction to fundamental issues in economics including competition, scarcity, opportunity cost, resource allocation, unemployment, inflation, and the determination of prices.
ECON 125 Introduction to Entrepreneurship (3). A survey course providing both a theoretical framework and practical examples of what it means to think like an entrepreneur and how such thinking can impact a range of important societal challenges.

ECON 231 Economic History of Western Europe (3). Main features of the emergence and expansion of capitalism since 1500.
ECON 234 Survey of the History of Economic Thought (3). Introduction to the development of economic thought from the mercantilists, through Smith and the classicists, Marx, the neoclassicists to Keynes.

ECON 267 Comparative Economic Systems (3). A survey of the principles and performance of capitalist, communist, socialist, corporatist, and transitional systems.
ECON 285 Access to Work (AMST 285) (3). See AMST 285 for description.
ECON 291 Undergraduate Learning Assistant Seminar and Practicum (1-3). Permission of the instructor. Studies have shown that courses utilizing undergraduate learning assistants have improved quality of instruction, sensitivity to student concerns, and overall student contact. Undergraduate learning assistants also gain an improved knowledge of the subject matter, heightened communication skills, and a sense of membership in the academic community.
ECON 293 Internship (3). Permission of the director of undergraduate studies. Majors only. A supervised internship appropriate for experiential education in economics. Cannot count toward the economics major. Pass/Fail only.

ECON 310 Microeconomics Theory and Applications (MNGT
310) (3). Analysis of the ways in which consumers and business firms interact in a market economy. Students may not receive credit for both ECON 310 and 410.

ECON 320 Macroeconomics: Theory and Policy (3). Analysis of economic theory and government policy as they relate to such national economic variables as output, income, employment, inflation, investment, and budget and trade deficits. Students may not receive credit for both ECON 320 and 420 or both ECON 320 and 423.

ECON 325 Entrepreneurship: Principles and Practice (3). Prerequisite, ECON 101. Permission of the instructor for students lacking the prerequisite. A historical overview of the role and importance of entrepreneurship in the economy and society, and a survey of the critical competencies all entrepreneurs (commercial, social, or artistic) must possess.

ECON 326 Social Ventures (PLAN 326, PLCY 326) (3). See PLAN 326 for description.

ECON 327 Business Venturing Workshop (3). Prerequisite, ECON 325. Permission of the instructor for students lacking the prerequisite. A comprehensive survey of commercial venturing throughout the lifecycle of a venture from initial conception to execution and exit. Outlines strategies of entrepreneurs to develop ventures in different commercial markets.

ECON 330 Economic History of the United States (MNGT
330) (3). Main features of the American economy: colonial times to the present.

ECON 340 Introduction to Public Finance (3). Principles and practices of the budgetary activities of American governmentsfederal, state, and local. Students may not receive credit for both ECON 340 and 440.

ECON 345 Public Policy toward Business (MNGT 345) (3). Prerequisite, ECON 310 or 410 . Industry structure and its relation to performance; market imperfections; description and analysis of antitrust and regulation. Students may not receive credit for both ECON 345 and 445.

## ECON 360 Survey of International and Development

Economics (3). An introduction to basic economic concepts critical to understanding issues of economic development and international economics, particularly as they relate to contemporary policy issues facing both developing and industrialized countries.

ECON 363 International Economics from the Participant's Perspective (3). Prerequisite, ECON 360. Permission of the instructor for students lacking the prerequisite. This course examines the fundamental principles of international economics from the perspective of the private business firm. Rather than begin with abstract theory, the course will work with case studies of individual firms as they choose to (or are forced to) compete in an international marketplace.
ECON 380 The Economics of Labor Relations (MNGT 380) (3). Prerequisite, ECON 310 or 410 . An economic analysis of workplace issues, including worker quits, layoffs and unemployment, discrimination and affirmative action, and the setting of pay, fringe benefits, and working conditions. Students may not receive credit for both ECON 380 and 480.

ECON 384 Introduction to Philosophy, Politics, and Economics (PHIL 384, POLI 384) (3). See PHIL 384 description.

ECON 385 Gender and Economics (AMST 385, WMST
385) (3). Survey of women's time allocation patterns, labor force participation trends, earnings, occupational selection, and economic history.

ECON 390 Special Topics (1-3). Topic varies from semester to semester.

ECON 393 Practicum in Entrepreneurship (3). Prerequisite, ECON 327 or PLCY 326. Students spend a minimum of eight weeks in an entrepreneurial environment taking on significant responsibilities and working on a specific project that results in a rigorous agreed-upon deliverable.
ECON 395 Research Course (1-3). Topic varies from semester to semester.

ECON 396 Independent Study (1-3). Permission of the director of undergraduate studies. Readings and research under the supervision of a member of the department.

ECON 400 Elementary Statistics (3). Prerequisites, ECON 101, and one of MATH 152, 231, STOR 112, or 113.Comprehensive introduction to statistics, including descriptive statistics and statistical graphics, probability theory, distributions, parameter estimation, hypothesis testing, simple and multiple regression, and use of powerful statistical estimation software.
ECON 410 Intermediate Theory: Price and Distribution (3). Prerequisites, ECON 101, and one of MATH 152, 231, STOR 112 , or 113. The determination of prices and the distribution of income in a market system. Students may not receive credit for both ECON 310 and 410.

ECON 420 Intermediate Theory: Money, Income, and Employment (3). Prerequisite, ECON 410. An introduction to contemporary macroeconomic concepts and analysis. Topics include the level, fluctuations, and growth of national income, and monetary and fiscal policies designed to achieve economic goals. Students may not receive credit for both ECON 320 and 420.
ECON 423 Financial Markets and Economic Fluctuations (3). Prerequisite, ECON 420. An examination of financial institutions and markets, their role in economic conditions, and the use of macroeconomic policies in affecting those conditions. Students may not receive credit for both ECON 320 and 423 .

ECON 430 Economic Development of the United States (3). Prerequisites, ECON 410 and 420. Students may receive credit for either ECON 330 or 430 but not for both. This course parallels ECON 330 but is designed for students with a higher level of theoretical preparation.
ECON 434 History of Economic Doctrines (3). A survey of the fundamental forms of economic thought from the scholastics through Keynes.

ECON 440 Analysis of Public Finance (3). Prerequisite, ECON 410. Application of economic analysis to the taxing and spending functions of government. Students may not receive credit for both ECON 340 and 440.
ECON 445 Industrial Organization (3). Prerequisite, ECON 410. Theoretical and empirical development of structure-conduct-
performance relationships in the industrial sector; description and analysis of United States industry. Students may not receive credit for both ECON 345 and 445.

ECON 450 Health Economics: Problems and Policy (3). Prerequisite, ECON 410. Permission of the instructor for students lacking the prerequisite. Economic analysis applied to problems and public policy in health care.
ECON 454 Economics of Population (3). Prerequisite, ECON 310 or 410. Permission of the instructor for students lacking the prerequisite. Analysis of economic-demographic interrelations including demographic analysis, population and economic growth and development, economic models of fertility and migration, and population policy.
ECON 455 Environmental Economic Theory (3). Prerequisite, ECON 410. A rigorous economic analysis of environmental issues, with particular emphasis on the problem of designing appropriate institutions and regulations under private information and the interaction between economic and ecological systems. Topics include emission fees and marketable permits, pollution models, carbon regulation, and ecosystem service markets.

## ECON 460 International Economics (EURO 460, PWAD 460)

(3). Prerequisite, ECON 410. An introduction to international trade, the balance of payments, and related issues of foreign economic policy.
ECON 461 European Economic Integration (3). Prerequisite, ECON 410. Permission of the instructor for students lacking the prerequisite. Economic and political aspects of European economic integration, the EC customs union, barriers to integration, convergence vs. divergence of inflation rates and income levels, enlargement of the EC.

ECON 465 Economic Development (3). Prerequisite, ECON 410. Permission of the instructor for students lacking the prerequisite. An introduction to the economic characteristics and problems of the less developed countries and to the theories and policies applicable to the developing economy.
ECON 468 Principles of Soviet and Post-Soviet Economic Systems (3). Prerequisite, ECON 310 or 410 . Study of the principles, design, organization, and performance of statecontrolled economies relying on planning or regulated markets, with an emphasis on continuity and post-communist transition.

ECON 469 Western and Asian Economic Systems (ASIA
469) (3). Prerequisite, ECON 310 or 410 . Policy seminar on the systemic factors distinguishing Western economies from their rivals in the former Soviet bloc and Asia, focused on conflict resolution and global integration.
ECON 480 Labor Economics (3). Prerequisite, ECON 410. An introduction to the field of labor economics with emphasis on how the interactions between firms and workers influence wages, employment, unemployment, and inflation. Students may not receive credit for both ECON 380 and 480.

ECON 485 Economics of Sports (3). Prerequisites, ECON 400 and 410. Applies microeconomic techniques to professional and amateur sports through the examination of real-world issues and
problems. Employs statistical analysis to test some of the theoretical predictions of the models in the sports literature.
ECON 490 Special Topics (1-3). Topic varies from semester to semester.

ECON 495 Research Course (1-3). Topic varies from semester to semester. Permission of the instructor.

ECON 496 Independent Study (1-3). Prerequisite, ECON 410. Permission of the director of undergraduate studies. Readings and research under the supervision of a member of the department.
ECON 510 Advanced Microeconomic Theory (3). Prerequisite, ECON 410. A treatment of topics in microeconomic theory not normally covered in ECON 410.

ECON 511 Game Theory in Economics (3). Prerequisites, ECON 410 and MATH 233. Permission of the instructor for students lacking the prerequisites. Topics in noncooperative and cooperative game theory are covered, along with a selection of applications to economics in areas such as industrial organization, international trade, public finance, and general equilibrium.
ECON 520 Advanced Macroeconomic Theory (3). Prerequisite, ECON 420. This course will emphasize theoretical and empirical topics such as growth, labor search, Phillips curves, stagflation, and optimal government policy.

ECON 540 Advanced Public Finance (3). Prerequisite, ECON
440. Selected topics in taxation, public expenditures, and governmental transfer programs.

## ECON 545 Advanced Industrial Organization and Social

Control (3). Prerequisite, ECON 445. Theory of market failure and its relationship to antitrust and regulatory policy; exploration of empirical literature of industrial organization; current issues in social control.

ECON 560 Advanced International Economics (3). Prerequisite, ECON 460. Analysis and interpretation of selected problems and policy issues. Content varies, but attention is given to such topics as trade barriers, trade patterns, floating exchange rates, and international monetary policy.
ECON 570 Economic Applications of Statistical Analysis (3). Prerequisite, ECON 400. Statistical methods in the construction, estimation, testing, and application of linear economic models; computer programs and interpretation of their output in empirical analysis of common economic theories.

ECON 575 Econometric Topics: Applied Time Series Analysis and Forecasting (3). Prerequisites, ECON 400, 410, 420, and 570. Permission of the instructor for students lacking the prerequisites. Econometric techniques for time series data. Topics include ARMA models, forecasting, nonstationarity, conditional heteroskedasticity, and multiple equation models.
ECON 580 Advanced Labor Economics (3). Prerequisite, ECON 480. A theoretical and empirical analysis of current social problems involving individuals and their jobs. Included are such topics as poverty, discrimination, and working conditions.

ECON 586 Economics of the Family (3). Prerequisite, ECON 410. Permission of the instructor for students lacking the
prerequisite. Analyzes the family with respect to the marriage market; divorce; reproductive behavior; the baby black market; intra-family allocation of goods, time, and power; labor supply; migration; and family policy.

ECON 590 Special Topics (1-3). Topic varies from semester to semester.

ECON 595 Research Course (1-3). Topic varies from semester to semester.

ECON 596 Independent Study (1-3). Prerequisite, ECON 410. Permission of the director of undergraduate studies. Readings and research under the supervision of a member of the department.

ECON 691H Honors Course (3). Permission of the instructor. Readings in economics and beginning of directed research on an honors thesis. Required of all candidates for graduation with honors in economics.

ECON 692H Honors Course (3). Prerequisite, ECON 691H. Permission of the instructor. Completion of an honors thesis under the direction of a member of the faculty. Required of all candidates for graduation with honors in economics.

ECON 698 Philosophy, Politics, and Economics II: Capstone Course (PHIL 698, POLI 698) (3). See PHIL 698 for description.

## Department of English and Comparative Literature

englishcomplit.unc.edu
Greenlaw Hall, CB\# 3520; (919) 962-5481
BEVERLY W. TAYLOR, Chair

## Introduction

The Department of English and Comparative Literature is a vibrant and diverse department with a global reach. Our course offerings present a diversity of approaches to the study, production, and appreciation of literary and nonliterary texts. In our undergraduate program, we pursue a four-fold mission to 1) explore the history and significance of American, British, and world literatures; 2) promote interdisciplinary connections and incorporate the study of culture, theory, and history into our research and courses; 3) offer training in rigorous thinking, precise analysis, and critical reading; and 4) foster practical skills in rhetoric, composition, and expression in essays, creative pieces, even emerging forms of digital media.

## Comparative Literature Major, B.A.International Literature Track

To major in comparative literature is to explore major works of literature, film, and theory from across the world, crossing disciplinary as well as national, cultural, and linguistic boundaries. Majoring in comparative literature enables students to acquire a broad, liberal arts-based education and equips them to live, work, and communicate in a multicultural world.

## Core Requirements

- One course from Great Books I (CMPL courses numbered between 120 and 129)
- One course from Great Books II (CMPL courses numbered between 130 and 142)
- CMPL 250 or 251
- Four CMPL courses 200 level or higher
- CMPL 697
- Two literature courses (200 level or higher) taught in a foreign/ classical language, chosen from the following lists. (We recommend that these courses be in the same language.)
o ARAB 305, 306, 308, 407, 408, 496, 681
${ }^{\circ}$ CHIN 306, 313, 407, 408, 414, 442, 490, 496, 510, 511, 525 , 532, 590
o FREN 260, 312, 332H, 370-372, 375, 376, 380-382, 387, 390, 427, 438, 484, 489, 490, 504, 505, 513, 522, 530, 561, 575, 576, 583, 585, 590, 611, 613, 615-617, 622, 630, 661, 670, 683, 685, 687
${ }^{\circ}$ GERM 303, 325, 330, 349, 350, 370-374, 380-383, 502
${ }^{\circ}$ GREK 205, 221, 222, 351, 352, 396, 409, 508-510, 540, 541
${ }^{\circ}$ ITAL 333, 335, 343, 345, 370, 371, 382, 398, 511, 512
${ }^{\circ}$ JAPN 305, 306, 408-412, 451, 482
${ }^{\circ}$ LATN 205, 221-223, 331-335, 351-354, 396, 511-514, 530, 540, 541
o PORT 385, 387, 501-504, 535
o RUSS 250, 431, 432, 441, 442, 460, 463-465, 471, 473, 479, 560
o SPAN 260, 262, 371-373, 379-389, 398, 613, 614, 617, 620, 625, 630, 650
Students wishing to count literature courses not listed above toward the major are encouraged to consult the director of undergraduate studies.


## Additional Requirements

- Foreign language through level 4


## Comparative Literature Major, B.A.Global Cinema Studies Track

## Core Requirements

- One course from Great Books I (CMPL courses numbered between 120 and 129)
- CMPL 142 Visual Culture II
- CMPL 143 or IDST 256
- CMPL 240, 250, or 251
- CMPL 697
- ENGL 142
- Four courses in film, 200 level or higher, chosen from the following list: AAAD 250, 396; AMST 268, 336, 483; ARAB 453; ASIA 224, 333, 435; ASIA/CMPL 255, 379; ASIA/FREN 451; CHIN 464; CMPL 254, 257, 280, 375, 382, 420, 463, 494; CMPL/EURO/FREN 332H; COMM 450, 452, 546, 547, 566; COMM/WMST 345, COMM 436/WMST 437; ENGL 380, 381, 389, 410, 580, 680, 682; ENGL/WMST 665; EURO/ SPAN 362; FREN 373; GERM 265, 275; GERM/WMST 250; HUNG 280, 411; ITAL 333, 335, 340; PLSH 280; PORT 388; RUSS 281; SLAV 281; SPAN 361, 388; WMST 285


## Additional Requirements

- Foreign language through level 4


## Additional Information for Both Comparative Literature Concentrations

Students may choose comparative literature as a second major, a particularly attractive option for those majoring in a foreign language because up to four of the foreign language major requirements can also count toward the 10 -course major requirement in comparative literature.

Undergraduates majoring in comparative literature may minor in any department, curriculum, or school in which a minor is offered.

Majors should expect to work closely with the undergraduate advisor to design and follow a coherent, cohesive plan of study. Students who study abroad can generally apply their literature credits towards the major. Students completing the global cinema studies track may not complete a minor in global cinema studies.

All majors, regardless of their chosen track, must obtain at least a level 4 proficiency in a foreign language relevant to their individual area of interest. We strongly recommend that students in global cinema studies track study as many film courses in the original languages as possible.

Sophomores planning to major in comparative literature should take one course under the Great Books I rubric, which treats ancient and premodern literatures, and one course under the Great Books II rubric, which treats literature from 1750 to the present. One of these courses can be used to fulfill the General Education literary arts Approaches requirement.

## English Major, B.A.

## Core Requirements

- ENGL 120 British Literature, Medieval to 18th Century
- ENGL 121 British Literature, 19th and Early 20th Century, or ENGL 150 Introductory Seminar in Literary Studies
- ENGL 225 Shakespeare
- One pre-1660 course: ENGL 226, 227, 228, 230, 285, 319, 320, 321*, 325, 326, 327, 330, 430
- Two 1660-1900 courses: ENGL 278*, 321*, 331, 332, 333, 338, 339, 343, 344, 347*, 367, 373*, 374*, 387*, 436, 437, 439, 440, 441, 442, 443, 444, 638
- One post-1900 course: ENGL 266, 278*, 288, 289, 345, 347*, $348,350,355,356,357,360,364,368,369,373^{*}, 374^{*}, 375$, 387*, 445, 462
- Three elective courses: Students may choose elective courses numbered between ENGL 200 and 699. Students should view these courses (which may include any of the courses listed among the core requirements) as an opportunity to further their work in historical periods or to explore other fields, methods, themes, and approaches to literature. The three courses can share a common ground-organized, for example, around a theme; a historical period or periods; a genre; a critical approach; a national, regional, or ethnic grouping; or a writing focus-or they can combine a range of different interests.
- Of the 10 courses required for the major, two of these must focus primarily on American literature: ENGL 343, 344, 345, 347, $348,350,356,360,367,368,369,373,443,444,445$. Courses
fulfilling the American literature requirement will also fulfill a core requirement or serve as an elective.
Courses marked with an asterisk may fit more than one category but can be counted only once, although courses that fulfill the American literature requirement simultaneously fulfill a core requirement or an elective requirement. For example, ENGL 347 may fulfill either the 1660-1900 or the post-1900 requirement, but not both, and it counts towards the American literature requirement in either case.

English majors may choose additional courses, though they should keep in mind that no more than 45 semester hours of English (excluding ENGL 100 and 105) may be used toward the B.A. graduation requirement.

Students must have a grade of C or better in at least 18 semester hours in courses numbered ENGL 120 and above to satisfy the major requirements. All General Education requirements apply.

## English Major, NUS Joint Degree

English majors may wish to consider applying for the Joint Degree Program, an innovative joint undergraduate degree program between the University of North Carolina at Chapel Hill and the National University of Singapore. UNC-Chapel Hill undergraduates spend anywhere from two to four semesters at the National University of Singapore and receive a joint bachelor of arts degree from both institutions. For further information, contact the Study Abroad Office.

## English Majors in the School of Education

A student interested in teaching English in public high schools can apply to the M.A.T. program for certification after completing a B.A. in English. To meet certification requirements, students should take the following courses as part of, or in addition to, the English major (remaining within the 45 -hour limit referenced above):

- Three required courses: ENGL 313, 368 or 369, and 373
- Two recommended courses: ENGL 314, 374, 400, 401, or 446


## Comparative Literature Minor

Students who wish to minor in comparative literature must take

- One course from Great Books I (CMPL courses numbered between 120 and 129)
- One course from Great Books II (CMPL courses numbered between 130 and 142)
- Three additional courses numbered between CMPL 200 and 699

Courses cross-listed between comparative literature and classics may not be counted for a minor in comparative literature by students majoring in classics.

## Composition, Rhetoric, and Digital Literacy Minor

The department offers a minor in composition, rhetoric, and digital literacy. The minor requires 15 hours and may be earned by taking five courses in the minor or completing four courses and a capstone project (as an independent study course).

Writing classes offered by the UNC Friday Center for

Continuing Education (correspondence, independent study, online) do not count toward the minor.

## Core Requirements

- One of the following courses: ENGL 300, 300I, 301, 302, 303, 304, or 305
- Four additional courses from the following three lists, one of which must be an ENGL course from list one:
o ENGL 127, 130*, 131*, $132 \mathrm{H}^{*}$ or $133 \mathrm{H}^{*}, 137,149,216,283$, 300, 300I, 301, 302, 303, 304, 305, 307*, 313, 314, 316, 317, 318, 400, 401, 402, 674, 675, 676
o One additional communication intensive (CI) course above 100, beyond the CI Connections requirement; recommended courses include AMST 275; BUSI 401; CMPL 250, 251; COMM 113, 350, 432; COMM/DRAM 131; COMM/ ENEC 375; COMM/WMST 224; COMP 102, 381; DRAM 231; HIST 670; JOMC 153; WMST 695.
o ENGL 496 Independent Research or ENGL 691H/692H English Senior Honors Thesis. These courses permit students to complete an electronic portfolio, a service-learning assignment, a writing internship with a reflection paper, an honors project, or a capstone project to be determined in consultation with a faculty member.
*No more than one course can be a creative writing course.
Students may, however, count these courses towards a minor in creative writing as well as the minor in composition, rhetoric, and digital literacy.


## Creative Writing Minor

The Creative Writing Program offers a minor in creative writing. The minor requires 15 hours, a total of five courses, and may be earned in one of two ways: 1) by completing introductory, intermediate, advanced, and two-semester senior honors classes in one genre; or 2) by completing five courses in any combination of genres.

Students need to begin work toward the minor at least by their sophomore year and may take one creative writing class per semester. Enrollment in courses beyond the introductory level is by permission only. Students must seek permission from the program's director to declare the minor once they have taken two creative writing courses and are on track to graduate. Completion of a minor in creative writing is contingent on the student's successful advancement through the sequence.

The Creative Writing Program also gives credit toward the minor for several courses offered in other departments, such as DRAM 231 Playwriting, COMM 330 Introduction to Writing for Film and Television, COMM 433 Intermediate Scriptwriting, and JOMC 256 Feature Writing. To qualify for a degree with honors or highest honors in creative writing, students must maintain a 3.3 grade point average and meet all requirements both to enter and to complete the senior honors seminar (ENGL 693H and 694H). Students minoring in creative writing and planning to study abroad must plan carefully so that they meet all submission and deadline requirements for applying to successive courses. Writing classes offered by the UNC Friday Center for Continuing Education (correspondence, independent study, online) do not count toward the minor.

The courses for the fiction track and poetry track are as follows:

- Fiction: ENGL 130 or $132 \mathrm{H}, 206,406$, and 693 H and 694 H (a yearlong, two-semester senior workshop, which counts as two courses and can lead to graduation with honors or with highest honors in creative writing)
- Poetry: ENGL 131 or $133 \mathrm{H}, 207,407$, and 693 H and 694 H
(a yearlong, two-semester senior workshop, which counts as two courses and can lead to graduation with honors or with highest honors in creative writing)
Other creative writing courses include ENGL 138 Introduction to Creative Nonfiction, 208 Reading and Writing Creative Nonfiction, 209 Reading and Writing Children's Fiction, 210 Writing Young Adult Literature, 306 Playwriting, 307 Studies in Fiction and Poetry: Stylistics, and 490 Creative Writing: Special Topics.

ENGL 130, 131, 132H, 133H, and 138, the introductory classes, are prerequisites to other Creative Writing Program classes. ENGL 130, 131, and 138 are open for registration by rising sophomores only during spring semester for the following fall and for current sophomores only during fall semester for the following spring. Rising or current sophomores may register for ENGL 130, 131, or 138 , but not for more than one of these three courses. Demand by sophomores regularly exceeds the number of seats available. Enrollment of juniors and seniors is on a space-available basis by permission of the instructor, and students may inquire of the instructor during the first week of classes to see if seats are available. ENGL 130, 131, and 138 are sometimes offered during summer sessions with no registration restrictions. Please always review summer session course listings for any changes or updates.

Advancement to successive courses in either the fiction or poetry sequence is by recommendation of the student's previous instructor(s) and by application for both the advanced workshops and senior honors seminars. If possible, the student is assigned to a different instructor for each course. Should students not advance beyond the intermediate level, they may choose to finish the minor with other classes offered in creative writing. Creative writing minors receive priority in all creative writing classes and usually fill all seats.

Students completing the five courses for the minor may take additional creative writing courses only by permission of the director, providing that all other students still completing the minor are served first.
Again, please note that online courses do not count towards the creative writing minor.

## Transfer Students: Important Information

The requirement for taking a minor in creative writing is five courses or 15 semester hours. Students are limited to one creative writing course per semester. Most junior transfer students have four semesters remaining. Junior transfer students wanting to minor in creative writing must either

1. Have an introductory course already on their record that will transfer to Carolina as credit, e.g., an introductory course in fiction writing or poetry writing taken previously at a college or university that is transferring in as credit for ENGL 130 or 131; OR
2. Take an introductory course via UNC-Chapel Hill Summer School prior to their first fall term at Carolina and be promoted
to the next level or to another creative writing class (on a spaceavailable basis) in the fall of their junior year.
Permission to move forward with transfer credit for an introductory course requirement (Option 1 above) will require a review by the creative writing faculty of the syllabus and work completed in the course and is dependent on space availability, which cannot be guaranteed. Students must provide hard copies of syllabi and samples of coursework as early as possible in order to ensure time for review and to schedule a meeting with the director.

Junior transfer students fulfilling one of these two options would be eligible for Advanced Fiction or Poetry (ENGL 406 or 407) and the senior honors seminars (ENGL 693H and 694H) if there is space available in Intermediate Fiction (ENGL 206) or Intermediate Poetry (ENGL 207) their first fall semester, and ifon the basis of submitted work reviewed by a committee-they are chosen for those classes. If not, they would need to complete the minor using the multigenre approach.

Note: No more than two creative writing courses from other schools may be counted for credit at UNC-Chapel Hill. At least three of the five courses taken for the minor-courses designated ENGL—must be Creative Writing Program courses taken at Carolina.

## English Minor

The English minor consists of five courses:

- ENGL 120
- Four courses numbered between ENGL 200 and 699, one of which must be an American literature course selected from ENGL $343,344,345,347,348,350,356,360,367,368,369,373$, 443,444 , or 445


## Global Cinema Minor

The global cinema minor offers an interdisciplinary minor in global cinema studies. This five-course minor enables students to explore the changing global face of cinema in its aesthetic, economic, historical, linguistic, literary, and social contexts. Students select a flexible, rigorous, and exciting course of study of the place of film within and across human cultures. The minor aims to provide undergraduates with grounding in the history of cinema's development across the world as well as current trends and developments in global film production. The minor places a particular emphasis on the development of students' critical judgment and written expression. Undergraduate students majoring in any academic unit are eligible.

The interdisciplinary minor consists of five courses:

- ART 159 The Film Experience or ENGL 142 Film Analysis
- CMPL 143 History of Global Cinema or IDST 256 Global Cinema
- Three electives from at least two different departments, chosen from the following list: AAAD 250; AMST 268, 336; ARAB 453; ASIA 224, 231, 235, 435; ASIA/CMPL 255, 379; CHIN 244, 464; CMPL 254, 280, 282, 375, 382, 420, 463, 494; CMPL/ EURO/FREN 332H; CMPL/SLAV 281; COMM 230, 412,

431, 452, 493, 534, 546, 547, 550, 551, 635, 647, 653, 654, 681, 682, 683; COMM/WMST 345; ENGL 143, 380, 389, 410, 580, 663, 680; FREN 373; GERM 265, 275; GERM/ PWAD 283; GERM/WMST 250; HUNG 280; ITAL 333, 335, 340; PORT 388; RUSS 281
For additional information, contact the Director, Global Cinema Minor, Department of English and Comparative Literature.

## Latina/o Studies Minor

Requirements for the five-course minor in Latina/o studies are as follows:

- One humanities/fine arts course in Latina/o literatures and cultural production chosen from AAAD 284; DRAM 288, 487, 488; ENGL 265, 267, 359, 364, 465, 665, 666, 685; HIST 241, 561, 574; MUSC 147; RELI 245; SPAN 389, 398
- One course in social sciences or Latina/o communities and cultural space chosen from AAAD 278, 290, 340; ANTH 130; GEOG 56 (first-year students only), 423, 452; JOMC 443; PLCY 349
- Three elective courses chosen from the lists above or from AAAD 260 or DRAM 486. At least one elective must be from the humanities and at least one from the social sciences.
Latina/o studies is constituted from the transdisciplinary study of Latina/o cultural production and experience in terms of a whole variety of factors. Latinas/os are defined as people of Latin American and Iberian descent living and working or based in the United States, but also moving between the United States and the rest of the Americas. Latina/o studies takes as its primary concern the presence of Latin America, Spain, and the myriad combinations of Hispanic-Native-African-Asian and European non-Hispanic cultures within the borders of the United States. However, Latina/o studies is not confined within those borders to the extent that its subjects of study (and the very creators of the field itself) are in motion and in flux, coming and going, crossing borders and boundaries. In this respect it shares some of the transnational and transcultural scope, momentum, and issues of Latin American studies but with its own foci, its own perspectives. Latina/o studies does not duplicate the work of Latin American studies; it draws on it and complements it.

Latina/o studies is characterized by heterogeneity. Latina/o studies encompasses Chicana/o studies, Puerto Rican studies, Cuban American studies, Dominican studies, Central American studies, South American studies, and so forth. It takes into account the cultural production and the socioeconomic and political experiences of a diverse population located in many parts of the country, not just in the Southwest borderlands. As such, it offers plenty of opportunity for both diversification and specialization.

The main stipulation of the minor is that students must take a combination of courses in the humanities (literatures and cultural production) and the social sciences (communities and cultural space), some of which have been designated as core courses and others as electives. Students who feel they need a basic introduction to Latina/o studies should take ENGL 364 Introduction to Latina/o Studies.

## Medicine, Literature, and Culture Minor

The interdisciplinary honors minor in medicine, literature, and culture was developed in collaboration with Honors Carolina and the Department of Social Medicine in the UNC School of Medicine. It encourages students to explore the cultural and historical dimensions of medical practice by viewing the practice of medicine not simply as an application of chemical and biological analyses of and interventions in the functioning of the human body but also as a cultural practice embedded in changing ideas of disease, health, doctors, patients, medical institutions, and ethics. The minor is available to students accepted into Honors Carolina and to any undergraduate student who has achieved and maintains a grade point average of 3.00 or better. Requirements for the minor include five courses representing at least three different subject codes. ENGL 268H Medicine, Literature, and Culture is required and is considered one of the three subject codes. Options for additional courses include, but are not limited to, the following courses:
ANTH 444H Medicine, Politics, and Justice
ANTH 470H Medicine and Anthropology
ANTH 473H Anthropology of the Body and the Subject
CMPL 383H Literature and Medicine
ENGL 266H Science and Literature
ENGL 390H Studies in Literary Topics: Representing Medicine
ENGL 489H Cultural Studies—Contemporary Issues: Literature, Medicine, and Disability

HNRS 650H Topics in Medicine and the Humanities
JOMC 560H Medical and Science Journalism
Additional courses can be applied to the requirements for this minor with the approval of the advisor for the minor.
At least three courses used to fulfill requirements for the minor must be counted exclusively in the minor and cannot be doublecounted with a major or second minor. A minimum of 12 hours of C (not C-) or better is required in the minor. All courses must be taken for a standard letter grade, with the exception of one course (three to four credit hours) of By-Examination (BE) credit.

## Advising

Because the major in comparative literature is a relatively small major, students and faculty members have the opportunity for frequent discussions. Majors in the comparative literature program should expect to work closely with the director of undergraduate studies and other faculty in comparative literature to design and follow a coherent and cohesive plan of study in the major, as well as to consider options for independent research, study abroad, and honors thesis opportunities. Students are expected to review their Tar Heel Tracker each semester and work with advisors in Steele Building to ensure timely progress towards the degree.

All English majors have a primary academic advisor in Steele Building. Students are strongly encouraged to meet regularly with their advisor and review their Tar Heel Tracker each semester. The department's director of undergraduate studies works with current
and prospective majors by appointment (see "Contact Information" below). Departmental academic advising is particularly important for those majors who are considering going on to graduate school. Further information on courses, undergraduate research opportunities, the honors program, careers, and graduate schools may be obtained from the department's Web site.

## Special Opportunities in English and Comparative Literature

## Honors in Comparative Literature

Majors with an overall 3.3 grade point average may elect to write an honors thesis by applying for permission to the director of undergraduate studies in the spring semester of their junior year. Students then register for CMPL 691H and 692H during their senior year. These courses may count as credit towards completion of the major. Students write the 50- to 70-page thesis on a comparative topic under the direction of any faculty member. The student conducts independent research during the summer between junior and senior years, often with the assistance of research funding. The first semester of the senior year involves regular tutorial sessions with the faculty advisor, as well as the completion of most of the writing of the thesis. In the spring students finish the process of writing and defend the completed thesis at an oral examination. For more information about the honors thesis in comparative literature, including examples of past thesis topics, please see englishcomplit.unc.edu/complit/undergraduate/honors_ thesis.

## Honors in Creative Writing

See "Creative Writing Minor" above.

## Honors in English

The Department offers at least two English honors seminars each semester. In addition, students seeking a degree with honors in English (a 3.3 cumulative grade point average and a 3.6 grade point average in major courses required) undertake a yearlong independent project during their senior year (ENGL 691H and 692 H ) and usually produce a 40 - to 50 -page thesis. Students pursuing a degree with honors normally meet every week with the professors supervising their projects. This opportunity for individually directed research and writing often proves to be a high point of the student's academic career.

## Study Abroad

Some of the best programs offered at the University for study overseas are especially appropriate and useful to majors in the Department of English and Comparative Literature. These include semester or yearlong programs at Bristol, Manchester, Sussex, Edinburgh, Glasgow, and certain Australian universities. Students who have a minimum grade point average of 3.3 at the end of their sophomore year can participate in the King's College Exchange Program at King's College, London (representing either English or comparative literature). Special opportunities are also available at Oxford University and through the Joint Degree Program with the National University of Singapore. Comparative literature students most frequently travel to non-English-speaking destinations. For information on all overseas programs, see the Study Abroad Office
or visit the Web site studyabroad.unc.edu.

## Graduate School and Career Opportunities

Majors in English and comparative literature provide essential preparation for numerous career paths in business and government as well as in education, the law, and medicine. These professions seek leaders who value breadth of information; the capacity to comprehend complex situations from multiple perspectives; and readiness to describe, evaluate, and promote, in clear and forceful language, new ideas as well as civilizing influences of a shared past or an increasingly global present.

## Faculty

## Professors

Daniel Anderson, William L. Andrews, Christopher M. Armitage, David J. Baker, A. Reid Barbour, James W. Coleman, Marsha Collins, María DeGuzmán, Eric S. Downing, Rosa Palmer Durban, Connie C. Eble, Mary Floyd-Wilson, Marianne Gingher, Philip Gura, Minrose Gwin, Joy S. Kasson, Randall Kenan, Clayton Koelb, Laurie Langbauer, George S. Lensing Jr., Megan Matchinske, Michael A. McFee, John P. McGowan, Jeanne Moskal, Patrick P. O'Neill, Ruth Salvaggio, Alan R. Shapiro, Bland Simpson, Beverly W. Taylor, Todd Taylor, James Thompson, Joseph S. Viscomi, Daniel Wallace.

## Associate Professors

Neel Ahuja, Inger S.B. Brodey, Pamela Cooper, Tyler Curtain, Jane M. Danielewicz, Florence Dore, Rebecka Rutledge Fisher, Gregory Flaxman, Jennifer Ho, Jordynn Jack, Ritchie D. Kendall, Theodore H. Leinbaugh, Thomas J. Reinert, Eliza Richards, Matthew Taylor, Jane F. Thrailkill, Jessica Wolfe.

## Assistant Professors

GerShun Avilez, Gabrielle Calvocoressi, Stephanie Elizondo Griest, Laura Halperin, Heidi Kim, Shayne Legassie, Rick Warner.

## Adjunct Professors

Dino Cervigni, Geoffrey Harpham, Federico Luisetti, Hassan Melehy, James L. Peacock, William Race, Michael Silk.

## Adjunct Associate Professors

Terrence Holt, Sharon James, Timothy Marr, Alicia Rivero, Robin Visser, Maria L. Wisdom.

## Adjunct Assistant Professors

Donna Bickford, Robert Bruce, Janice Koelb, Inga Pollmann, Ariana Vigil.

## Research Assistant Professor

Jamie Rosenthal.

## Senior Lecturers

Elyse Crystall, Leslie Frost, Brad Hammer, Susan Irons, Margaret O'Shaughnessey, David Ross, Wendy Weber.

## Lecturers

Michael Chitwood, Marc Cohen, Cynthia Current, Kathleen Flanagan, Melissa Geil, Larry Goldberg, Joy Goodwin, S. Michael

Gutierrez, Daisy Hernandez, Jennifer Larson, Hilary Edwards Lithgow, David Monje, Lawrence Naumoff, Courtney Rivard, Henry Veggian, Ross White.

## Professors Emeriti

Laurence G. Avery, Alan C. Dessen, Joseph M. Flora, J. Lee Greene, William R. Harmon, Howard M. Harper Jr., Trudier Harris, Mae Henderson, Fred Hobson, George A. Kennedy, Edward D. Kennedy, J. Kimball King, Diane R. Leonard, Allan R. Life, Erika Lindemann, C. Townsend Ludington Jr., G. Mallary Masters, Margaret A. O'Connor, Daniel W. Patterson, Julius R. Raper III, Mark L. Reed, Richard D. Rust, James Seay, Richard A. Smyth, Philip A. Stadter, Albrecht B. Strauss, Thomas A. Stumpf, Weldon E. Thornton, Linda Wagner-Martin, David Whisnant, Joseph S. Wittig, Charles G. Zug III.

## Contact Information

For information concerning the major or minor in comparative literature, contact Dr. Inger Brodey, CB\# 3520, 434 Greenlaw Hall, brodey@email.unc.edu.

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For information concerning the Latina/o studies minor, contact Dr. María DeGuzmán, CB\# 3520, 429 Greenlaw Hall, (919) $962-$ 4031, deguzman@email.unc.edu.

For information concerning the minor in medicine, literature, and culture, contact Dr. Ritchie Kendall, CB\# 3510, James M. Johnston Center for Undergraduate Excellence, 225 Graham Memorial, (919) 843-7755, rkendall@email.unc.edu.

## Courses

## CMPL-Comparative Literature

CMPL 55 First-Year Seminar: Comics as Literature (3). Comic books, Manga, and the graphic novel have almost vanished from the realm of serious literature. Recently, graphic literature has addressed controversial topics and reached readers across the globe. We will explore graphic literature's unique ability to be a medium for the marginal and oppressed in the 21st century.

CMPL 89 First-Year Seminar: Special Topics (3). Specials topics course. Content will vary each semester.
CMPL 120 Great Books I: Epic and Lyric Traditions (3). Major works of literature central to the formation of Western culture from antiquity to 1750 . Considers epic, lyric, drama, and prose; core authors such as Homer, Virgil, Dante, and Milton.

CMPL 121 Great Books I: Romancing the World (3). This course focuses on the literary mode of romance, with particular attention to cross-cultural contact and exchange from classical antiquity to the present in both European and non-European literature.

CMPL 122 Great Books I: Visual Arts and Literature from Antiquity to 1750 (3). This course offers students a survey of mutually supportive developments of literature and the visual arts from classical antiquity until around 1700 .

CMPL 123 Great Books I: Politics and Literature from Antiquity to 1750 (3). This course examines comparative literary texts in literature and political philosophy in the context of developments in political thought and practice from classical Greece through the French Revolution.

CMPL 124 Great Books I: Science and Literature from Antiquity to 1750 (3). This course examines developments in literary and scientific thought, including the literary depiction of the disciplines of natural philosophy, including magic, cosmology, natural history, and physiology.

CMPL 130 Great Books II (3). An introduction to some of the major texts of 19 th- and 20th-century literature, focusing on periods of romanticism, realism, and modernism and with some attention given to parallel developments in the arts and philosophy.

CMPL 131 Great Books II: Savage, Native, Stranger, Other
(3). Using readings in literature and philosophy, as well as film screenings, this course explores comparative literature's reconciliation over time of its own, predominantly Western, lineage with other non-Western textual traditions.

CMPL 132 Great Books II: Performance and Cultural Identity in the African Diaspora (3). The focus of this course is inquiry into how we theorize the existence of the African Diaspora, cultural identity/-ies, and the role that performance plays in the articulation of experiences.
CMPL 133 Great Books II: Imaging the Americas from the Late 18th Century to the Present (3). This course studies the intersection between word and image, especially verbal and photographic cultural production, in the representation of the Americas in the hemispheric sense from the mid-18th century to present.

CMPL 134 Great Books II: Travel and Identity (3). Introduces students to representative literary and intellectual texts from 1750 to the present and to relevant techniques of literary analysis. Works originally written in foreign languages are studied in translation.

CMPL 142 Visual Culture II (3). This course surveys the visual arts, in particular painting and photography, from roughly 1750 to the present. Pictorial traditions, styles, and genres (as well as the traditions of critical writing that respond to them) will be considered from a proto-cinematic perspective. Theater and the novel may also be examined comparatively.

CMPL 143 History of Global Cinema (3). This course is designed to introduce students to the field of global cinema and, thence, to the methods of comparativist film study.
CMPL 144 Film Culture (3). This course introduces students to
a set of topics or traditions in global film culture that would not customarily be covered in other courses required for the film minor. It focuses on significant films at the periphery of the film studies canon and offers ample opportunity for group discussion.
CMPL 198H Literature in Eastern Europe (3). An introduction to the literatures of eastern Europe, including consideration of political influences on literary creation within different cultural traditions.

CMPL 220 Global Authors: Jane Austen (3). This course examines the fiction of Jane Austen and her literary and cultural influence across the globe. We will see echoes of Austen in novels and films from around the world and explore how her work transcends generational, cultural, and geographical boundaries. What is the secret of her global appeal?
CMPL 223 Global Authors: Cervantes (3). Close study of Cervantes' Don Quixote, its reception and impact on varied works of world literature.

CMPL 225 Global Authors: The Worlds of Shakespeare (3). Recommended preparation, ENGL 225 or familiarity with at least four Shakespeare plays. Explores the afterlife of Shakespeare's plays from a transnational and multidisciplinary perspective, paying attention to the ways in which several of his plays have been dislocated and reconstituted for different audiences and different artistic and political aims.
CMPL 227 Global Authors: The Middle Ages in World Cinema
(3). Traces major points of convergence among the thematic concerns of medieval literature, global cinema, and academic constructions of "the Middle Ages." Considers the aesthetic and technological development of film and of medieval painting, sculpture, and dramatic performance.

CMPL 230 Global Crusoe: The Desert-Island Idea in Film and Fiction (3). The desert-island scenario involves a sophisticated and culturally central thought experiment in which the constraints of history and society are suspended and human nature is exposed in its essence. This course considers the permutations of this scenario in film and fiction from around the world.

CMPL 240 Introduction to Film Theory (3). This course introduces students to debates in classical and postclassical film theory. Likely topics include medium specificity; the ideological functions of narrative cinema; film theory's investments in psychoanalysis, linguistics, semiotics, and phenomenology; the advent of digital media; feminism; national and transnational cinema; spectatorship; authorship; genre theory; and film and philosophy.

CMPL 250 Approaches to Comparative Literature (3). This communications-intensive course familiarizes students with the theory and practice of comparative literature: the history of literary theory; translation; and literature combined with disciplines such as music, architecture, and philosophy.

CMPL 251 Introduction to Literary Theory (3). Familiarizes students with the theory and practice of comparative literature. Against a background of classical poetics and rhetoric, explores various modern literary theories, including Russian formalism, Frankfurt School, feminism, psychoanalysis, deconstruction, new
historicism, and others. All reading in theory is paired with that of literary texts drawn from a wide range of literary periods and national traditions.

CMPL 252 Popular Culture in Modern Southeast Asia (ASIA 252) (3). See ASIA 252 for description.

CMPL 254 Horror and the Global Gothic: Film, Literature, Theory (3). This course traces the development of horror in film and writing from the 18th-century European novel to contemporary Asian film. Theoretical readings will embrace a range of disciplines, from literary and film theory to anthropology, feminism and gender studies, and psychoanalysis.

CMPL 255 The Feast in Film, Fiction, and Philosophy (ASIA 255) (3). Comparative and interdisciplinary study of feasting and its philosophical underpinnings, with special attention to the multiple purposes and nuances of food and feasting in literature, film, and the visual arts.

CMPL 257 The Crisis of Modernity in World Cinema (3). This course surveys world cinema in the attempt to identify the disjunctions that sever past and present. This course will ask the most basic questions: What is the nature of modernity? What are the challenges of modernity? How does the modern experience differ across the globe?

CMPL 260 Landscape in Literature and the Arts: Re-Imagining the Natural World (3). Explores how human interaction with the natural world is represented in the literary, visual, and performing arts from Roman fresco to the ecological art and fiction of the 21 st century. Students conduct mentored research at Ackland Art Museum with peer and faculty feedback at every stage.
CMPL 270 German Culture and the Jewish Question (GERM 270, JWST 239, RELI 239) (3). See GERM 270 for description.

CMPL 275 Literature of Pilgrimage (3). Analyzes literature of pilgrimage, a literal or figurative journey of transformation, from a variety of times and cultures from classical antiquity to the present, including such works as Apuleius' Golden Ass, Cervantes' Persiles, and Basho's Narrow Road to the Deep North.

CMPL 277 Myth, Fable, Novella: The Long History of the Short Story (3). Traces the development of European short fiction from the 12th through the 17th centuries, taking brief looks backward toward the ancient world and forward to the modern short story.

CMPL 279 Once upon a FairyTale: Fairy Tales and Childhood, Then and Now (GERM 279) (3). See GERM 279 for description.
CMPL 280 Film Genres (3). This course introduces students to the methods of genre theory and analysis as they pertain to cinema. The course may either provide a survey of several different genres or examine a particular genre in depth as it has evolved historically. National and/or transnational dimensions of popular genres may be emphasized.

CMPL 281 Holocaust Cinema in Eastern Europe (SLAV 281) (3). See SLAV 281 for description.

CMPL 282 Russian Literature in World Cinema (3). Survey of masterpieces of Russian literature in the context of their cinematic adaptations.

CMPL 321 Medieval and Modern Arthurian Romance (ENGL 321) (3). See ENGL 321 for description.

CMPL 332H Cultural Diversity in Francophone Cinema (EURO 332H, FREN 332H) (3). See FREN 332H for description.
CMPL 364 The Classical Background of English Literature (CLAS 364) (3). See CLAS 364 for description.

CMPL 374 Modern Women Writers (WMST 373) (3). The development of a women's literary tradition in the works of such writers as George Sand, George Eliot, Isak Dinesen, Colette, Virginia Woolf, Gertrude Stein, Marguerite Duras, Nathalie Sarraute, Marguerite Yourcenar.

## CMPL 375 New Wave Cinema: Its Sources and Its Legacies

(3). The challenge the New Wave presented to postwar cinema by pointing to Hollywood and other European films; the New Wave's influence on United States and European cinema beginning in the 1970s. Taught in English.

CMPL 379 Cowboys, Samurai, and Rebels in Film and Fiction (ASIA 379) (3). Cross-cultural definitions of heroism, individualism, and authority in film and fiction, with emphasis on tales or images that have been translated across cultures. Includes films of Ford, Kurosawa, and Visconti.
CMPL 380 Almost Despicable Heroines in Japanese and Western Literature (ASIA 380, WMST 380) (3). Authors' use of narrative techniques to create the separation between heroines and their fictional societies and sometimes also to alienate readers from the heroines. Austen, Flaubert, Ibsen, Arishima, Tanizaki, Abe.

CMPL 382 Film and Nature (3). Examines the complex aesthetic relationship between cinema and nature through a range of different genres, traditions, and theoretical frameworks. Films in which natural landscape, animals, and/or plant life receive special attention may be addressed. Thinkers as disparate as Kant, Thoreau, and recent proponents of eco-critical perspectives may be deployed.
CMPL 383 Literature and Medicine (3). Examines the presentation of medical practice in literature from the mid-19th century to the present. Readings include some medical history, novels, stories, and recent autobiographies of medical training.

CMPL 385 Modernist and Postmodernist Narrative (3). A study of the structure of various types of modernist and postmodernist narrative, including texts by such writers as Proust, Faulkner, Camus, Hesse, Duras, Mann, Woolf, Robbe-Grillet, Kundera, Simon.

CMPL 386 Adolescence in 20th- and 21st-Century Literature (3). Literary portrayal of adolescence in times of cultural upheaval. Although adolescence is often considered a transitional period from carefree childhood to responsible adulthood, we focus on works that explore adolescence primarily as a creative quest for a more meaningful way of life than the one bequeathed by the previous generation.

CMPL 390 Special Topics in Comparative Literature (3). Course topics vary from semester to semester.

CMPL 411 Critical Theory (3). Overview of those realms of modern and contemporary thought and writing that are known as, and closely associated with, "critical theory."

CMPL 420 Film, Photography, and the Digital Image (3). This course examines the shifting nature of the cinematic medium in relation to both traditional photography and newer digital forms of image production. The aesthetic, ethical, and ontological aspects of cinema are explored in light of emergent technological and cultural conditions that demand a full-scale reconsideration of cinema's specificity.

## CMPL 435 Consciousness and Symbols (ANTH 435, FOLK

 435) (3). See ANTH 435 for description.CMPL 450 Major Works of 20th-Century Literary Theory (3). Comparative study of representative works on literary and cultural theory or applied criticism to be announced in advance.
CMPL 452 The Middle Ages (3). Study of selected examples of Western medieval literature in translation, with particular attention to the development of varieties of sensibility in various genres and at different periods.

CMPL 453 The Erotic Middle Ages (3). Readings of major works of medieval European literature in translation from the 12th to 15 th centuries, focusing on topics such as courtship, marriage, adultery, homoeroticism, domestic violence, mystical visions, and prostitution.
CMPL 454 Literature of the Continental Renaissance in Translation (3). Discussion of the major works of Petrarch, Boccaccio, Machiavelli, Castiglione, Ariosto, Tasso, Rabelais, Ronsard, Montaigne, Cervantes, and Erasmus.

CMPL 456 The 18th-Century Novel (3). English, French, and German 18th-century narrative fiction with emphasis on the epistolary novel. The relation of the novel to the Enlightenment and its counterpart, the cult of sentimentality, and on shifting paradigms for family education, gender, and erotic desire.
CMPL 458 Sense, Sensibility, Sensuality, 1740-1810 (3). The development of the moral aesthetic of sensibility or Empfindsamkeit in literature of western Europe in the late 18th and early 19th centuries.

CMPL 460 Transnational Romanticism: Romantic Movements in Europe and the Americas (3). Prerequisite, ENGL 105.
Research-intensive course that explores how the Romantic movement beginning in 18th-century Europe has shaped the world we experience now. Topics vary and include revolutionary republicanism; slavery and abolition; quests for originality, expressiveness, and spiritual renovation; critiques of progress and modern urban culture; and revaluations of the natural world

CMPL 462 Realism (3). An exploration of the period concept of Realism through selected works by such writers as George Eliot, Dickens, James, Dostoevsky, Tolstoy, Balzac, Stendhal, Flaubert, Zola.

CMPL 463 Cinema and Surrealism (3). This course examines surrealism as an inter-art development between the First and Second World Wars. Taking a comparativist view, it focuses mainly on cinema but explores surrealist literature, painting, and sculpture
as well. Much of the course traces the continuing relevance of surrealist practices in contemporary cinema.

CMPL 464 Naturalism (3). The Naturalist movement in European and American literature of the late 19th and early 20th centuries, focusing on its philosophical, psychological, and literary manifestations in selected plays and novels.

CMPL 466 Modernism (3). An exploration of the period concept of modernism in European literature, with attention to central works in poetry, narrative, and drama, and including parallel developments in the visual arts.

CMPL 468 Aestheticism (3). Aestheticism as a discrete 19thcentury movement and as a major facet of modernism in literature and literary theory. Authors include Kierkegaard, Baudelaire, Nietzche, Huysmans, Wilde, Mann, Rilke, Nabokov, Dinesen, Barthes, Sontag.

CMPL 469 Milan Kundera and World Literature (CZCH 469) (3). See CZCH 469 for description.

CMPL 470 Concepts and Perspectives of the Tragic (3). History and theory of tragedy as a distinctive literary genre and as a more general literary and cultural problem. Authors include Aeschylus, Sophocles, Euripides, Shakespeare, Racine, Goethe, Nietzsche, Wagner, Mann, Samuel I and II, Faulkner. Also engages theorists, ancient and modern.

CMPL 471 Classical Rhetoric and Modern Theory (3). Explores how the theory and practice of classical, medieval, and early modern rhetoric continue to challenge and stimulate contemporary theory. Two-thirds of the course examines texts written before 1750 .

CMPL 472 The Drama from Ibsen to Beckett (3). The main currents of European drama from the end of the 19th century to the present. Includes Chekhov, Strindberg, Pirandello, Lorca, Brecht, Anouilh.

CMPL 473 Drama, Pageantry, and Spectacle in Medieval Europe (3). An exploration of different expressions of medieval drama and pagentry, including plays, tournaments, public executions, and religious processions.

CMPL 478 The Medieval Frame Tale: Chaucer, Boccaccio, and the Arabian Nights (3). A comparative study of Chaucer's Canterbury Tales, Boccaccio's Decameron, and the earliest known version of The Arabian Nights. Knowledge of Middle English desirable, but students with no experience in the language will be able to attend tutorial sessions early in the semester.
CMPL 481 Rhetoric of Silence: Cross-Cultural Theme and Technique (ASIA 481) (3). The uses of literary silence for purposes such as protest, civility, joy, oppression, nihilism, awe, or crisis of representation. Authors include Sterne, Goethe, Austen, Kawabata, Soseki, Oe, Toson, Camus, Mann.

CMPL 482 Philosophy in Literature (PHIL 482) (3). See PHIL 482 for description.
CMPL 483 Cross-Currents in East-West Literature (ASIA 483)
(3). The study of the influence of Western texts upon Japanese authors and the influence of conceptions of "the East" upon Western writers. Goldsmith, Voltaire, Soseki, Sterne, Arishima, Ibsen, Yoshimoto, Ishiguro.

CMPL 485 Approaches to 20th-Century Narrative (3). An examination of central trends in 20th-century narrative.

CMPL 486 Literary Landscapes in Europe and Japan (ASIA 486) (3). Changing understandings of nature across time and cultures, especially with regard to its human manipulation and as portrayed in novels of Japan and Europe. Rousseau, Goethe, Austen, Abe, Mishima.

CMPL 487 Literature and the Arts of Love (3). Love and sexuality in literary works from various historical periods and genres. Authors include Sappho, Plato, Catullus, Propertius, Ovid, Dante, Petrarch, Shakespeare, LaClos, Goethe, Nabokov, and Roland Barthes.

CMPL 489 Empire and Diplomacy (PWAD 489) (3). See PWAD 489 for description.
CMPL 490 Special Topics (3). Topics vary from semester to semester.

CMPL 492 The Fourth Dimension: Art and the Fictions of Hyperspace (3). An exploration of the concept of the fourth dimension, its origins in non-Euclidean geometry, its development in popular culture, and its impact on the visual arts, film, and literature.

CMPL 494 Cinematic Uses of the Essay Form (3). Examines aesthetic, political, and philosophical aspects of essay films in international cinema. Focusing on works by figures such as Chris Marker, Orson Welles, Harun Farocki, Alexander Kluge, Guy Debord, and Jean-Luc Godard, the course traces the genre's literary roots and addresses how the essay deviates from more traditional documentary forms.

CMPL 496 Reading Course (3). Readings vary from semester to semester. The course is generally offered for three credits.
CMPL 500 Advanced Seminar (3). This seminar allows comparative literature majors to work on an independent project to synthesize their curricular experience, and it introduces them to current, broadly applicable issues in comparative literature.

CMPL 558 The Lives and Times of Medieval Corpses (3). An investigation of the social, political, and literary uses of corpses in the Middle Ages.
CMPL 560 Reading Other Cultures: Issues in Literary Translation (SLAV 560) (3). See SLAV 560 for description.

CMPL 622 Medieval Cosmopolitanisms (3). An examination of medieval engagements with the foreign and the extent to which those engagements challenged conventional ways of thinking about the world.

CMPL 624 The Baroque (3). Required preparation, one course from CMPL 120-129. Analysis of the Baroque as an aesthetic movement, including major, representative literary works, comparisons of literature and the visual arts, and the study of theories of the Baroque and Neo-Baroque. Authors studied may include Tasso, Racine, Cervantes, and Shakespeare, among others.

CMPL 685 Literature of the Americas (AMST 685, ENGL 685)
(3). See ENGL 685 for description.

CMPL 691H Comparative Literature Senior Honors Thesis
Part I (3). Required of all students reading for honors in comparative literature.
CMPL 692H Comparative Literature Senior Honors Thesis
Part II (3). Prerequisite, CMPL 691H. Required of all students reading for honors in comparative literature.

## ENGL-English

## ENGL 50 First-Year Seminar: Multimedia North Carolina

(3). Each student will complete a service-learning internship and compose a multimedia documentary about the experience using original text, photos, audio, and video.
ENGL 52 First-Year Seminar: Computers and English Studies (3). How do computers change the study of literature? How do images tell stories? How is writing evolving through photo essays, collages, and digital video? Students investigate these and related questions.

ENGL 53 First-Year Seminar: Slavery and Freedom in African American Literature and Film (3). The seminar's purpose is to explore the African American slave narrative tradition from its 19th-century origins in autobiography to its present manifestations in prize-winning fiction and film.
ENGL 54 First-Year Seminar: The War to End All Wars? The First World War and the Modern World (3). Examination of literary and cinematic works that expose the cultural impact World War I had on contemporary and future generations.

## ENGL 55 First-Year Seminar: Reading and Writing Women's

Lives (3). This first-year seminar emphasizes contemporary autobiographical writing by and about women. Students investigate questions of self and identity by reading and writing four genres of life writing: autobiography, autoethnography, biography, and personal essay. Both traditional written and new media composing formats will be practiced.
ENGL 56 First-Year Seminar: Projections of Empire: Colonial and Postcolonial Fiction and Film (3). The course covers a range of fictions about colonialism and its aftermath, exploring both narrative and filmic depictions of empire and its legacies.

ENGL 57 First-Year Seminar: Future Perfect: Science Fictions and Social Form (3). This class will investigate the forms and cultural functions of science fiction using films, books, and computer-based fictional spaces (Internet, video games, etc.).

## ENGL 58 First-Year Seminar: The Doubled Image:

Photography in U.S. Latina/o Short Fiction (3). Course will examine the aesthetic and cultural functions and implications of textual images of photography and photographs in United States Latina/o short stories from the 1960s to the present.

ENGL 63 First-Year Seminar: Banned Books (3). This course will focus on issues of intellectual freedom and censorship, with particular attention to the ways in which these issues are racialized.
ENGL 64 First-Year Seminar: Ethics and Children's Literature (3). An investigation of how the tradition of children's books addresses and negotiates central questions of existence and conduct, focusing on the ways ethical problems are formed in such literature.

ENGL 65 First-Year Seminar: The Sonnet (3). Students will read more than 100 sonnets, learn the sonnet's different forms, and relate them to the cultural environments in which they were written over the past four centuries.

ENGL 67 First-Year Seminar: Travel Literature (3). Students will read examples of several kinds of travel literature, e.g., voyage, pilgrimage, exploration, tour, and mission. Special attention to North Carolina as a tourist venue.

ENGL 68 First-Year Seminar: Radical American Writers, 1930-1960 (3). The evolution of leftist American literature from the Depression through the early Cold War. Authors include Mary McCarthy, Clifford Odets, Arthur Miller, Saul Bellow, and others.

ENGL 69 First-Year Seminar: Entrepreneurial Writing on the Web (3). This course explores trends in online communication, emphasizing composition for the Web. The study of these writing activities is linked with a focus on innovation and on entrepreneurship.

ENGL 70 First-Year Seminar: Courtly Love, Then and Now (3). Study of the medieval concept of courtly love, tracing its classical antecedents, its expression in Renaissance literature (especially Shakespeare), and its influence in modern culture.

ENGL 71 First-Year Seminar: Doctors and Patients (3). This course explores the human struggle to make sense of suffering and debility. Texts are drawn from literature, anthropology, film, art history, philosophy, and biology.

ENGL 72 First-Year Seminar: Literature of 9/11 (3). This firstyear seminar will introduce students to college-level critical analysis, writing, and oral communication by exploring representations of the $9 / 11$ attacks and the "war on terrorism" in literature and popular culture.

## ENGL 74 First-Year Seminar: Epic/Anti-Epic in Western

Literature (3). In this course, students will study epic and anti-epic strains in Western literature, reading key texts in the epic tradition from Homer and Virgil through the 20th century in light of various challenges to that tradition and tensions within it.

ENGL 75 First-Year Seminar: Interpreting the South from Manuscripts (3). The aim of the course is to give beginning university students the requisite research skills to allow them to appreciate and to contribute to an understanding of the past by directly experiencing and interpreting records from the past. Students will work with historical documents, some more than 200 years old.

ENGL 79 First-Year Seminar: Globalization/Global Asians (3). This course will explore the concept of globalization by focusing on the Asian diaspora, particularly the artistic and cultural productions that document, represent, and express Global Asians.

ENGL 80 First-Year Seminar: The Politics of Persuasion:
Southern Women's Rhetoric (3). Narratives of women spies, social reformers, missionaries, teachers, blockade runners, and escapees from slavery help uncover persuasive strategies used to challenge the limited roles to which women were assigned.

ENGL 81 First-Year Seminar: Jane Eyre and Its Afterlives (3). Class members will reflect upon Brontë s Jane Eyre (1847) in
its original contexts and study subsequent novels and films that engage with it. What makes a literary work a "classic"? How do later readers' concerns affect their responses? Lovers of Jane Eyre are welcome, as are newcomers and skeptics.

ENGL 85 First-Year Seminar: Economic Saints and Villains (3). Our objective throughout will be to analyze how literary art simultaneously demonizes and celebrates the "miracle of the marketplace" and those financial pioneers that perform its magic.

ENGL 86 First-Year Seminar: The Cities of Modernism (3). This course is a cross-cultural and intermedial exploration of the imagery of the Great City in high modernist works of literature, art, and film.

ENGL 87 First-Year Seminar: Jane Austen, Then and Now
(3). This course focuses on the fiction of Jane Austen and its representations in film.

## ENGL 88 First-Year Seminar: The Legacy of the Japanese

 American Internment from WWII to 9/11 (3). This course will explore stories about the Japanese American internment from firstperson memoirs to contemporary fiction. We will also examine the ramifications, historic and legal, of the internment post-9/11.ENGL 89 First-Year Seminar: Special Topics (3). Content varies by semester.
ENGL 100 Basic Writing (3). Required for incoming students with SAT I Writing scores of 460 or lower. Provides frequent practice in writing, from short paragraphs to longer papers, focusing on analysis and argument. Workshop format.

ENGL 105 English Composition and Rhetoric (3). This college-level course focuses on written and oral argumentation, composition, research, information literacy, and rhetorical analysis. The course introduces students to the specific disciplinary contexts for written work and oral presentations required in college courses. Students may not receive credit for both ENGL 102 and 105.

## ENGL 105I English Composition and Rhetoric

(Interdisciplinary) (3). This college-level course focuses on written and oral argumentation, composition, research, information literacy, and rhetorical analysis. The course introduces students to one specific disciplinary context for written work and oral presentations required in college courses: natural sciences, social sciences, humanities, law, business, or medicine.

ENGL 110 Credit for AP English Language and Composition
Exam (3). Students receiving a 4 or 5 on the AP Language and Composition exam receive three hours of elective credit. ENGL 110 does not substitute for the required ENGL 105/105I course.

ENGL 120 British Literature, Medieval to 18th Century (3). Required of English majors. Survey of medieval, Renaissance, and neoclassical periods. Drama, poetry, and prose.

ENGL 121 British Literature, 19th and Early 20th Century (3). This course (or ENGL 150) is required of English majors. Seminar focusing on later British literature. Students learn methods of literary study and writing about literature.

## ENGL 122 Introduction to American Literature (3).

Representative authors from the time of European colonization of the New World through the 20th century.

ENGL 123 Introduction to Fiction (3). Novels and shorter fiction by Defoe, Austen, Dickens, Faulkner, Wolfe, Fitzgerald, Joyce, and others.

ENGL 124 Contemporary Literature (3). The literature of the present generation.
ENGL 125 Introduction to Poetry (3). A course designed to develop basic skills in reading poems from all periods of English and American literature.

ENGL 126 Introduction to Drama (3). Drama of the Greek, Renaissance, and modern periods.

ENGL 127 Writing about Literature (3). Course emphasizes literature, critical thinking, and the writing process. Students learn how thinking, reading, and writing relate to one another by studying poetry, fiction, drama, art, music, and film.

ENGL 128 Major American Authors (3). A study of approximately six major American authors drawn from Emerson, Thoreau, Hawthorne, Melville, Stowe, Whitman, Clemens, Dickinson, Chesnutt, James, Eliot, Stein, Hemingway, O’Neill, Faulkner, Hurston, or others.

ENGL 129 Literature and Cultural Diversity (3). Studies in African American, Asian American, Hispanic American, Native American, Anglo-Indian, Caribbean, gay-lesbian, and other literatures written in English.

ENGL 130 Introduction to Fiction Writing (3). Sophomores only. A course in reading and writing fiction. Close study of a wide range of short stories; emphasis on technical problems. Class criticism and discussion of student exercises and stories.

ENGL 131 Introduction to Poetry Writing (3). Sophomores only. A course in reading and writing poems. Close study of a wide range of published poetry and of poetic terms and techniques. Composition, discussion, and revision of original student poems.

## ENGL 132H First-Year Honors: Introduction to Fiction

Writing (3). First-year honors students only. A close study of the craft of the short story and novella through a wide range of reading, with emphasis on technical strategies. Class discussion of student exercises and stories.

ENGL 133H First-Year Honors: Introduction to Poetry Writing (3). First-year honors students only. A close study of a wide range of published poems and of the basic terms and techniques of poetry. Composition, discussion, and revision of a number of original poems.

ENGL 134H First-Year Honors: Women's Lives (3). Firstyear honors students only. This course focuses on women's life writing, including autobiography, biography, autoethnography, personal essay. Includes theories of life writing. Students will read contemporary works in each genre and write their own versions.

ENGL 135H First-Year Honors: Types of Literature (3). Firstyear honors students only. Study of literary forms (epic, drama, lyric, novel), beginning in the fall term and concluding in the spring, with three hours credit for each term. Students should consult the assistant dean for honors or the Department of English and Comparative Literature for offerings.

ENGL 137 Literature in a Digital Age: Books, E-books, and the Literary Marketplace (3). In this course students learn to study emergent relationships between print and digital literary cultures. In addition to reading and discussion, the course requires that students conduct original research (individual and also collaborative) in both print and digital formats.
ENGL 138 Introduction to Creative Nonfiction (3). A course in reading and writing creative nonfiction, prose based in fact, but treated in a literary manner, e.g., personal essays, travel narratives, science and nature writing, immersive interviews and profiles, reportage, and belles-lettres. Composition, class discussion, and revision of work written for this class.

ENGL 139 Currents in Sexuality Studies (3). This course provides a systematic introduction to the field of sexuality studies, using a broad range of disciplinary perspectives to study human sexuality in its various functions and forms.
ENGL 140 Introduction to Gay and Lesbian Culture and Literature (WMST 140) (3). Introduces students to concepts in queer theory and recent sexuality studies. Topics include queer lit, AIDS, race and sexuality, representations of gays and lesbians in the media, political activism/literature.

ENGL 141 World Literatures in English (3). This course will be a basic introduction to literatures in English from Africa, the Caribbean, South Asia, Canada, Australia, New Zealand, and other Anglophone literary traditions.
ENGL 142 Film Analysis (3). This course offers an introduction to the technical, formal, and narrative elements of the cinema.

ENGL 143 Film and Culture (3). Examines the ways culture shapes and is shaped by film. This course uses comparative methods to contrast films as historic or contemporary, mainstream or cutting-edge, in English or a foreign language, etc.
ENGL 144 Popular Genres (3). Introductory course on popular literary genres. Students will read and discuss works in the area of mystery, romance, westerns, science fiction, children's literature, and horror fiction.

ENGL 145 Literary Genres (3). Studies in genres including drama, poetry, prose fiction, or nonfiction prose, examining form, comparing that genre to others (including popular genres), placing works within a tradition or a critical context.

ENGL 146 Science Fiction/Fantasy/Utopia (3). Readings in and theories of science fiction, utopian and dystopian literatures, and fantasy fiction.
ENGL 147 Mystery Fiction (3). Studies in classic and contemporary mystery and detective fiction.

ENGL 148 Horror (3). From its origins in Gothic and pre-Gothic literatures and arts, this course examines the complexities and pleasures of horror. Topics include psychology, aesthetics, politics, allegory, ideology, and ethics.
ENGL 149 Networked and Multimodal Composition (3). This class studies contemporary, networked writing spaces. The class will investigate electronic networks, linking them with literacy, creativity, and collaboration. The course also explores multimodal
composing. Students will develop projects using images, audio, video, and words. Topics include the rhetoric of the Internet, online communities, and digital composition.

ENGL 150 Introductory Seminar in Literary Studies (3). Sophomore English majors only. This course (or ENGL 121) is required of English majors. Introduces students to methods of literary study. Students learn to read and interpret a range of literary works, develop written and oral arguments about literature, and conduct literary research.

ENGL 155 The Visual and Graphic Narrative (3). This course examines a number of visual texts, including graphic novels and emerging narrative forms that include visuals as well as words. The course explores how meaning can be conveyed through the composition, juxtaposition, and framing of images as well as through the relationship between words and images.
ENGL 191 Introduction to Literary Studies (3). Introduces students to the field of literary studies while emphasizing a single writer, group, movement, theme, or period. Students conduct research, develop readings, and compose literary interpretations.

ENGL 202 Introduction to Folklore (ANTH 202, FOLK 202) (3). An introduction to the study of creativity and aesthetic expression in everyday life, considering both traditional genres and contemporary innovations in the material, verbal, and musical arts.
ENGL 206 Intermediate Fiction Writing (3). Prerequisite, ENGL 130 or 132 H. Permission of the program director. Substantial practice in those techniques employed in introductory course. A workshop devoted to the extensive writing of fiction (at least two short stories), with an emphasis on style, structure, dramatic scene, and revision.

ENGL 207 Intermediate Poetry Writing (3). Prerequisite, ENGL 131 or 133 H. Permission of the program director. An intensification of the introductory class. A workshop devoted to close examination of selected exemplary poems and the students' own poetry, with an emphasis on regular writing and revising.
ENGL 208 Reading and Writing Creative Nonfiction (3). Prerequisite, ENGL 130, 131, 132H, or 133 H . Permission of the program director. A course in reading and writing creative nonfiction, focusing on three of its most important forms, including the personal essay, travel writing, and writing on the natural world

ENGL 209 Reading and Writing Children's Fiction (3).
Prerequisite, ENGL 130, 131, 132H, or 133H. Permission of the program director. A course in reading and writing children's fiction, focusing on five important forms: folk tale, fairy tale, picture book, young adult, and biography.
ENGL 210 Writing Young Adult Literature (3). Prerequisite, ENGL 130, 131, 132H, or 133 H . Permission of the program director. A course in reading and writing young adult fiction, with a focus on the crafting of a novel.

ENGL 216 Introduction to Rhetoric and Composition (3). Introduction to the study of rhetoric, composition, and digital literacy. Students will survey the history of the discipline of rhetoric and composition, from its roots in ancient rhetoric to its current
status, practice different approaches to composing, and/or perform rhetorical criticism and analysis of texts, images, and multimedia.

ENGL 225 Shakespeare (3). A survey of representative comedies, tragedies, histories, and romances by William Shakespeare.
ENGL 226 Renaissance Drama (3). A survey of Renaissance drama focusing on contemporaries and successors of Shakespeare during the Elizabethan and Jacobean periods.

ENGL 227 Literature of the Earlier Renaissance (3). Poetry and prose of the earlier Renaissance, including More, Wyatt, Sidney, Spenser, Bacon, and Marlowe.

ENGL 228 Literature of the Later Renaissance (3). Poetry and prose from the late Elizabethan years through the "century of revolution" into the Restoration period after 1660: Donne, Jonson, Bacon, Herbert, Burton, Browne, Marvell, Herrick, and others.

ENGL 230 Milton (3). A study of Milton's prose and poetry in the extraordinary context of 17 th-century philosophy, politics, religion, science, and poetics, and against the backdrop of the English Civil War.

ENGL 240 Caribbean Literature (3). An introductory exploration of key topics in the literatures of the Caribbean basin, Bermuda, and the Caribbean diaspora.

ENGL 246 Introduction to American Indian Literatures (3). Students will develop a working knowledge of American Indian cultural concepts and historical perspectives utilizing poetry, history, personal account, short stories, films, and novels.

ENGL 260 Creative Reading (3). Practice of "close reading" over a diverse selection of novels, short stories, and lyric poems. Intended for students who have declared, or who will soon declare, the English major.

ENGL 261 An Introduction to Literary Criticism (3). An introduction to literary criticism in English studies, with an emphasis on historical developments from Plato to the present.

ENGL 263 Literature and Gender (WMST 263) (3). Intensive study, focused on gender issues of criticism and writing.
ENGL 265 Literature and Race, Literature and Ethnicity (3). Considers texts in a comparative ethnic/race studies framework and examines how these texts explore historical and contemporary connections between groups of people in the United States and the Americas.

ENGL 266 Science and Literature (3). Introductory exploration of the relation between science and literature, as well as the place and value of both in the contemporary world.
ENGL 267 Growing Up Latina/o (3). This interdisciplinary course will examine what it means to grow up Latina/o through an exploration of childhood narratives, linguistic debates, education policies and legislation, and censored books.

ENGL 268 Medicine, Literature, and Culture (3). An
introduction to key topics that focus on questions of representation at the intersections of medicine, literature, and culture.

ENGL 269 Introduction to Disability Studies (3). This course will introduce students to the key critical concepts, debates, and
questions of practice in the emerging scholarly field of disability studies.

ENGL 270 Studies in Asian American Literature (3). This course introduces students to the study of Asian American literature and culture. The focus of the course may include examining coming-ofage novels, immigration narratives, or other genre explorations.

## ENGL 271 Mixed-Race America: Race in Contemporary

 American Literature and Culture (3). This service-learning course is partnered with a charter school, and together UNC-Chapel Hill and high school students will explore issues of race in American literature and culture.ENGL 278 Irish Writing, 1800-2000 (3). This course introduces major texts and current themes, from Joyce to the postcolonial, in Irish writing from 1800 to 2000.
ENGL 281 Literature and Media (3). This course investigates the rich and complex relationship between literature and other mass media.

ENGL 282 Travel Literature (3). Students will analyze various types of travel literature, such as voyage, pilgrimage, and tour, in terms of literary conventions, historical conditions, and considerations of gender, ethnicity, economics, empire, and religion.
ENGL 283 Life Writing (3). Exploration of different forms of life writing such as autobiography, biography, and autoethnography. Readings will include theories of autobiography and selected literature.

ENGL 284 Reading Children's Literature (3). An overview of the tradition of children's literature, considering the ways those books point to our basic assumptions about meaning, culture, self, society, gender, economics.
ENGL 285 Classical Backgrounds in English Literature (3). A survey of Greek and Roman epic and lyric poetry, literary criticism and philosophy designed for the undergraduate English major.

ENGL 288 Literary Modernism (3). In this course students will read early 20th-century poetry, fiction, films, and criticism, and consider the ways these works constituted, defined, and challenged the phenomenon known as literary modernism.

## ENGL 289 Jewish American Literature and Culture of the

 20th Century (JWST 289) (3). Through readings in a wide range of genres, this course will examine major factors and influences shaping Jewish American literature and culture in the 20th century.ENGL 291 Children's Picture Books: Texts and Illustration (3).
An investigation of children's picture books within the context of illustrated texts in Britain and America.

ENGL 300 Advanced Expository Writing (3). Advanced practice with critical, argumentative, and analytic writing, including forms of the essay. Special attention to style, voice, and genre.
ENGL 300I Advanced Expository Writing (Interdisciplinary) (3). Advanced practice with critical, argumentative, and analytic writing, including the essay. Special attention to writing in the disciplines of life and applied sciences, social sciences (including business), and humanities.

ENGL 301 Advanced Expository Writing for the Humanities
(3). Advanced practice with the oral and written discourse of the humanities. Special attention to disciplinary rhetoric, style, genre, format, and citation.

ENGL 302 Advanced Expository Writing for the Social Sciences (3). Advanced practice with the oral and written discourse of the social sciences. Special attention to disciplinary rhetoric, style, genre, format, and citation.

## ENGL 303 Advanced Expository Writing for the Natural

Sciences (3). Advanced practice with the oral and written discourse of the natural sciences. Special attention to disciplinary rhetoric, style, genre, format, and citation.

ENGL 304 Advanced Expository Writing for Business (3). Advanced practice with business and professional oral and written discourse. Special attention to disciplinary rhetoric, style, genre, format, and citation.

ENGL 305 Advanced Expository Writing for Law (3). Advanced practice with legal oral and written discourse. Special attention to disciplinary rhetoric, style, genre, format, and citation.

ENGL 306 Playwriting (3). Prerequisite, ENGL 130, 131, 132H, or 133 H . Permission of the program director. A workshop for people interested in writing plays, focusing on elements that make them work on stage, such as characterization, climax, dialogue, exposition, momentum, setting, and visual effects.
ENGL 307 Studies in Fiction and Poetry: Stylistics (3). Prerequisite, ENGL 130, 131, 132H, or 133H. Permission of the program director. Creative writing minors only. An occasional intermediate course that may focus on such topics as living writers, poetic forms, and imitation, but which is offered every fall as Gram-o-Rama, the study of language and grammar as stylistic tools.

ENGL 310 Fairy Tales (FOLK 310) (3). See FOLK 310 for description.
ENGL 313 Grammar of Current English (3). An introductory course in descriptive English linguistics that studies the sounds, word-building processes, and sentence structures of current English as well as general notions of correctness and variation.

ENGL 314 History of the English Language (3). A study of the development of English from its Proto-Indo-European origins to modern English, with emphasis on how events and contacts with other languages influenced the vocabulary of English.
ENGL 315 English in the U.S.A. (3). A historical and critical examination of regional, social, and stylistic variation in English in the United States, including correctness, legal and educational issues, and the influence of mass media.

ENGL 316 Rhetorical Traditions (3). Examines histories of rhetorical theory and practice. Students will develop original research projects that expand our understanding of rhetorical traditions. Historical periods, critical perspectives, genres, and topics will vary.
ENGL 317 Networked Composition (3). This class explores writing in contemporary networked composing spaces. The course focuses on developing writing projects that study and participate in online social networks. Topics include the rhetoric of the Internet;
collaboration online; information ethics; amateur content creation; networks and social interaction; networks and literacy; and remix composition.

ENGL 318 Multimodal Composition (3). This class studies composing in a variety of modes, including visuals, moving images, gestures, sounds, and words. Students develop projects using image, audio, and video editors, examining how multimedia fits within the history of rhetoric and writing and relates with concerns such as purposes, audiences, contexts, arguments, genres, and mediums.

ENGL 319 Introduction to Medieval English Literature, excluding Chaucer (3). An introduction to English literature from the eighth to the 15th century, focusing on the primary works of Old English and Middle English literature.

ENGL 320 Chaucer (3). An introduction to Chaucer's major poetry: Troilus and Criseyde, the "dream" poems (e.g., Parliament of Fowls) and The Canterbury Tales.

ENGL 321 Medieval and Modern Arthurian Romance (CMPL 321) (3). Representative examples of Arthurian literature from the Middle Ages and 19th and 20th centuries, with some attention to film, art, and music.

ENGL 322 Medieval England and Its Literary Neighbors (3). A study of the external literary influences which shaped Old and Middle English, notably the vernacular literatures of England's Celtic neighbors (Wales, Brittany, Scotland, and Ireland) and/or France.

ENGL 325 Shakespeare and His Contemporaries (3). This course explores the wide range of drama produced in England between the 1570 s and 1640 s, including work by Shakespeare and his many rivals.

ENGL 326 Renaissance Genres (3). This course traces the historical evolution/devolution of Renaissance literary genres. Each offering will focus on a single generic kind or set of kinds.

ENGL 327 Renaissance Literature and Its Intellectual Contexts (3). A focused study of one or two intellectual movements of the Renaissance through the literary and nonliterary texts of the period.

ENGL 330 Perspectives on the Renaissance (3). Students will study Renaissance literature while assessing the usefulness and status of a theoretical approach, such as feminist theory, queer theory, cultural materialism, new historicism, or psychoanalytic theory.

ENGL 331 18th-Century Literature (3). A survey of British literature from Dryden to Paine.

ENGL 332 18th-Century Drama (3). A survey of Restoration and 18th-century drama from Etheredge to Sheridan.

ENGL 333 18th-Century Fiction (3). A survey of 18th-century fiction from Behn to Austen.

ENGL 337 The Romantic Revolution in the Arts (3). This course examines the technical and aesthetic revolutions in the fine arts of the English Romantic Period, focusing on lyrical poetry, landscape painting, and original printmaking and works by Wordsworth, Turner, and Blake.

ENGL 338 19th-Century British Novel (3). Important novelists in the tradition, from Austen to Wilde.

ENGL 339 English Romantic-Period Drama (3). Covers the history of the British theater, 1780 to 1840 , with representative plays and closet dramas by playwrights such as Holcroft, Cowley, Inchbald, Baillie, Coleridge, P.B. Shelley, and Byron.

ENGL 340 Studies in Jane Austen (3). This course focuses on both the novels of Jane Austen and their fate since publication in the early 19th century. They have inspired countless imitations, over 150 sequels and continuations, and more than 30 full-length films. We will trace the transmission and transformation of the original texts across time and cultures.

ENGL 343 American Literature before 1860 (3). Selected topics or authors in American literature from the period of European colonization of the New World through the onset of the Civil War.

ENGL 344 American Literature, 1860-1900 (3). Instructors choose authors or topics from the period 1860 to 1900. The course may be organized chronologically or thematically but is not intended as a survey.

ENGL 345 American Literature, 1900-2000 (3). Instructors choose authors or topics from the period 1900 to 2000. The course may be organized chronologically or thematically but is not intended as a survey.

ENGL 347 The American Novel (3). The development of the American novel from the late 18th century through the 20th century. May proceed chronologically or thematically.

ENGL 348 American Poetry (3). Content of course varies with instructor, but students are given a sense of the chronological, stylistic, and thematic development of American poetry over two centuries.

ENGL 350 20th-Century British and American Poetry (3). Poetry in English from the middle of the 19th century to the present, approached historically, thematically, technically, politically, and aesthetically; concentration on analysis, comparison, and synthesis.
ENGL 355 The British Novel from 1870 to World War II (3). Students will read novels in English, including Joyce, Woolf, and Proust, to explore how writers from across cultures created new strategies to represent the late 19th- and 20th-century worlds of imperialism, science, and experiment.

ENGL 356 British and American Fiction since World War II
(3). Course studies contemporary British and American fiction through representative works. Intellectual and aesthetic, historical and cultural emphases. May include works from the Anglophone diaspora.

ENGL 357 20th-Century British Literature and Culture (3). This course examines factors shaping British/Commonwealth literature in the 20th century, especially the world wars and the dismantling of the British Empire. We will investigate themes of both nostalgia and anticipation: ways of remembering the past of England and the Empire, and of describing the future of British culture(s).

ENGL 359 Latina Feminisms (3). This course introduces students to United States Latina feminist theories, literatures, and cultures. Through a blend of genres, students explore historical foundations
of Latina feminisms, examining the relationship between Latina feminisms and United States Third World feminisms, and analyze literary and cultural representations of feminist praxis.

## ENGL 360 Contemporary Asian American Literature and

 Theory (ASIA 360) (3). This course will explore contemporary Asian American literature and theory and will examine how Asian American literature fits into, yet extends beyond, the canon of American literature.ENGL 361 Asian American Women's Writing (3). This course covers writings by Asian American women and examines issues of gender, race, and sexuality.

ENGL 363 Feminist Literary Theory (WMST 363) (3). Theories of feminist criticism in relation to general theory and women's writing.

ENGL 364 Introduction to Latina/o Studies (3). Introduction to the major questions within Latina/o studies in terms of transnationalism, transculturation, ethnicity, race, class, gender, sexuality, systems of value, and aesthetics.

ENGL 365 Migration and Globalization (3). Covers literary works associated with one or more of the major historical migrations, forced and voluntary, and present-day works engaged with globalization.

ENGL 366 Literature and the Other Arts (3). Course examines relationship of literature to the other arts, especially music and the visual arts, in terms of similar period characteristics, distinct material, and formal constraints.

ENGL 367 African American Literature to 1930 (3). Survey of writers and literary and cultural traditions from the beginning of African American literature to 1930.

ENGL 368 African American Literature, 1930-1970 (3). Survey of writers and literary and cultural traditions from 1930 to 1970.

ENGL 369 African American Literature, 1970 to the Present (3). Survey of writers and literary and cultural traditions from 1970 to the present.

ENGL 370 Race, Health, and Narrative (3). This interdisciplinary course explores how issues of health, medicine, and illness are impacted by questions of race in 20th-century American literature and popular culture. Specific areas covered include pain, death, the family and society, reproduction, mental illness, aging, human subject experimentation, the doctor-patient relationship, pesticides, and bioethics.

## ENGL 371 The Place of Asian Americans in Southern

Literature (3). This course will consider the themes of globalization and regionalism through an examination of narratives featuring Asians/Asian Americans in the American South.

ENGL 373 Southern American Literature (3). An introduction to Southern literature, with emphasis on 20th-century fiction, poetry, drama, and essays. Representative authors include Faulkner, Wolfe, Williams, Warren, Hurston, Wright, Ransom, Tate, Welty, Chappell, McCullers, O'Connor.

ENGL 374 Southern Women Writers (WMST 374) (3). The study of fiction, poetry, plays, and essays by Southern American
women writers of the past 200 years, continuing to the present.
ENGL 375 Contemporary North Carolina Literature (3). A study of the novels, short stories, and poems produced by North Carolina writers during the literary renaissance of recent decades.

ENGL 376 Depictions of Childhood in Literature and the Visual Arts (3). This course considers a range of texts, including children's literature, to focus on the aesthetic, historical, and social factors grounding depictions of childhood. Other material includes literature and visual texts in various forms. The course stresses original student research.

ENGL 377 Introduction to the Celtic Cultures (3). A broad survey of the cultures of the Celtic-speaking areas, notably Ireland, Wales, Scotland, and Brittany, with special emphasis on language and literature.

ENGL 380 Film History (3). The course offers an introduction to the history of cinema and, in particular, to a period of film history.

ENGL 381 Literature and Cinema (3). The course introduces students to the complex narrative and rhetorical relationship between literature and cinema.

ENGL 383 Literary Nonfiction (3). An introduction to the many forms of creative nonfiction by contemporary writers. Will include nonfiction literature as well as theoretical and critical responses to such literature.

ENGL 385 Literature and Law (3). Explores various connections of literature and law, including literary depictions of crime, lawyers, and trials; literary conventions of legal documents; and/or shared problems in interpretation of law and literature.
ENGL 386 Gender, Sexuality, and the South Asian Diaspora
(3). This course explores how gender and sexuality shapes the literature, politics, and public culture of South Asian immigrant communities in Europe, Africa, the Americas, and other locations outside the Indian subcontinent.

ENGL 387 Canadian Literature (3). A study of Canadian literature in English from the late 18th century to the present, with emphasis on 20th-century writing and on the novel.
ENGL 388 Modernism: Movements and Moments (3). What was modernism? When was modernism? Where was modernism? Reading literature and visual art from 1890 to 1940 in Europe, America, and Africa will be key to finding answers.

ENGL 389 Major Film Directors (3). This course introduces students to the aims and concerns of authorship study in film through discussion of a major filmmaker's body of work. The course may focus predominantly on a single figure or may compare two or more figures who share certain affinities of theme or style.

ENGL 390 Studies in Literary Topics (3). An intensive study of a single writer, group, movement, theme, or period.

## ENGL 396 Directed Readings in English or Creative Writing

 (3). Permission of the department. Intensive reading on a particular topic under the supervision of a member of the staff.ENGL 400 Advanced Composition for Teachers (3). This course combines frequent writing practice with discussions of rhetorical theories and strategies for teaching writing. The course
examines ways to design effective writing courses, assignments, and instructional materials.

ENGL 401 Advanced Composition for Elementary Teachers
(3). This course combines frequent writing practice with an introduction to teaching writing and reading in the elementary grades. Students explore composition theory and learn about effective practices for improving writing.

ENGL 402 Investigations in Academic Writing (3). This course considers learning to write from three vantage points: personal, social, and contextual. Emphasis on theory, reflective practice, and pedagogy for peer tutoring.

ENGL 406 Advanced Fiction Writing (3). Prerequisite, ENGL 206. Permission of the program director. A continuation of the intermediate workshop with emphasis on the short story, novella, and novel. Extensive discussion of student work in class and in conferences with instructor.

ENGL 407 Advanced Poetry Writing (3). Prerequisite, ENGL 207. Permission of the program director. A continuation of the intermediate workshop, with increased writing and revising of poems. Extensive discussion of student poetry in class and in conferences with instructor.

ENGL 410 Documentary Film (3). This course provides a history of documentary cinema since the beginnings of the medium and surveys different modes and theoretical definitions; or the course may focus largely on a certain mode (such as ethnographic, observational, first-person, cinema vérité, politically activist, found footage compilation, or journalistic investigation).

ENGL 430 Renaissance Literature-Contemporary Issues (3). This course investigates cultural themes or problems across a wide spectrum of Renaissance authors.

## ENGL 436 Contemporary Approaches to 18th-Century

Literature and Culture (3). Focuses on particular forms, authors, or issues in the period.

ENGL 437 Chief British Romantic Writers (3). Survey of works by Blake, Wordsworth, Coleridge, Byron, Percy and Mary Shelley, Keats, and others.

ENGL 438 19th-Century Women Writers (3). An investigation of important texts by 19th-century women writers that considers issues of gender in relation to other important considerationstradition, form, culture-with an introduction to the chief scholarly and critical problems of this period.
ENGL 439 English Literature, 1832-1890 (3). Poetry and prose of the Victorian period, including such writers as Tennyson, the Brownings, Arnold, the Brontës, Dickens, G. Eliot.

ENGL 440 English Literature, 1850-1910 (3). The PreRaphaelites, Wilde, Conrad, Shaw, and Yeats.

ENGL 441 Romantic Literature-Contemporary Issues (3). Devoted to British Romantic-period literature's engagement with a literary mode (such as the Gothic) or a historical theme (such as war or abolition) or to an individual author.

ENGL 442 Victorian Literature-Contemporary Issues (3). The study of an individual Victorian writer, a group (such as the

Pre-Raphaelites), a theme (such as imperialism), or genre (such as Victorian epic or the serialized novel).

ENGL 443 American Literature before 1860-Contemporary
Issues (3). A junior- or senior-level course devoted to in-depth exploration of an author, group of authors, or topic in American literature to 1860 .

ENGL 444 American Literature, 1860-1900—Contemporary Issues (3). Intensive study of one or more authors or a topic in American literature from the Civil War through 1900.

ENGL 445 American Literature, 1900-2000—Contemporary
Issues (3). A junior- or senior-level course devoted to in-depth exploration of an author, group of authors, or a topic in American literature from 1900 to 2000.

ENGL 446 American Women Authors (WMST 446) (3).
American women authors from the beginnings to the present.
ENGL 447 Memory and Literature (3). This course brings together theories of collective and individual memory with questions of aesthetics and narrative while exploring global connections between memory and literature.

ENGL 462 Contemporary Poetry and Theory (3). This course introduces the student to historical and contemporary thinking about poetry and poetic language. Examines the place of poetry in theoretical thinking and theoretical thinking about poetry.

ENGL 463 Postcolonial Literature (3). This course is a multigenre introduction to postcolonial literatures. Topics will include postcolonial Englishes, nationalism, anti-imperialism, postcolonial education, and the intersections between national and gender identities in literature.

ENGL 465 Difference, Aesthetics, and Affect (3). Examines interrelations between cultural difference, aesthetic form, and the representation, production, and conveyance of subjectivity (in particular affect or states of feeling) in texts, other media, and material culture.

ENGL 466 Literary Theory-Contemporary Issues (3). Examines current issues in literary theory such as the question of authorship, the relation of literary texts to cultural beliefs and values, and to the formation of identities.

ENGL 472 African American Literature-Contemporary Issues
(3). Study of particular aspects of African American literature, such as the work of a major writer or group of writers, an important theme, a key tradition, or a literary period.

ENGL 475 Southern Literature-Contemporary Issues (3). The study of a particular topic or genre in the literature of the United States South, more focused than students will find in ENGL 373.

ENGL 481 Media Theory (3). This course investigates the ramifications of the development of mass media and popular culture, paying special attention to the transformation of literature.
ENGL 486 Literature and Environment (3). Multidisciplinary, thematic investigations into topics in literature and environment that cut across boundaries of history, genre, and culture. Junior/senior level.

ENGL 487 Everyday Stories: Personal Narrative and Legend (FOLK 487) (3). See FOLK 487 for description.

ENGL 488 Critical Security Studies (3). Introduces major topics in the interdisciplinary field of critical security studies. Critically analyzing the public construction of risk and security in military, technological, informational, and environmental domains, the course explores major theories that attempt to make sense of the transnational proliferation of violence and risk in historical and contemporary contexts.
ENGL 489 Cultural Studies-Contemporary Issues (3). The student will have an opportunity to concentrate on topics and texts central to the study of culture and theory.

ENGL 490 Creative Writing Special Topics (3). Permission of the program director. Creative writing minors only. An occasional advanced course, which may focus on such topics as advanced creative nonfiction, editing and publishing, the lyric in song and collaboration between lyricists and composers, the one-act play, and short-short fiction.

ENGL 496 Independent Research (1-3). Permission of the department. Recommended for students in junior or senior year of study. Intensive mentored research, service learning, field work, creative work, or internship. Requires 30 hours of research, writing, or experiential activities, or 100 hours of internship work, culminating in a written project.

ENGL 530 Digital Humanities History and Methods (3). Students will explore the history of computer-assisted humanities scholarship, from its beginnings in computational linguistics, media studies, and humanities computing to its current incarnation as "digital humanities." The course will provide an introduction to the field and to digital research methodologies and prepare students to develop their own digital projects.
ENGL 564 Interdisciplinary Approaches to Literature (3). Examines the ways knowledge from other disciplines can be brought to bear in the analysis of literary works. Questions of disciplinary limits and histories will also be addressed.

ENGL 580 Film—Contemporary Issues (3). This course is designed to introduce students to a particular historical or cultural aspect of the cinema.
ENGL 583 Drama on Location (3). Offered as part of summer study abroad programs in Oxford, London, and Stratford-on-Avon. Students experience plays in performance and as texts, and discuss their literary, dramatic, cultural, and historical aspects.

## ENGL 607 Theory and Practice of Writing in the Disciplines

 (1-3). Introduction to theories of teaching writing in the disciplines for graduate instructors. Students will study disciplinespecific conventions of argumentation, genre, and style with attention to pedagogical techniques, assignments, and activities.ENGL 610 Science as Literature: Rhetorics of Science and Medicine (3). The goal of this course is to develop skills in analyzing the rhetorical construction of scientific claims, with a focus on health and medicine as scientific discourse communities. Topics include the structure, argument, and style of scientific genres; visual and digital rhetorics; and the circulation of scientific rhetoric among publics.

ENGL 611 Narrative, Literature, and Medicine: Advanced Interdisciplinary Seminar (3). Sociologist Arthur Frank asserts that "whether ill people want to tell stories or not, illness calls for stories." This seminar explores narrative approaches to suffering, healing, and medicine's roles in these processes. Students learn literary and anthropological approaches to examine medically themed works from a range of genres.
ENGL 613 Modern English Grammar (LING 613) (3). A study of current English structure and usage using a traditional approach modified by appropriate contributions from structural and generative grammar, with some attention to the application of linguistics to literary analysis.

ENGL 619 Survey of Old and Middle English Literature (3). An introduction to English literature from the eighth to the 15th century, focusing on the primary works of Old English and Middle English literature.
ENGL 630 Shakespeare and His Contemporaries (3). This course will examine drama written and performed in England from 1570 to 1640 , situating Shakespeare's plays in relation to others in his generation.

ENGL 631 18th-Century Literature (3). Studies in a variety of British writers from Rochester to Cowper.

ENGL 637 Chief British Romantic Writers (3). A survey of the major British Romantic writers, including Blake, Wordsworth, Coleridge, Byron, Percy and Mary Shelley, Keats, with an introduction to the chief scholarly and critical problems of this period.
ENGL 638 19th-Century Women Writers (3). An investigation of important texts by 19th-century women writers that considers issues of gender in relation to other important considerationstradition, form, culture-with an introduction to the chief scholarly and critical problems of this period.
ENGL 657 English and American Literature of the 20th
Century (3). A survey of 20th-century English and American drama, poetry, fiction, and criticism.

ENGL 659 War in 20th-Century Literature (PWAD 659) (3). A study of literary works written in English concerning World War I, or the Spanish Civil War and World War II, or the Vietnam War.
ENGL 660 War in Shakespeare's Plays (PWAD 660) (3). The focus is on Shakespeare's various treatments of war in his plays: all his Roman histories, most of his English histories, all his tragedies, even some of his comedies.

ENGL 661 Introduction to Literary Theory (3). Examines contemporary theoretical issues and critical approaches relevant to the study of literature.

ENGL 662 History of Literary Criticism (3). A history of literary criticism from the Greeks to mid-20th century, focusing on recurrent concerns and classic texts that are indispensable for understanding the practice of literary criticism today.
ENGL 663 Postcolonial Theory (3). This course covers major works of and topics in postcolonial theory.

ENGL 665 Queer Latina/o Literature, Performance, and Visual Art (WMST 665) (3). This course explores literature, performance art, film, and photography by Latinas and Latinos whose works may be described as "queer" and that question terms and norms of cultural dominance.

ENGL 666 Queer Latina/o Photography and Literature (WMST 666) (3). This course explores Latina/o literature about photography in relation to photography by "queer" Latina/o artists and through this double focus poses certain questions about identity, subjectivity, and culture.

## ENGL 670 Being and Race in African American Literature

 (3). An examination of phenomenology, the "philosophy of experience." Taking the perspective that literature helps clarify our experience, we will engage in readings of various genres-poetry, autobiography, fiction, and drama-as we examine how literature not only records experience, but also shapes it through a distinct method of reasoning.ENGL 674 Digital Literature (3). Digital literature explores how literary works are composed for, shaped by, and studied in electronic environments. Course texts range from books to electronic fiction and poetry to video games. Hands-on activities give students a chance to develop their own literary projects-either as electronic literary works or as digital scholarship.

ENGL 675 Digital Teaching (3). This course explores issues and methodologies related to the integration of digital technologies into teaching. Topics include instructor-student dynamics in the technology-assisted classroom, the role of social media in education, emerging forms of digital composing, and opportunities for extending the classroom through online platforms.
ENGL 676 Digital Editing and Curation (3). Students will investigate theories and practices of editing in multi-media, digital environments. Students will explore histories of textual editing, research major humanities projects, examine trends and toolsets related to developing scholarly digital materials, and collaborate with one another and with campus entities to develop an online digital humanities project.
ENGL 680 Film Theory (3). This course offers a rigorous introduction to the various theories (aesthetic, narratological, historiographic, ideological, feminist, poststructuralist) inspired by the cinema.

ENGL 685 Literature of the Americas (AMST 685, CMPL 685) (3). Two years of college-level Spanish or the equivalent strongly recommended. Multidisciplinary examination of texts and other media of the Americas, in English and Spanish, from a variety of genres.

ENGL 690 Special Topics (3). Selected topics in literary studies, composition, digital media, and related fields. Topic varies by semester.

ENGL 691H English Senior Honors Thesis, Part I (3). Restricted to senior honors candidates. First semester of senior honors thesis. Independent research under the direction of an English department faculty member.

ENGL 692H English Senior Honors Thesis, Part II (3).
Restricted to senior honors candidates. Second semester of senior honors thesis. Essay preparation under the direction of an English department faculty member.
ENGL 693H Creative Writing Senior Honors Thesis, Part I (3). Prerequisites, ENGL 130, 131, 132H, or 133H; ENGL 206 or 207; and ENGL 406 or 407 . Permission of the program director. Restricted to senior honors candidates. The first half of a twosemester seminar. Each student begins a book of fiction (25,000 words) or poetry (1,000 lines). Extensive discussion of student work in class and in conferences.

ENGL 694H Creative Writing Senior Honors Thesis, Part II
(3). Prerequisites, ENGL 130, 131, 132H, or 133H; ENGL 206 or 207; ENGL 406 or 407 ; and ENGL 693H. Permission of the program director. Restricted to senior honors candidates. The second half of a two-semester seminar. Each student completes a book of fiction or poetry. Extensive discussion of student work in class and in conferences with instructor.

## Curriculum for the Environment and Ecology

www.cee.unc.edu
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JAYE E. CABLE, Chair
Amy E. Cooke, Director of Undergraduate Studies

## Introduction

The Curriculum for the Environment and Ecology offers diverse and multidisciplinary undergraduate degree programs in environmental science (B.S.) and environmental studies (B.A.). Faculty throughout the University, including the College of Arts and Sciences and the schools of business, government, law, and public health, mentor our students through courses, internships, and research opportunities. This unique approach provides students an opportunity to explore the knowledge base needed to understand the environment and its relationship to society, as well as the applications of that knowledge in areas such as environmental modeling; aquatic systems; environmental behavior and decisions; environmental change and human health; ecology, conservation, and biodiversity; and population and the environment. The degrees combine traditional classroom teaching with extensive use of interdisciplinary, team-based projects, internships, study abroad opportunities, and research.

## Environmental Studies Major, B.A.

The environmental studies major is appropriate for students seeking rigorous preparation in the social sciences and humanities needed to understand how society affects the environment, how it organizes itself to respond to environmental problems, and how understanding of the environment is transmitted through culture.

All students gain a sufficient base of scientific and mathematical expertise to allow them to work effectively with environmental scientists and engineers. The major also provides strong preparation for graduate and professional training, especially in environmental policy, journalism, education, and law.

## Core Requirements

- ENEC 201 and 202
- ENEC 307 and 698
- One of the following courses: BIOL 201; ENEC 222, 489; ENEC/ENVR 403; ENEC/GEOL 213, 324 and 324L; ENEC/ MASC 448; GEOG 412; GEOL 110
- One of the following courses: GEOG 370, 477, or 491
- Five courses chosen from one of the following concentrations:


## Ecology and Society

ANTH 226, 318, 320, 439; ANTH/ENEC 238, 460; BIOL 201, 272, 277, 402, 427, 461, 463, 464, 465, 469, 561, 565, 567; BIOL/ENEC 256, 461, 562; ENEC 222, 304, 352, three hours of 395 , three hours of $396,462,479,489,491,693 \mathrm{H}$ or 694 H ; ENEC/GEOG 264; ENEC/GEOL 324; ENEC/GEOL/MASC 450; ENEC/MASC 441, 444, 448, 471; ENEC/PLCY 372, 520; ENEC/POLI 254; GEOG 228, 232, 261, 423, 434, 444, 470, 597; PLAN 641

## Energy and Sustainability

BUSI 507; ENEC 208, 306, 325, 350, 370, 393, 395, 396, 482, 485, 491, 492, 581, 586, 685, 693H or 694 H ; ENEC/ENVR/ PLAN/PLCY 585, 686; ENEC/GEOL 324; ENEC/JOMC 565; ENEC/PLAN 330, 420; ENEC/PLCY 480; GEOG 237, 414, 441; PHYS 131; PLAN 246, 247, 547, 641

## Environmental Behavior and Decision Making

ANTH 422, 539; BIOL/MATH 452; BUSI 507; COMM/ENEC 375; ENEC 305, 306, 309, 312, 325, 350, 351, 380, 395, 396, $462,474,485,580,581,586,491,492,675,685,693 \mathrm{H}$ or 694 H ; ENEC/ENVR 470; ENEC/ENVR/PLAN/PLCY 585; ENEC/ GEOL 324; ENEC/JOMC 565; ENEC/PLCY 372, 480; ENEC/ POLI 254; GEOG 237, 435, 470; PLAN 547, 641; PLCY 475

## Population, Environment, and Development

ANTH 318, 319, 439, 459, 539; ANTH/ENEC 238; ENEC 266, $325,350,351,370,380,395,396,485,491,492,580,693 \mathrm{H}$ or 694 H ; ENEC/GEOL 324; ENEC/PLCY 520; ENVR 600; GEOG 237, 269, 445, 450, 452, 457, 470; PLCY 475

All General Education requirements must be satisfied, some with specific courses:

- BIOL 101/101L (Approaches physical and life sciences with laboratory requirement)
- CHEM 101/101L or PHYS 104 or 114 (Approaches physical and life sciences requirement)
- CHEM 102/102L or PHYS 105 or 115
- ECON 101 (Approaches social and behavioral sciences requirement)
- ECON 400 or STOR 155 (Connections quantitative intensive requirement)
- ENEC/PHIL 368 recommended (Approaches philosophical and moral reasoning requirement)
- MATH 231 (Foundations quantitative reasoning requirement)


## Environmental Science, B.S.

The environmental science major is appropriate for students interested in solving complex environmental and energy resourcerelated problems. The major includes preparation in the basic sciences related to environmental study and the application of those principles to the analysis of environmental processes and problems. It focuses on such topics as how material and energy are moved and transformed in complex environmental systems, the role of society in perturbing those processes, and scientific techniques which might be used to improve environmental quality. The degree provides strong preparation for graduate or professional training as well as for jobs in government, consulting, and industry.

## Core Requirements

- ENEC 201 and 203
- ENEC 698
- Two of the following earth systems courses: BIOL 201; ENEC 202; ENEC 222 or ENEC 489 or ENEC/MASC 448; ENEC/ ENVR 403; ENEC/GEOL 324 + 324L; ENEC/GEOL 213 or GEOL 110
- Five courses chosen from one of the following concentrations:


## Water and Climate

BIOL 350/ENVR 417/GEOL 403/MASC 401; ENEC 222; ENEC/ENVR 403; ENEC/GEOG 253; ENEC/GEOL 211, 213, 324, 417; ENEC/GEOL/MASC 411, 415, 450; ENVR 413, 415, 416, 419, 453; GEOG 370, 412, 414, 416; GEOG 440/GEOL 502; GEOL 202, 417L, 432, 508, 509, 510; GEOL/MASC 430, 483, 503, 506; MASC 312, 314, 390, 432, 460, 490

## Ecology and Natural Resources

BIOL 201, 272, 277/277L, 402, 463, 464, 465, 469, 471/471L, 476/476L, 561, 565, 568; BIOL/ENEC 256, 461, 562, 563; BIOL 462/MASC 440; BIOL 657/ENVR 520/MASC 504; ENEC 222, 304, 352, 370, 462, 479, 485, 489; ENEC/GEOG 264; ENEC/ GEOL 324; ENEC/GEOL/MASC 450; ENEC/MASC 441, 444, 448, 471; ENVR 449; GEOG 444; MASC 443, 445

## Energy and Sustainability

ENEC 306, 307, 325, 350, 380, 431, 479, 482, 485, 580, 581, 586, 685; ENEC/ENVR 403; ENEC/ENVR/PLAN/PLCY 585, 686; ENEC/GEOL 324; ENEC/GEOL/MASC 415; ENEC/ PLCY 480; ENVR 451; GEOL 215; PHYS 131/131L; PLAN 547

## Environment and Health

BIOL 402, 568; BIOL/PATH 128; ENEC 222; ENEC/ENVR 403, 522; ENEC/GEOL 324; ENEC/MASC 444; ENVR 412, 413, 416, 419, 421, 430, 431, 442, 451, 600; EPID 600; MASC 443

## Additional Requirements

- BIOS 600 or STOR 155
- CHEM 102 and 102L
- COMP 116
- MATH 233
- PHYS 116 and 117, or PHYS 118 and 119, or PHYS 104 and 105 , or PHYS 114 and 115
- Two courses from one of the following options:
- BIOL 202 and CHEM 261
o ENEC 415; MASC 460; MATH 383, 564
o ENEC 562; STOR 455, 456
o GEOG 370, 477, 491, 577, 591, 592
- Students are required to earn a minor in an allied science, such as biology, chemistry, computer science, geography, geology, information and library science, marine science, mathematics, mathematical decision sciences, or physics.
All General Education requirements must be satisfied, some with specific courses:
- BIOL 101 and 101L (Approaches physical and life sciences with laboratory requirement)
- CHEM 101 and 101L (Approaches physical and life sciences requirement)
- ECON 101 recommended (Approaches social and behavioral sciences requirement)
- ENEC/PHIL 368 recommended (Approaches philosophical and moral reasoning)
- MATH 231 (Foundations quantitative reasoning requirement)
- MATH 232 (Connections quantitative intensive requirement)


## Dual Bachelor's-Master's Degree Program

The dual bachelor's-master's program in environmental and science communication is a collaboration between the Curriculum for the Environment and Ecology and the School of Media and Journalism. The program is designed for students to earn their bachelor of arts degree with a major in environmental studies and complete a master's degree in journalism in as little as five years. Students must complete the undergraduate requirements for the B.A. degree and the graduate requirements for the M.A. degree as separate degrees. Students may begin taking courses for the graduate degree while in the undergraduate program, and up to nine credit hours of approved graduate coursework may be transferred into their graduate degree program. Courses taken as an undergraduate for graduate credit may not be counted as part of the undergraduate degree if the intent is to transfer them. Early advising is essential to success in navigating this dual-degree program. Advisors are available in both units to help students prepare and select courses appropriately to get the most from their education.

Applying for the program is a two-step process. It is highly recommend that first- and second-year students interested in the dual-degree program speak to an advisor early in their college program. Students must submit a conditional application to the program no later than their junior year to ensure they will receive preference in registering for courses. Students must formally apply to the program through the UNC Graduate School in their senior year. We do not require the GRE for this application if you are an existing UNC student. For complete information on the application process and curriculum requirements, please go to esc. web.unc.edu.

## Environmental Science and Studies Minor

The minor is designed for students wishing to remain in another discipline but having an interest in the environment as an area of application. Students in the minor in environmental science and
studies must take two core courses designed as preliminary courses in the scientific and societal dimensions of environmental issues and problems and in the tools for their solution.

- ENEC 201 and either ENEC 202 or 203
- Three additional ENEC courses (at least one at the 400 level or higher)
Students must see an ENEC advisor to discuss potential courses. Depending on the courses selected, the minor would require between 17 and 20 credit hours.


## Sustainability Studies Minor

The program provides an understanding of sustainability, a unifying approach to human and environmental problems. Sustainable businesses, communities, and other organizations seek to design systems in ways that optimize material and energy use to decrease environmental and health problems and to bolster economic vitality and social equity. A growing number of scholars are framing problems and solutions in the language of sustainability, which balances growth and development with justice and environmental stewardship in order to meet today's needs without undermining the ability of future generations to do the same.

- ENEC 204, 210, or 593
- ENEC 330 or 431 (If both are taken, the second course may satisfy the elective requirement.)
- ENEC 393 or 493 (for at least three credits) or 698
- Three elective courses chosen from BUSI 507; COMM/ENEC 375; ENEC 201, 202, 220, 305, 306, 307, 325, 350, 351, 370 , 405, 462, 474, 479, 490, 510, 567, 675; ENEC/ENVR 470, 522; ENEC/ENVR/PLAN/PLCY 686; ENEC/GEOG 264; ENEC/GEOL 213, 324; ENEC/JOMC 565; ENEC/MASC 448, 471; ENEC/PLAN 420; ENEC/PLCY 372, 480, 520; ENVR 600; GEOG 237, 370, 420, 434; GEOL/MASC 223; PHYS 131/131L; PLAN 246, 247, 547, 636, 641; PLCY 360
The minor requires a minimum of 16 credit hours. Students who major in the curriculum's B.A. or B.S. degree programs are not allowed to minor in sustainability studies.


## Advising

The Curriculum in the Environment and Ecology maintains an advising system for students with an environmental interest. Students are encouraged to contact the director of undergraduate studies as early as they wish in their academic plan to discuss options and be assigned to a faculty advisor. Students may use the advising system from the time they enter UNC-Chapel Hill, obtaining advice from specialists in the various environmental fields. This advising system includes opportunities to meet with professionals from government, industry, and consulting to learn about the skills needed to work effectively in those fields if students are interested. In addition we routinely schedule seminars and host visitors who showcase career opportunities by their example in their respective fields.

## Special Opportunities in Environmental Science and Studies

## Honors in Environmental Science or Studies

Students in either the B.S. or B.A. degree program may participate in honors research leading to graduation with honors or highest honors. This distinction is earned by participation in honors research (ENEC 693H) and culminates in ENEC 694H thesis writing and defense. Students should follow the guidelines established by Honors Carolina and meet with the faculty honors advisor, Dr. Geoff Bell, to ensure that appropriate requirements are fulfilled (honorscarolina.unc.edu/current-students/honors-thesis-and-undergraduate-research/honors-thesis). Honors students can use three credit hours of ENEC 693H (research) or 694H (thesis), but not both courses, to fulfill a concentration requirement.

## Departmental Involvement

The Carolina Environmental Student Alliance (CESA) is an interdisciplinary organization dedicated to uniting the environmental interests of students across campus. Participation is open to all students and community members with an interest in the environment. The Epsilon Eta Environmental Honors Fraternity is an organization dedicated to excellence in environmental education. Interested students are nominated for membership.

## Experiential Education

Possibilities for experiential education include APPLES service-learning courses (ENEC 593), Coral Reef Ecology and Management (ENEC 259), Sierra Nevada Program (ENEC 208), Internships (ENEC 393, 493), and Research (ENEC 395, 396, 698) and Honors Research (ENEC 693H, 694H). Additionally, a series of experiential education field sites is available in North Carolina and around the world where students may take coursework and conduct research for a semester. Fall semester field sites are offered at Highlands Biological Station (mountain/ ecology), the Institute for Marine Sciences (marine ecology/ geology), and the Coastal Studies Institute/Outer Banks (coastal policy and economics). Spring semester field sites are offered on the UNC campus (Sustainable Triangle field site), in Thailand (energy and pollution), and Ecuador (ecology or sustainable development). The Ecuador and Thailand field site experiences incorporate part of the following summer as well. Summer programs are offered at Cambridge, England (energy policy), and in the Galapagos (ecology). Contact our advisors about other opportunities. Faculty members often arrange Burch Program summer educational trips to such locations as Siberia, Russia (ecology and anthropology), the Sierra Nevadas (ecology and physical geography), and northern Europe (energy and sustainability).

## Internships

Students are encouraged to apply for paid or unpaid internships in local, state, national, and international environmental organizations. Internship opportunities can be found through the following website: environmentalinternships.web.unc.edu. These internships provide valuable practical experience, and some may be conducted for academic credit.

## Study Abroad

Exchange and other study abroad programs are available through the UNC Study Abroad Office. At some locations, students may take courses for UNC credit, such as some field sites listed above. Students may take courses at other universities during study abroad and apply for transfer credit as well. We encourage students to participate in study abroad during their career at Carolina.

## Undergraduate Awards

Undergraduates may be considered for the Watts and Betsy Carr Awards, Mary and Watts Hill Jr. Awards, and Robert Alonzo Winston Scholarships.

## Undergraduate Research

All students are encouraged (but not required) to complete an independent or team research project. Such projects introduce students to the tools needed for graduate study. They also provide an important opportunity for working directly with the world-class environmental faculty and graduate students at UNC-Chapel Hill, as well as in the many environmental organizations in the Research Triangle. The Triangle area contains one of the largest collections of environmental organizations and expertise in the world, providing unique opportunities for students to conduct research on an immense range of topics from fundamental scientific research to policy applications.

## Facilities

Curriculum faculty and staff occupy offices and laboratories in Venable/Murray Halls (third floor) and the facilities in Manteo, Morehead City, and Highlands, NC.

## Graduate School and Career Opportunities

A major in environmental science or studies prepares students for a variety of career options, including marine scientist, ecologist, environmental modeler, environmental policy maker, conservation advocate, land-use planner, and environmental educator. Combining either major with other studies at the undergraduate or graduate level can lead to possibilities as an environmental lawyer, epidemiologist, or environmental geneticist, to cite a few examples.

## Faculty

## Affiliated Professors

Richard Andrews (Public Policy), Carol Arnosti (Marine Sciences), Larry Band (Geography), Larry Benninger (Geological Sciences), Jaye Cable (Marine Sciences), Joe Carter (Geological Sciences), Jim Costa (Western Carolina University), Barbara Entwisle (Sociology), Pat Gensel (Biology), Donald Hornstein (School of Law), Rich Kamens (Environmental Sciences and Engineering), Andrew Keeler (East Carolina University), Joel Kingsolver (Biology), Jonathan Lees (Geological Sciences), Paul Leslie (Anthropology), Richard Luettich (Institute for Marine Sciences), Doug MacLean (Philosophy), Christopher Martens (Marine Sciences), Brent McKee (Marine Sciences), Timothy McKeown (Political Science), Rachel Noble (Institute for Marine Sciences), Hans Paerl (Institute for Marine Sciences), Robert Peet (Biology), Charles Peterson (Institute for

Marine Sciences), David Pfennig (Biology), Jose Rial (Geological Sciences), Daniel Rodriquez (City and Regional Planning), Al Segars (Kenan-Flagler Business School), Maria Servedio (Biology), Andreas Teske (Marine Sciences), Stephen Walsh (Geography), Peter White (Biology), Dale Whittington (City and Regional Planning), Haven Wiley (Biology).

## Affiliated Associate Professors

Marc Alperin (Marine Sciences), John Bruno (Biology), Chip Konrad (Geography), Charles Mitchell (Biology), Aaron Moody (Geography), Karin Pfennig (Biology), Michael Piehler (Institute for Marine Sciences), Keith Sockman (Biology), Conghe Song (Geography), Donna Surge (Geological Sciences), Stephen Whalen (Environmental Sciences and Engineering).

## Affiliated Assistant Professors

Todd Bendor (City and Regional Planning), Karl Castillo (Marine Sciences), Xiaodong Chen (Geography), Clark Gray (Geography), Allen Hurlbert (Biology), Pamela Jagger (Public Policy), Nikhil Kaza (City and Regional Planning), Adrian Marchetti (Marine Sciences), Benjamin Mirus (Geological Sciences), Laura J. Moore (Geological Sciences), Tamlin Pavelsky (Geological Sciences), Lauren Persha (Geography), Jill Stewart (Environmental Sciences and Engineering), Jason Surratt (Environmental Sciences and Engineering), Colin West (Anthropology), Jason West (Environmental Sciences and Engineering), Erika Wise (Geography), Andrew Yates (Economics).

## Research Faculty

Dick Bilsborrow (Biostatistics), Elizabeth Dickinson (KenanFlagler Business School), Lindsay Dubbs (Coastal Studies Institute), David McNelis (Institute for the Environment), Johnny Randall (NC Botanical Gardens), Elizabeth Shay (North Carolina Department of Transportation), James Umbanhower (Biology), Alan Weakley (NC Botanical Gardens); Gary Wein (Highlands Trust).

## Senior Lecturer

Greg Gangi.

## Lecturers

Geoffrey Bell, Amy Cooke, Karen Kandl (Western Carolina University), Thomas Martin (Western Carolina University).

## Contact Information

Violet Anderson, Student Services Manager, Curriculum for the Environment and Ecology, CB\# 3275, 3202 Murray Hall, vmanders@email.unc.edu.

## Courses

## ENEC-Environment and Ecology

ENEC 51 First-Year Seminar: Balancing the Environment: Science, Human Values, and Policy in North Carolina (3). This course examines the ways in which scientific information, human values, and the policy process interact to produce environmental change, economic growth, and social justice in North Carolina.

ENEC 89 First-Year Seminar: Special Topics (3). Special topics course. Content will vary each semester.

ENEC 108 Our Energy and Climate Crises: Challenges and Opportunities (PWAD 108) (4). Students quantify global depletion of energy resources and accompanying environmental degradation, hence discovering the profound changes in attitudes and behavior required to adjust to diminished fossil fuels and modified climate.

ENEC 191 Peoples of Siberia (ANTH 191) (3). See ANTH 191 for description.

ENEC 201 Introduction to Environment and Society (4). Human-environment interactions are examined through analytical methods from the social sciences, humanities, and sciences. The focus is on the role of social, political, and economic factors in controlling interactions between society and the environment in historical and cultural contexts. Three lecture hours and one recitation hour a week.

ENEC 202 Introduction to the Environmental Sciences (4). Examines fundamental processes governing the movement and transformation of material and energy in environmental systems. Focuses on the role of these processes in environmental phenomena and how society perturbs these processes. Integrates methods from a range of scientific disciplines. Three lecture hours and three computer laboratory hours a week.

## ENEC 203 Introduction to Environmental Science Problem

 Solving (3). Prerequisite, MATH 231; corequisite, MATH 232. A quantitative introduction to selected topics in environmental sciences with an emphasis on developing and solidifying problemsolving skills.ENEC 204 Environmental Seminar (1-3). This course will provide an intellectual focus on the interface between environment and society by examining the relationship among science, policy, and actual management practices on a chosen topic.
ENEC 208 New Frontiers: Environment and Society in the United States (3-4). By employing a multidisciplinary approach, this class will give students a sense of the role that the environment has played in shaping United States society and the role that our society plays in producing environmental change at the national and global level.

ENEC 210 Energy in a Sustainable Environment Seminar (1). This seminar series will provide a general introduction to energy sources, resources, technologies, and societal use from a sustainability perspective.
ENEC 211 Environmental Geology (GEOL 211) (3). See GEOL 211 for description.

ENEC 213 Earth's Dynamic Systems (GEOL 213) (3). See GEOL 213 for description.

ENEC 220 North Carolina Estuaries: Environmental Processes and Problems (3). Natural processes and human impacts on estuarine systems using the Neuse River estuary as a case study. Course includes one week of intensive field work based at the Institute of Marine Sciences. A student may not receive credit for this course after receiving credit for ENEC 222.

ENEC 222 Estuarine and Coastal Marine Science (4). Prerequisites, MATH 231 and either CHEM 101 or PHYS 114. Introduction to the estuarine and coastal environment: geomorphology, physical circulation, nutrient loading, primary and secondary production, carbon and nitrogen cycling, benthic processes, and sedimentation. Consideration given to human impact on coastal systems with emphasis on North Carolina estuaries and sounds. Includes a mandatory weekend field trip and laboratory.
ENEC 238 Human Ecology of Africa (ANTH 238) (3). See ANTH 238 for description.

## ENEC 241 Energy and Culture Seminar for the Thailand

 Field Site (1). This one credit hour course meets the semester before UNC students go to study abroad at the Institute for the Environment Thailand Field Site. The course will prepare students for the research portion of the program. Student should be applying to the field site when taking this course.ENEC 242 Ecology and Culture Seminar for Ecuador Field Site (1). This one credit hour seminar is only open to students who are planning to participate in the spring research semester in Ecuador. The main purpose of this seminar is to prepare students for this sixmonth experience in Ecuador by discussing both research methods and Ecuadorian society.

ENEC 253 Introduction to Atmospheric Processes (GEOG 253) (4). See GEOG 253 for description.

ENEC 254 International Environmental Politics (POLI 254)
(3). See POLI 254 for description.

ENEC 256 Mountain Biodiversity (BIOL 256) (4). Introduction to the new field of biodiversity studies, which integrates approaches from systematics, ecology, evolution, and conservation.

ENEC 259 Coral Reef Ecology and Management (1). The course familiarizes students with the natural history, ecology, and physical and chemical characteristics of the coral reef environment. Policy and management issues are also examined.

ENEC 263 Environmental Field Studies in Siberia (GEOG 263)
(4). This course explores the biogeography of Siberia and gives students practical training on how to do field work in field ecology and physical geography.

ENEC 264 Conservation of Biodiversity in Theory and Practice (GEOG 264) (3). Prerequisite, ENEC 201. Permission of the instructor for students lacking the prerequisite. This course will give students a multidisciplinary introduction to growing field of biodiversity preservation.
ENEC 266 Contemporary Africa: Issues in Health Population, and the Environment (3). A seminar that introduces students to non-Western perspectives and comparative study of ecological, social, and economic factors that influence the welfare of contemporary African communities. Examination of famine, population growth, and health issues within the context of African cultural and social systems.
ENEC 304 Restoration Ecology (4). Prerequisite, BIOL 201 or ENEC 202. Explores ecological theory and its application to the restoration of terrestrial, aquatic, and marine ecosystems. Requires

30 hours of service to a local restoration project in which students will collect ecological data for a final case study project.
ENEC 305 Data Analysis and Visualization of Social and Environmental Interactions (4). Prerequisite, ECON 400, ENEC 201, MATH 231, or STOR 155. Principles of spatial and temporal data analysis are applied to issues of the role of society in producing environmental change. Methods include statistical analysis, model development, and computer visualization. Three lecture hours and one laboratory hour a week.

ENEC 306 Business and the Environment (3). Introduction to the methods for selecting management practices in business and industry in ways that optimize environmental quality and economic prosperity. Three lecture hours a week.
ENEC 307 Energy and Material Flows in the Environment and Society (3). Prerequisites, MATH 231, ENEC 201 and 202. Permission of the instructor for students lacking the prerequisites. Examines the regional to global flow of materials and energy through materials extraction, processing, manufacturing, product use, recycling, and ultimate disposition, including its relevance in policy development. Reviews natural cycles in the environment, basic physics, and the technology of energy production.

ENEC 308 Environmental History (3). Historical development of the system of beliefs, values, institutions, etc. underlying societal response to the environment in different cultures is analyzed. The approach is interdisciplinary, drawing on methods from history, philosophy, psychology, etc. Three lecture hours a week.
ENEC 309 Environmental Values and Valuation (3). Introduction to the methods for assigning value to aspects of the environment and to interhuman and human-environment interactions. The approach is interdisciplinary, drawing on methods from philosophy, ecology, psychology, aesthetics, economics, religion, etc. Three lecture hours a week.
ENEC 312 Risk-Based International Environmental Decisions (ENVR 312) (3). A Web-based course on the methods and roles of risk assessment in the international setting, with a primary focus on United States-European Union applications in environmental policy decisions.
ENEC 324 Water in Our World: Introduction to Hydrologic Science and Environmental Problems (GEOL 324) (3). This introductory course will cover two broad themes: the physical processes of the hydrologic cycle and how human use (and abuse) of freshwater resources can lead to major environmental problems.

ENEC 324L Water in Our World Laboratory (GEOL 324L)
(1). Pre- or corequisite, ENEC/GEOL 324. Students will conduct laboratory and field experiments to reinforce the topics covered in ENEC/GEOL 324. PX credit for ENEC/GEOL 324 + 324L.
ENEC 325 Water Resource Management and Human Rights (3-4). This course explores logistical, political, social, and economic challenges in supplying every human with adequate access to clean water, the most basic human right.

ENEC 330 Principles of Sustainability (PLAN 330) (3). An overview of science, social science, and humanities perspectives on community sustainability.

ENEC 350 Environmental Law and Policy (3). This course gives students an overview of environmental law and some practical experience in environmental policy making.

ENEC 351 Coastal Law and Policy (3). The utilization of common coastal resources, the management of fisheries, and coastal zone management guide an examination of coastal laws, policies, and regulations at the federal, state, and local levels.

ENEC 352 Ecology and Management of Marine Fisheries (3). Prerequisite, MASC 101 or 401 . Survey of the ecological processes that influence populations of economically important fish and shellfish, the various fisheries management tools/techniques used to achieve sustainable fish stocks, and the impacts of fishing practices on marine ecosystems.

ENEC 368 Environmental Ethics (PHIL 368) (3). See PHIL 368 for description.

ENEC 370 Agriculture and the Environment (3). Introduction to the ecology of agricultural practices and the impact of food production on the environment. Particular attention will be paid to the constraints on agriculture which must be overcome to feed the planet's growing population.

ENEC 372 Global Environment: Policy Analysis and Solutions (PLCY 372) (3). See PLCY 372 for description.
ENEC 375 Environmental Advocacy (COMM 375) (3). See COMM 375 for description.

ENEC 380 Environmental Economics (3). Prerequisite, ECON 101 This course develops a set of core principles that are essential to understand and evaluate environmental policy and renewable resource use. These principles are primarily economic, but our discussion will also include insights from politics and ethics.

ENEC 393 Internship in Sustainability (3). Permission of the instructor. This course provides an internship with an organization on sustainability topics and public engagement. Pass/Fail only.

ENEC 395 Research in Environmental Sciences and Studies for Undergraduates (1-12). Permission of the instructor. Research in an area of environmental science or environmental studies.

ENEC 396 Directed Readings (1-4). Permission of the instructor. A specialized selection of readings from the literature of a particular environmental field supervised by a member of the Carolina Environmental Faculty group. Written reports on the readings or a literature review paper will be required. Cannot be used as a course toward the major.

ENEC 403 Environmental Chemistry Processes (ENVR 403) (3). See ENVR 403 for description.

ENEC 405 Mountain Preservation (4). Introduces students to approaches used to preserve the natural and cultural heritage of the Southern Appalachians.

ENEC 406 Atmospheric Processes II (GEOG 406) (4). Principles of analysis of the atmosphere are applied to the analysis of environmental phenomena. The link between the atmosphere and other environmental compartments is explored through environmental case studies.

ENEC 410 Earth Processes in Environmental Systems (GEOL 410, MASC 410) (4). Prerequisites, CHEM 102, GEOL 213, MATH 231, PHYS 115 or 119. Permission of the instructor for students lacking the prerequisites. Principles of geological and related Earth systems sciences are applied to analyses of environmental phenomena. The link between the lithosphere and other environmental compartments is explored through case studies of environmental issues. Three lecture hours and one laboratory hour a week.

## ENEC 411 Oceanic Processes in Environmental Systems

 (GEOL 411, MASC 411) (4). Prerequisites, BIOL 101, CHEM 102, ENEC 222, MATH 231, PHYS 115 or 119. Permission of the instructor for students lacking the prerequisites. Principles of analysis of the ocean, coast, and estuarine environments and the processes that control these environments are applied to the analysis of environmental phenomena. Case studies of environmental issues. Three lecture hours and one laboratory hour a week.ENEC 415 Environmental Systems Modeling (GEOL 415, MASC 415) (3). Prerequisite, MATH 383; pre- or corequisite, PHYS 115 or 119. Methods for developing explanatory and predictive models of environmental processes are explored. Includes discussion of the relevant scientific modes of analysis, mathematical methods, computational issues, and visualization techniques. Two lecture hours and one computer laboratory hour a week.

ENEC 416 Environmental Meteorology (3). This course explores atmospheric processes most important to environmental problems such as the transport and transformation of air pollutants and weather systems involved in intercontinental transport of gases and particles.

ENEC 417 Geomorphology (GEOL 417) (3). See GEOL 417 for description.

ENEC 420 Community Design and Green Architecture (PLAN 420) (3). The impact of building on the environment and health will be examined by looking at the major areas of land use planning, water resource use, energy, materials, and indoor environment.

ENEC 431 Systems Analysis for Sustainability (3). Provides an overview of principles from science and engineering to analyze sustainability of material and energy systems.

ENEC 441 Marine Physiological Ecology (MASC 441) (3). See MASC 441 for description.

ENEC 444 Marine Phytoplankton (MASC 444) (3). See MASC 444 for description.

ENEC 448 Coastal and Estuarine Ecology (MASC 448) (4). See MASC 448 for description.

ENEC 450 Biogeochemical Processes (GEOL 450, MASC 450) (4). Prerequisites, CHEM 251 or 261, MATH 231, PHYS 115 or 119. Permission of the instructor for students lacking the prerequisites. Principles of chemistry, biology, and geology are applied to analysis of the fate and transport of materials in environmental systems, with an emphasis on those materials that form the most significant cycles. Three lecture hours and one laboratory hour a week.

ENEC 459 Ecological Anthropology (ANTH 459) (3). See ANTH 459 for description.

ENEC 460 Historical Ecology (ANTH 460) (3). See ANTH 460 for description.
ENEC 461 Fundamentals of Ecology (BIOL 461) (4). See BIOL 461 for description.

ENEC 462 Ecosystem Management (3). Prerequisite, BIOL 101. Explores the ecological concepts underlying ecosystem management (e.g., genetic and species diversity, stability, resilience, landscape ecology, etc.), the tools used in the approach, and case studies of how communities are implementing ecosystem management.
ENEC 468 Advanced Functions of Temporal GIS (ENVR 468)
(3). See ENVR 468 for description.

ENEC 470 Environmental Risk Assessment (ENVR 470) (3). See ENVR 470 for description.

ENEC 471 Human Impacts on Estuarine Ecosystems (MASC 471) (4). Prerequisites, CHEM 102 and MATH 231. A cohesive examination of the human impacts on biological processes in estuarine ecosystems. Laboratory/recitation/field work is included and contributes two credit hours to the course.

ENEC 474 Sustainable Coastal Management (3). This course explores the environmental history of the Albemarle estuary and its larger watershed and explores ways in which humans can utilize this region in a more sustainable manner.

ENEC 479 Landscape Analysis (3). This course utilizes GIS, GPS, and remote sensing technologies to gather data on geology, watersheds, soils, integrated moisture indices. The class also develops habitat maps and derives species diversity indices.
ENEC 480 Environmental Decision Making (PLCY 480) (3). See PLCY 480 for description.

ENEC 482 Energy and the Environment: A Coastal Perspective (3). Explores coastal and offshore energy issues, including energy demand, present-day and innovative sources of energy to meet that demand, economics, policy, and environmental and human health outcomes of different energy sources. Summer session only; online and field trip hybrid course, with a mandatory eight-day field site component on the Outer Banks. Housing and field activities arranged by the instructor, which will carry a fee.
ENEC 485 Coastal Resource Economics and Policy (3-4). Prerequisite, ECON 101. This course develops and applies core principles essential to understanding and evaluating coastal environmental policy and renewable resource use. The principles include the economics of pollution, public choice, information and cost-benefit analysis, property rights, incentive-based regulation, and the economics of renewable resources. Includes insights from politics and ethics.
ENEC 489 Ecological Processes in Environmental Systems (4). Prerequisites, BIOL 101 or 201, CHEM 102, MATH 231, PHYS 115 or 119. Permission of the instructor for students lacking the prerequisites. Principles of analysis of the structure and function of ecosystems are applied to environmental phenomena. The link between the biosphere and other environmental compartments is
explored through case studies of environmental issues. Three lecture hours and one laboratory hour a week.
ENEC 490 Special Topics in Environmental Science and Studies (1-12). Advanced topics from diverse areas of environmental science and/or environmental studies are explored.

## ENEC 491 Effective Environmental Communication

(3). Combines theory and application to explore effective communication in various environmental contexts and professions. Offers students from diverse disciplines tools to effectively and credibly communicate about environmental topics using a spectrum of strategies, and offers methods for effective thinking, writing, and speaking.
ENEC 492 Social Science Research Methods (3-4). Discusses social science research methods and their application to public policies and the management of natural resources. Students learn quantitative and qualitative methods for measuring social, economic, and demographic variables; how to evaluate, interpret, and use the data; and how values, beliefs, and attitudes affect decisions about ecosystem management.

ENEC 493 Environmental Internship (1-4). Permission of the instructor. This course provides an internship with an organization related to environmental sciences or studies. Pass/Fail only.
ENEC 510 Policy Analysis of Global Climate Change (3). Provides a real-world and relevant case study in which to apply material from multiple disciplines including public policy, economics, environmental science, and international studies. Teaches techniques for building policy models not covered elsewhere.

## ENEC 511 Stable Isotopes in the Environment (GEOL 511)

(3). See GEOL 511 for description.

ENEC 520 Environment and Development (PLCY 520) (3). See PLCY 520 for description.
ENEC 522 Environmental Change and Human Health (ENVR 522) (3). Prerequisite, ENEC 201 or 202. The course will provide students with a multidisciplinary perspective of environmental changes to encompass both human health and ecological health.
ENEC 530 Principles of Climate Modeling (3). Prerequisites, MATH 231, 232, and 233; PHYS 118 and 119. Recommended preparation, MATH 383. Develops explanatory and predictive models of the earth's climate. The level is introductory and the emphasis is on modeling past climate with the hope of understanding its future.
ENEC 562 Statistics for Environmental Scientists (BIOL 562) (4). Prerequisite, STOR 155. Introduction to the application of quantitative and statistical methods in environmental science, including environmental monitoring, assessment, threshold exceedance, risk assessment, and environmental decision making.

ENEC 563 Statistical Analysis in Ecology and Evolution (BIOL 563) (4). See BIOL 563 for description.

ENEC 565 Environmental Storytelling (JOMC 565) (3). See JOMC 565 for description.

ENEC 567 Ecological Analyses and Application (3). This course provides an overview of natural and social science approaches to addressing biodiversity conservation and resource management. Concepts and methods from population biology, evolutionary ecology, community ecology, and conservation biology will be complemented with approaches from common property theory, indigenous resource management, and human evolutionary ecology.

ENEC 569 Current Issues in Ecology (3). Required preparation, previous course work in ecology. Permission of the instructor. Topics vary but focus on interdisciplinary problems facing humans and/or the environment. May be repeated for credit.

## ENEC 580 Environmental Markets: Science and Economics

(3). Examines the interplay of science and economics in the design of environmental markets. The first part introduces the principles of environmental economics. The second part considers several case studies that illustrate the critical role that scientific models of natural systems play in the design of environmental markets.

ENEC 581 Water Resource Planning and Policy Analysis (3). Water resources demand-supply relationships, United States water resource and related water quality policy, legal structure for water allocation, planning, project and program evaluation, and pricing. Strategies for coping with floods, droughts, and climate change will be explored. Extensive use of case studies.

ENEC 585 American Environmental Policy (ENVR 585, PLAN 585, PLCY 585) (3). See ENVR 585 for description.
ENEC 586 Water Quality Policies and Planning (3). Prerequisites, BIOL 101 and MATH 231. Introduction to the management of water quality at the local and basinwide scales. Topics include theory and management frameworks; state and federal statutes and programs; water contaminants, their fate and transport; alternatives for improving and protecting water quality; and the technologies and management practices of selected basinwide comprehensive strategies.

ENEC 593 Environmental Practicum (1-3). Focuses on the interface between environment and society by examining the relationship between science and management practices. Students receive classroom lecture and then go into the field to see what role the ideas actually have in management practices. Students also learn from an active professional working in the topic area.

ENEC 602 Professional Development Skills for Ecologists and Biologists (BIOL 602) (3). The goal of this course is to help students who intend to become professional ecologists or biologists acquire critical skills and strategies needed for achieving their career goals.

## ENEC 608 Continuum Mechanics in the Earth Sciences

 (GEOL 608) (3). See GEOL 608 for description.ENEC 669 Seminar in Ecology (BIOL 669) (1-3). See BIOL 669 for description.

ENEC 675 Environmental Communication and the Public
Sphere (3). Examines communication practices that accompany citizen participation in environmental decisions, including public education campaigns of nonprofit organizations, "risk communication," media representations, and mediation in environmental disputes.

ENEC 685 Environmental and Resource Economics (3). Prerequisite, ECON 310. Theory and methods of environmental economics. Topics covered include cost-benefit analysis and environmental policy analysis, economic concept of sustainability, optimal use of natural resources, nonmarket valuation, and economic instruments.

ENEC 686 Policy Instruments for Environmental Management (ENVR 686, PLAN 686, PLCY 686) (3). See PLCY 686 for description.

ENEC 693H Honors Research in Environmental Sciences and Studies (3). Permission of the director of undergraduate studies. First of two course sequence leading to the honors designation.

ENEC 694H Honors Project in Environmental Sciences and Studies (3). Permission of the director of undergraduate studies. Independent project leading to the honors designation. Includes weekly research seminar.

ENEC 698 Capstone: Analysis and Solution of Environmental Problems (3). Interdisciplinary, team-based analyses of environmental phenomena are performed and applied to problems of the selection of effective environmental strategies. Students may select from a wide range of examples and venues.

## Department of Exercise and Sport Science

exss.unc.edu
209 Fetzer Hall, CB\# 8700; (919) 962-2021
DARIN A. PADUA, Chair

## Introduction

Exercise and sport science examines the physics, physiology, and psychology of sport and exercise, the recognition and treatment of athletic injuries, and the administration of athletics. The general major provides foundational courses in exercise science. The athletic training program within the Department of Exercise and Sport Science can prepare students to work as a certified athletic trainer for high school, college, or professional sports teams. Students interested in sport administration can build a foundation in the management of sport. Sport administration career options include almost anything related to amateur, interscholastic, or professional sports. The fitness professional program is designed to prepare students for careers in a variety of health-related fields, including but not limited to entry-level positions in the healthfitness industry; personal training of amateur, professional, and recreational athletes; exercise therapy for a range of clinical conditions; or graduate study in exercise physiology. Other career options for majors include strength-conditioning coach for an athletic team; exercise research within the athletic, medical, or pharmaceutical industries; or fitness club entrepreneur. By choosing additional courses, students can apply to schools of physical therapy, occupational therapy, public health, nursing, or medicine.

The overall mission of the Department of Exercise and Sport Science is to discover and promote knowledge of human movement to improve quality of life.

## Exercise and Sport Science <br> Major, B.A.-General

## Core Requirements

- Four required core courses (must earn a grade of C or better): EXSS 175, 276, 288, and either 220 or 221
- EXSS 180, 273, 376, 380, and 385


## Additional Requirements

- BIOL 101 and 101L
- MATH 110 (prerequisite for EXSS 273, 376, and 385) A minimum of 18 hours in the nine required courses for the major must be completed with a grade of C or better (not a C average). A maximum of 45 hours of EXSS courses may be applied toward the B.A. degree.


## Exercise and Sport Science Major, B.A.-Athletic Training

Students seeking the major in exercise and sport science-athletic training (EXSS-AT) must complete the following departmental requirements in addition to required General Education courses:

## Core Requirements

- Required core courses (must earn a grade of C or better): EXSS 175, 276, 288, and 369
- EXSS 265, 275L, 360, 366, 367, 368, 370, 376, 385, and 393
(five credits over five semesters)


## Additional Requirements

- BIOL 101 and 101L
- MATH 110 (prerequisite for EXSS 273, 376, and 385)

The undergraduate athletic training program is nationally accredited by the Commission on Accreditation of Athletic Training Education (CAATE). Students can become involved in athletic training at UNC-Chapel Hill as early as their first year, when they are assigned observational hours in Stallings Evans Sports Medicine Center. Students gain exposure to injury evaluation, treatment, and rehabilitation while working under the supervision of certified athletic trainers. Students who wish to continue with athletic training as a career path should apply to the program during the fall semester of their sophomore year. Applications are due October 15.

Prerequisites include 1) a minimum of 50 observational hours, 2) successful completion (B grade minimum) of EXSS 175 Human Anatomy and 288 Emergency Care of Injuries and Illness by the end of the fall semester of the sophomore year, and 3) a minimum cumulative grade point average of 2.75 .

Interested students should attend an organizational meeting held on the first Tuesday of every semester at 7:00 p.m. in Room 106 Fetzer Hall. For more information, interested students can access the athletic training Web site at exss.unc.edu/undergraduate-program/ba-in-exss/athletic-training or contact Dr. Meredith Petschauer at (919) 962-1110, mbusby@email.unc.edu.

## Exercise and Sport Science Major, B.A.-Fitness Professional

Students seeking the major in exercise and sport science-fitness professional (EXSS-FP) must complete the following departmental requirements in addition to required General Education courses:

## Core Requirements

- Required core courses (must earn a grade of C or better): EXSS 175, 220, 276, and 288
- EXSS 273, 360, 376, 385, 408, 410L, 412, and 593


## Additional Requirements

- BIOC 107 or CHEM 101 and 101L
- BIOL 101 and 101L
- MATH 110 (prerequisite for EXSS 273, 376, and 385)

The goal of the fitness professional program is to prepare students to assume roles as leaders in the fitness field and the area of fitness research. The blend of theoretical coursework and practical experience will assist the student in preparing for career opportunities and national fitness certifications.

## Suggested Course Sequencing

EXSS 220, 273, 288, and 385 may be taken at any point in the major. Other required EXSS courses have prerequisites due to the building-block nature of the academic material.

## First Year

- BIOL 101/101L
- CHEM 101/101L or BIOC 107


## Second Year

- Fall or Spring: EXSS 175


## Third Year

- Fall: EXSS 276 and 288
- Spring: EXSS 220, 376, and 408


## Fourth Year

- Fall: EXSS 385, 410L, and 412
- Spring: EXSS 273, 360, 593, and any remaining EXSS
or elective courses
Interested students should attend the organizational meeting held approximately two to four weeks before spring and fall registration begins. The exact date/time/place will be posted in Fetzer Hall and online. For more information, interested students can also access the fitness professional Web site at exss.unc.edu/undergraduate-program/ba-in-exss/fitness-professional or contact Mr. Alain Aguilar at alaguila@email.unc.edu.


## Exercise and Sport Science <br> Major, B.A.-Sport Administration

Students seeking the major in exercise and sport science-sport administration (EXSS-SA) must complete the following requirements in addition to required General Education courses:

## Core Requirements

- Required core courses (must earn a grade of C or better): EXSS 175, 221, 276, and 288
- EXSS 322, 323, 324, and 326
- Six (6) additional credits must be earned in EXSS course(s) at the 200 level or above. RECR 430 may also be used. Note: Students considering graduate work in sport administration should take EXSS 273.


## Additional Requirements

- BIOL 101 and 101L
- ECON 101 (prerequisite for EXSS 324)


## Suggested Course Sequencing

## Second Year

- EXSS 175 and 276 (can be taken in second or third year), 221, 288


## Third Year

- Fall: EXSS 322 and 323
- Spring: EXSS 276


## Fourth Year

- EXSS 324 and 326

For more information, please contact Dr. Erianne Weight at eweight@email.unc.edu.

## Coaching Education Minor

The minor in coaching education is by approval only and consists of five courses, distributed as follows:

- EXSS 205 or 206
- EXSS 207
- EXSS 288*
- Two from EXSS 141, 181, 211, 221, 360, 376, 380, 385, 408, 478; RECR 430
*EXSS 288 requires EXSS 175 as a prerequisite. By approval from the department, students may replace EXSS 288 with an additional course from list four. Please see the department for details and eligibility.
For more information and to obtain an application, please contact Dr. Sherry Salyer at salyer@email.unc.edu.


## Exercise and Sport Science Minor

The minor consists of five courses.

## Core Requirements

- EXSS 220, 221, or 288
- EXSS 376 or 385 (students can elect to take both classes)
- Three from EXSS 181, 380, and 408 (If students take both EXSS 376 and 385 from the above category, then two classes are required here.)


## Additional Requirements

- BIOL 101/101L


## Recreation Administration Minor

The minor consists of five required courses: EXSS 221; RECR 311, 420, 430, and 475.

## Advising

All majors and minors have a primary academic advisor in Steele Building. Students are strongly encouraged to meet regularly with their advisor and review their Tar Heel Tracker each semester. In the Department of Exercise and Sport Science five faculty members serve as advisors with weekly office hours (see "Contact Information" below and on the Web site). The department communicates via a listserv, Facebook posts, tweets, blog posts, classroom "advising" visits, building bulletin boards/video boards, and the departmental Web site. Departmental academic advising is particularly important for those majors who are considering graduate school. Further information on courses, undergraduate research opportunities, the honors program, careers, and graduate schools may be obtained from the department's Web site.

## Special Opportunities in Exercise and Sport Science

## Honors in Exercise and Sport Science

The senior honors program provides exercise and sport science majors the opportunity to pursue an independent, two-semester research project. A student must have an overall grade point average of 3.3 or above prior to acceptance into the departmental honors program and must maintain an overall average of 3.3 or above to remain in the program. Students complete EXSS 693H and 694H. Honors study involves the completion of a substantial piece of original research and the formal oral presentation of the results. Those successfully completing the program are awarded their degree with either honors or highest honors. Previous senior honors thesis topics and more information can be found on the EXSS department Web page. Please contact Dr. Meredith Petschauer at (919) 962-1110, mbusby@email.unc.edu, if you are interested.

## Departmental Involvement

In addition to its academic offerings, the department houses the campus recreation program. Students may also affiliate with the Carolina Fitness Professionals Club, Carolina Sports Business Club, and the Student Athletic Trainers Association. The "Get Real and Heel" program, offering exercise and recreation therapy services to women with breast cancer, and the "Sport Concussion Research" program provide opportunities for qualified students to volunteer and gain valuable research experience.

## Experiential Education

EXSS 51, 207, 323, 393, 493, 593, 693H, 694H, and RECR 420 satisfy the experiential education requirement.

## Laboratory Teaching Internships and Assistantships

Athletic training students work with UNC-Chapel Hill sports teams and local high schools. The fitness professional students serve a practicum with local fitness organizations.

## Study Abroad

The Department of Exercise and Sport Science currently offers summer study abroad programs in Montevideo, Uruguay, and Beijing, China. Refer to the department's Web site for more information. For other study abroad experiences the department will gladly work with its majors to determine appropriate credit.

## Undergraduate Awards

The Patrick F. Earey Award, named in honor of a longtime faculty member, is given annually to the outstanding senior major in the department. The award signifies exemplary leadership, academic achievement, and extracurricular involvement by a senior exercise and sport science major.

The Ronald W. Hyatt Scholarship, named in honor of the late Dr. Hyatt, one of Carolina's "priceless gems" and a faculty member in the department, is a merit-based scholarship awarded annually to an outstanding full-time undergraduate exercise and sport science major with junior status.

The EXSS Scholar Athlete Award is a merit-based award recognizing outstanding scholarship of a senior student athlete majoring in exercise and sport science.

## Undergraduate Research

Students are encouraged to explore research interests by completing independent research studies and senior honors theses. For a few highly motivated and dedicated individuals, working with faculty on faculty research projects is possible.

## Facilities

In addition to classroom space and physical activity area, Fetzer Hall houses several well-equipped research and teaching laboratories:

1. The Applied Physiology Laboratory is fully equipped to measure metabolism, body composition, and aerobic fitness. Additionally, it houses a chemistry laboratory to study the biochemistry of exercise.
2. The Cadaver Anatomy Laboratory is designed to teach cadaver dissection in order to gain a greater knowledge about how the human body works in an athletic environment.
3. The Exercise Science Teaching Laboratory was specifically designed for teaching exercise science laboratory experiences as well as clinical exercise testing experiences.
4. The Sports Medicine Research Laboratory, equipped with the latest equipment to investigate athletic injuries related to the biomechanics and kinesiology of movement, offers as its primary research focus the prevention and treatment of athleticrelated injuries.
5. The Neuromuscular Control Laboratory is designed for the investigation of neuromuscular and biomechanical factors associated with musculoskeletal/orthopedic injury and disease, including joint stability, muscle mechanics, neuromuscular control, motion analysis, and postural stability.
6. The CPR laboratory is a teaching laboratory for CPR and first aid skills. The laboratory is equipped with mannequins, AED trainers, and first aid equipment.
7. The Exercise Oncology Laboratory is equipped with the latest technology for the assessment of cardiorespiratory and pulmonary function, body composition, cognitive function, electrocardiogram monitoring capability, and evaluation of heart rate coherence and heart rate variability in oncology patients.
8. Through its clinical and research initiatives, the Matthew Gfeller Sport-Related Traumatic Brain Injury Research Center demonstrates its commitment to providing the highest level of care for athletes of all ages suffering from sport-related brain injuries, and to assisting parents, coaches, and medical professionals in managing these athletes.
9. The Athletic Training Teaching Laboratory is designed for students to practice evaluation, treatment, and rehabilitation skills. It is equipped with treatment tables, evaluation tools, rehabilitation supplies such as foam rollers, exercises balls, and taping supplies.

## Graduate School and Career Opportunities

Many undergraduate exercise and sport science majors are preparing for graduate work in related areas: exercise physiology, physical therapy, sports medicine, nutrition, athletic training, sports administration/management, etc. They will be well-prepared for master's and doctoral programs at major universities. Numerous opportunities exist for graduate assistantships in these areas at UNC-Chapel Hill and other large universities. Numerous career opportunities exist in a variety of fields directly related to sport and exercise. Some graduates go directly into health/fitness/sportrelated employment. Others attend professional schools or pursue advanced academic degrees.

## Faculty

## Professors

Kevin M. Guskiewicz, Anthony C. Hackney, Bonita L. Marks, Joseph B. Myers, Darin A. Padua, William E. Prentice.

## Associate Professors

Claudio L. Battaglini, J. Troy Blackburn, Diane G. Groff, Barbara J. Osborne, Edgar W. Shields Jr.

## Assistant Professors

Coyte G. Cooper, Erik Hanson, Kristen L. Kucera, Jason P.
Mihalik, Brian G. Pietrosimone, Nels Popp, Johna Register-
Mihalik, Eric D. Ryan, Abbie E. Smith-Ryan, Erianne A. Weight.

## Adjunct Professors

John Anderson, Robert C. Cantu, Michael T. Gross, Timothy N. Taft, Bing Yu.

## Adjunct Associate Professors

Michael D. Lewek, Vicki Mercer, Prudence Plummer, Deborah Thorpe.

## Adjunct Assistant Professors

Elizabeth G. Hedgpeth, Daniel N. Hooker.

## Teaching Professor

Sherry L. Salyer.

## Senior Lecturer

Meredith A. Petschauer.

## Lecturers

Alain J. Aguilar, Rebecca L. Battaglini, Robert Malekoff, Debra C. Murray, Deborah J. Southall, Deborah L. Stroman.

Professors Emeriti
M. Deborah Bialeschki, John E. Billing, Robert G. McMurray, Frederick O. Mueller, Francis Pleasants Jr.

## Contact Information

Professor Sherry Salyer, Director of Undergraduate Studies, CB\# 8700, 211 Fetzer Hall, (919) 962-6947, salyer@email.unc.edu. Web site: exss.unc.edu.

## Courses

## EXSS-Exercise and Sport Science

EXSS 50 First-Year Seminar: Discrimination and Sport (3). This course will examine the American ethos by looking at those who have been discriminated against in sport because of race, gender, sexual orientation, or disability.

EXSS 51 First-Year Seminar: Entrepreneurship in Human Performance and Sport (3). This course will provide students an introduction to the practical entrepreneurial business tools for starting a new business (or for use in an existing organization) in the human performance and/or sport industry.

EXSS 141 Personal Health (3). Elective, open to all students. This course examines basic wellness concepts in the areas of physical fitness, nutrition, disease prevention, mental health, drug abuse, and human sexuality. Emphasis is on the individual's responsibility for his/her own health.

EXSS 175 Human Anatomy (3). The study of the structure of the human body with special emphasis on the musculoskeletal, articular, and nervous systems. Prosected cadaver materials are utilized to study the skeletal muscles and body viscera.

EXSS 180 Physical Activity in Contemporary Society (3). An examination of the role of physical activity/inactivity on the health and well-being of American society.

EXSS 181 Sport Psychology (3). A comprehensive introduction to psychological and sociological factors that relate to sport involvement and performance. Issues include psychological aspects of elite athletes, motivation and performance, intervention and performance enhancement, anxiety and skill performance, racial and gender discrimination in sport, and violence in sport.

EXSS 191 Theory and Practice of Modern Dance Technique-Elementary-Level Elective. (3). Prerequisite, PHYA 224. An intensive study of modern dance technique and philosophy, focusing on the physical principles of movement and their choreographic application. One hour seminar and four and onehalf hours laboratory.

EXSS 205 Analysis of Sport Skills I (3). A professional preparation course in the skills, knowledge, safety, and teaching progressions of basketball, track and field, and softball/baseball.

EXSS 206 Analysis of Sport Skills II (3). A professional preparation course in the skills, knowledge, safety, and teaching progressions of soccer, tennis, and volleyball.
EXSS 207 Coaching Principles (3). A professional preparation course for teaching and coaching. Includes basic instruction in coaching education and principles, pedagogy for coaching, conditioning for athletes, and team building.

EXSS 208 Health and Physical Education in the Elementary
School (3). This course deals with methods and materials of health and physical education in school levels kindergarten through sixth grade. Required of elementary education majors. Does not count toward physical education major.

## EXSS 210 Physical Education for the Elementary School-

 Kindergarten through Sixth Grade (3). This course deals with methods and materials of physical education in school levels kindergarten through the sixth grade.EXSS 211 Adapted Physical Education (3). A study of problems related to body mechanics and the needs of the physically handicapped student.
EXSS 220 Fitness Management (3). Students develop a working knowledge of theories, principles, and operating procedures involved in managing programs, staff, and facilities in the health/ fitness industry, including management, marketing, operations, legal aspects.

EXSS 221 Introduction to Sport and Recreation Administration (3). In this course, students are introduced to the policies and problems of organizing and administering sport, recreation and physical education programs in public and private settings.
EXSS 223 International Sport Management (3). Because sport cuts across all international boundaries, students must understand the global implications of the sport industry. This course introduces students to the organization, governance, business activities, and intercultural issues in international sport.

EXSS 224 Sport Sales and Revenue Production Seminar (3). This course will analyze and produce skills essential to the revenue production and sales process commonly found in the sport business. In this class students will develop an understanding and appreciation for the sales and revenue-production process related to a sport franchise and/or organization.
EXSS 260 Women in Sports (WMST 163) (3). A broad based perspective of women's participation in sport including history of participation, physiological differences, and socio-cultural influences including work, politics, family, economics, and gender roles and identity.

EXSS 265 Fundamentals of Athletic Training (3). Prerequisites, EXSS 175 and 288. Permission of the instructor. This course is designed to introduce the undergraduate athletic training student to the athletic training profession and to provide the basic knowledge and skills necessary to recognize, evaluate, and treat injuries to the
head and face, cervical spine, thoracic region, abdominal/urogenital region, and extremities.

EXSS 273 Research in Exercise and Sport Science (3).
Prerequisite, MATH 110. An introduction to research in the fields of physical education, exercise, and sport science with emphasis on understanding and application of research findings.
EXSS 275L Human Anatomy Laboratory (1). Required preparation, a grade of B or better in EXSS 175. EXSS 275L is a basic human anatomy laboratory course designed to accompany EXSS 175. For students endeavoring to major in the allied health professions.

EXSS 276 Human Physiology (3). Prerequisite, EXSS 175. Instructor may approve equivalents for prerequisite. A lecture course in elementary physiology, covering the various systems of the body.
EXSS 288 Emergency Care of Athletic Injuries and Illnesses (3). Pre- or corequisite, EXSS 175. Theory and practice of basic first aid, cardiopulmonary resuscitation, and the acute care of athletic injuries.

## EXSS 290 Special Topics in EXSS (3).

EXSS 291 Theory and Practice of Modern Dance Technique-Intermediate-Level Elective. (3). Prerequisite, EXSS 191. Permission of the instructor for students lacking the prerequisite. An intensive study of modern dance technique and philosophy, focusing on the physical principles of movement and their choreographic application. One hour seminar and four and onehalf hours laboratory.

EXSS 322 Fundamentals of Sport Marketing (3). Prerequisite, EXSS 221. This course is designed to introduce students to marketing within the sport industry, including the unique aspects of the sport product and sport consumer markets.

## EXSS 323 Sport Facility and Event Management (3).

Prerequisite, EXSS 221. This course is designed to develop practical competencies necessary for effectively managing sport facilities and events while providing students with experiential learning opportunities inside and outside the classroom.

EXSS 324 Finance and Economics of Sport (3). Prerequisite, ECON 101. Recommended preparation, EXSS 221. This course provides an understanding of the financial and economic growth of sport, economic theory applied to the sport industry, and the basic principles and methods of sound fiscal control.
EXSS 326 Legal Aspects of Sport (3). Recommended preparation, EXSS 221. This course provides a foundation in general legal concepts and familiarizes students with those areas they are most likely to encounter as managers in the sports and fitness industry.

EXSS 328 Sport Business Venture (3). This course will provide students an introduction to practical entrepreneurial business tools for starting a new business (or for use in an existing organization) in the sport industry.

## EXSS 350 Essentials of Corrective Exercise Training (3).

Prerequisites, EXSS 175, 275L, and 276. This course provides students with knowledge and experience in designing corrective
exercise programs. Students will learn to assess posture, movement quality, range of motion, and strength. Students will also learn to correct abnormalities exercises for various body parts. Knowledge will be gained via lecture and laboratory activities.
EXSS 360 Sports Nutrition (3). Prerequisite, EXSS 276 or NUTR 240. The role of nutrition in maximizing physical performance, promoting health, and controlling body weight. Includes individual nutritional assessments.

EXSS 366 Evaluation of Athletic Injuries (3). Prerequisites, EXSS 175,265 , and 288. This is an advanced athletic training course, designed to provide the athletic training student with knowledge and skills necessary to recognize and evaluate athletic injuries of the spine and extremities.
EXSS 367 Therapeutic Modalities (3). Prerequisites, EXSS 175, 265,288 , and 366 . This is an advanced athletic training course, designed to provide the athletic training student with knowledge and skills necessary for treating injuries.

EXSS 368 Therapeutic Exercise and Rehabilitation (3). Prerequisites, EXSS 175, 265, 288, 366, and 367. This is an advanced athletic training course, designed to provide the athletic training student with knowledge and skills necessary for rehabilitating injuries.
EXSS 369 Athletic Training Seminar (3). Prerequisites, EXSS 175 and 288. A presentation of the historical and current perspectives of athletic training, including techniques for organizing and administering athletic training programs.

EXSS 370 General Medicine in Athletic Training (3). Prerequisites, EXSS 175, 265, 288, and 276. Advanced course focusing on understanding instrumentation used in assessing internal injury related to sport. Pharmacology, drug testing, psychosocial interventions, and selected emergency procedures pertaining to athletic injury are also presented.
EXSS 376 Physiological Basis of Human Performance (3). Prerequisites, EXSS 175, 276, and MATH 110. Instructor may approve equivalents for EXSS prerequisites. Students must take laboratory section along with class. The application of physiological principles to sport and physical activity. Both immediate and chronic adaptations to exercise are studied. Two lecture and two laboratory hours a week.

EXSS 380 Neuromuscular Control and Learning (3).
Prerequisite, EXSS 175. Instructor may approve equivalents for prerequisite. Provides introduction to neuromuscular factors controlling movement and acquisition of motor skills. Promotes application of neuromuscular control and motor learning principles to teaching of motor skills with application to rehabilitation and fields such as athletic training, physical therapy, and coaching.
EXSS 385 Biomechanics of Sport (3). Prerequisites, EXSS 175 and MATH 110. Instructor may approve equivalents for prerequisites. The study and analysis of human movement including fundamental aspects of the musculoskeletal and articular systems. Principles of biomechanics, including application to neuromuscular fitness activities, aerodynamics in sport, hydrodynamics, rotary motion, throw-like and push-like patterns, and analysis of projectiles.

EXSS 393 Athletic Training Clinical (1). Prerequisites, EXSS 175, 265, and 288. This field experience offers implementation of theories and practices of athletic training and sports medicine under the supervision of a certified athletic trainer.

EXSS 395 Undergraduate Research Course (1-3). Permission of the instructor. Majors only. Overall 3.0 grade point average required. Laboratory/research study addressing exercise and sport science questions. Requires final written report. Repeatable for six total credits.

EXSS 396 Independent Studies in Exercise and Sport Science Elective (1-3). Required preparation, any two EXSS courses with grades of B or better. Permission of the instructor. Individually designed in-depth study in an area of interest within exercise and sport science. Available to both majors and nonmajors under the supervision of selected EXSS faculty members.

EXSS 408 Theory and Application of Strength Training and Conditioning for Fitness Professionals (3). Prerequisites, EXSS 175 and 276. Instructor may approve equivalents for prerequisites. This is an intermediate- to upper-level course designed to provide students with theoretical and practical knowledge of the physiological, biomechanical, functional, and administrative aspects of designing and supervising conditioning programs for various populations.

EXSS 410L Exercise Testing (3). Prerequisites, EXSS 175, 276, and 376. This is an exercise testing laboratory course for hands-on training of methods and protocols for screening, evaluating, and prescribing exercise.
EXSS 412 Exercise Prescription (3). Prerequisites, EXSS 175, 276, and 376. Introductory course in the theoretical basis of exercise prescription, enabling students to develop safe and effective exercise programs for healthy and at-risk populations.

EXSS 475 Functional Anatomy (3). Prerequisites, EXSS 175, 276, and 385. This course provides an in-depth exploration of joint mechanics. It exposes students to motions of the cervical, thoracic, and lumbar spine as well as the extremities, and relates these concepts to movement of the body during specific activities.
EXSS 478 Sports Performance Training (3). Prerequisites, EXSS 175 and 276. An upper-level course designed to provide students who have a fitness background with the theoretical and practical knowledge related to the Performance Enhancement Specialization for athletes of all ages.

EXSS 479 Performance Enhancement Specialization for Health Professionals (1). Prerequisites, EXSS 175, 276, 366, and 368. An upper-level course designed to provide students who have a health profession background with the theoretical and practical knowledge related to the Performance Enhancement Specialization for athletes.
EXSS 493 Field Experience in Sport Administration (1-3). Prerequisites, EXSS 221 and at least two of the following: 322, 323, 324, 326. Permission of the instructor for students lacking the prerequisites. This field experience offers implementation of theory and the practical application of sport administration in a sport organization worksite, under the direct supervision of a business professional.

EXSS 576 Exercise Endocrinology (3). Prerequisites, EXSS 175, 276, and 376. Advanced course examining the responses of the endocrine system to exercise and the adaptations that occur with exercise training. Provides the fundamentals necessary for exercise science and allied health science students to understand the integral role that the endocrine system plays in exercise.
EXSS 580 Neuromechanics of Human Movement (3). Prerequisites, EXSS 175, 380, and 385. This course explores interactions between the nervous and musculoskeletal systems via integration of concepts from neuroanatomy, neurophysiology, anatomy, neuromuscular control, and biomechanics. Topics include muscle mechanics, sensorimotor function, joint stability, movement disorders, neurocognition, and neuroplasticity following injury and disease. Course meetings involve both lecture and laboratory content.

EXSS 593 Practicum in Physical Fitness and Wellness (1-2). Prerequisites, EXSS 220, 385, 408, 410L, and 412. Recommended preparation, EXSS 360-site dependent. Current CPR certification and student liability insurance is required. Introductory practical experience to enable student to apply knowledge and skills in a worksite under direct supervision of certified professionals.
EXSS 693H Senior Honors Thesis (3). Prerequisite, EXSS 273. Required preparation, a cumulative grade point average meeting the University standard and permission of the department. Directed independent research under the supervision of a faculty advisor who teaches in the exercise and sport science curriculum.

EXSS 694H Senior Honors Thesis (3). Prerequisite, EXSS 273.
Required preparation, a cumulative grade point average meeting the University standard and permission of the department. Preparation of an honors thesis and an oral examination on the thesis.

## RECR-Recreation and Leisure Studies

RECR 50 First-Year Seminar (3). The seminar is designed to enable first-year students to work closely with senior professors in classes that enroll 20 students or fewer. See the directory of classes for specific offerings.
RECR 310 Women, Work, and Leisure (WMST 310) (3). Implications of the relationship between women and leisure from a lifestyle perspective and an analysis of the changing role of women and changing leisure concepts from a feminist perspective.

RECR 311 Recreation and Leisure in Society (3). An
introduction to leisure studies and its various elements developed from historical, philosophical, and theoretical perspectives with a focus on the meanings of leisure in individual and community life.
RECR 370 Recreation Services across the Lifespan (3). An analysis of the issues that affect recreation programming for persons across the lifespan. Constraints associated with age, economics, and disabling conditions will be explored.

RECR 390 Selected Issues Seminar (1-12). Current issues, techniques, and research of a topical short-term nature are the focus of these seminars.

RECR 396 Independent Studies in RECR (1-12). Individual readings, research, and/or field study of a recreation issue, problem, service system, or activity pattern. The course may take the form
of an independent study or seminar depending upon students' interests and enrollment.

RECR 420 Program Planning in Recreation Services (3). This experiential course covers the concepts and skills used in program planning. Students apply their program planning skills to real-life situations and implement a recreation program for a community agency.
RECR 430 Introduction to Leadership and Group Dynamics (3). An analysis of the techniques, methods, and motives of group and community leaders. Special attention is focused upon the roles of organizational structure, personnel policies, and in-service training programs.

RECR 440 Outdoor Recreation and Environmental Issues (3). A survey course taught from a psychosocial perspective addressing the roles of public and private agencies in meeting increased demand for outdoor recreation. Emphasizes the implications of environmental awareness on outdoor recreation.

RECR 470 Recreation and Leisure across the Lifespan (3). An analysis of aspects that affect recreation and leisure behavior from birth to death, with a focus on issues associated with race, class, gender, sexual identity, and disabling conditions.

## RECR 475 Disability, Culture, and Therapeutic Recreation

(3). An examination of disability from a cultural perspective with the application of theoretical and scientific knowledge to provide recreation interventions that facilitate participation in life by individuals with disabilities.

RECR 676 Clinical Skills in Therapeutic Recreation (3). Development of helping skills for the practice of therapeutic recreation emphasizing rationale, techniques, and role responsibilities of therapeutic recreation in the area of leisure education. A 20 -hour practicum is required.

## RECR 677 Disabling Conditions and the Practice of

Therapeutic Recreation (3). Prerequisites, RECR 475 and 676. Instruction in the relationship between various disabling conditions and the practice of therapeutic recreation. A 24-hour practicum is required.

RECR 691H Honors in RECR (3). Special studies for undergraduates. Intensive study on a particular topic under the supervision of a qualified member of the staff. For RECR majors, with special permission of the faculty members involved and the director of undergraduate studies.

RECR 692H Honors in RECR (3). Honors project in recreation. The completion of a special project, approved by the department, by a student who has been designated a candidate for undergraduate honors. The second of a two-course honors sequence.

## LFIT-Lifetime Fitness

Students must successfully complete one lifetime fitness course (an LFIT course numbered 102 through 190) during their first year of study. One lifetime fitness course is a graduation requirement for all students at UNC-Chapel Hill (post-2006 curriculum). Effective in fall 2011, a student may enroll in only one LFIT course and may count only one, one-credit LFIT course toward graduation at Carolina. These courses
combine practice in a sport or physical activity with general instruction in lifelong health.

## LFIT 102 Lifetime Fitness: Adapted Physical Activity (1).

Assignments to this class are made for students with special needs in physical activities focusing primarily on acute and chronic physical limitations. Activities are assigned commensurate with interests and abilities. Students can enroll in only one LFIT course during their career at Carolina.

LFIT 103 Lifetime Fitness: Aerobics (1). This course is an introduction to fitness and wellness, and includes developing personal fitness programs and instruction in physical activity. The activity portion of the course includes various forms of aerobics. Students can enroll in only one LFIT course during their career at Carolina.

LFIT 104 Lifetime Fitness: Exercise and Conditioning (1). This course is an introduction to fitness and wellness, and includes developing personal fitness programs and instruction in physical activity. Activities will promote cardiovascular endurance, muscular strength and endurance, and flexibility. Students can enroll in only one LFIT course during their career at Carolina.

LFIT 105 Lifetime Fitness: Indoor Sports (1). This course is an introduction to fitness and wellness, and includes developing personal fitness programs and instruction in physical activity. Activity portion of the course includes basketball, volleyball, and indoor soccer. Students can enroll in only one LFIT course during their career at Carolina.

LFIT 106 Lifetime Fitness: Beginning Jogging (1). This course is an introduction to fitness and wellness, and includes developing personal fitness programs and instruction in physical activity. The activity portion of the course promotes cardiovascular fitness through jogging. Students can enroll in only one LFIT course during their career at Carolina.

LFIT 107 Lifetime Fitness: Intermediate Jogging (1). This course is an introduction to fitness and wellness, and includes developing personal fitness programs and instruction in physical activity. Activity portion for students who can complete 30 minutes of jogging. Students can enroll in only one LFIT course during their career at Carolina.

LFIT 108 Lifetime Fitness: Outdoor Sports (1). This course is an introduction to fitness and wellness, and includes developing personal fitness programs and instruction in physical activity. Activity portion of course includes ultimate frisbee, flag football, and soccer. Students can enroll in only one LFIT course during their career at Carolina.

LFIT 109 Lifetime Fitness: Racquet Sports (1). This course is an introduction to fitness and wellness, and includes developing personal fitness programs and instruction in physical activity. The activity portion of the course includes badminton, tennis, and racquetball. Students can enroll in only one LFIT course during their career at Carolina.

LFIT 110 Lifetime Fitness: Beginning Swimming (1). This course is an introduction to fitness and wellness, and includes developing personal fitness programs and instruction in physical activity. The activity portion of the course includes swimming skills
for beginners. Students can enroll in only one LFIT course during their career at Carolina.

LFIT 111 Lifetime Fitness: Swim Conditioning (1). This course is an introduction to fitness and wellness, and includes developing personal fitness programs and instruction in physical activity. The activity portion of the course promotes cardiovascular fitness through swimming. Students can enroll in only one LFIT course during their career at Carolina.

LFIT 112 Lifetime Fitness: Walking (1). This course is an introduction to fitness and wellness, and includes developing personal fitness programs and instruction in physical activity. The activity portion of the course promotes cardiovascular fitness through walking. Students can enroll in only one LFIT course during their career at Carolina.

LFIT 113 Lifetime Fitness: Weight Training (1). This course is an introduction to fitness and wellness, and includes developing personal fitness programs and instruction in physical activity. The activity portion includes basic techniques of weight training. Students can enroll in only one LFIT course during their career at Carolina.

LFIT 114 Lifetime Fitness: Yoga and Pilates (1). This course is an introduction to fitness and wellness, and includes developing personal fitness programs and instruction in physical activity. The activity portion includes basic instruction in both yoga and pilates. Students can enroll in only one LFIT course during their career at Carolina.

LFIT 115 Lifetime Fitness: Cycle Fitness (1). This course is an introduction to fitness and wellness, and includes developing personal fitness programs and instruction in physical activity. The activity portion includes basic instruction in cycle fitness. Students can enroll in only one LFIT course during their career at Carolina.

LFIT 118 Lifetime Fitness: Flag Football (1). This course is an introduction to fitness and wellness, and includes developing personal fitness programs and instruction in physical activity. The activity portion of the course includes basic instruction in flag football. Students can enroll in only one LFIT course during their career at Carolina.

## LFIT 129 Lifetime Fitness: Downhill Skiing and Snowboarding

(1). An introduction to fitness and wellness that includes developing personal fitness programs and instruction in physical activity. The activity portion includes basic conditioning and instruction in both downhill skiing and snowboarding, including five days in Boone, NC. Students can enroll in only one LFIT course during their career at Carolina.

LFIT 130 Lifetime Fitness: Soccer (1). This course is an introduction to fitness and wellness, and includes developing personal fitness programs and instruction in physical activity. The activity portion will provide soccer instruction and game play. Students can enroll in only one LFIT course during their career at Carolina.

LFIT 138 Lifetime Fitness: Tennis (1). This course is an introduction to fitness and wellness, and includes developing personal fitness programs and instruction in physical activity. The activity portion of the course includes basic instruction in tennis.

Students can enroll in only one LFIT course during their career at Carolina.

LFIT 140 Lifetime Fitness: Ultimate Frisbee (1). This course is an introduction to fitness and wellness, and includes developing personal fitness programs and instruction in physical activity. The activity portion of the course includes basic instruction in ultimate frisbee. Students can enroll in only one LFIT course during their career at Carolina.

LFIT 145 Lifetime Fitness: Brazilian Jiu Jitsu (1). This course is an introduction to fitness and wellness, and includes developing personal fitness programs and instruction in physical activity. The activity portion of the course includes basic instruction in Brazilian jiu jitsu. Students can enroll in only one LFIT course during their career at Carolina.

LFIT 146 Lifetime Fitness: Sand Volleyball (1). This course is an introduction to fitness and wellness, and includes developing personal fitness programs and instruction in physical activity. The activity portion of the course includes basic instruction in sand volleyball. Students can enroll in only one LFIT course during their career at Carolina.

LFIT 190 Special Topics in Lifetime Fitness (1). This course is designed to cover the study and practice of special topics directed by an authority in the field. Subject matter will vary per instructor and topic. Students can enroll in only one LFIT course during their career at Carolina.

## PHYA-Physical Activity

PHYA 201 Adapted Physical Activity (1). Assignments to this class are made for students with special needs in physical education focusing primarily on acute and chronic physical limitations. Activities are assigned commensurate with interests and abilities. Students are required to present an exercise prescription from a physician including prescribed activities and limitations.
PHYA 202 Beginning Aerobics (1). Provides a cardiovascular fitness program incorporating physiologically safe dance and exercise movements to music. It develops strength, flexibility, and improved cardiorespiratory efficiency.

PHYA 203 Aerobic Circuit Training (1). Challenges students to achieve higher levels of overall fitness in a cardiovascular program that combines stations of muscular strength with endurance while incorporating a wide variety of equipment. Students are expected to be able to participate in a minimum of 20 minutes of aerobic exercise.

PHYA 205 Archery (1). Designed to teach the beginning student proper techniques of target shooting with a bow and arrow, this course deals with history, terminology, safety, and equipment selection. Shooting techniques included are the stance, nocking, drawing, anchoring, aiming, releasing, and following through. The use of the bowsight and target scoring are presented.

PHYA 206 Badminton (1). The course includes an orientation to the history and rules of the game, terminology, and equipment. Basic skills and techniques include the proper grip, stance, footwork, forehand and backhand clears, long and short serves, net shots, around-the-head shot, and the smash. Presents basic single and double game strategies.

PHYA 208 Beginning Ballet (1). The technique and vocabulary of classical ballet are presented. Exercises at the barre are followed by practice and combinations in the center.

PHYA 209 Beginning Basic Training (1). Beginning physical fitness program based on the model used by the United States Army Physical Fitness Academy and designed to improve aerobic and anaerobic strength, endurance, and overall physical fitness.
PHYA 210 Beginning Bowling (1). Presents terminology of the game, various grips and stances, the delivery approach, release, and follow through. Pick up spare leaves, releasing straight, hook, and back-up balls, reading the lanes, and handicapping are also included. Rules and scoring as well as tournament bowling are learned.

PHYA 211 Cycling (1). The purpose of this course is to introduce students to the history and skill of cycling. The course will focus on maintenance of the bicycle, fitness acquired through the use of cycling, and the skills of climbing, descending, cornering, and balance.

PHYA 212 Introduction to Dance Technique (1). This course is an introduction to the positions, exercises, and steps common to ballet, jazz, and modern dance. It is designed for students with no previous dance experience and is a prerequisite for PHYA 208, 220, and 224.

PHYA 213 Exercise and Conditioning (1). Covers activities that promote cardiovascular endurance, muscular strength and endurance, and flexibility. The course content includes fitness evaluation, stretching, weight training, aerobic exercise, jogging, and circuit training. Individual exercise programs are developed.
PHYA 214 Beginning Fencing (1). Introduces students to the history, rules, and terminology of the sport of fencing. It traces the development of ancient and modern weapons; presents warm-up, stretching, and conditioning exercises that are specific to the sport; and covers grip, basic positions, and footwork. Individual and team competitions are conducted in the course.
PHYA 216 Beginning Golf (1). Stresses swing motion and the basic fundamentals. Techniques of the full swing and the short game are presented. Rules and etiquette are covered. Students who shoot 115 or less for 18 holes are not eligible for this beginner course.

PHYA 217 Beginning Tumbling and Gymnastics (1). Through proper progression, students are exposed to compulsory routines on several pieces of gymnastic apparatus-including the balance beam, parallel bars, pommel horse, rings, horizontal bar-and strength, flexibility, and gross motor coordination. Emphasis is placed on safe spotting techniques and safety awareness.
PHYA 219 Beginning Horseback Riding (1). Introduces students to tacking, grooming, and riding the basic gaits of walk, trot, and canter. An additional fee is required; this course is taught off campus.

PHYA 220 Beginning Jazz Dance (1). Prerequisite, PHYA 212. Students will explore the roots of the jazz style through rhythm, principles of isolation and opposition, shape and energy through center work, stretches, movement across the floor, and simple routines. Previous ballet training is highly recommended.

PHYA 221 Beginning Jogging (1). The purpose of this course is to provide students with the opportunity to develop cardiovascular fitness through a popular activity. Selection of proper clothing and equipment, the physiological effects of a jogging program, care and prevention of common injuries, and the mechanics of jogging are presented.
PHYA 222 Karate (1). This course offers an introduction to the basics of one of many martial art styles. Emphasis is on traditional forms, basic movements, philosophy, discipline, and proper class conduct. Students will learn various stances and forms.

PHYA 223 Lifeguard Training (1). Required preparation, ability to swim 500 yards continuously and retrieve a 10-pound object from a depth of seven feet. This course will prepare individuals to effectively assume the duties and responsibilities of lifeguards at swimming pools and at protected (nonsurf) open water beaches.
PHYA 224 Beginning Modern Dance (1). Students will explore the principles of movement that define modern dance, gaining some understanding of the use of weight, the shape of the body in space, an awareness of timing and energy, and individual creative potential.
PHYA 225 Beginning Racquetball (1). The course introduces the beginner to basic skills, including forehand and backhand drives, grips, footwork, and serves. Safety considerations as well as rules and terminology are covered. Basic strategy is presented involving the return of service, use of ceiling, rear wall, pass, and kill shots.
PHYA 227 Scuba (1). Required preparation, strong swimming skills. This course prepares students for participation in recreational diving: both skin diving and scuba. Lectures cover physiology of diving, first aid, and decompression. It can lead to certification if students attend open water training dives conducted at the semester's end. An additional fee is required.

PHYA 228 Self-Defense (1). This course introduces the basics of self-defense techniques and will instruct the student by incorporating a three-dimensional educational approach. The student will develop skill, knowledge and self-confidence as related to self-defense.

PHYA 229 Downhill Skiing (1). This course is conducted in Boone, North Carolina, for five days over the winter break. It includes orientation to proper equipment selection, the use of lifts and tows, and the basic fundamentals, such as parallel turns, edging concepts, and rhythm. An additional fee is required.

PHYA 230 Beginning Soccer (1). Basic soccer skills are presented including dribbling, shooting, passing, heading, trapping, and tackling. Position play and strategies for basic offense and defense are learned as well as rules and terminology. Conditioning is achieved through drills and game play.
PHYA 231 Beginning Social Dance (1). The basic step patterns of popular social dances, such as fox trot, waltz, cha-cha, swing or shag, hustle, tango, and others are taught. Confidence in the ability to lead or to follow is developed. Social enjoyment of dance is emphasized.

PHYA 233 Beginning Squash (1). Basic shots are learned including forehand and backhand drives, corners, reverse corners,
volleys, drop shots, and serves. Rules, terminology, and basic strategies are presented. Appreciation of squash as a game for fitness and fun is developed.

PHYA 235 Beginning-Level Swimming (1). The course consists of swimming skills for students with limited water experience. These skills include water adjustment, floating, kicking, front crawl stroke, rhythmic breathing, and elementary backstroke. Emphasis is on efficient movement through the water. Basic water safety procedures are included.

PHYA 236 Swim Conditioning (1). This course is designed to promote cardiovascular fitness through swimming. Conditioning and the refinement of stroke techniques will be stressed through stroke practice and workout routines. Topics will include stroke mechanisms of the four competitive strokes, starts, turns, interval, sprint, and long distance training.
PHYA 238 Tennis (1). Basic skills are learned including forehand and backhand groundstrokes, the volley, and the serve. Rules, terminology, and basic game strategy will be taught. Through play, an increased level of fitness and skill will be gained to promote participation in tennis throughout life.

PHYA 239 Triathlon Training (1). The purpose of this course is to introduce students to the sport of triathlons integrating the discipline of running, cycling, and swimming. The course is physically challenging and provides information on transitions and maintenance of equipment, as well as setting up a training program.
PHYA 240 Ultimate Frisbee (1). Teaches the knowledge, skills, and rules of ultimate frisbee in order to develop a lasting interest in lifetime participation and to increase the student's level of physical fitness.

PHYA 241 Beginning Volleyball (1). Basic skills are taught including the forearm pass, the overhead pass, setting, spiking, blocking, dinking, and serving. Rules and terminology are included. Basic offensive and defensive strategy is learned.
PHYA 242 Water Safety Instructor (1). This course will train students to teach American Red Cross progressive swimming and water safety courses. Course content includes analysis of stroke mechanics, review of water safety skills, and investigation of teaching methodology. Students need to be proficient in front crawl, back crawl, elementary backstroke, breaststroke, and sidestroke.

PHYA 243 Beginning Weight Training (1). Basic techniques and knowledge of variable resistance and free weight systems are taught. Fitness evaluation and individual workout programs are included. Development of muscular strength and endurance is stressed. Physiological principles of fitness and their relationships to weight training are also emphasized.
PHYA 245 Brazilian Jiu Jitsu (1). This course will combine instruction in, and practice of, a sport or physical activity that can be sustained in later life, together with instruction in lifelong health.

PHYA 246 Sand Volleyball (1). Students will gain skills necessary to develop a lasting interest in sand volleyball and to increase the student's level of physical fitness. Students will also learn the rules of the sport and how it differs from indoor volleyball.

PHYA 290 Special Topics (1). This course is designed to cover the study and practice of special topics directed by an authority in the field. Subject matter will vary per instructor and topic.

PHYA 302 Intermediate Aerobics (1). Challenges students to achieve higher levels of cardiovascular, flexibility, and strength fitness through dance and exercise movements to music. Students are expected to be able to participate in a minimum of 20 minutes of aerobic activities.

PHYA 308 Intermediate Ballet (1). For the dancer with a solid understanding of the basics of ballet and several years' dance training. It emphasizes more sophisticated steps in longer combinations.

PHYA 310 Intermediate Bowling (1). Focuses on refinement of the experienced student's delivery mechanics including the approach, release, and follow through. Maximum quality practice time is emphasized. Alternative approaches and releases are presented and several types of tournaments are conducted.

PHYA 314 Intermediate Fencing (1). A review of the footwork and bladework covered in the beginning. Emphasis in this course is on individual and paired exercises rather than on large group lessons. An introduction to officiating is also covered in conjunction with greater competitive opportunities.
PHYA 316 Intermediate Golf (1). Builds on and refines the basic fundamentals of the swing motion. Ball flight control is introduced with more in-depth swing analysis. Students who shoot 85 to 115 for 18 holes are eligible for this course.
PHYA 317 Intermediate Tumbling and Gymnastics (1). The purpose of this course is to provide students with the opportunity to learn more difficult gymnastics skills and to incorporate them in a fluid routine. Added emphasis is placed on muscular strength and flexibility. Safe spotting techniques, particularly for more advanced skills, are stressed throughout the course.

PHYA 319 Intermediate Horseback Riding (1). Students are introduced to jumping; emphasis is placed on learning more balance and control in the three basic gaits. Dressage is introduced. An additional fee is required; this course is taught off campus.

PHYA 320 Intermediate Jazz Dance (1). Students will explore the jazz style in greater complexity plus gain understanding of jazz music as it relates to jazz dance. It includes center work, complex movement phrases across floor, adagio, and routines using large movement vocabulary. At least two years of dance and familiarity with jazz style are recommended.
PHYA 321 Intermediate Jogging (1). Introduces students to the cardiovascular and overall fitness benefits of running. Students will learn how running can be a lifetime activity when approached sensibly and effectively. Students are expected to be able to run three miles in under 30 minutes prior to registering for this course.

PHYA 324 Intermediate Modern Dance (1). Students will work to develop greater technical skill and continue a more advanced exploration of modern dance principles of effort-shape through center work and phrases of greater length and complexity in the center and across the floor. At least two years of modern dance training are recommended.

PHYA 325 Intermediate Racquetball (1). Students will review beginning skills. Aspects of competition will be covered, including match preparation, officiating a match, and tournament play. Specific practice will involve shot selection and placement and back wall play.

PHYA 330 Intermediate Soccer (1). Basic skills are reviewed and refined. Dead ball situations are studied, especially corner kicks and direct and indirect free kicks. Different systems of play are introduced and evaluated. Positional play is stressed in the development of advanced defensive and offensive tactics.

PHYA 335 Intermediate Swimming (1). Techniques for crawl, sidestroke, elementary backstroke, back crawl, and breaststroke are covered. Basic water rescue skills are presented including first aid procedures. Physical fitness is promoted through swimming.

PHYA 338 Intermediate Tennis (1). Increased proficiency in four basic skills will be developed. New shots taught include the overhead, the drop, the lob, and spin serve. Strategy for singles and doubles play will be stressed. Emphasis is on increased pace and ball placement.

PHYA 341 Intermediate Volleyball (1). Students improve execution of basic skills through practice. Stresses safe execution of dives and rolls. Teaches various offensive strategies and defensive alignments. Emphasizes team play.

PHYA 343 Intermediate Weight Training (1). Emphasizes the development of individualized muscular strength and endurance programs following instruction in the physiological principles and techniques of weight training. Students should have beginning weight training skills, techniques, and knowledge prior to enrolling in this class.

PHYA 402 Leading Group Fitness Activities (1). All aspects of leading group fitness activities will be explored and applied, including components of an aerobic exercise class, modifications for individual needs and special populations, health screening, fitness testing.

PHYA 408 Advanced Ballet (1). For the dancer with substantial background in ballet. Speed, endurance, multiple turns, beats, and complicated combinations are emphasized.

PHYA 409 Advanced Basic Training (1). Advanced fitness program based on the model used by the United States Army Physical Fitness Academy to further improve aerobic and anaerobic fitness. Builds on conditioning level obtained in PHYA 209.

PHYA 414 Advanced Fencing (1). A review of the footwork and bladework covered in the intermediate course; pair exercises and individual lessons dealing with both technique and tactics. Emphasis in this course is on individual and paired exercises rather than on large group lessons. Officiating is also covered in conjunction with greater competitive opportunities.

PHYA 416 Advanced Golf (1). Required preparation, a 15 or less handicap. Comprising this course are the ability to score, the analysis of strategy and shot production, and improvement of selfawareness and coping strategies.
PHYA 419 Advanced Horseback Riding (1). Provides more technical flatwork at the walk, trot, and canter, as well as jumping.

Coursework will be primarily jumping. An additional fee is required; this course is taught off campus.

PHYA 424 Advanced Modern Dance (1). This course is designed for the dancer with a solid understanding of the principles underlying modern dance and several years of dance training. It focuses on longer and more complicated phases of movements.

## PHYA 427 Advanced Open Water Scuba Diving (1).

Prerequisite, PHYA 227. Nationally recognized scuba certification may substitute for prerequisite. The course will follow the PADI Advanced Open water course curriculum which contains five specialty dives focusing on deep, night, peak performance buoyancy, underwater navigation, and underwater naturalist.
PHYA 438 Advanced Tennis (1). Individual skill improvement in all shots with pace and accuracy of shots is stressed. Advanced strategies for singles and doubles play are learned. Analysis of opponent's strengths and weaknesses and physical fitness are stressed through drills and games.

## Department of Geography

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MICHAEL E. EMCH, Chair

## Introduction

Geography is an integrative discipline that seeks to understand the evolving character, spatial organization, and complexities of the earth and its inhabitants including feedbacks between "natural" and "social" systems. Within this broad vision, geographers study many issues, including the geographic manifestations of cultural, social, economic, and political processes; the geography and dynamics of the earth's environmental systems; and geographic information analysis and visualization. Across these domains, geographic work is often fundamentally tied to the analysis of data collected in the field.

Human geographers study the spatial aspects of human existence: how people and their activities are distributed across the globe, how humans use, produce, and perceive space, place, regions, and landscapes, and how they create, transform, and sustain the character of places. Environmental geography is rooted in a systems approach to the dynamics within, and interactions between, the atmosphere, hydrosphere, biosphere, and lithosphere, and how these produce geographic patterns in vegetation, biological communities, weather and climate, landforms, soils, and resource availability. Geography also has been at the forefront in the development and application of satellite remote sensing, geographic information systems, and other spatial data, analysis, and visualization approaches for understanding human and environmental systems.

Geographers find careers in numerous government agencies; nongovernmental organizations working on social, health, and environmental issues; private and public sector work in energy,
transportation, economics, development, and tourism; urban and regional planning; research and education; community development; resource management; and private, public, and research careers in environmental inventory, monitoring, modeling.

## Geography Major, B.A.

## Core Requirements

- GEOG 110 or 111
- GEOG 120, 121, or 130
- GEOG 370, 391, 392, and 697
- Four additional courses, at least three of which must be at the 400 -level or above. These may be distributed among, or concentrated within, the following general concentration areas.
o Earth Environmental Systems (EES): GEOG 406, 410, 412, $414,416,419,440,441,442,444$, or 597
- Geographic Information Sciences (GISci): GEOG 477, 491, 541, 577, 591, 592, 594, or 597
${ }^{\circ}$ Geography of Human Activity (GHA): GEOG 225, 228, 232, 237, 423, 424, 428, 429, 430, 434, 435, 445, 446, 447, 448, $450,452,453,454,458,460,470$, or 542
${ }^{\circ}$ Regional Courses: GEOG 259, 260, 261, 262, 265, 266, 267, $268,269,457,458$, or 464


## Additional Requirements

All General Education requirements apply. Although the major requires a total of 10 geography courses ( 30 credit hours), a maximum of 15 geography courses ( 45 credit hours) can count toward the 120 hours required to graduate. Students wishing more information should consult the director of undergraduate studies.

## Geography Major, NUS Joint Degree

The Department of Geography is one of several departments offering a joint degree in conjunction with the National University of Singapore (NUS). Students in the program will spend one or two years studying geography at NUS, and their diploma will be jointly granted by both universities.

## Geography Minor

To minor in geography a student must pass a minimum of five courses in geography. These consist of any two core courses (GEOG 110, 111, 120, 121, 130, 370, 697) and three elective courses. Elective courses may be any on the departmental list, but students are encouraged to take higher numbered courses. Students wishing more information should consult their academic advisor or the geography director of undergraduate studies

## Advising

All majors and minors have a primary academic advisor in Steele Building. Students are strongly encouraged to meet regularly with their advisor and review their Tar Heel Tracker each semester. The department's director of undergraduate studies works with current and prospective majors by appointment and during regular office hours (see "Contact Information" below). Departmental academic advising is highly recommended for all majors and is particularly
important for those majors who are considering going on to graduate school. Further information on courses, undergraduate research opportunities, the honors program, careers, and graduate schools may be obtained from the department's Web site.

## Special Opportunities in Geography

## Honors in Geography

Qualifying students are strongly encouraged to pursue an honors degree. To gain admission to the honors program students must have a cumulative grade point average of 3.3 or higher and a grade point average of 3.4 or higher in geography courses. Honors students take GEOG 691H and 692H (honors readings and research and theses hours) with their honors thesis chair in their senior year. Honors study involves the completion of a substantial piece of original research and the formal presentation of the results in an honors thesis and oral defense. Those who successfully complete the program are awarded their B.A. degree with either honors or highest honors in geography.

## Departmental Involvement

All students are welcomed and encouraged to attend the department's seminar held on most Friday afternoons at 3:30 p.m. in 220 Saunders. The department sponsors the Carolina Geography Club, which provides an avenue for student involvement with the department outside of course work. Students can also interact with the department through service on the faculty undergraduate committee, and through independent research with faculty.

## Experiential Education

The department offers several experiential education courses: GEOG 293 Internship, GEOG 419 Field Methods in Physical Geography, GEOG 452 Mobile Geographies, GEOG 650 Technology and Democracy Workshop, and 691H and 692H Senior Honors Thesis.

## Independent Study

Independent study with a geography faculty member can be taken for academic credit through GEOG 296. Students are responsible for arranging their independent study with a faculty member who will sponsor them for this activity. Students must fill out a learning contract and syllabus in collaboration with the sponsoring faculty member and then be enrolled by Nell Phillips in the department office. For more information, contact the individual faculty member or the director of undergraduate studies.

## Undergraduate Research

Research with a geography faculty member can be taken for academic credit through GEOG 295. Students are responsible for arranging their research activities and responsibilities with a faculty member who will sponsor them for this activity. Students must fill out a learning contract with the sponsoring faculty member and then be enrolled by Nell Phillips in the department office.

## Study Abroad

Experiences with other cultures and environments are important to a sound background in geography, and thus the department strongly encourages a study abroad experience. Geography is one
of five departments offering a joint degree in conjunction with the National University of Singapore (NUS). Students in that program will spend one or two years studying geography at NUS, and their diploma will be jointly granted by both universities. Many of our students study abroad in the Galapagos Islands at the Galapagos Science Center. The department also participates in a junior-year exchange program with Kings College London. Many other study abroad programs combine well with a major in geography.

## Undergraduate Awards

The Andrew McNally Award is given each spring to an outstanding graduating geography major, as chosen by a committee of the faculty. The department also administers the Melinda Meade Award for Excellence in Undergraduate Geographic Research, the John D. Eyre Service in Geography Award, as well as the John D. Eyre Travel Award and the Burgess McSwain Travel America Fund, which are open to all undergraduates at UNC.

## Facilities

The department has a range of specialized, state-of-the-art equipment for geospatial field sampling and laboratory analysis of data in hydrology, climatology, and vegetation science, including an ecohydrology laboratory and a dendrology laboratory. The department is wired internally to support the latest network technology. This network links us to the centrally managed servers that provide access to a large library of software for geographic applications and research, as well as first-class library resources, data storage and backup, and access to supercomputing clusters.

## Graduate School and Career Opportunities

There are a variety of job opportunities for geographers in government, business, industry, and the nonprofit sector, particularly for human and environmental geographers with skills in GISci, remote sensing, and cartography. Private firms, governmental agencies, and environmental organizations also hire geographers for field investigations, locational analysis, land use planning, recreation and tourism planning, and foreign area expertise, among many other endeavors. Many geographers pursue teaching at all levels.

Students with a B.A. major in geography from UNC are well trained for graduate programs in geography and other disciplines. Majors have entered graduate programs as diverse as city and regional planning, business, medicine, and ecology. For more information about careers in geography, the UNC-Chapel Hill Department of Geography, degree requirements, and connections to other sites of interest, visit the department's Web site at geography.unc.edu.

## Faculty

## Professors

Lawrence E. Band, Stephen S. Birdsall, Michael E. Emch, John Pickles, Conghe Song, Stephen J. Walsh.

## Associate Professors

Altha J. Cravey, Banu P. Gökariksel, Scott Kirsch, Charles E.

Konrad, Nina Martin, Aaron Moody, Elizabeth Olson.

## Assistant Professors

Xiaodong Chen, Clark Gray, Elizabeth Havice, Christian Lentz, Lauren Persha, Alvaro Reyes, Diego Riveros-Iregui, Sara Smith, Gabriela Valdivia, Erika Wise.

## Professors Emeriti

John W. Florin, Wilbert M. Gesler, Peter J. Robinson, Thomas Whitmore.

## Contact Information

Professor Aaron Moody, Director of Undergraduate Studies, 211 Saunders Hall, aaronm@email.unc.edu.

Nell Phillips, Undergraduate Program Administrator, 205 Saunders Hall, nphillip@email.unc.edu, (919) 962-8901.

You can also follow the department on Twitter @geographyunc.

## Courses

## GEOG-Geography

## GEOG 50 First-Year Seminar: Mountain Environments

(3). This course is on understanding the physical geography of mountain environments and the processes that have created them, shaped them, and sustained them.

GEOG 53 First-Year Seminar: Battle Park: Carolina's Urban
Forest (3). An introduction to the study of urban forest landscapes through a series of field experiences in Carolina's Battle Park.
GEOG 54 First-Year Seminar: Global Change and the Carolinas (3). An examination of the ways in which change in the global physical environment, human induced and natural, might impact the Carolinas.

## GEOG 55 First-Year Seminar: Landscape in Science and Art

 (3). Explores viewing landscape from the perspective of science and of art, and investigates how an integration of both leads to a better understanding and appreciation of a landscape.GEOG 56 First-Year Seminar: Local Places in a Globalizing World (3). An examination of the relationship between globalization and localization in order to think about how we, as individuals and groups, can make a difference in the world.

## GEOG 57 First-Year Seminar: Dogs and People: From

Prehistory to the Urbanized Future (3). People developed dogs as a living tool that is being modified to current urban social and demographic needs.
GEOG 58 First-Year Seminar: Making Myth-Leading Memories: Landscapes of Remembrance (3). This course considers memorial landscapes created to reinforce values symbolized by the person, group, or event memorialized. It looks at how disagreements and cultural changes affect memorial landscape interpretation.

GEOG 59 First-Year Seminar: Space, Identity, and Power in the Middle East (3). This seminar examines the role traditional and modern spaces play in representations of the Middle East and how Middle Easterners engage these contested spaces to construct their
cultural and political identities.
GEOG 60 First-Year Seminar: What Is Health Care? (3). This course will examine a variety of aspects of health care, including the biomedical system, health care in non-Western countries, alternative practitioners, beliefs about health, health policies, the role of various media, and healthy places. The emphasis is on the social sciences (geography, anthropology, sociology, mainly) of health.

GEOG 61 First-Year Seminar: Climate Change in the American Southeast (3). Seminar participants, working in small groups, will run climate models and investigate current climate trends, combining the results to create scenarios of future climate for the southeast United States.

GEOG 62 First-Year Seminar: The Culture of Technology (3).
This first-year seminar uses the lens of culture to explore systems of meaning and values, and relations of social power, that are invested in technologies.

GEOG 63 First-Year Seminar: The Problem with Nature and Its Preservation (3). Alternative conceptualizations of nature in Western culture and how these meanings help create the landscapes in which we live and allow us to evaluate the implications of efforts to preserve nature.

GEOG 64 First-Year Seminar: Vietnam (3). Explores modern Vietnam and situates the American war in broader spatial and historical context. Draws on fact, fiction, and visual media to introduce a fascinating place, rich in history, and to animate a geographic imagination students can take anywhere.

GEOG 65 First-Year Seminar: Climate Change and the Media (3). Examines the popular debate on global warming and its presentation in the media. Covers the scientific basis of climate change, focusing on how the science is presented, distorted, and debated in the public sphere.

GEOG 89 First-Year Seminar: Special Topics (3). Special topics course. Content will vary each semester.

GEOG 110 The Blue Planet: An Introduction to Earth's Environmental Systems (3). Emphasizes geographic patterns and interrelationships in energy, climate, terrain, and life. Develops integrative view of how atmospheric, hydrologic, geomorphic, and biotic processes create global patterns in the environment. Incorporates influence of human activities on Earth. Class will help students understand the natural environment, both globally and in North Carolina. (Core)

GEOG 111 Weather and Climate (3). An introduction to the nature and causes of weather variability and climate change and their impact on human activity. No laboratory. (Core)

GEOG 115 Maps: Geographic Information from Babylon to Google (3). Introduces the science and art of map making and will lay the conceptual foundation necessary to understand how and why maps are made and used.

GEOG 120 World Regional Geography (PWAD 120) (3). A survey of the geographic structure of human activity in major world regions and nations. Emphasizes current developments related to population, urbanization, and economic activity. (Core)

GEOG 121 Geographies of Globalization (3). This course examines places and the connections between places to build critical understandings of the role of human geographies in global economic, political, social, and cultural systems. (Core)

GEOG 123 Cultural Geography (3). How population, environment, and human culture as expressed in technology and organization interact over space and time. (GHA)

GEOG 125 Cultural Landscapes (3). Explores how everyday culture helps create the landscapes and places in which we live and what these landscapes tell us about ourselves.

## GEOG 130 Geographical Issues in the Developing World

 (3). An introduction to historical and contemporary ideas about practices and meanings of development. Students will explore "development" in a global landscape of poverty, power, and struggles over inequality. (Core)GEOG 210 Global Issues in the 20th Century (ANTH 210, GLBL 210, HIST 210, POLI 210) (3). See GLBL 210 for description.

GEOG 212 Environmental Conservation and Global Change (3). Survey of environmental change as driven by physical processes and human activity. Problem-solving methods are explored. Focus on issues such as global warming, ozone depletion, deforestation, extinction, pollution, wetland loss. This course will provide significant background in physical geography in the context of today's most pressing environmental concerns and with reference to the societal implications and management strategies. (No lab.) (Core)

GEOG 225 Space, Place, and Difference (WMST 225) (3). Gender, race, and class are examined in terms of the spatial patterns of everyday life, regional patterns, and global patterns. (GHA)

GEOG 228 Urban Geography (3). Explores the evolution, patterns, and processes of urbanization and development of cities and city systems. Emphasis on the origin, growth, and spatial distribution of cities and on the internal spatial organization of activities within cities. (GHA)

GEOG 232 Agriculture, Food, and Society (3). A study of environmental parameters, cultural preferences, technological developments, and spatial economic infrastructure that result in world patterns of food consumption, production, and distribution. (GHA)

GEOG 237 Natural Resources (3). An analysis of selected biological and mineral resources of the world with particular emphasis on their distribution, utilization, and management policies and on their social and economic implications. (GHA)

GEOG 253 Introduction to Atmospheric Processes (ENEC 253) (4). Prerequisites, MATH 231 and either CHEM 102 or PHYS 114. Includes one-hour laboratory. Atmospheric processes including radiation, dynamics, and thermodynamics are emphasized. Circulations across a range of temporal and spatial scales are described. Links between environmental problems and the atmosphere are explored.

GEOG 259 Geography of Latin America (3). An introduction to Latin American geography through an examination of how the
region came to be distinct and how social, political, and economic processes continue to define it. (Regional)

GEOG 260 North America's Landscapes (3). A survey of the cultural and physical landscapes of the United States and Canada. Emphasis on landscape evolution, present distributions, and interactions between people and their environment. (Regional)
GEOG 261 The South (3). Present-day southern United States, approached historically through a study of its physical, economic, and cultural environment. (Regional)

GEOG 262 Geography of North Carolina (3). A survey of the cultural, economic, and physical diversity of North Carolina. Emphasizes regional patterns, historical changes, and the appearance of the landscape. (Regional)
GEOG 263 Environmental Field Studies in Siberia (ENEC 263) (4). See ENEC 263 for description.

GEOG 264 Conservation of Biodiversity in Theory and Practice (ENEC 261) (3). See ENEC 261 for description.

GEOG 265 Eastern Asia (ASIA 265) (3). Spatial structure of population, urbanization, agriculture, industrialization, and regional links in China, Japan, and Korea. (Regional)

GEOG 266 People and Environment in Southeast Asia (3). Sociological, biophysical, and geographical elements are integrated to examine interactions of population and environment in Thailand and neighboring countries. Diverse data sources and perspectives will be used to examine local to global issues. (Regional)

GEOG 267 South Asia (ASIA 267) (3). Introduces students to the geography of South Asia, including an overview of the physical environment, cultural practices, and economic development. Emphasizes the political geography of South Asia and political and social processes such as nationalism and colonialism that have played a formative role in the region. (Regional)

GEOG 268 Geography of Africa (3). Focuses on dynamic sociocultural, political, economic, and environmental issues shaping contemporary sub-Saharan Africa to develop an understanding of major drivers of stark physical, environmental, and socioeconomic contrasts across the continent and trajectories for the future. Themes include land use and environmental change, historical legacies, urbanization, economic growth, and trade.

GEOG 269 Human-Environment Interactions in the Galapagos Islands (3). The social and ecological implications of resource conservation and economic development in a World Heritage Site are examined in the Galapagos Islands of Ecuador.

GEOG 270 Geography of Contemporary China (3). This course provides a systematic introduction to China as an emerging political and economic power. From a geographic perspective, this course addresses uneven human and physical landscapes, the historical evolution and current status of the natural environment, economic development, and human well-being.

GEOG 293 Internship (3). Open to junior and senior geography majors. Geography internships combine substantive geographic work experience with an academic project designed to integrate theory and practice. Field work is included.

GEOG 295 Undergraduate Research in Geography (3).
Permission of the instructor. For students who wish to participate in departmental research programs. May be taken twice.

GEOG 296 Independent Study (1-21). Permission of the instructor. Special reading and research in geography under the supervision of a selected instructor. Course may not be taken more than twice.

GEOG 370 Introduction to Geographic Information (3). A survey of geographic data sources including maps, photos, digital images, Census information, and others. Emphasis is on appropriate uses, limitations, and skilled interpretation in physical and human geography applications. (Core)

GEOG 390 Contemporary Topics in Geography (1-12). Exploration of topics in contemporary geography.
GEOG 391 Quantitative Methods in Geography (3). This course provides an introduction to the application of statistical methods to geographic problems and to statistical packages in their solution. Attention given to spatial data analysis and sampling methods.

GEOG 392 Research Methods in Geography (3). Introduces geographic research methods and develops skills to conduct independent research. Themes include spatial analysis, knowledge production, methodology, theory and evidence, and principles of informed argument. Students gain experience with multiple methods applicable to the study of diverse topics.

GEOG 406 Atmospheric Processes II (ENEC 406) (4). See ENEC 406 for description.

GEOG 410 Modeling of Environmental Systems (3). Uses systems theory and computer models to understand ecosystem energy and matter flows, such as energy flow in food webs, terrestrial ecosystem evapotranspiration and productivity, related to climate, vegetation, soils, and hydrology across a range of spatial and temporal scales.
GEOG 412 Synoptic Meteorology (3). Prerequisite, GEOG 110 or 111. An analysis of synoptic weather patterns and the processes responsible for them. Climatological aspects of these weather patterns are emphasized. (EES)

GEOG 414 Climate Change (3). An investigation of the physical processes that produce and change climates across space and time. Emphasis is placed on recent and predicted patterns of climate change.
GEOG 416 Applied Climatology: The Impacts of Climate and Weather on Environmental and Social Systems (3).
Applied climatology involves the interdisciplinary application of climate data and techniques to solve a wide range of societal and environmental problems. This projects-based course investigates how climate impacts a range of sectors, including water resources, urban environments, ecosystems, and human health.

GEOG 419 Field Methods in Physical Geography (3). Involves evaluation of landscapes by examining nature and biophysical elements influencing landscape form and function. Course emphasizes data collection, analysis, and interpretation using GIS and field methods. (EES)

GEOG 423 Social Geography (3). A study of the spatial components of current social problems, such as poverty, race relations, environmental deterioration and pollution, and crime. (GHA)

GEOG 424 Geographies of Religion (3). This course considers the theoretical and empirical dimensions of religion from a geographical perspective. The course introduces the key theories linking space, place, and religion and helps students apply these new theoretical tools to examine some of the pressing issues in the contemporary study of religion.

GEOG 428 Urban Social Geography (3). Studies the changing landscapes of contemporary urbanism. Emphasis on patterns of economic development, housing, and infrastructure in cities in a global context. (GHA)

GEOG 429 Urban Political Geography: Contested Places and Politics (3). An interdisciplinary exploration of urban social problems, bridging the literature on urban geography with that on urban politics. Students will be required to complete 30 hours of service for an organization that works on an urban social issue.

GEOG 430 Global Migrations, Local Impacts: Urbanization and Migration in the United States (3). This course explores the relationship between patterns of urban development in the United States and migration, in both historical and contemporary contexts.

GEOG 434 Cultural Ecology of Agriculture, Urbanization, and Disease (3). Examines the role of the interactions of cultures, environments, and human diseases in the quest for sustainable agriculture by examining the cultural ecology of agriculture systems and their human diseases. (GHA)

GEOG 435 Environmental Politics (3). This course brings geographical perspectives on place, space, scale, and environmental change to the study of environmental politics. In lectures, texts, and student research, students examine topics including environmental health risks, globalization and urban environments, and the role of science in environmental politics. (GHA)

## GEOG 436 Governance, Institutions, and Global

Environmental Change (3). Interdisciplinary course for advanced undergraduates and graduate students. Focuses on multiscale environmental issues and related social, institutional, governance, and policy challenges. Examines key concepts and theories involving global environmental change and problem-solving efforts.

GEOG 440 Earth Surface Processes (GEOL 502) (3).
Prerequisite, GEOG 110. This course will focus on the processes of soil formation, erosion, and landform evolution with an emphasis on the interaction of geomorphic processes with surface hydrology and ecosystems. (EES)
GEOG 441 Introduction to Watershed Systems (3). Prerequisite, ENEC 202, GEOG 110, or GEOL 213. Permission of the instructor for students lacking the prerequisite. Introduction to hydrologic and geomorphic processes and forms in watersheds as applied to problems in flood analysis, water quality, and interactions with ecosystem processes. Covers drainage networks, nested catchments, and distribution and controls of precipitation, evaporation, runoff, and groundwater flow. (EES)

GEOG 442 River Processes (3). Introduction to landforms and processes associated with flowing water at the earth's surface. Hydrology, sedimentology, and theories of channel formation and drainage basin evolution. (EES)

GEOG 444 Landscape Biogeography (3). This course is concerned with the application of biogeographical principles and techniques to the study of natural and human-modified landscapes. It includes local and extraregional case studies. (EES)

GEOG 445 Medical Geography (3). The human ecology of health is studied by analyzing the cultural/environmental interactions that lie behind world patterns of disease distribution, diffusion, and treatment, and the ways these are being altered by development. (GHA)

GEOG 446 Geography of Health Care Delivery (3). This course covers basics, including personnel and facility distributions, accessibility, regionalization, and location/allocation modeling; spatial analysis and GIS; and the cultural geography of health care, including humanist and political-economic perspectives. (GHA)

GEOG 447 Gender in the Middle East (ASIA 447) (3). Examines gender, space, and place relationships in the modern Middle East. Investigates shifting gender geographies of colonialism, nationalism, modernization, and globalization in this region. (GHA)

## GEOG 448 Transnational Geographies of Muslim Societies

(3). Examines modern Muslim geographies that are created by transnational flows, connections, and imaginaries that cross national and regional boundaries across the Middle East, Southeast Asia, and beyond.

GEOG 450 Population, Development, and the Environment (3). Introduction to contemporary and historical changes in human population, international development, and the global environment and how these processes interact, drawing on population geography as an organizing framework.

GEOG 452 Mobile Geographies: The Political Economy of Migration (3). This course explores the contemporary experience of migrants. Various theoretical approaches are introduced, with the emphasis on a political-economic approach. (GHA)

GEOG 453 Political Geography (PWAD 453) (3). The geography of politics is explored at the global, the nation-state, and the local scale in separate course units, but the interconnections between these geographical scales are emphasized throughout. (GHA)

GEOG 454 Historical Geography of the United States (FOLK 454) (3). A study of selected past geographies of the United States with emphasis on the significant geographic changes in population, cultural, and economic conditions through time. (GHA)

GEOG 457 Rural Latin America: Agriculture, Environment, and Natural Resources (3). Prerequisite, GEOG 259. Permission of the instructor for students lacking the prerequisite. This course explores a systems and cultural-ecological view of agriculture, environment, natural resource, and rural development issues in Latin America. It serves as a complement to GEOG 458 Urban Latin America. (Regional)

GEOG 458 Urban Latin America: Politics, Economy, and Society (3). Prerequisite, GEOG 259. Permission of the instructor for students lacking the prerequisite. This course examines urban social issues in contemporary Latin America. Cities and their residents will be considered in relation to each other and to North American examples. (Regional)
GEOG 460 Geographies of Economic Change (3). This course is designed to explore changing geographies of production and consumption in theory and in practice.

GEOG 464 Europe Today: Transnationalism, Globalisms, and the Geographies of Pan-Europe (3). A survey by topic and country of Europe west of Russia. Those features that make Europe a distinct and important region today are emphasized. (Regional)

GEOG 470 Political Ecology: Geographical Perspectives (3). Examines foundational concepts and methods and their relevance for understanding nature-society relationships. Discussions on environmental change and conflict and how nature is bound up with relations of power and constructions of identity.

GEOG 477 Introduction to Remote Sensing of the Environment (3). Prerequisite, GEOG 370. Covers fundamental theory and mechanics of remote sensing, related theoretical aspects of radiation and the environment, and remote-sensing applications relating to terrestrial, atmospheric, and marine environments. Hands-on experience for application and information extraction from satellite-based imagery through biweekly laboratory assignments. Prepares students for GEOG 577. (GISci)
GEOG 480 Liberation Geographies: The Place, Politics, and Practice of Resistance (3). An examination of the theory and history of resistance in the modern world, including instances of contestation from "foot dragging" to the formation of social movements, and exploring the relationship between place and protest.
GEOG 481 Ethnographies of Globalization: An Upper-Level Research Design Class (3). Examines critical perspectives on globalization through research interviews conducted by social scientists working on topics ranging from land reform in Brazil to international banking.
GEOG 491 Introduction to GIS (PLAN 491) (3). Prerequisite, GEOG 370. Permission of the instructor for students lacking the prerequisite. Stresses the spatial analysis and modeling capabilities of organizing data within a geographic information system. (GISci)

GEOG 541 GIS in Public Health (3). Explores theory and application of geographic information systems (GIS) for public health. The course includes an overview of the principles of GIS in public health and practical experience in its use. (GISci)
GEOG 542 Neighborhoods and Health (3). This course explores how neighborhood context influences the health of the populations living in them. It includes a survey of neighborhoods and health theory and empirical examples. (GHA)

GEOG 543 Qualitative Methods in Geography (3). This course teaches qualitative methods in geography for graduate and advanced undergraduate students. We will cover interviews, focus groups, visual, and other methodologies. We will also discuss modes of
analysis, coding, and writing up qualitative research for publication.
GEOG 577 Advanced Remote Sensing (3). Prerequisite, GEOG 370 or 477 . Acquisition, processing, and analysis of satellite digital data for the mapping and characterization of land cover types. (GISci)

GEOG 591 Applied Issues in Geographic Information Systems (PLAN 591) (3). See PLAN 591 for description.

GEOG 592 Geographic Information Science Programming (3). Prerequisite, GEOG 370 or 491 . This course will teach students the elements of GISci software development using major GIS platforms. Students will modularly build a series of applications through the term, culminating in an integrated GIS applications program.

## GEOG 594 Global Positioning Systems and Applications

(3). Prerequisite, GEOG 370. Global Positioning Systems (GPS) fundamental theory, application design, post processing, integration of GPS data into GIS and GPS application examples (such as public health, business, etc.) will be introduced.

GEOG 597 Ecological Modeling (3). Prerequisite, BIOL 561 or STOR 355. Permission of the instructor for students lacking the prerequisite. This course focuses on modeling the terrestrial forest ecosystems processes, including population dynamics, energy, water, nutrients, and carbon flow through the ecosystem. (GISci)
GEOG 650 Technology and Democracy Workshop (3). Are technological choices open to democratic participation? Through a novel research workshop format, this graduate and undergraduate course explores political and geographical dimensions of technological change around key environmental issues-energy, water, and waste.

GEOG 691H Honors (3). Permission of the department. Required of all students aspiring to honors in geography. Directed readings, research, and writing.
GEOG 692H Honors (3). Prerequisite, GEOG 691H. Required of all students aspiring to honors in geography. Preparation of a senior thesis.

GEOG 697 Capstone Seminar in Geographic Research (3). A systematic study of the approaches, key concepts, and methods of geography, emphasizing the application of these approaches through hands-on independent research designed and implemented by the students. (Core)

## Department of Geological Sciences

www.geosci.unc.edu
104 South Road, Mitchell Hall, CB\# 3315; (919) 966-4516
JONATHAN LEES, Chair

## Introduction

The study of earth's dynamic systems is a field that has seen major advances over the last few decades. Geologists investigate diverse systems that play a large role in controlling the environment at the earth's surface. Examples include earthquakes, volcanoes, glaciers, landslides, rivers, and shorelines. Earth processes play a critical role in making our planet habitable, and geologists are constantly in demand to guide communities and nations in their search for resources such as clean drinking water and extractable energy and minerals, or in decisions regarding development in fragile coastal regions or in seismically active areas. The Department of Geological Sciences provides students with a solid training in earth science so that they can advance in highly satisfying careers as professional geologists.

Most students planning to do graduate work or to become professional geologists should follow the B.S. program. However, the flexibility of the B.A. program may be advantageous to students with interest in, for example, environmental studies, education, or law.

## Geological Sciences Major, B.A.Earth Systems Concentration

## Core Requirements

- GEOL 202 and 301
- A minimum of 11 credits from the following courses: GEOL firstyear seminar, 204, 211, 213, 401, 402, and 404
- One of the following field-oriented courses: ANTH 451; BIOL 459; GEOL 395 (six credits over two semesters with a preapproved field component), 396 (six credits over two semesters with a preapproved field component), $413,601,602$; or MASC 472


## Additional Requirements

- One of the following courses: GEOL 101/101L, 103/101L, 105/101L, 109/101L, 110/101L, or 159/101L (only one of GEOL 101, 105, 109, and 110 may be taken for course credit)
- CHEM 101/101L
- MATH 130
- At least three geology and/or allied science electives not otherwise required for the major, including ANTH $143,220,315,317$, 412, and 414; any ASTR; any BIOC except 107 and 108; BIOL $101 / 101 \mathrm{~L}$ or any BIOL above 113; any CHEM above 101; any COMP except 50, 70, and 380; ECON 101 and 454; ENEC 489 and 490; any ENVR except 600; GEOG 370, 410, 412, 414, 416, 440, 441, 444, any GEOG above 477; any GEOL except $101,105,109$, and 110 ; any MASC above 101 ; any MATH above 130; any PHYS except 101, 132, and 313; any STOR 155 or above
Students also must satisfy all General Education requirements.


## Geological Sciences Major, B.S.- <br> Earth Science Concentration

## Core Requirements

- All of the following courses: GEOL 301, 401, 402, 404, 601, and 602
- Four geology courses numbered above 400 and not otherwise required for the major (GEOL 395 and 396 count if taken for two or three credit hours)


## Additional Requirements

- One of the following courses: GEOL 101/101L, 103/101L, 105/101L, 109/101L, or 110/101L (only one of GEOL 101, 105,109 , and 110 may be taken for course credit)
- CHEM 101/101L and 102/102L
- MATH 231 and 232, and one of the following: any COMP 110 or above, except 380; GEOL 520 (this course may also be used to satisfy one of the required GEOL courses numbered above 400); any MATH above 232 ; any STOR 155 or above
- One of the following courses: PHYS 104 or 114 or 116 or 118
- One of the following courses: BIOL 101/101L; any CHEM above 102; PHYS 105 or 115 or 117 or 119
- At least five science electives not otherwise required for the major, including ANTH $143,220,315,317,412,414$, and 451 ; any ASTR except a first-year seminar; any BIOC except a first-year seminar, 107, and 108; any BIOL above 113; any CHEM above 102; any COMP 110 or above, except 380; any ENVR except a first-year seminar and 600; GEOG 370, 410, 412, 414, 416, and any GEOG above 477; any GEOL except 101, 105, 109, 110; any MASC 101 and above; any MATH above 232; any PHYS except a first-year seminar, 101, 132, and 313; any STOR 155 and above


## Geological Sciences Major, B.S.Environmental Geology Concentration

## Core Requirements

- All of the following courses: GEOL 301, 401, 402, and 404
- ANTH 451; or BIOL 459; or CHEM 481/481L and 482/482L; or GEOL 430 and 434; or GEOL 601 and 602; or GEOL 691H and 692 H (with a field component previously approved by the department); or MASC 472; or PHYS 201 and 211


## Additional Requirements

- One of the following courses: GEOL 101/101L, 103/101L, 105/101L, 109/101L, or 110/101L (only one of GEOL 101, 105,109 , and 110 may be taken for course credit)
- CHEM 101/101L and 102/102L
- MATH 231 and 232
- One of the following courses: any COMP 110 or above, except 380; GEOL 520 (note that this course may also be used to satisfy one of the required GEOL courses numbered 400 and higher); any MATH above 232; any STOR 155 and above
- One of the following sets of PHYS courses: PHYS 104 and 105, or 114 and 115 , or 116 and 117 , or 118 and 119
- One of the following combinations: BIOL 201 and ENEC 489, or ENEC 490 and GEOG 253, or GEOL 411 and MASC 470
- At least five science electives not otherwise required for the major, including ANTH 143, 220, 315, 317, 412, 414, 451; any ASTR except a first-year seminar; any BIOC except a first-year seminar, 107, and 108; BIOL 101, any BIOL above 113; any CHEM above 102; any COMP except 50, 70, and 380; any ENVR except a first-year seminar and 600 ; GEOG $370,410,412,414$, 416, and any GEOG above 477; any GEOL except 101, 105 , 109, 110; any MASC 101 and above; any MATH above 232; any PHYS except a first-year seminar, 101, 132, and 313; any STOR 155 and above


## Geological Sciences Major, B.S.Geochemistry Concentration

The departmental requirements for the concentration in geochemistry are identical to those for earth science except that CHEM 481 and 482 substitute for GEOL 601 and 602.

## Geological Sciences Major, B.S.Geophysics Concentration

## Core Requirements

- All of the following courses: GEOL 301, 401, 404, and 515
- Four GEOL courses numbered above 400 , not otherwise required for the major


## Additional Requirements

- One of the following courses: GEOL 101/101L, 103/101L, 105/101L, 109/101L, 110/101L (only one of GEOL 101, 105, 109, and 110 may be taken for course credit)
- CHEM 101/101L and 102/102L
- MATH 231, 232, 233, and 383
- PHYS 116 or 118,117 or $119,201,211$, and 331
- At least three geology and/or science electives not otherwise required for the major, including ANTH 143, 220, 315, 317, 412, 414, 451; any ASTR except a first-year seminar; any BIOC except a first-year seminar, 107, and 108; BIOL 101, any BIOL above 113; any CHEM above 102; any COMP except 50,70 , and 380; any ENVR except a first-year seminar and 600; GEOG 370, 410, 412, 414, 416, any GEOG above 477; any GEOL except 101, 105, 109, 110; any MASC 101 and above; any MATH above 232; any PHYS except a first-year seminar, 101, 132, and 313; any STOR 155 and above


## Geological Sciences Major, B.S.Paleobiology Concentration

## Core Requirements

- All of the following courses: GEOL 159/101L, 301, 401, 402, 413 , and 478
- One of the following courses: GEOL 395 (for four credits), or 396 (for four credits), or 434 , or 691 H and 692 H with approved field component, or another approved field-oriented experience in biology or paleobiology
- Three geology courses numbered above 400 not otherwise required for the major (GEOL 395 for two or three hours credit,

396 for two or three hours credit, 431, 501, 555, and GEOL 691 H and 692 H are specifically recommended)

## Additional Requirements

- One of the following courses: GEOL 101/101L, 103/101L, 105/101L, 109/101L, or 110/101L (only one of GEOL 101, 105,109 , and 110 may be taken for course credit)
- BIOL 101/101L
- CHEM 101/101L and 102/102L
- MATH 231 and 232
- One of the following courses: any COMP except 50, 70, and 380; GEOL 520 (note that this course may also be used to satisfy one of the required GEOL courses numbered above 400); any MATH above 232; any STOR 155 and above
- PHYS 104 or 114 or 116 or 118
- At least three geology and/or science electives not otherwise required for the major, including ANTH 143, 220, 315, 317, 412, 414, 451; any ASTR except a first-year seminar; any BIOC except a first-year seminar, 107, and 108; any BIOL above 113; any CHEM above 102; any COMP except 50, 70 , and 380 ; any ENVR except a first-year seminar and 600; GEOG 370, 410, $412,414,416$, any GEOG above 477; any GEOL except 101, $105,109,110$; any MASC 101 and above; any MATH above 232; any PHYS except a first-year seminar, 101, 132, and 313; any STOR 155 and above; any course in vertebrate paleontology from North Carolina State University; any systematics course from the Department of Biology at Duke University. Paleobiology students are encouraged but not required to take as electives a course in systematics in the Department of Biology at Duke University and a course in vertebrate paleontology at North Carolina State University. Interinstitutional enrollment is possible through a UNC-Chapel Hill/Duke/North Carolina State agreement.


## Geological Sciences Minor

Students majoring in another department may elect to pursue completion of a minor in geology. The undergraduate minor in geology consists of the following four courses (minimum of 12 semester hours).

- One of the following introductory courses: GEOL 101, 103, 105, 109,110 , or 159 (only one of GEOL $101,105,109$, and 110 may be taken for course credit)
- At least three geology courses numbered above GEOL 110


## Advising

All majors and minors have a primary academic advisor in Steele Building. Students are strongly encouraged to meet regularly with their advisor and review their Tar Heel Tracker each semester. The department's director of undergraduate studies works with current and prospective majors by appointment. Departmental academic advising is particularly important for those majors who are considering going on to graduate school. Further information on courses, undergraduate research opportunities, the honors program, careers, and graduate schools may be obtained from the department's Web site.

## Special Opportunities in Geological Sciences

## Honors in Geological Sciences

The honors program in the Department of Geological Sciences is open to undergraduates with an overall grade point average of 3.3 or better as of the beginning of the fall semester of the senior year. To participate in this program, the student chooses a research topic in consultation with his or her chosen faculty sponsor and conducts the research during the last two semesters in residence. The research project should represent the equivalent time expenditure of six hours of course credit and is taken as GEOL 691H (fall semester) and 692 H (spring semester).

Upon recommendation of the faculty, students may be awarded the degree with honors or highest honors. Highest honors is reserved for students who have distinguished themselves in both coursework and independent research. In order to obtain this distinction the student must maintain a grade point average of 3.60 or higher and complete a research project that is worthy of peer-reviewed publication.

## Departmental Involvement

The Department of Geological Sciences encourages the active participation of undergraduates in department research, teaching, and social life. In addition to opportunities for experiential education and teaching internships described below, the department has an active Geology Honor Fraternity and Geology Club and regularly sponsors field excursions, career information sessions, and social events. Dates, times, and locations for all events are posted on the Web site and in the main lobby on the first floor of Mitchell Hall.

## Experiential Education

Many geology courses emphasize experiential learning through field and laboratory work. Most degree tracks include a field geology course (GEOL 601 and 602 or a similar course in another department) that fulfills the experiential education General Education requirement for the College of Arts and Sciences. Additionally, all students are encouraged to contact faculty members about conducting independent research, either as an honors thesis or a senior thesis project.

## UNC-BEST

The UNC Baccalaureate Education in Science and Teaching (UNC-BEST) Program is a collaboration between the School of Education and the College of Arts and Sciences and is designed to allow undergraduate science majors interested in teaching high school science the opportunity to earn their science degree and obtain licensure as a North Carolina high school science teacher in four years. The program consists of core education classes (EDUC $403,503,516$ or $689,532,533,593$, and 601 ) and a teaching methods class (GEOL 412) that is housed in the Department of Geological Sciences. For more details on admission requirements, application deadlines, and submitting an online application, visit the School of Education Web site: www.soe.unc.edu/services/apply/ug.

## Study Abroad

Although the department has no formalized study abroad program, many students participate in a study abroad program, and some receive credit for geology coursework completed abroad. Students
interested in a study abroad program should contact the director of undergraduate studies. Students must receive approval from the director of undergraduate studies prior to taking courses abroad for geology credit.

## Undergraduate Awards

The Op White Prize in Geology, established in 1966, consists of a cash prize and an engraved bronze plaque displayed in the geology office. The award is given annually to the outstanding senior in geology.

## Field Camp Scholarships

Several scholarships for geology field camp are awarded each year from the Grover Murray and Anadarko funds.

## Undergraduate Research

The Department of Geological Sciences encourages qualified undergraduate students to conduct independent research on an interesting geologic topic under the direction of a geological sciences faculty member. This research can be conducted as a oneto four-credit hour project (GEOL 395 Undergraduate Research in Geology) or in conjunction with the geology honors program.

## Facilities

The Department of Geological Sciences houses several laboratory facilities that are available for undergraduate students to use for research. Many students are introduced to the laboratory facilities through coursework. Laboratories include 1) a thermal ionization mass spectrometer for isotope and geochronology research; 2) a scanning electron microscope laboratory for image analysis, element mapping, and semi-quantitative chemical analysis; 3) an X-ray fluorescence spectrometer for chemical analysis of geological materials; 4) an X-ray diffractometer for rapid mineral identification; 5) a direct current plasma spectrometer for analysis of major and minor elements in sample solutions; 6) equipment for geophysical research and imaging, including portable broadband seismic stations, infrasonic microphones, a gravimeter, and equipment for ship-borne reflection seismology; 7) a sediment analysis laboratory including a coulometer, settling tube, and laser particle size counter; 8) chemical and counting laboratories for quantifying natural and artificial radioactivity at environmental levels; 9) a paleoclimate/paleoecology laboratory equipped for highresolution microsampling of carbonate samples for geochemical analysis.

## Graduate School and Career Opportunities

Geologists commonly are employed by private industry, public and private schools, colleges and universities, and consulting firms (e.g., hydrology, environmental geology, engineering geology, petroleum geology, and mineral exploration). Geology graduates also can find jobs with federal or state geological surveys or with other federal/ state environmental or energy firms. Some federal/state agencies prefer geologists with at least a master's degree. A doctoral degree usually is required for employment at colleges and universities.

## Faculty

## Professors

Larry K. Benninger, Joseph G. Carter, Allen F. Glazner, Jonathan Lees, José A. Rial.

## Associate Professors

Louis R. Bartek, Drew S. Coleman, Kevin G. Stewart, Donna Surge.

## Assistant Professors

Benjamin Mirus, Laura Moore, Tamlin M. Pavelsky.

## Affiliated Faculty

John M. Bane Jr., Christopher S. Martens.

## Adjunct Professor

Alan Boudreau.
Adjunct Associate Professor
Antonio B. Rodriquez.
Research Assistant Professor
Michael John Willis.
Lecturers
Joel Hudley, Melissa O. Hudley.

## Contact Information

Deborah Harris, Student Services Manager, CB\# 3315, 107 Mitchell Hall, (919) 962-0679. Web site: www.geosci.unc.edu.

## GEOL-Geological Sciences

GEOL 70 First-Year Seminar: One Billion Years of Change: The Geologic Story of North Carolina (3). A field-based course focused on the geologic story of North Carolina. Includes local field trips and weekend trips to the coast and mountains.

GEOL 71 First-Year Seminar: Bones Back to Life (3). Get hands-on experience with the reconstruction of vertebrate fossils. Learn the paleontology of the Carolinas and beyond.
GEOL 72 First-Year Seminar: Field Geology of Eastern California (3). This seminar provides a hands-on introduction to active geologic and environmental processes in eastern California, including active volcanoes, earthquake-producing faults, and extreme climate change.

GEOL 73 First-Year Seminar: Global Warming and the
Future of the Planet (3). Global warming is the most important environmental problem of the 21st century. This seminar explores geologic history of global warming, its physical principles, and prospects for future societies.
GEOL 74 First-Year Seminar: Geology of Climate Change (3). Examination of the problem of natural versus human-induced climate change from the perspective of the geologic record of earth history. Field trips to coast, Piedmont, and Blue Ridge.

GEOL 75 First-Year Seminar: Waste in the Environment (3). Origins and effects of waste in the environment. Introduces natural wastes and ecosystem recycling, but focuses on case
studies of generation, environmental impacts, and remediation of anthropogenic wastes.

GEOL 76 First-Year Seminar: Energy Resources for a Hungry
Planet (3). Discussions are centered on the most pressing issues of our time: environmental deterioration and construction of a sustainable (livable) world during and after the depletion of traditional energy resources.

GEOL 77 First-Year Seminar: Volcanoes and Civilization: An Uneasy Coexistence (3). Volcanoes provide a breathable atmosphere, a habitable climate, and precious ores, but they have the potential to destroy civilization. This seminar will explore the uneasy coexistence of volcanoes and civilization.

GEOL 79 First-Year Seminar: Coasts in Crisis (3). An investigation of the geologic evolution and function of coastal environments, the recent effects of coastal development and engineering, and an examination of existing coastal management strategies and the tensions between coastal development and the desire to preserve natural environments.
GEOL 89 First-Year Seminar: Special Topics (3). Special topics course. Content will vary each semester.

GEOL 101 Introductory Geology (3). Major geologic events: earthquakes, volcanic activity, mountain formation, plate tectonics, and erosion. Landscape development by glaciers, streams and groundwater, ocean currents and waves, wind. Not open to students with credit in or currently enrolled in GEOL 105, 109, or 110. Optional laboratory: GEOL 101L. PX credit for GEOL 101+101L.

GEOL 101L Introductory Geology Laboratory (1). Pre- or corequisite, GEOL 72, 101, 105, 109, 110, or 159. Study of common minerals and rocks. Use of topographic and geologic maps to illustrate geologic processes. Two laboratory hours a week.
GEOL 103 The Marine Environment (MASC 101) (3). See MASC 101 for description.
GEOL 105 Violent Earth (3). Earth is changing catastrophically through volcanoes, earthquakes, hurricanes, and meteoric impacts. Explore the causes and effects of these phenomena and their impact on human development. Not open to students with credit in or currently enrolled in GEOL 101, 109, or 110. Optional laboratory: GEOL 101L. PX credit for GEOL $105+101 \mathrm{~L}$.

GEOL 108 Our Energy and Climate Crises: Challenges and Opportunities (4). Students quantify global depletion of energy resources and accompanying environmental degradation, discovering the profound changes in attitudes and behavior required to adjust to diminished fossil fuels and modified climate.

GEOL 109 Earth, Climate, and Life through Time (3). Study of the solid earth and plate tectonics. Evolution of the atmosphere and oceans. Climate change. Origin of life, evolution and mass extinctions. Not open to students with credit in or currently enrolled in GEOL 101, 105, or 110. Optional laboratory: GEOL 101L. PX credit for GEOL 109+101L.

GEOL 110 Earth and Climate for Science Majors (3). Interactions between earth systems. Topics include plate tectonics, climate change, history of life, and biogeochemical cycles. This
course is restricted to science majors only. Optional laboratory: GEOL 101L. PX credit for GEOL 110+101L

GEOL 159 Prehistoric Life (BIOL 159) (3). Fossils and the origin and evolution of life, including micro- and macroevolution, mass extinctions, the evolution of dinosaurs and humans, and scientific perspectives on multicultural creationism. Optional laboratory, GEOL 101L. PX credit for GEOL 159+101L.

GEOL 190 Special Topics in Geological Sciences at an Introductory Level (3). An undergraduate seminar course that is designed to be a participatory intellectual adventure on an advanced, emergent, and stimulating topic within a selected discipline in geological sciences. This course does not count as a credit towards geological sciences majors.

GEOL 202 Earth Systems History (3). Required preparation, one introductory geology course numbered below GEOL 202, except first-year seminar. History of the earth (including its oceans, atmosphere, and life forms) as deciphered from the geologic record. Birth of continents/oceans; evolution and extinction of life forms; the changing global environment.

GEOL 204 Planetary Geology: Meteorites and Asteroids (3). Required preparation, one introductory geology course numbered below GEOL 202, except first-year seminar. Effects and probable effects of meteorite and asteroid impacts on earth and other planets: craters, new meteorites, and tektites; giant sea waves; reduction of species and extinction of organisms.

GEOL 211 Environmental Geology (ENEC 211) (3). Required preparation, one introductory geology course numbered below GEOL 202, except first-year seminar. Environmental and human problems connected with uses of earth materials and with geological processes. Mineral and water resources, land-use planning, and engineering geology.

GEOL 213 Earth's Dynamic Systems (ENEC 213) (3). Required preparation, one introductory geology course numbered below GEOL 202, except first-year seminar. Earth system science approach to the study of planet earth. Influence of earth processes on the environment. Earthquakes, volcanoes, plate tectonics, global climate change.
GEOL 215 Energy Resources (3). Required preparation, one geology course numbered below GEOL 202, except first-year seminar. Considers the distribution, extraction, economics, and demand for mineral resources. Treats the impact of the mineral industry on industrial and preindustrial economies, economic factors, maldistribution and depletion of resources, and the environmental impact of the mineral extraction industry.

GEOL 221 Geology of North America (3). Required preparation, one geology course numbered below GEOL 202, except first-year seminar. General introduction to the geologic evolution of North America. Provides students with an understanding and appreciation of diverse natural regions of the United States and Canada. Selected national parks serve as case studies of regional geologic history.

GEOL 223 Geology of Beaches and Coasts (MASC 223) (3). Required preparation, one introductory geology course numbered below GEOL 202, except first-year seminar. Introduction to coastal processes, including waves, tidal currents, tectonics, climate, and
human activity, and their influence on barrier islands, beaches, dunes, marshes, and estuaries. Involves a field trip to the Outer Banks of North Carolina.

GEOL 225 Introduction to Field Geology (3). Prerequisites, GEOL 101/101L. Introduction to geologic field methods. Includes making observations, mapping, identification of structures and features, and interpretation to solve basic geologic problems. Many field trips.

GEOL 301 Earth Materials: Minerals (4). Prerequisite, GEOL 101 or 110; pre- or corequisite, CHEM 101. Permission of the instructor for students lacking the prerequisite. Minerals in sedimentary, igneous, and metamorphic environments: their properties, occurrence, and uses. Methods of identifying minerals, including use of optical properties. Three lecture and three laboratory hours a week.

GEOL 310 Coastal Environmental Change (3). Prerequisite, GEOL 101, 105, or 110. Permission of the instructor for students lacking the prerequisite. An exploration of the large-scale evolution of coastal environments, including relevance of geologic setting, wave and sediment transport processes, the evolution of beach and barrier island morphology, and issues of coastal environmental management.

GEOL 324 Water in Our World: Introduction to Hydrologic Science and Environmental Problems (ENEC 324) (3). See ENEC 324 for description.

GEOL 324L Water in Our World Laboratory (ENEC 324L) (1). See ENEC 324L for description.

GEOL 390 Special Topics in Geology (1-4). Permission of the department. Topics and instructors vary from semester to semester. Course may be repeated.

GEOL 395 Undergraduate Research in Geology (1-4). Permission of the instructor. Research in geology under the supervision of a selected instructor. Approved learning contract required. May be repeated up to four times for a maximum of 12 credits.

GEOL 396 Independent Study in Geology (1-4). Permission of the instructor. Independent study under the supervision of a selected instructor. Learning contract required. May be repeated up to four times for a maximum of 12 credits.

GEOL 401 Structural Geology (4). Prerequisite, GEOL 101, 105, 109, or 110. Introduction to the mechanical behavior and dynamic evolution of the earth's crust through the study of deformed rocks. Includes weekend field trip to western North Carolina.

GEOL 402 Sedimentology and Stratigraphy (4). Prerequisites, GEOL 101 or 110, and GEOL 301. Introduction of principles involved in description and classification of sedimentary rocks and stratigraphic units as well as stratigraphic correlation. Students will be introduced to relationships of processes, depositional environments, and sedimentary facies.

GEOL 403 Oceanography (BIOL 350, ENVR 417, MASC 401) (3). See MASC 401 for description.

GEOL 404 Petrology and Plate Tectonics (4). Prerequisite, GEOL 301. Permission of the instructor for students lacking
the prerequisite. Studies of the origin and evolution of igneous and metamorphic rocks, including microscopic, X-ray, and field methods; volcanology; plate-tectonic interpretation of rock sequences. Three lecture and three laboratory hours a week.

GEOL 410 Earth Processes in Environmental Systems (ENEC 410, MASC 410) (4). See ENEC 410 for description.
GEOL 411 Oceanic Processes in Environmental Systems (ENEC 411, MASC 411) (4). See ENEC 411 for description.

GEOL 412 Principles and Methods of Teaching Earth Science (4). Prerequisites, GEOL 101/101L, 103, 105/101L, 109/101L, or 110; and at least two of the four geology core courses: GEOL 301, 401, 402, and 404 . This course develops the knowledge and skills teachers need to implement inquiry-based earth science instruction: conceptual knowledge of earth sciences and mastery of inquiry instructional methods. Students study inquiry in cognitive science and learning theory. This course is a requirement for the UNCBEST program in geological sciences.

GEOL 413 Field Paleontology (4). Prerequisites, GEOL 101, 109,110 , or 159 ; and 402 or 478 . Permission of the instructor for students lacking the prerequisites. Field-oriented course on larger Ordovician through Pliocene fossil invertebrates in the central and eastern United States. Students develop a reference collection of over 250 genera and species, with data of stratigraphy and biostratigraphy. Three lecture and two laboratory hours a week.
GEOL 415 Environmental Systems Modeling (ENEC 415, MASC 415) (3). See ENEC 415 for description.

GEOL 417 Geomorphology (ENEC 417) (3). Prerequisites, GEOL 101 or 110, and MATH 231. Permission of the instructor for students lacking the prerequisites. Introduction to process geomorphology with emphasis on quantitative interpretation of weathering, hill slope, fluvial, glacial, and eolian processes from topography and landscapes.
GEOL 417L Geomorphology Laboratory (1). Pre- or corequisite, GEOL 417. Two laboratory hours per week.
GEOL 421 Archaeological Geology (ANTH 421) (3). Permission of the instructor. The application of geological principles and techniques to the solution of archaeological problems. Studies geological processes and deposits pertinent to archaeological sites, geologic framework of archaeology in the southeastern United States, and techniques of archaeological geology. Field trips to three or more sites; written reports required.
GEOL 422 Physics of the Earth's Interior (PHYS 422) (3). See PHYS 422 for description.
GEOL 430 Coastal Sedimentary Environments (MASC 430)
(3). Prerequisite, GEOL 402. Introduction to modern shallowwater clastic environments and their sediments, emphasizing barrier islands, deltas, estuaries, wetlands, and tidal flats. Includes local field trips and discussion/application of data-collecting techniques.

GEOL 431 Micropaleontology (MASC 431) (4). Prerequisite, GEOL 478 or MASC 440. Permission of the instructor for students lacking the prerequisite. An in-depth study of the biostratigraphy, paleoecology, and taxonomy of various microfossil groups (i.e., foraminifera, ostracodes, conodonts, coccoliths, radiolaria, diatoms,
acritarchs, dinoflagellates, etc.) dependent upon individual student objectives. Three lecture and three laboratory hours a week.

GEOL 432 Paleoclimatology (3). Prerequisite, GEOL 202 or 402. Permission of the instructor for students lacking the prerequisite. Introduction to mechanisms that drive climate. Examination of past climate reconstructions using ecological and geochemical proxies. Utility of computer models to reconstruct past climates and predict future climate change. Emphasis placed on late Quaternary.

GEOL 433 Paleoceanography (3). Prerequisite, GEOL 402 or 503. Permission of the instructor for students lacking the prerequisite. Origin and distribution of pelagic sediments. Review of the major Mesozoic and Cenozoic events in the world oceans. Glacial/interglacial changes in the ocean/atmosphere system.
GEOL 434 Marine Carbonate Environments (2). Permission of the instructor. Chemical and biological origins of calcium carbonate, skeletal structure, and chemo-mineralogy, preservation, sedimentation, and early diagenesis are studied in deep and shallow environmental settings to understand skeletal genesis, limestone origin, and carbonate facies variability. Field trip to Florida, Bahamas, or Bermuda. Laboratory exercises; research report.

GEOL 440 Principles of Seismology (3). Prerequisites, GEOL 101, 213, 401; MATH 231. Permission of the instructor for students lacking the prerequisites. Descriptive account of global seismology, earthquake distribution, and focal mechanics. Principles of geometrical optics and applications to imaging the earth's interior. Principles of seismic prospecting of hydrocarbon and geothermal reservoirs.
GEOL 450 Biogeochemical Processes (ENEC 450, MASC 450) (4). See ENEC 450 for description.

GEOL 460 Fluid Dynamics of the Environment (3).
Prerequisite, MATH 232. Permission of the instructor for students lacking the prerequisite. Principles and applications of fluid dynamics to flows of air and water in the natural environment. Conservation of momentum, mass, and energy applied to lakes, rivers, estuaries, and the coastal ocean. Dimensional analysis and scaling emphasized to promote problem-solving skills.
GEOL 478 Invertebrate Paleontology (BIOL 478) (4). Prerequisite, GEOL 159 or BIOL 101. Permission of the instructor for students lacking the prerequisite. Introduction to the principles, methods of analysis, and major controversies within paleontology. Examination of the fossil record and its application to problems in evolutionary biology, paleoecology, paleoclimatology, and general earth history.
GEOL 480 Modeling of Marine and Earth Systems (ENVR 480, MASC 480) (1-3). See MASC 480 for description.
GEOL 483 Geologic and Oceanographic Applications of Geographical Information Systems (MASC 483) (4). Required preparation, four GEOL courses or permission of the instructor. Focus is on applying GIS concepts and techniques to mining and petroleum geology, resource assessment, hydrogeology, coastal and marine geology, physical oceanography, engineering geology, and a geologic perspective on land use. Three lecture and two laboratory hours a week.

GEOL 490 Topics in Earth and Environmental Sciences (3). Key topics and resources for high school teachers preparing to teach earth and environmental sciences. Includes lithosphere, tectonic processes, hydrosphere, atmosphere, origin of solar system and life, and environmental stewardship.

GEOL 501 Geological Research Techniques (2). Permission of the instructor. An introduction to methods of obtaining, analyzing, and presenting geologic and paleontologic data.

GEOL 502 Earth Surface Processes (GEOG 440) (3). See GEOG 440 for description.

GEOL 503 Geological Oceanography (MASC 503) (4). See MASC 503 for description.
GEOL 504 Advanced Petrology (4). Prerequisite, GEOL 404. Origin of magmas and evolution of igneous and metamorphic rocks, combined with petrographic study of selected sites and individual examples. Two lecture and six laboratory hours a week.

GEOL 505 Chemical Oceanography (ENVR 505, MASC 505) (4). See MASC 505 for description.

GEOL 506 Physical Oceanography (MASC 506) (4). See MASC 506 for description.

GEOL 507 Rhythms in Global Climate and the Stratigraphic
Record (3). Prerequisite, GEOL 402. An overview of the mechanisms of cyclic climate forcing and a review of the geologic evidence for these climate rhythms, with a particular emphasis on the Milankovitch orbital cycles.

GEOL 508 Applied Hydrology (3). Prerequisites, GEOL 101 or 110, MATH 231, PHYS 105. Permission of the instructor for students lacking the prerequisites. An introduction to methodologies and instrumentation for quantifying the movement of water in the earth system focusing on components of the hydrologic cycle. Emphasis is divided between analytical aspects and field procedures.

GEOL 509 Groundwater (3). Prerequisites, CHEM 102; GEOL $101,105,109$, or 110 ; MATH 231 ; PHYS 104 or 114 or 116. Permission of the instructor for students lacking the prerequisites. Introduction to physics, chemistry, and geology of groundwater.
GEOL 510 Geochemistry of Natural Waters (3). Prerequisites, CHEM 102; GEOL 101, 105, 109, or 110; MATH 231. Permission of the instructor for students lacking the prerequisites. Survey of processes affecting the compositions of streams, lakes, the ocean, and shallow ground waters.

GEOL 511 Stable Isotopes in the Environment (ENEC 511) (3). Prerequisite, CHEM 102. Introduction to the theory, methods, and applications of stable isotopes to environmental problems. Primary focus will be on the origin, natural abundance, and fractionation of carbon, hydrogen, oxygen, and nitrogen isotopes.

GEOL 512 Geochemistry (MASC 553) (3). Prerequisites, CHEM 102; GEOL 101, 105, or 110; and MATH 231. Permission of the instructor for students lacking the prerequisites. Introduction to the application of chemical principles to geological problems. Topics include thermodynamics, kinetics, and isotope geochemistry.

GEOL 514 River Systems of East Coast North America (3). Prerequisites, GEOL 101 or 110, and 211 or 417 . Junior or senior status. Analysis of 23 rivers from St. Lawrence to the Everglades, from headwaters to oceanic terminus of turbidite fan. Focus on stream processes, geologic development, hydrology, utilization history, ecology, and planning.
GEOL 515 Introduction to Geophysics (3). Prerequisites, PHYS 116 or 118, and 117 or 119 . Introduction to the fundamentals of global geophysics: gravity, seismology, magnetism, heat, and plate tectonics. Both shallow and deep processes are considered. Emphasis is aimed at problem solving by applying concepts.

GEOL 517 Sequence and Seismic Stratigraphy (3). Prerequisite, GEOL 402. Examination of lithostratigraphic principles and the sequence stratigraphic paradigm. Students will study use of variation of well log signature reflection attributes and reflection termination patterns to identify and correlate sequences and systems and to interpret the lithology and depositional history of subsurface stratigraphic units.
GEOL 518 Geodynamics (3). Prerequisites, CHEM 102; GEOL 101 or 110; MATH 232; and PHYS 104 and 105, or 114 and 115. Interior of the earth deduced from seismology, gravity, heat flow, magnetism; geophysics of continents and ocean basins; age of earth.

GEOL 520 Data Analysis in the Earth Sciences (3).
Prerequisites, MATH 231 and 232. Required preparation, an introductory geology course numbered below 202, except firstyear seminar, or permission of the instructor. Introduction to quantitative analysis in earth sciences: solid earth, atmospheres, oceans, geochemistry, and paleontology. Topics covered: univariate and multivariate statistics, testing, nonparametric methods, time series, spatial and cluster analysis, shapes.
GEOL 521 Clastic Depositional Systems: Processes and Products (3). Prerequisite, GEOL 402. Examination of the use of lateral and vertical changes in sedimentary facies to identify depositional processes and environments of deposition within the terrestrial, marginal marine, shelf, and deep sea clastic depositional systems. These systems will be examined in a sequence stratigraphic framework.

GEOL 522 Physical Volcanology (3). Required preparation, introductory courses in geology and physics. Course is aimed at understanding the physical properties and processes controlling volcanism and magma transport. Topics covered include volcanic processes from the formation of magma in the upper mantle to violent eruption at the surface. Emphasizes dynamic processes and underlying mechanisms.

GEOL 523 Petroleum Geoscience (4). Prerequisites, GEOL 101, 301, 401, and 402. Permission of the instructor for students lacking the prerequisites. Students study the origin, migration, and entrapment of hydrocarbons in sedimentary basins and learn how several areas of the geosciences are integrated to locate and produce hydrocarbons. Students learn about these topics while analyzing a real subsurface data set.

GEOL 525 Inverse Theory: Advanced Data Analysis and Geophysical Modeling (3). The course deals with earth science problems related to extracting model parameters from data and
field observations. Details of mathematical concepts, real world examples, and practical applications associated with noisy or incomplete data are covered. Key concepts include multivariate regression, model discretization, Tikhonov regularization, and Bayesian methods.

GEOL 550 Biogeochemical Cycling (MASC 550) (3). See MASC 550 for description.

GEOL 552 Organic Geochemistry (ENVR 552, MASC 552)
(3). See MASC 552 for description.

GEOL 555 Paleobotany: An Introduction to the Past History of Plants (BIOL 555) (3). See BIOL 555 for description.
GEOL 560 Fluid Dynamics (ENVR 452, MASC 560, PHYS 660) (3). See MASC 560 for description.

GEOL 563 Descriptive Physical Oceanography (MASC 563)
(3). See MASC 563 for description.

GEOL 590 Special Topics in Earth Sciences (1-4). Discussion or lab-based consideration of topical issues in earth sciences.
GEOL 601 Summer Field Course in Geology (3). Prerequisites, GEOL 301, 401, 402, and 404. Permission of the instructor for students lacking the prerequisites. Three-week field camp conducted in the western United States (Arizona, California, Colorado, Nevada, New Mexico, and/or Utah). Learn proper use of geology field tools and how to make a geologic map. Field interpretation of rocks and their deformation.

GEOL 602 Summer Field Course in Geology (3). Prerequisites, GEOL 301, 401, 402, and 404. Permission of the instructor for students lacking the prerequisites. Three-week field camp conducted in the western United States (Arizona, California, Colorado, Nevada, New Mexico, and/or Utah). Learn advanced mapping skills necessary to interpret geologic history of complexly deformed rocks.

GEOL 608 Continuum Mechanics in the Earth Sciences (ENEC 608) (3). Prerequisites, MATH 231; PHYS 104 or 116. Required preparation, introductory geology course numbered below GEOL 202, except first-year seminar, or permission of the instructor. Applications of continuum mechanics in the earth sciences, including stress, strain, elasticity, and viscous flow. Numerical solutions to problems in heterogeneous finite strain including finite element analysis.
GEOL 655 Physical Geochemistry (3). Prerequisites, CHEM 102 and MATH 232. Permission of the instructor for students lacking the prerequisites. An introduction to physical geochemistry and chemical thermodynamics with special emphasis on geological applications. Three lecture hours a week.

GEOL 691H Honors (3). Permission of the department. For details, see geology degree requirements.
GEOL 692H Honors (3). Prerequisite, GEOL 691H. For details, see geology degree requirements.

GEOL 695 Advanced Field Seminar in Geology (1-4).
Prerequisites, GEOL 601 and 602. A field course that emphasizes advanced field methods. Emphasis is placed on large-scale, detailed field work in complex structural terrains and on independent mapping that will lead to thesis/dissertation and/or publication.

# Department of Germanic and Slavic Languages and Literatures 

www.unc.edu/depts/gsll

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CLAYTON KOELB, Chair

## Introduction

The Department of Germanic and Slavic Languages and Literatures is organized to conduct research and offer instruction in the languages, literatures, and cultures of central, northern, and eastern Europe and northern Asia. It offers multiple tracks for undergraduate study.

For those interested in German programs, the department offers two concentrations. The concentration in German literature and culture provides a rich program of courses tailored to majors and double majors who wish to become culturally and linguistically fluent in German. The German media, arts, and culture concentration is ideal for students interested in expanding their knowledge of German literary history by exploring such media as film, music, or the visual arts, in their cultural-historical context. The department offers courses conducted in English as well as in German.

For students interested in Slavic programs, the department also offers two concentrations: Russian language and culture, and Slavic and East European languages and cultures. Students completing the latter option take courses to develop knowledge of the Slavic/ East European language and a grounding in the most representative works of Slavic/East European culture. The courses that contribute to the major cover the languages and cultures of Russia/Soviet Union, the Czech Republic, Poland, Croatia, Serbia, Bosnia and Herzegovina, and (non-Slavic) Hungary-a vast grouping of territories and peoples of great cultural diversity and political importance.

An additional option takes advantage of the unique position of our department as a center of expertise in Central European studies (including Czech, German, Hungarian, and Polish). The Central European studies concentration combines language studies with literature, culture, history, geopolitical, and other studies into an interdisciplinary major.

A major in Germanic and Slavic languages and literatures provides preparatory training that will be useful in government employment; internationally oriented business, journalism, law, and teaching; as well as graduate study in a range of humanistic and social science disciplines.

## Germanic and Slavic Languages and Literatures Major, B.A.Central European Studies Concentration

## Core Requirements

- GSLL 260
- HIST 260
- Two departmental courses (six credit hours) in CZCH, GERM, GSLL, HUNG, or PLSH numbered above 200 (not including
introductory or intermediate foreign language courses, and not including GERM 252 or GSLL 280)
- Four additional courses ( 12 credit hours), which may include departmental courses in CZCH, GERM, GSLL, HUNG, or PLSH numbered above 200 (not including introductory or intermediate foreign language courses, and not including GERM 252 or GSLL 280), or approved Central European studies electives: ANTH 449; ARTH 455; CMPL/GERM 279; CMPL 270/GERM 270/JWST 239/RELI 239; CMPL/SLAV 281; EURO/HIST 252; GEOG 464; GERM/WMST 250; HIST 140, 159, 406, 458, 460, 461, 462, 463, 481; HIST/JWST/ PWAD 262; HIST/POLI/SOCI 257; JWST/PWAD/SLAV 465; JWST/SLAV 464; PHIL 224, 423, 427, 471; POLI/PWAD/ SOCI 260
Students may petition the director of undergraduate studies to include other courses with significant Central European content.

Only one of the following courses may count toward the major: GSLL $691 \mathrm{H}, 692 \mathrm{H}$, or 693 H .

At least four of the above courses ( 12 credit hours) must be taken at UNC-Chapel Hill to fulfill the requirements of the major. Majors who study abroad or wish to transfer credit from another institution may apply to transfer a maximum of four courses counting toward the major. Before their departure for a study abroad program, students should consult with the relevant director of undergraduate studies about appropriate courses taken abroad for the major.

## Additional Requirements

- Credit for four semesters of study in one Central European language (Czech, German, Hungarian, Polish)
- Credit for two semesters of study in an additional Central European language
Students may not re-enroll in a language course for which they have received PL or BE credit.


## Germanic and Slavic Languages and Literatures Major, B.A.-German Literature and Culture Concentration

## Core Requirements

- A minimum of eight German courses ( 24 credit hours) beyond GERM 206. Five courses ( 15 credit hours) must be conducted in German (all 300-level GERM courses are conducted in German).
- GERM 301, 302, and 303
- Five additional courses ( 15 credit hours) selected in consultation with the director of undergraduate studies; these may be GERM courses numbered beyond GERM 206.
Students who receive placement credit (PL) or By-Examination credit (BE) for GERM 301 and/or GERM 302 must substitute this credit with coursework (three credit hours each to replace GERM 301 and/or GERM 302) to complete the requirements for the concentration. The additional coursework must be numbered above GERM 303. Students may not re-enroll in a course for which they have received PL or BE credit.

Only one of the following courses may count toward the major: GERM $691 \mathrm{H}, 692 \mathrm{H}$; GSLL $691 \mathrm{H}, 692 \mathrm{H}$, or 693 H .

## Germanic and Slavic Languages and Literatures Major, B.A.-German Media, Arts, and Culture Concentration

## Core Requirements

A minimum of eight courses ( 24 credit hours), four of which must be taught in German (all 300-level GERM courses are conducted in German)

- GERM 301, 302, and 303
- Two GERM courses focusing on media, arts, or culture, numbered above 206 and below 400 (excluding 301-305, 388, 389, and 396). Students should consult with the director of undergraduate studies to focus their choice of courses on a particular interest.
- Three elective courses selected in consultation with the director of undergraduate studies from the following lists. Students may also petition the director of undergraduate studies for approval of other suitable courses to count toward this requirement.
o Any GERM course numbered beyond GERM 206
o ARTH 272, 274, 275, 284, 365, 454, 455, 471, 472; COMM 412, 413; CMPL 143, 270, 375, 411, 458, 460, 468, 470; CMPL/GERM 279; CMPL 270/GERM 270/JWST 239/RELI 239; EURO/HIST 252; GERM/SLAV 251; GERM/WMST 220, 250; GSLL 260, 284; HIST 458, 460, 461, 462, 463, 466; HIST/JWST 308; HIST/JWST/PWAD 262; HIST/POLI/ SOCI 257; HIST/PWAD 251; HIST/RELI 454; MUSC 282, 283, 284; PHIL 224, 229, 423, 427, 471; RELI 522
Students who receive placement credit (PL) or By-Examination credit (BE) for GERM 301 and/or GERM 302 must substitute this credit with coursework (three credit hours each to replace GERM 301 and/or GERM 302) to complete the requirements for the concentration. The additional coursework must be numbered above GERM 303. Students may not re-enroll in a course for which they have received PL or BE credit.
Students may petition the director of undergraduate studies to include other courses with significant German media, art, and/or cultural content.

Only one of the following courses may count toward the major: GERM $691 \mathrm{H}, 692 \mathrm{H}$; GSLL $691 \mathrm{H}, 692 \mathrm{H}$, or 693 H .

## Additional Requirements for Both German Concentrations

- GERM 101, 102, 203, and 204 are considered prerequisites for a German major; intensive courses GERM 105 and 206, if offered, may be substituted. Students who desire to pursue a major in a German concentration should have a grade of B or better in GERM 203 and 204 (or in 206).
- GERM or GSLL courses numbered above 399 may count toward the major with the approval of the director of undergraduate studies, who will note whether the course is taught in English or in German.
- Three German LAC credit hours may be used as a substitute for one three-hour course taught in German for the major. (See "Languages across the Curriculum" below.)
- Dutch language courses (DTCH 402, 403, and 404) may not count toward the German major. However, DTCH 396 and 405 may be counted toward the German major as courses taught in the target language (i.e., not in English).
- At least four courses ( 12 credit hours) beyond GERM 206 must be taken at UNC-Chapel Hill to fulfill the requirements of the
major. Majors who study abroad or wish to transfer credit from another institution may apply to transfer a maximum of four courses counting toward the major. Before their departure for a study abroad program, students should consult with the director of undergraduate studies about appropriate courses taken abroad for the major.


## Germanic and Slavic Languages and Literatures Major, B.A.-Russian Language and Culture Concentration

## Core Requirements

- RUSS 250, 321, 322, 406, and 407
- Four additional courses ( 12 credit hours) selected from Russian language and literature/culture courses (RUSS) Students who receive placement credit (PL) or By-Examination credit (BE) for RUSS 321, 322, 406, and/or 407 must substitute this credit with coursework (three credit hours each to replace each course with PL or BE credit) to complete the requirements for the concentration. Students may not re-enroll in a course for which they have received PL or BE credit.

Only one of the following courses may count toward the major: RUSS $691 \mathrm{H}, 692 \mathrm{H}$; GSLL $691 \mathrm{H}, 692 \mathrm{H}$, or 693 H .

## Additional Requirements

- RUSS 101, 102, 203, and 204

Students who participate in an approved study abroad program in Russia can earn some of the credit for this major during their overseas stay.

## Germanic and Slavic Languages and Literatures Major, B.A.-Slavic and East European Languages and Cultures Concentration

## Core Requirements

- One course demonstrating level 5 proficiency in a single target language: RUSS 321 or 406 , or CZCH 405, or HUNG 405, or PLSH 405, or SECR 405
- Two courses of any other single Slavic/East European language
- SLAV 250 (or RUSS 250 for students with Russian as their first target language)
- Four additional courses selected in consultation with the Slavic advisor from the Slavic/East European and Russian language and literature/culture courses
Students who receive placement credit (PL) or By-Examination credit (BE) for RUSS 321 and/or 406, or CZCH, HUNG, PLSH, or SECR 405 must substitute this credit with coursework (three credit hours each to replace each course with PL or BE credit) to complete the requirements for the concentration. Students may not re-enroll in a course for which they have received PL or BE credit.

Only one of the following courses may count toward the major: RUSS $691 \mathrm{H}, 692 \mathrm{H}$; GSLL $691 \mathrm{H}, 692 \mathrm{H}$, or 693 H .

## Additional Requirements

- Introductory and intermediate language courses selected from

RUSS 101, 102, 203, 204; or CZCH 401, 402, 403, 404; or HUNG 401, 402, 403, 404; or PLSH 401, 402, 403, 404; or SECR 401, 402, 403, 404

## Additional Requirements for Both Slavic Concentrations

- Students who desire to pursue a major in a Slavic concentration should have a grade of $B$ or better in their intermediate language courses.
- Other than the introductory and intermediate language courses mentioned above, at least four courses ( 12 credit hours) must be taken at UNC-Chapel Hill to fulfill the requirements of the major. Majors who study abroad or wish to transfer credit from another institution may apply to transfer a maximum of four courses counting toward the major. Before their departure for a study abroad program, students should consult with the relevant director of undergraduate studies about appropriate courses taken abroad for the major.


## German Minor

- GERM 301, 302, and 303
- One additional course ( 3 credit hours) beyond GERM 206
- GERM 101, 102, 203, and 204 are considered prerequisites for a German minor; intensive courses GERM 105 and 206, if offered, may be substituted. Students who desire to pursue a minor in German should have a grade of B or better in GERM 203 and 204 (or in 206).
GERM courses numbered above 399 may count toward the minor with the approval of the director of undergraduate studies, who will note whether the course is taught in English or in German.

Three German LAC credit hours may be used as a substitute for one three-hour course taught in German for the minor. (See "Languages across the Curriculum" below.)

Dutch language courses (DTCH 402, 403, and 404) may not count toward the minor. However, DTCH 396 and 405 may be counted toward the minor as courses taught in the target language (i.e., not in English).

At least nine credit hours beyond GERM 206 must be taken at UNC-Chapel Hill to fulfill the requirements of the minor. Minors who study abroad or wish to transfer credit from another institution may apply to transfer one course counting toward the minor. Before their departure for a study abroad program, students should consult the relevant director of undergraduate studies about appropriate courses taken abroad for the minor.

Students who receive placement credit (PL) or By-Examination credit (BE) for GERM 301 and/or GERM 302 must substitute this credit with coursework (three credit hours each to replace GERM 301 and/or GERM 302) to complete the requirements for the minor. The additional coursework must be numbered above GERM 303. Students may not re-enroll in a course for which they have received PL or BE credit.

## Russian Culture Minor

- A minimum of five RUSS courses (total of 15 hours). RUSS 101/102 may not be counted toward this minor.
At least nine credit hours beyond RUSS 102 must be taken at UNC-Chapel Hill to fulfill the requirements of the minor. Minors who study abroad or wish to transfer credit from another institution may apply to transfer one course counting toward the minor. Before their departure for a study abroad program, students should consult the relevant director of undergraduate studies about appropriate courses taken abroad for the minor.
Students who receive placement credit (PL) or By-Examination credit (BE) for RUSS 203, 204, 321, 322, 406, and/or 407 must substitute this credit with coursework (three credit hours each to replace each course with PL or BE credit) to complete the requirements for the minor. Students may not re-enroll in a course for which they have received PL or BE credit.


## Slavic and East European Languages and Cultures Minor

- A minimum of five courses ( 15 hours) in BULG, CZCH, HUNG, MACD, PLSH, RUSS, SECR, or SLAV. The first two semesters of any language may not be counted toward this minor (e.g., BULG 401/402, CZCH 401/402, HUNG 401/402, MACD 401/402, PLSH 401/402, RUSS 101/102, SECR 401/402).
Students who receive placement credit (PL) or By-Examination credit (BE) for RUSS 203, 204, 321, and/or 406, or for the first five courses in CZCH, HUNG, PLSH, or SECR (401, 402, 403, 404,405 ) must substitute this credit with coursework (three credit hours each to replace each course with PL or BE credit) to complete the requirements for the minor. Students may not re-enroll in a course for which they have received PL or BE credit.
At least nine credit hours beyond the first two semesters of the language must be taken at UNC-Chapel Hill to fulfill the requirements of the minor. Students who study abroad or wish to transfer credit from another institution may apply to transfer one course counting toward the minor. Before their departure for a study abroad program, students should consult the relevant director of undergraduate studies about appropriate courses taken abroad for the minor.

Note: Topics courses may be repeated for credit toward the major or minor.

## Advising

Students can complete any concentration, even if they have no prior experience in the language, provided that they begin taking their language courses as first-year students.

All majors and minors have a primary academic advisor in Steele Building. Students should meet regularly with their primary advisor and review their Tar Heel Tracker each semester.

However, departmental academic advising is also important for all students majoring or minoring in the department. Current and prospective majors and minors should consult with the department's director of undergraduate studies (for German literature and culture, German media, arts, and culture), or the
department's Slavic undergraduate advisor (for Russian language and culture and Slavic languages and cultures), or the department's Central European advisor (for the Central European studies concentration). The director of undergraduate studies, the Slavic undergraduate advisor, or the Central European undergraduate advisor may all approve study abroad, internship, and transfer credit, and/or serve as an honors advisor, as appropriate for the concentrations they work with.
Students seeking certification to teach German or Russian in public schools should consult advisors in the School of Education.

## Special Opportunities in Germanic and Slavic Languages and Literatures

## Honors in Germanic and Slavic Languages and Literatures

Students majoring in Germanic and Slavic languages and literatures who are qualified for honors work are strongly encouraged to consider taking honors during their senior year. Undertaking an honors project gives students the opportunity to explore a topic in depth under the direction of a faculty member. Seniors who wish to do honors work should confer with the director of undergraduate studies and choose an honors thesis advisor during the second semester of their junior year, and enroll during their senior year in GSLL 691H (honors reading and special studies) followed by GSLL 692H (writing the honors thesis). When GSLL 693H is offered, the course replaces GSLL 692 H and provides an opportunity for students majoring in any of our concentrations to complete their thesis in the context of a small seminar with other honors students. One of these honors courses may count toward the major.

## Student Involvement and Cultural Enrichment beyond the Classroom

Numerous social and educational events hosted by the department, as well as by student clubs such as the German Club, provide an atmosphere for effective learning and for enjoying German and Slavic culture. There are weekly opportunities in German, Russian, and other languages for informal conversation suitable for both beginning and advanced students. The department periodically sponsors lectures, roundtables, small conferences, and film series for the various languages. Those considering an undergraduate major or minor should request to be added to the appropriate e-mail listserv for information regarding special events and opportunities.

The department also hosts receptions and informational meetings for students interested in pursuing a major or minor or seeking opportunities for internships, study abroad, graduate study, and employment in Germany, Russia, and Eastern or Central Europe. Every spring the department presents a Slavic and East European talent night, or Spektakl', featuring skits, songs, puppet shows, plays, and poetry readings in the Slavic and East European languages students are learning. The department also presents full-length plays and dramatic readings in German performed by undergraduate students.

## Study Abroad

The department encourages students to study and/or engage in internships abroad. These opportunities maximize students' linguistic and cultural proficiency, particularly once they have acquired sufficient language skills to benefit most from this
immersion experience. Students may participate for a whole year, a single term, or a summer.

The Study Abroad Office offers German programs at all universities in the German state of Baden-Württemberg, as well as a dedicated exchange program with the Eberhard-Karls-Universität Tübingen; at the Vienna (Austria) University of Economics and Business Administration; at the Science Exchanges in Berlin or Jena (Germany) and Vienna; at the IES European Union Program in Freiburg (Germany); and at the IES Music Studies Program in Vienna. Most German programs require that participating students have passed GERM 204 (or its equivalent); however, students with no prior knowledge of German may attend the FUBiS or FU-BEST programs in Berlin or the IES program in Freiburg. These programs generally include intensive language instruction in addition to content courses taught in English, and most programs offer an orientation course prior to the start of the semester. The yearlong term typically begins in late August and ends in late July, with a two-month vacation between semesters that many students use for travel. Students going abroad for only one term generally do so in the spring semester, which typically begins in late February and ends in late July.

The DAAD in conjunction with German universities usually offers some summer internships. An internship is also available in Dresden. Please see an undergraduate advisor in the department office about these opportunities.

Students who choose to study Dutch may study abroad in Amsterdam through the IES, or attend SIT Netherlands' Program "International Perspective on Sexuality and Gender." Exchange programs also are offered in Nijmegen and Groningen.

Students can study in semester or yearlong programs in Russia, including in Moscow, St. Petersburg, and Vladimir, while earning credit towards their Carolina degree. Students also may participate in the ACTR Moscow summer program in Russia. UNC-Chapel Hill offers four semester-long programs and one summer program in the Czech Republic. For more information about these and other programs in eastern and central Europe, go to studyabroad. unc.edu. Majors and minors should consult with the director of undergraduate studies or the appropriate undergraduate advisor in advance of going abroad about courses they plan to take for the major or minor.

## Languages across the Curriculum

The Languages across the Curriculum (LAC) Program encourages majors and minors to enroll in one-credit-hour recitation or discussion sections that are conducted in German but associated with a variety of courses offered in English by other academic departments. German language recitation sections may also be scheduled in conjunction with several of the department's courses offered in English. Each of these discussion and recitation sections counts as one German language credit (in addition to the credit granted for the course).

## Undergraduate Awards

Membership in the Beta Rho chapter of Delta Phi Alpha, the German honors society, is available to majors and minors who have completed at least six credit hours of German language coursework at the 300 level and who have maintained high cumulative grade
point averages and high grade point averages in the major.
The department selects annually one outstanding graduating senior majoring in German to receive the Undergraduate Ria Stambaugh Award for Excellence in German, a monetary award that is presented at the Chancellor's Awards Ceremony each spring. Ria Stambaugh was a popular professor of German; after her death in 1984 her sister, friends, and colleagues contributed to a memorial fund to establish the Ria Stambaugh Awards. The undergraduate award was first presented in 1987.

Established in 1999, the Paul Debreczeny Prize is awarded each spring to a graduating senior whose work in Slavic languages and literatures has been judged outstanding. This monetary prize honors one of the founding faculty members of the program in Slavic languages and literatures.

## Undergraduate Research

In addition to honors thesis work, students are encouraged to work on course-complementary or independent research projects with department faculty. Funding may be available through the Office of Undergraduate Research.

## Graduate School and Career Opportunities

In an age of rapid internationalization and globalization, proficiency in a foreign language is no longer just an auxiliary skill but a necessary one. Courses offered in the department make up an important part of a liberal education, and a major can provide excellent preparation for many careers, particularly when the major is combined with courses in business, economics, political science, journalism, and various other fields. Recent graduates have entered careers in international business, journalism, publishing, and the travel industry.

A bachelor of arts with a major in Germanic and Slavic languages and literatures also qualifies graduates for positions in the United States State Department and other government agencies, educational organizations, foundations, and travel organizations. The presence of over 100 German and Swiss firms in the Carolinas testifies to the demand for a high degree of German linguistic and cultural literacy in college graduates. The department is also one among very few in the United States that offers a range of critical and/or less commonly taught languages of Eastern Europe and the former USSR. People who know these languages are in particularly high demand in business and government. A graduate who has successfully taken the internationally-recognized business German examination "Wirtschaftsdeutsch als Fremdsprache" at UNCChapel Hill has an edge in seeking such positions.

In addition, the demand for language teachers provides career opportunities for those German and Russian majors who receive teaching certification from the School of Education.

German and Slavic majors often go on to graduate programs in comparative literature, linguistics, history, law, international business and management, international relations, professional translation, medicine, and education. Some pursue careers as college professors. Many Chapel Hill German and Slavic majors have been welcomed by the most prestigious graduate programs in the country. The department's faculty members assist undergraduate majors in selecting appropriate graduate programs.
Faculty

## Professors

Eric Downing, Jonathan Hess, Clayton Koelb, David Pike, Paul Roberge.

## Associate Professors

Ruth von Bernuth, Richard Langston, Radislav Lapushin, Hana Pichova, Christopher R. Putney.

## Assistant Professors

Priscilla Layne, Inga Pollmann, Stanislav Shvabrin, Gabriel Trop, Ewa Wampuszyc.

## Senior Lecturers

Eleonora Magomedova, Christina Wegel.

## Professors Emeriti

Lawrence Feinberg, Walter K. Francke, Richard H. Lawson, Madeline G. Levine, Siegfried Mews, Vasa Mihailovich, Christoph E. Schweitzer, Peter Sherwood, Sidney R. Smith, Petrus W. Tax, Ivana Vuletic.

## Contact Information

Dr. Richard Langston, Director of Undergraduate Studies and Undergraduate Advisor for German, CB\# 3160, 430 Dey Hall, relangst@email.unc.edu.
Dr. Radislav Lapushin, Undergraduate Advisor for Slavic languages, CB\# 3160, 422 Dey Hall, lapushin@email.unc.edu.

Dr. Hana Pichova, Undergraduate Advisor for Central European Studies, CB\# 3160, 418 Dey Hall, pichova@email.unc.edu.

## Courses

## GSLL-Germanic and Slavic Languages and Literatures

 GSLL 69 First-Year Seminar: Laughing and Crying at the Movies: Film and Experience (3). Why is it that we cry at the movies? We will focus on the melodrama but also look at comedy and horror to think about emotional responses to films. Students will learn the basics of film analysis, gain an overview of genre cinema, and study approaches to emotion, affect, and the body.GSLL 87 First-Year Seminar: Literature Confronting
Totalitarianism (3). What is totalitarianism? Can a portrayal of suffering, even death, under a totalitarian state, have artistic value, or must it remain only a political pamphlet? This seminar studies authors who reveal the crimes of totalitarianism, while also showing the moral strength and/or weaknesses of humans victimized by the totalitarian state.

GSLL 89 First-Year Seminar: Special Topics (3). Special topics course. Content will vary each semester.

GSLL 260 From Berlin to Budapest: Literature, Film, and Culture of Central Europe (3). Central Europe, at the center of dramatic historical changes-WWI, emergence of independent nation states, WWII and Holocaust, Communism and its end, incorporation into the European Union-produced unprecedented cultural results. The creative voices of writers and filmmakers have relevance far beyond this region.

GSLL 280 The Dialectic of Whiteness and Blackness in Atlantic
Cultures (3). Traces the invention of race, racism, and discourses of cultural inferiority/superiority throughout Western culture. What historical events created the necessity for racist thinking? How did colonialism and transatlantic migration change Atlantic cultures? Why did black culture become fashionable? Is the 21st century "post-racial"? Readings and course descriptions in English.
GSLL 284 Philosophy and the Arts (3). This course examines the different ways in which philosophical texts and works of art presuppose, articulate, and call into question cultural norms and values, with a special emphasis on conceptions of selfhood in various philosophical movements (for example, in Existentialism, the Enlightenment, Romanticism, etc.).

GSLL 475 Magical Realism: Central European Literature in a Global Context (3). This course studies magical realism in Central European literature and film by placing it in a global literary/ cinema context. Readings and discussions in English.
GSLL 490 Topics in Germanic and Slavic Languages and Literatures (3). Examines selected themes in the history, culture, society, art, and/or literature of Germanic and Slavic/East European countries.

GSLL 496 Independent Readings in Germanic and Slavic/East European Studies (1-3). Special readings and research in a selected field or topic related to Germanic and Slavic/East European Studies, under the direction of a faculty member.
GSLL 691H Honors Course (3). Permission of the director of undergraduate studies. For majors only. Reading and special studies under the direction of a faculty member.

GSLL 692H Honors Course (3). Permission of the director of undergraduate studies. For majors only. Reading and preparation of an essay under the director of a faculty member, designed to lead to the completion of the honors thesis.
GSLL 693H Honors Seminar (3). Permission of the director of undergraduate studies. For majors only. Introduction to research techniques and preparation of an essay, designed to lead to the completion of the honors thesis.

## DTCH-Dutch

DTCH 396 Independent Readings in Dutch (3). Permission of the instructor. Special readings and research in a selected field or topic under the direction of a faculty member.
DTCH 402 Elementary Dutch (3). Rapid introduction to modern Dutch with emphasis on all fundamental components of communication.

DTCH 403 Intermediate Dutch (3). Focuses on increased skills in speaking, listening, reading, global comprehension, and communication. Emphasis on reading and discussion of longer texts.

DTCH 404 Advanced Intermediate Dutch (3). Aims to increase proficiency in language skills (reading, speaking, writing) and is constructed around a series of themes meant to introduce students to Dutch society, culture, and history.

DTCH 405 Topics in Dutch Culture: A Literary Survey
(3). Prerequisite, DTCH 404. Permission of the instructor for
students lacking the prerequisite. Ability to read and speak Dutch at intermediate to advanced level recommended. Introduction to Dutch literature from Middle Ages to the present. Survey of topics in Dutch culture.

## GERM-German

GERM 50 First-Year Seminar: Literary Fantasy and Historical Reality (3). The intersection of literary fantasy with historical reality considered in two ways: 1) fantastic-looking tales based on historical reality and 2) stories describing fantastic situations that actually came true.

GERM 51 First-Year Seminar: Stalin and Hitler: Historical Issues in Cultural and Other Perspectives (3). Critical issues that dominated the 20th century: WWI and Bolshevik Revolution; rise of fascism, Lenin, Stalin, Hitler and their roles; origins and evolution of Cold War; collapse of Eastern Bloc.
GERM 53 First-Year Seminar: Early Germanic Culture: Myth, Magic, Murder, and Mayhem (3). Introduction to pre-Christian culture of Germany, Anglo-Saxon England, and Scandinavia from the late Roman Empire through the Viking Age, as preserved in myths, sagas, charms, inscriptions, and historical documents.

GERM 54 First-Year Seminar: Once upon a Fairy Tale: Fairy Tales and Childhood, Then and Now (3). Fairy tales from different national traditions and historical periods read through various critical lenses, against a backdrop of changing historical conceptions of the child. Works from Grimm, Anderson, Brontë, Disney, etc.

GERM 55 First-Year Seminar: Fantasies of Rome: Gladiators, Senators, Soothsayers, and Caesars (3). Introduces students to study of humanities by examining how the idea of Rome evolved through poetry, history, philosophy, opera, even forgery into a concept that has long outlasted the Romans.
GERM 56 First-Year Seminar: Germans, Jews, and the History of Anti-Semitism (3). This course seeks to explore the historically difficult position of minorities in the modern world, using the situation of Jews in Germany from the 18th century to the Holocaust as a case study.
GERM 58 First-Year Seminar: Love in the Middle Ages (3). Examines development of notion of love from antiquity through Middle Ages to today. Discusses marriage, adultery, violence, power, gender roles. Introduces the study of humanities through reading, analysis, and research.
GERM 59 First-Year Seminar: Moscow 1937: Dictatorships and Their Defenders (3). Stalinist Soviet Union serves as a case study to examine how dictatorships develop and how they tend to be enveloped in justifications and kept in existence by outside observers.
GERM 60 First-Year Seminar: Avant-Garde Cinema: History, Themes, Textures (3). Students explore the international history, filmic techniques, and cultural meanings of non-narrative cinema of the 20th century. Students also transform in-class discussions and individual essays into video projects.
GERM 63 First-Year Seminar: Performing America (3). The intersection of performance in a theater space and in everyday
life will serve as our springboard as we investigate the diversity of contemporary America. We will investigate how race, class, religion, sexuality, sexual orientation, history, and death are performed in America today.
GERM 65 First-Year Seminar: German Heroes? Knights, Tricksters, and Magicians (3). This course seeks to explore literary heroes in European literature from the Middle Ages to the Enlightenment. We will discuss concepts of heroism and how those ideas have changed over time.

GERM 67 First-Year Seminar: Blackness in the European Imaginary, Europe in the Black Imaginary (3). This seminar deals with how encounters between Europe and the African Diaspora have changed notions of race, nation, identity, and belonging in the 20th century. Through engaging with diverse texts-literary, nonliterary, and visual-we will explore the construction of blackness in various national and historical contexts.
GERM 68 First-Year Seminar: Intensity, Vitality, Ecstasy: Overwhelming Affects in Literature, Film, and Philosophy (3). This course focuses on three powerful affective states that challenge the conception of humans as autonomous, independent beings: intensity, vitality, and ecstasy. We will examine both philosophical and artistic representations of these particular states, focusing on the way in which they both endanger and enrich our experience of the world.

GERM 89 First-Year Seminar: Special Topics (3). Special topics course. Content will vary each semester.
GERM 101 Elementary German (4). Develops the four language skills (speaking, listening, reading, writing) in a cultural context. In addition to mastering basic vocabulary and grammar, students will communicate in German about everyday topics.
GERM 102 Advanced Elementary German (4). This continuation of GERM 101 emphasizes speaking, listening, reading, writing in a cultural context. Students enhance their basic vocabulary and grammar and will regularly communicate in German about everyday topics.
GERM 105 Intensive Elementary German (8). Experience in German or fluency in another foreign language recommended. An accelerated, intensive course that essentially covers materials of GERM 101 and 102 in one semester.

GERM 203 Intermediate German (3). Students acquire necessary materials and opportunities to develop further their language skills in a cultural context. They review and expand upon the basic grammar covered in beginning German.
GERM 204 Advanced Intermediate German (3). Prerequisite, GERM 203. Emphasizes further development of the four language skills (speaking, reading, writing, listening) within a cultural context. Discussions focus on modern Germany, Austria, and Switzerland in literature and film.

GERM 206 Intensive Intermediate German (6). Prerequisite, GERM 105. Permission of the instructor for students lacking the prerequisite. An accelerated intensive course that covers the materials of GERM 203 and 204 in one semester.

GERM 210 Getting Medieval: Knights, Violence, and Romance (3). Offers a historical perspective on the portrayal of medieval culture in film from the 1920s to today. Specific topics include the ideal hero, the quest, etiquette, chivalry, rituals, and love. Readings and discussions in English.

GERM 216 The Viking Age (3). Lecture/discussion course on Viking culture, mythology, exploration, and extension of power in northern Europe (ca. 750-1050 CE) as represented in sagas, the Eddas, runic inscriptions, and chronicles. Readings and discussions in English.

GERM 218 Christianity and Islam in the Middle Ages (RELI
218) (3). This course draws on a variety of cultural documents to explore both the conflict and cross fertilization between the Christian and Islamic cultures of the Middle Ages. Readings and discussions in English.
GERM 220 Women in the Middle Ages (WMST 220) (3). This interdisciplinary course examines representations of women, concepts of gender, and women's participation in the economic, political, religious, and cultural life of the Middle Ages. Discussion and texts in English.

GERM 225 Popular and Pious: Early Modern Jewish Literature (3). This seminar covers popular and pious literature written by and for Jews in the 15th to 18th century in German-speaking countries. Originally written in Old Yiddish, this literature preserved the popular European genres and nonfiction accounts of Jewish community and family life.
GERM 245 Marx, Nietzsche, and Freud (3). An introduction to the writings of three great German writers of the 19th century who have had enormous impact on the lives of people around the world. Readings and discussions in English.

GERM 246 Reality and Its Discontents: Kant to Kafka (3). An examination of "reality," as defined and redefined by Kant and his successors, in the context of European culture of the late 18th, 19th, and early 20th centuries. Readings and discussions in English.
GERM 249 Modern German Literature in Translation (3). The idea of world literature was a German invention, proposed by Goethe to describe literature of universal importance for all of humanity. German thought, and German literature, in particular, remains an important component in this canon. This Englishlanguage literature course introduces newcomers to some highlights of modern German literature.

GERM 250 Women in German Cinema (WMST 250) (3).
Introduction to feminist aesthetics and film theory by the examination of the representation of women in German cinema from expressionism to the present. All materials and discussions in English.

## GERM 251 Ideology and Aesthetics: Marxism and Literature

 (SLAV 251) (3). Examines clash between 20th-century writers and the state in countries where a single government or party used an exclusive ideology as justification for interference in cultural and literary affairs. Discussions and texts in English.GERM 252 South Africa in Literary Perspective (3). Course aims at an understanding of the South African experience as
represented by that country's important writers. Readings include works by Gordimer, Coetzee, Mphahlele, Breytenbach, Fugard, Ndebele, Paton, la Guma. All materials in English.

GERM 254 The Occupation of Germany and the Cold War (3). How and why was Germany divided into two states after World War II? Were the Cold War and division inevitable? We explore these questions in two chronological contexts, 1945 to 1949 and 1989 to present, using technology to explore Russian archival documents in search of answers. Readings and discussions in English.

## GERM 255 Germany and the Cold War: From Allied

 Occupation to Division and Reunification (1945-1990) (3). This course will investigate the central role played by the "German question" in the break-up of the wartime alliance and the political division of western and eastern Europe. Readings and discussions in English.GERM 265 Hitler in Hollywood: Cinematic Representations of Nazi Germany (3). An examination of selected cinematic representations (both American and German) of Nazi Germany in terms of their aesthetic properties and propagandistic value. Films with English subtitles; readings and discussions in English.

GERM 266 Weimar Cinema (3). Explores important German films of 1919 to 1933, locating them in their artistic, cultural, and historical context. Treats the contested course of Weimar film history and culture and provides a theoretically informed introduction to the study of film and visual materials. Films with English subtitles; readings and discussions in English.
GERM 270 German Culture and the Jewish Question (CMPL 270, JWST 239, RELI 239) (3). A study of the role of Jews and the "Jewish question" in German culture from 1750 to the Holocaust and beyond. Discussions and texts (literary, political, theological) in English.

GERM 275 History of German Cinema (3). This course explores the major developments of German cinema. All films with English subtitles. Readings and discussions in English.
GERM 279 Once upon a Fairy Tale: Fairy Tales and Childhood, Then and Now (CMPL 279) (3). Not intended for students who have taken GERM 54. Considers fairy tales from several different national traditions and historical periods against the backdrop of folklore, literature, psychoanalysis, and the socializing forces directed at children.

GERM 280 20th-Century German Philosophy and Modern
Youth Cultures (3). This philosophical Approaches course investigates the rich European intellectual foundations on which 20th-century youth culture erected its triumvirate of sex, drugs, and rock music.

GERM 283 Freedom, Terror, and Identity: Modern Philosophy from Kant to Arendt (PWAD 283) (3). This course investigates how philosophical thought motivates, inspires, and generates forms of agency and identity against cultural tendencies that limit or erode freedom. Readings, lecture, and discussion in English.

GERM 290 Topics in German Studies (3). Examines selected themes in the history, culture, society, art, and/or literature of German-speaking countries. Readings and discussions in English.

GERM 301 Conversation and Composition (3). Prerequisite, GERM 204. Permission of the instructor for students lacking the prerequisite. Emphasis is on speaking and writing, with shorter readings on contemporary German life to provide subject matter for in-class discussion and regular written compositions. Further goals include improvement of pronunciation and a mastery of grammar.
GERM 302 German Language and Culture (3). Prerequisite, GERM 301. Permission of the instructor for students lacking the prerequisite. Introduction to issues shaping modern German culture and history through a wide range of texts and media while expanding and strengthening reading, writing, and speaking skills.

GERM 303 Introduction to German Literature (3).
Prerequisites, GERM 301 and 302. Permission of the instructor for students lacking the prerequisites. Presents major authors (Goethe, Mann, Kafka, and Brecht), periods, genres, and analysis. An appropriate conclusion to GERM 101-204, it also provides the background for more advanced undergraduate literature courses. Readings, discussions, and essays in German.
GERM 304 Business German (3). Prerequisite, GERM 301. Permission of the instructor for students lacking the prerequisite. An introduction to the language and culture of German business, commerce, and industry. Special emphasis is given to the acquisition of advanced business-related language skills.

GERM 305 Business German (3). Prerequisite, GERM 301. Permission of the instructor for students lacking the prerequisite. GERM 304 recommended but not required. As a continuation of GERM 304 the course offers a more advanced treatment of the current German economic and business debates and events while further strengthening relevant German language skills.
GERM 310 Höfische Kultur/Courtly Culture (3). Prerequisite, GERM 303. Permission of the instructor for students lacking the prerequisite. Introduces students to the rich culture and exciting literature of medieval Germany. Topics include knights and ladies, castles, weaponry, clothing, food, and fantasy. All materials and discussions in German.

GERM 311 The Crusades (3). Prerequisite, GERM 303. Permission of the instructor for students lacking the prerequisite. Examination of the medieval notion of the crusade, conflicts and exchange between East and West, and the ambiguous portrayals of the East in Western medieval literature. Readings and discussions in German.

GERM 325 Fools and Laughter in Early Modern German Literature (3). Prerequisite, GERM 303. Permission of the instructor for students lacking the prerequisite. Fools are everywhere. Human folly is one of the most distinctive preoccupations of German literature of the early modern period. This course will explore the multiple meanings of the German term "fool" in works from the 15th to the 18th century.
GERM 330 The Age of Goethe (3). Prerequisite, GERM 303. Permission of the instructor for students lacking the prerequisite. German literature from the Enlightenment to Romanticism. Readings include works by Lessing, Goethe, Schiller, Kleist, and the Romantics. Readings and lectures in German.

GERM 349 Die Jahrhundertwende (3). Prerequisite, GERM 303. Permission of the instructor for students lacking the prerequisite. Investigation of the interconnectedness of turn-of-the-century arts, philosophy, psychoanalysis with focus on Berlin and Vienna. Works by Nietzsche, Hauptmann, Schnitzler, Freud, Hesse, Hofmannsthal/Strauss, Kafka, Rilke, T. Mann. Readings and lectures in German.

GERM 350 Modern German Literature (3). Prerequisite, GERM 303. Permission of the instructor for students lacking the prerequisite. Study of major works of German literature from 1890 to the present by such authors as Thomas Mann, Kafka, Brecht, Hesse, Böll, and Grass. Readings and lectures in German.

GERM 370 Readings in German Intellectual History (3). Prerequisite, GERM 303. Permission of the instructor for students lacking the prerequisite. Introduction to German intellectual history from the Enlightenment to the rise of fascism. Close readings and discussions of texts by Kant, Schiller, Hegel, Marx, Nietzsche, Freud, and Benjamin. Readings and lectures in German.
GERM 371 The German Novella (3). Prerequisite, GERM 303. Permission of the instructor for students lacking the prerequisite. Famous novellas by authors such as Kleist, Brentano, Meyer, Keller, and Kafka, from the early 19th century to the middle of the 20th century. Readings and discussions in German.

GERM 372 German Drama (3). Prerequisite, GERM 303. Permission of the instructor for students lacking the prerequisite. German drama from the late Enlightenment to the present. Texts include plays by dramatists such as Goethe, Schiller, Kleist, Hauptmann, Brecht, and Dürrenmatt. Readings and lectures in German.

GERM 373 "Denk ich an Deutschland. . .": German Lyrical Poetry through the Centuries (3). Prerequisite, GERM 303. Permission of the instructor for students lacking the prerequisite. Survey of German lyric poetry from 18th to 21st century; major poets, forms, literary movements discussed. Readings, class discussions, and public recitation in German.
GERM 374 German Theater: Words Speak as Loudly as Actions (3). Prerequisite, GERM 303. Permission of the instructor for students lacking the prerequisite. Students study German plays, write original monodramas, and give two public dramatic performances. Readings, discussions, rehearsals in German aim to enable critique of dramas and theoretical texts.

GERM 380 Austrian Literature (3). Prerequisite, GERM 303. Permission of the instructor for students lacking the prerequisite. Presents Austria from the Biedermeier period to the end of the monarchy. Readings of works by authors such as Stifter, Schnitzler, Roth, Freud, Herzl, who articulate artistic, political, historical themes. Readings and lectures in German.
GERM 381 Berlin: Mapping a (Post) Modern Metropolis (3). Prerequisite, GERM 303. Permission of the instructor for students lacking the prerequisite. Exploration of the rich cultural and turbulent political history of 20th-century Germany by focusing on the literature, film, art, and architecture produced in and about the city of Berlin. All materials and discussions in German.

## GERM 382 Representations of Violence and Terrorism in

 Contemporary German Literature and Film (3). Investigates literary and cinematic response to rise in terrorism in Germany since 1970. Focus on cultural and political significance of the gangster, the freedom fighter, and the terrorist.GERM 383 Adaptations of the Past: Literature of the German Democratic Republic (3). Prerequisite, GERM 303. Explores the practice in East Germany of adapting earlier literatures and setting contemporary narratives in distant times. East German authors used cultural heritage as a screen for utopian sentiments and for pursuing the relationships between everyday life, historical conditions, and political circumstances. Readings and discussions in German.

GERM 388 Discussion Section in German (1). Prerequisite, GERM 204. Permission of the instructor for students lacking the prerequisite. Students may enroll only in conjunction with a German department course offered in English that features an accompanying discussion section. All materials and discussions in German. May count toward the major or minor in German.
GERM 389 LAC Recitation (1). Prerequisite, GERM 204. Permission of the instructor for students lacking the prerequisite. A recitation section for selected courses that promote foreign language proficiency across the curriculum (LAC). Readings and discussions in German. May count toward the major and minor in German.

GERM 390 Topics in German Studies (3). Prerequisite, GERM 303. Permission of the instructor for students lacking the prerequisite. Examines selected themes in the history, culture, society, art, and/or literature of German-speaking countries. Readings and discussions in German.
GERM 396 Independent Readings in German (3). Prerequisite, GERM 303. Permission of the instructor for students lacking the prerequisite. Special readings and research in a selected field or topic under the direction of a faculty member.

GERM 400 Advanced German Grammar (3). Prerequisites, GERM 302 and 303. Permission of the instructor for students lacking the prerequisites. A study of current German structure and usage. Course strengthens the writing of graduate students and helps them confront the problems most frequently faced in speaking and teaching.

GERM 493 Internship in German (3). Prerequisite, GERM 303. This course enables a student to earn a maximum of three credit hours for a faculty-supervised internship directly related to the study of German literature or culture, or that uses the German language in day-to-day conduct of business in a German-speaking environment.

GERM 500 History of the German Language (3). Prerequisites, GERM 302 and 303. Permission of the instructor for students lacking the prerequisites. Development of phonology and morphosyntax from ancient times to present. Political, social, and literary forces influencing the language.

GERM 501 German Linguistics (3). Prerequisites, GERM 302 and 303. Permission of the instructor for students lacking the prerequisites. LING 101 recommended for undergraduates. Introduction to formal analysis of German grammar (phonology,
morphophonemics, prosodics, morphology, syntax) within the framework of generative grammar.

GERM 502 Middle High German (3). Prerequisites, GERM 302 and 303. Permission of the instructor for students lacking the prerequisites. Introduction to medieval German language and literature. Readings in medieval German; lectures in English.

GERM 505 Early New High German (3). Permission of the instructor for undergraduates. Reading and linguistic analysis of Early New High German texts, with study of phonology, morphology, and syntax. On demand.

GERM 508 Old High German (3). Permission of the instructor for undergraduates. Reading and linguistic analysis of Old High German texts, with study of phonology, morphology, and syntax; comparison of the various dialects with other older dialects of Germanic. On demand.

GERM 511 Old Saxon (3). Permission of the instructor for undergraduates. Reading and linguistic study of biblical texts (Heliand, Genesis) in Old Saxon, with study of phonology, morphology, and syntax; comparison with Old English, Old High German, and other Germanic dialects. On demand.

GERM 514 Old Norse I (Old Icelandic) (3). Permission of the instructor for undergraduates. Reading and linguistic analysis of Old Norse (Old Icelandic) texts, with study of phonology, morphology, and syntax; comparison with other older dialects of Germanic. On demand.

GERM 515 Old Norse II (Old Icelandic) (3). Permission of the instructor for undergraduates. Continuation of GERM 514. On demand.

GERM 517 Gothic (3). Permission of the instructor for undergraduates. Reading and linguistic analysis of Gothic biblical texts, with study of phonology, morphology, and syntax; comparison with other older dialects of Germanic. On demand.
GERM 520 Stylistics: Theory and Practice (3). Prerequisites, GERM 302 and 303. Permission of the instructor for students lacking the prerequisites. LING 101 recommended for undergraduates. Study of stylistic theories and practices in literature and linguistics, analysis of a large variety of texts, written exercises, training in the use of stylistic devices.

GERM 521 Variation in German (3). Prerequisites, GERM 302 and 303. Permission of the instructor for students lacking the prerequisites. LING 101 recommended for undergraduates. Major topics in sociolinguistics: development of the German language, traditional dialects, variation in contemporary speech, German as a minority language (Alsace, Belgium), German outside of Germany (Austria, Switzerland, Luxemburg, Liechtenstein).

GERM 545 Problems in Germanic Linguistics (3). Prerequisites, GERM 302 and 303. Permission of the instructor for students lacking the prerequisites. LING 101 recommended for undergraduates. Special problems will be selected for intensive investigation. Subject matter of the course will be adapted to the particular interests of the students and instructor.

GERM 590 Topics in Germanic Linguistics (3). Prerequisites, GERM 302 and 303. Permission of the instructor for students
lacking the prerequisites. LING 101 recommended for undergraduates.

GERM 601 Elementary German for Graduate Students (3). Permission of the instructor for undergraduates. With GERM 602, a two-semester sequence designed as preparation for the reading knowledge examination for higher degrees in the humanities, social sciences, physical sciences, etc.

GERM 602 Elementary German for Graduate Students, Continued (3). Permission of the instructor for undergraduates. Continuation of GERM 601.

GERM 605 Comparative Germanic Grammar (3). Permission of the instructor for undergraduates. LING 101 recommended for undergraduates. Analysis of phonological, morphological, and syntactic development from Indo-European to the older stages of Germanic dialects.

GERM 615 Cultural Foundations in German Studies, to 1800 (3). Permission of the instructor for undergraduates. First part of a two-semester sequence offering students a comprehensive, textbased survey of German literary history from the High Middle Ages to the present.

GERM 616 Cultural Foundations in German Studies, 1800 to Present (3). Permission of the instructor for undergraduates. Second part of a two-semester sequence offering students a comprehensive, text-based survey of German literary history from the High Middle Ages to the present.

GERM 625 Early Modern Literature (3). Permission of the instructor for undergraduates. German literature of the 15th, 16th, and 17 th centuries. Close readings, lectures, and discussions of representative texts.

GERM 630 18th-Century Literature (3). Permission of the instructor for undergraduates. Literature in the Age of Enlightenment. Close readings, lectures, and discussions of representative texts.

GERM 640 Early 19th-Century Literature (3). Permission of the instructor for undergraduates. Literature of the Romantic period. Close readings, lectures, and discussions of representative texts.

GERM 645 Later 19th-Century Literature (3). Permission of the instructor for undergraduates. Literature of Realism, Naturalism, and related movements. Close readings, lectures, and discussions of representative texts.
GERM 650 Early 20th-Century Literature (3). Permission of the instructor for undergraduates. Major figures of the period from the turn of the century to World War II. Close readings, lectures, and discussions of representative texts.

GERM 655 Later 20th-Century Literature (3). Permission of the instructor for undergraduates. Literature since World War II in both the Federal Republic and the former GDR. Close readings, lectures, and discussions of representative texts.
GERM 683 Moving-Image Avante-Gardes and Experimentalism (3). Prerequisite, ARTH 159, COMM 140, or ENGL 142.

Permission of the instructor for students lacking the prerequisite. History and theory of international avant-garde and experimentalist
movements in film, video, intermedia, multimedia, and digital formats. Content and focus may vary from semester to semester.

GERM 685 Early 21st-Century German Literature (3). Permission of the instructor for undergraduates. Literature since German unification in 1989. Close readings, lectures, and discussions of representative texts.

GERM 691H Honors Course (3). Permission of the director of undergraduate studies. Majors only. Reading and special studies under the direction of a faculty member.

GERM 692H Honors Course (3). Permission of the director of undergraduate studies. Majors only. Reading and preparation of an essay under the direction of a faculty member, designed to lead to the completion of the honors thesis.
GERM 693H Honors Seminar (3). Permission of the director of undergraduate studies. Majors only. Introduction to research techniques and preparation of an essay, designed to lead to the completion of the honors thesis.

## CZCH-Czech

CZCH 280 Closely Watched Trains: Czech Film and Literature
(3). This course examines Czech film and literature against the backdrop of key historical, political, and cultural events of the 20th century. Taught in English; films subtitled in English.

CZCH 401 Elementary Czech (3). Pronunciation, structure of language, and reading in modern Czech.

CZCH 402 Elementary Czech (3). Pronunciation, structure of language, and reading in modern Czech, continued.
CZCH 403 Intermediate Czech (3). Continuation of proficiencybased instruction begun in Elementary Czech.

CZCH 404 Intermediate Czech (3). Continuation of proficiencybased instruction begun in Elementary Czech, continued.

CZCH 405 Advanced Czech (3). Advanced readings and discussion in Czech in humanities and social science topics.
CZCH 406 Advanced Czech (3). Advanced readings and discussion in Czech in humanities and social science topics, continued.

CZCH 411 Introduction to Czech Literature (3). Introduction to Czech literature with an emphasis on 19th- and 20th-century prose. Taught in English. Some readings in Czech for qualified students.

CZCH 469 Milan Kundera and World Literature (CMPL 469)
(3). This course traces Milan Kundera's literary path from his communist poetic youth to his present postmodern Francophilia. His work will be compared with those authors he considers his predecessors and influences in European literature. Taught in English. Some readings in Czech for qualified students.

CZCH 490 Topics in Czech Culture (3). Study of topics in Czech and/or Slovak literature and culture not currently covered in any other course. The specific topic will be announced in advance. Taught in English. Some readings in Czech for qualified students.

## HUNG-Hungarian

HUNG 271 Vampires and Empires: An Introduction to Transylvania (3). The thousand-year history of a multiethnic corner of Eastern Europe, focusing on why (and how) it has come to be identified in the West with the vampire. Course materials include films, slides, and music. All lectures and readings in English.

HUNG 280 Hungarian Cinema since World War II (3). An introduction to Hungarian society and culture since the end of World War II through a selection of film classics with English subtitles, with supporting background materials. Taught in English.

HUNG 401 Elementary Hungarian (3). Pronunciation, structure of language, and reading in modern Hungarian.
HUNG 402 Elementary Hungarian (3). Pronunciation, structure of language, and reading in modern Hungarian, continued.

HUNG 403 Intermediate Hungarian Language (3).
Continuation of the proficiency-based instruction begun in Elementary Hungarian.

HUNG 404 Intermediate Hungarian Language (3).
Continuation of the proficiency-based instruction begun in Elementary Hungarian, continued.

HUNG 405 Advanced Hungarian (3). Prerequisite, HUNG 404. Permission of the instructor for students lacking the prerequisite. Advanced readings and discussion in Hungarian in humanities and social science topics.

HUNG 406 Advanced Hungarian (3). Advanced readings and discussion in Hungarian in humanities and social science topics, continued.

HUNG 407 The Structure of Modern Hungarian (3). Prerequisite, HUNG 401 or LING 101. Introduction to the phonology, morphology, and syntax of modern standard Hungarian, with emphasis on some of its distinctive typological features.

HUNG 411 Introduction to Hungarian Literature (3). An introduction to Hungarian literature of the last five centuries through a selection of works in English translation, with supporting background materials including films (with English subtitles). Taught in English; some readings in Hungarian for qualified students.

HUNG 490 Topics in Hungarian Culture (3). Study of topics in Hungarian literature and culture not currently covered in any other course. The specific topic will be announced in advance. Taught in English; some readings in Hungarian for qualified students.

## MACD-Macedonian

MACD 401 Elementary Macedonian (3). Pronunciation, structure of language, and reading in modern Macedonian.

MACD 402 Elementary Macedonian (3). Pronunciation, structure of language, and reading in modern Macedonian, continued.

MACD 403 Intermediate Macedonian (3). Continuation of the proficiency-based instruction begun in Elementary Macedonian.
MACD 404 Intermediate Macedonian (3). Continuation of the proficiency-based instruction begun in Elementary Macedonian, continued.

MACD 405 Advanced Macedonian (3). Advanced reading and discussion in Macedonian in humanities and social science topics.

MACD 406 Advanced Macedonian (3). Advanced reading and discussion in Macedonian in humanities and social science topics, continued.

## PLSH-Polish

PLSH 280 The Modern Cinema of Poland (3). An overview of postwar Polish cinema from the Polish school of the 1950s to the so-called Generation 2000. Includes films of Wajda, Munk, Kieslowski, Polanski, and others.

PLSH 401 Elementary Polish (3). Pronunciation, structure of language, and reading in modern Polish.

PLSH 402 Elementary Polish (3). Pronunciation, structure of language, and reading in modern Polish, continued.

PLSH 403 Intermediate Polish (3). Continuation of the proficiency-based instruction begun in Elementary Polish.
PLSH 404 Intermediate Polish (3). Continuation of the proficiency-based instruction begun in Elementary Polish, continued.

PLSH 405 Advanced Polish (3). Advanced readings and discussion in Polish on humanities and social science topics.

PLSH 406 Advanced Polish (3). Advanced readings and discussion in Polish on humanities and social science topics, continued.

PLSH 411 19th-Century Polish Literature and Culture (3). A survey of the major works of 19th-century Polish literature and culture in English translation. Some readings in Polish for qualified students.

PLSH 412 20th-Century Polish Literature and Culture (JWST
412) (3). A survey of the major works of 20th-century Polish literature and culture in English translation. Some readings in Polish for qualified students.
PLSH 490 Topics in Polish Culture (3). Study of topics in Polish literature and culture not currently covered in any other course. The specific topic will be announced in advance. Taught in English. Some readings in Polish for qualified students.

## RUSS-Russian

RUSS 101 Elementary Russian (4). Introductory course designed to lay the foundation of grammar and to convey basic reading and pronunciation skills.

RUSS 102 Elementary Russian (4). Continuation of the introductory course designed to lay the foundation of grammar and to convey basic reading and pronunciation skills.

RUSS 203 Intermediate Russian (3). Grammar-translation work with increasing proportions of free reading and oral work.
RUSS 204 Intermediate Russian (3). Grammar-translation work with increasing proportions of free reading and oral work, continued.

RUSS 213 Intermediate Russian Conversation (2). Corequisite, RUSS 203. Supplements the grammar presentations in RUSS 203. Basic conversational practice on topics relevant to Russia today.

RUSS 214 Intermediate Russian Conversation (2). Corequisite, RUSS 204. Continuation of RUSS 213.

RUSS 250 Introduction to Russian Literature (3). Prerequisite, RUSS 204. Permission of the instructor for students lacking the prerequisite. Reading and discussion of selected authors in Russian aimed at improving reading skill and preparing the student for higher level work in Russian literature.

## RUSS 270 Russian Literature of the 19th Century (3).

 Introduction to Russian prose fiction of the 19th century with particular consideration of selected writings of Pushkin, Gogol, Turgenev, Dostoevsky, and Tolstoy. Lectures and readings in English.RUSS 272 Russian Literature from Chekhov to the Revolution
(3). Literary situations and authors of 1880 to 1917, with emphasis on Chekhov and the Symbolists. Lectures and readings in English.

RUSS 273 Russian Culture and Society: 1890-1917 (3). Examines the extraordinary diversity of turn-of-the-century Russian culture (1890s to 1917); the proliferation of visual and performance arts; the rise of popular culture; new artistic explorations of gender and sexuality. Lectures and readings in English.

RUSS 274 Russian Literature after 1917 (3). Russian writers and literary problems from the Revolution to the present. Lectures and readings in English.
RUSS 275 Russian Fairy Tale (3). An introduction to the Russian fairy tale with attention to its roots in Russian folklore, its influence on Russian culture, and its connections with American folk and popular culture. Lectures and readings in English.

RUSS 276 Mystery and Suspense in Russian Literature (3). The study of mystery and suspense in Russian literature of the 19th and 20th centuries. Readings and class discussions in English.
RUSS 277 Love, Sex, and Marriage in Soviet Culture (3). A survey of the themes of love, sex, and marriage as they developed in Russian literature and culture from the Bolshevik Revolution to Perestroika. Readings and class discussions in English.

RUSS 281 Russian Literature in World Cinema (3). Survey of masterpieces of Russian literature in the context of their cinematic adaptations. Lectures and readings in English.

RUSS 296 Selected Readings in Russian (1-12). Permission of the instructor. Directed readings in Russian on topics in literature and linguistics not normally covered in scheduled courses.

RUSS 321 Russian Conversation (3). Prerequisite, RUSS 204. Permission of the instructor for students lacking the prerequisite. Designed to develop conversational skills in a variety of situations and subjects. Russian used, except for a minimum of linguistic explanations or comment.

RUSS 322 Russian Conversation (3). Prerequisite, RUSS 321. Permission of the instructor for students lacking the prerequisite. Designed to develop conversational skills in a variety of situations and subjects. Russian used, except for a minimum of linguistic explanations or comment.

RUSS 400 The Evolution of Russian (3). This course traces the development of Russian from late common Slavic to contemporary Russian. Consideration is given to linguistic developments as well as cultural, social, and historical circumstances shaping contemporary Russian.

RUSS 405 The Structure of Modern Russian (3). Prerequisite, RUSS 400. Permission of the instructor for students lacking the prerequisite. For students who want a systematic understanding of the language. Synchronic analysis of contemporary standard Russian phonology, morphology, morphophonemics, semantics, and syntax.

RUSS 406 Advanced Russian Grammar (3). Prerequisite, RUSS 204. Permission of the instructor for students lacking the prerequisite. A comprehensive review of Russian grammar on an advanced level, emphasizing reading and writing skills.
RUSS 407 Advanced Russian Grammar (3). Prerequisite, RUSS 406. Permission of the instructor for students lacking the prerequisite. A comprehensive review of Russian grammar on an advanced level, emphasizing reading and writing skills.

RUSS 411 Advanced Russian Conversation and Composition (3). Prerequisite, RUSS 322 or 407. Permission of the instructor for students lacking the prerequisite. Designed to develop conversational and writing skills in a variety of situations and subjects.
RUSS 412 Advanced Russian Conversation and Composition
(3). Prerequisite, RUSS 411. Permission of the instructor for students lacking the prerequisite. Designed to develop conversational and writing skills in a variety of situations and subjects.

RUSS 413 Russian Stylistics (3). Prerequisite, RUSS 412.
Permission of the instructor for students lacking the prerequisite. Advanced Russian conversation and composition, with appropriate grammatical and stylistic explanations. Can be taken repeatedly for credit, but only counts once toward degree requirements.
RUSS 414 Russian Stylistics (3). Prerequisite, RUSS 413. Permission of the instructor for students lacking the prerequisite. Continuation of Russian Stylistics at a more advanced level.

RUSS 431 Dandies and Dead Souls: Russian Literature and Culture, 1800-1850 (3). A survey of major works of Russian literature and culture in the first half of the 19th century. Readings in English translation. Some readings in Russian for qualified students.
RUSS 432 Great Novels and Cursed Questions: Russian Literature and Culture, 1850-1881 (3). A survey of major works of Russian literature and culture in the Golden Age, an era of sociopolitical reform. Readings in English translation. Some readings in Russian for qualified students.

RUSS 441 From Decadence to Revolution: Russian Literature and Culture, 1881-1945 (3). A survey of major works of fin-desiècle Russian and early Soviet literature and culture. Readings in English translation. Some readings in Russian for qualified students.
RUSS 442 From Cold War to Capitalism: Russian Literature and Culture, 1945-Present (3). A survey of major works of

Russian literature and culture from 1945 to the present. Readings in English translation. Some readings in Russian for qualified students.

RUSS 450 The Russian Absurd: Text, Stage, Screen (3). Examines "The Absurd" in Russian literature and culture as it developed from the 19th century to the present. Through works by important Russian writers and representative films students encounter facets of "The Russian Absurd" viewed as literary, cultural, and social phenomena. Readings in Russian for majors, in English for nonmajors.

RUSS 460 Russian Short Story (3). An introduction to the Russian short story. The readings, in English for nonmajors and in Russian for majors, include works from the 17th century to the present. Readings in Russian for majors, in English for nonmajors.

RUSS 462 Russian Poetry of the 19th Century (3). Readings and lecture on 19th-century Russian poetry. Readings in Russian.

RUSS 463 Russian Drama: From Classicism to Modernism (3). Survey of Russian drama as a literary and theatrical phenomenon from the end of the 18th to the beginning of the 20th century. Readings in English translation. Some readings in Russian for qualified students.

RUSS 464 Dostoevsky (3). Study of major works of Dostoevsky and a survey of contemporary authors and literary trends relevant to his creative career. Readings in Russian for majors, in English for nonmajors.

RUSS 465 Chekhov (3). Study of major works of Chekhov and survey of contemporary authors and literary trends relevant to his creative career. Readings in Russian for majors, in English for nonmajors.

RUSS 469 Bulgakov (3). Study of major works of Mikhail Bulgakov, including The Master and Margarita, and a survey of contemporary Russian history and culture relevant to his creative career. Readings in English, in Russian for majors.

RUSS 471 Gogol (3). Study of major works of N. V. Gogol and a survey of contemporary authors and literary trends relevant to his creative career. Lectures and seminar discussions. Readings in Russian for majors, in English for nonmajors.

RUSS 473 Vladimir Nabokov (3). Exploration of Vladimir Nabokov's prose fiction written in Germany and America. Emphasis placed on the primary texts, but some secondary readings included. Movies based on Nabokov's novels will be viewed as well. Readings in Russian for majors, in English for nonmajors.

RUSS 475 Literature of Russian Terrorism: Arson, Bombs, Mayhem (PWAD 475) (3). Literary representations of Russian revolutionaries and terrorists in the 19th and early 20th centuries. Readings by Dostoevsky, Chernyshevsky, Bely, Joseph Conrad, and by some of the terrorists themselves. Readings in English translation. Some readings in Russian for qualified students.

RUSS 479 Tolstoy (3). Study of the major works of Tolstoy and a survey of contemporary authors and literary trends relevant to his creative career. Readings in Russian for majors, in English for nonmajors.

RUSS 486 Contemporary Russian Women's Writing (WMST 486) (3). A study of Russian women's writing after World War II, including both fictional and propagandistic works analyzed in their sociopolitical context. Serves as an introduction to Russian women's studies. Readings in Russian for majors, in English for nonmajors.

RUSS 490 Topics in Russian Culture (3). Study of topics in Russian literature and culture not currently covered in any other course. The specific topic will be announced in advance. Taught in English. Some readings in Russian for qualified students.

RUSS 511 Russian Mass Media I (3). Prerequisites, RUSS 411 and 412. Permission of the instructor for students lacking the prerequisites. Module 1. Fifth-year Russian, intended to expand and master the knowledge of the language necessary for understanding deep ongoing changes in different spheres of Russian society.

RUSS 512 Russian Mass Media II (3). Prerequisites, RUSS 411 and 412. Permission of the instructor for students lacking the prerequisites. Module 2. Fifth-year Russian, intended to expand and master the knowledge of the language necessary for understanding deep ongoing changes in different spheres of Russian society.

RUSS 513 Russian Culture in Transition I (3). Prerequisite, RUSS 411. Permission of the instructor for students lacking the prerequisite. Fifth-year Russian, to expand knowledge of the language necessary for understanding social changes that are taking place in Russian society, in literature, art, culture, and everyday human mentality.

RUSS 514 Russian Culture in Transition II (3). Prerequisite, RUSS 412. Permission of the instructor for students lacking the prerequisite. RUSS 513 is not a prerequisite. Fifth-year Russian, continuing with the theme of RUSS 513 offered in the fall semester.

RUSS 560 Russian Sentimentalism and Romanticism (3). Prerequisite, RUSS 407. Permission of the instructor for students lacking the prerequisite. Survey of Russian sentimentalism and romanticism, with special attention to the intellectual currents of the period (ca. 1770 to 1850). Consideration of Western precursors (Rousseau, Sterne, Byron, et al.). Readings in Russian.

RUSS 691H Honors Reading Course (3). Russian language and culture majors only. Researching and writing of an honors thesis on an agreed-upon topic not covered by scheduled courses, under the direction of departmental advisors.

RUSS 692H Honors Reading Course (3). Russian language and culture majors only. Researching and writing of an honors thesis on an agreed-upon topic not covered by scheduled courses, under the direction of departmental advisors.

## SECR-Serbian and Croatian

SECR 401 Elementary Serbian and Croatian Language (3).
Pronunciation, structure of the language, and readings in modern Serbian and Croatian language.

SECR 402 Elementary Serbian and Croatian Language (3). Pronunciation, structure of the language, and readings in modern Serbian and Croatian language, continued.

SECR 403 Intermediate Serbian and Croatian Language
(3). Continuation of the proficiency-based instruction begun in Elementary Serbian and Croatian language.

SECR 404 Intermediate Serbian and Croatian Language
(3). Continuation of the proficiency-based instruction begun in Elementary Serbian and Croatian language, continued.

SECR 405 Advanced Serbian and Croatian Language (3). Advanced readings and discussion in Serbian and Croatian language on humanities and social science topics.

SECR 406 Advanced Serbian and Croatian Language (3).
Advanced readings and discussion in Serbian and Croatian language on humanities and social science topics, continued.
SECR 411 Introduction to Serbian and Croatian Literature (3). Introduction to Serbian and Croatian literature with an emphasis on 19th- and 20th-century prose. Taught in English. Some readings in Serbian and Croatian for qualified students.

SECR 490 Topics in South Slavic Culture (3). Study of topics in Serbian, Croatian, and other South Slavic literatures and cultures not currently covered in any other course. The specific topic will be announced in advance. Taught in English. Some readings in the target language for qualified students.

## SLAV-Slavic

SLAV 81 First-Year Seminar: Metaphor and the Body (3). All human beings inhabit a physical body, with inherent oppositions of inside/outside, up/down, and left/right. This course examines bodily experience as the wellspring of meaning.

SLAV 82 First-Year Seminar: Doctor Stories (3). Explores and reflects on the experience and significance of being a doctor in Russia and the United States, analyzing "doctors' stories" presented in fiction, nonfiction, film, and other media.

SLAV 83 First-Year Seminar: The Actress: Celebrity and the Woman (3). Reflects on the experience, significance, and influence of the stage and motion picture actress in the modern era, analyzing her representation and reception in memoirs, biographies, fiction, and film.

SLAV 84 First-Year Seminar: Terror for the People: Terrorism in Russian Literature and History (3). Terror was used as a political weapon in 19th-century Russia. This seminar introduces the terrorists through their own writings and fictional representations in novels by Fyodor Dostoevsky and Joseph Conrad.
SLAV 85 First-Year Seminar: Children and War (3). Readings for this seminar include children's wartime diaries, adult memoirs of child-survivors, and fiction from Eastern Europe and east Asia. Focused on World War II, but with attention to present-day conflicts.

SLAV 86 First-Year Seminar: Literature and Madness (3).
This course examines the ways in which modern European and American fiction, essays, and film construct representations of madness.

SLAV 88H First-Year Seminar: Gender and Fiction in Central and Eastern Europe (3). An introduction to the region, this course examines the role of gender in central and east European literature
from the end of the 19th century to contemporary times. Course materials include novels, films, historical readings, and essays. Readings and class discussions in English.
SLAV 89 First-Year Seminar: Special Topics (3). Special topics course. Content will vary each semester.
SLAV 101 Introduction to Slavic Civilizations: Peasants, Popes, and Party Hacks (3). Introduction to the essentials of Slavic cultures, including religion, literature, history, art, cinema, folklore, geography, and music. Course materials include films, slides, and recordings. Lectures and readings in English.
SLAV 186 Peoples and Languages of Eastern Europe (3). The cultural diversity of Eastern Europe is examined through the emergence of competing religions, newly formed literary languages, and political controversies surrounding the birth of new languages and nations. All readings in English.

## SLAV 248 Childhood and Adolescence in Slavic Literature

 (3). Childhood and adolescence as portrayed in both fictional and autobiographical form by 19th- and 20th-century Russian, Polish, Czech, and other East European writers, including Tolstoy, Dostoevsky, Nabokov, I. B. Singer, Schulz, Milosz. Lectures and readings in English.SLAV 250 Introduction to Non-Russian Slavic/East European Culture (3). Prerequisite, BULG 404, CZCH 404, HUNG 404, MACD 404, PLSH 404, or SECR 404. Permission of the instructor for students lacking the prerequisite. Reading and discussion of selected authors in the target language aimed at improving reading and analytical skills and preparing the student for higher-level work.

## SLAV 251 Ideology and Aesthetics: Marxism and Literature (GERM 251) (3). See GERM 251 for description.

SLAV 273 Ideology and Fiction in Slavic Literatures (3). The course focuses on 20th-century Slavic authors whose work was denounced in their countries. It highlights problems of ideology in their works.

SLAV 281 Holocaust Cinema in Eastern Europe (CMPL 281)
(3). A critical look at varieties of cinematic representation and memorialization of the Holocaust, from those countries of Europe where it mostly took place. Taught in English. All films in (or subtitled in) English.
SLAV 296 Directed Readings in a Slavic Language (1-12).
Permission of the instructor. Directed readings in a Slavic language other than Russian on topics in literature and linguistics not normally covered in scheduled courses.
SLAV 306 Language and Nationalism (LING 306) (3).
This course focuses on language, identity, and nationalism in contemporary societies, with special emphasis on Europe, Africa, Asia, and the United States.
SLAV 405 Introduction to Slavic Linguistics (3). The phonological and morphological history of Slavic languages from the late Indo-European to the split of the common Slavic linguistic unity.
SLAV 463 Medieval Slavic Culture (RELI 463) (3). Survey of medieval Slavic culture, beginning with Christianization in the
ninth and 10th centuries. Themes include Byzantine missions, the replacement of paganism with Christianity, the oral traditions, and Slavic literary relations. Readings in English for non-Slavic concentrators.

SLAV 464 Imagined Jews: Jewish Themes in Polish and Russian Literature (JWST 464) (3). Explores the fictional representation of Jewish life in Russia and Poland by Russian, Polish, and Jewish authors from the 19th century to the present. Readings in English for non-Slavic concentrators.

SLAV 465 Literature of Atrocity: The Gulag and the Holocaust in Russia and Eastern Europe (JWST 465, PWAD 465) (3). Literary representation in fiction, poetry, memoirs, and other genres of the mass annihilation and terror in Eastern Europe and the former Soviet Union under the Nazi and Communist regimes. Readings in English for non-Slavic concentrators.

SLAV 467 Language and Political Identity (PWAD 467) (3). This course examines the roles of language policy and linguistic controversies in determining national identity and fueling political polarization. It focuses primarily on western and eastern Europe and Central Asia.

SLAV 469 Coming to America: The Slavic Immigrant Experience in Literature (JWST 469) (3). Fictional and autobiographical expressions of the Slavic and East European immigrant experience in the 20th century. Readings include Russian, Polish, Jewish, and Czech authors from early 1900s to present. Readings in English for non-Slavic concentrators.

SLAV 470 20th-Century Russian and Polish Theater (3). A comparative survey of the major trends in 20th-century Russian and Polish dramaturgy and theatrical production, with attention to aesthetic, professional, and political connections between the two. Readings in English for non-Slavic concentrators.

SLAV 490 Topics in Slavic Culture (3). Comparative study of topics in non-Russian Slavic literatures and culture not covered in any other course. Specific topics will vary and will be announced in advance. Taught in English. Some readings in the target language(s) for qualified students.
SLAV 500 Old Church Slavonic (3). An introduction to the language of the oldest Slavic texts. Translation, grammatical analysis, comparison of texts.

SLAV 560 Reading Other Cultures: Issues in Literary Translation (CMPL 560) (3). Permission of the instructor. Reading knowledge of a language other than English recommended. Starting from the proposition that cultural literacy would be impossible without reliance on translations, this course addresses fundamental issues in the practice, art, and politics of literary translation.

SLAV 580 East European Literary Criticism (3). Survey of 20thcentury Slavic literary criticism. Russian formalists, Bakhtin and his circle, Czech structuralists, Soviet semiotics. Emphasis on influence of Slavic criticism on development of Western literary criticism.

SLAV 691H Honors Reading Course (3). Slavic and East European languages and cultures majors only. Research and writing of an honors thesis on an agreed-upon topic not covered by scheduled courses, under the direction of departmental advisors.

SLAV 692H Honors Reading Course (3). Slavic and East European languages and cultures majors only. Research and writing of an honors thesis on an agreed-upon topic not covered by scheduled courses, under the direction of departmental advisors.

## Curriculum in Global Studies

globalstudies.unc.edu
FedEx Global Education Center, Room 2202, CB\# 3263; (919) 962-5442

## MILADA ANNA VACHUDOVA, Chair

Jonathan Weiler, Senior Lecturer/Director of Undergraduate Studies
Michal Osterweil, Lecturer/Internship Coordinator
Erica Johnson, Lecturer/Director of Graduate Studies

## Introduction

Globalization of the economy, cross-cultural relations, international media, ecological crises, and political transformations are all making international studies more important today. The Curriculum in Global Studies offers an interdisciplinary program of study focusing on these and many other issues. It draws on courses throughout the social sciences, humanities, and professional schools and offers students the chance to concentrate on an area of the world and a theme of global significance.

Students prepare for careers in business, diplomacy, international aid, economic development, and other forms of public service. The global studies major is also excellent preparation for graduate school in one of the social sciences, in professions such as law, business, and journalism, or in international affairs and area studies. About 450 juniors and seniors major in global studies.

## Global Studies Major, B.A.

## Core Requirements

- Credit for six levels of modern language study. Students may choose six levels of one language or four levels of one language and two of another. The primary language must be relevant to the declared world area concentration.
- GLBL 210
- Two core courses, each from a different department: ANTH 142, 380; ARTH 150; COMM 82; DRAM 117; ECON 360; ENEC 201; ENGL 141, 265; GEOG 56, 112, 120, 121, 123, 130, 232; HIST 140; JOMC 446; LING/SLAV 306; MUSC 146; PHIL/ POLI/PWAD 272; PLCY 50; POLI 130, 150; RELI 181; SOCI 111, 121, 133; WMST 281
- Four courses from one of the following thematic areas (asterisked courses may require approval of the topic or the section in which students enroll):
${ }^{\circ}$ International politics, nation-states, social movements: AAAD 101, 307, 315, 316, 498; AMST 277; ANTH 130, 280, 319, 322, 360, 375, 449*, 468; ARTH/HIST 514; ASIA 243, 457, 460; ASIA/HIST/PWAD 281; COMM 376, 390; ENEC/

PLCY 372, 520; ENEC/POLI 254; ENGL 365; GEOG 423, 435, 447, 452, 453, 460, 464; GLBL 390*, 450; HIST 215, 276, 292H*, 513, 570, 577; HNRS 352; JOMC 446; LING 543; MUSC 390H*; POLI 130, 131, 190*, 231, 235, 236, 238, 239, 252, 253, 259, 260, 431, 433, 435, 438, 442, 443, 444, 450, 457, 470, 471; PLCY 520; PWAD 252, 350, 352*; RELI 181; RUES 469; SLAV 306; SOCI 111, 121, 133, 274, 290*, 453, 481; WMST 293, 388, 410
${ }^{\circ}$ Global economics, trade, development: AAAD 212, 307; ANTH 103, 144, 320, 465, 468; ASIA 457, 460, 461; ECON 267, 360, 434, 450, 454, 460, 461, 465, 468, 469, 560; ENEC 490*; GEOG 428, 453, 458, 460, 464; GLBL 390*; PLCY 520; POLI 435, 442; SOCI 290*, 450, 453
${ }^{\circ}$ Global health and environment: AMST 498*; ANTH 147, $151,238,312,318,319,470,473,512,525$; BIOL 262; ENEC 225, 370, 490, 510; ENEC/GEOG 264; ENEC/PLCY 372, 520; ENEC/POLI 254; ENGL 268; ENVR 600; GEOG 237, 269, 434, 435, 445, 446, 450, 457; HNRS 89, 352; HPM 660; MHCH 610; PLCY 480, 490*, 565, 590; PUBH 510; SOCI 265, 469; WMST 388, 610
o Transnational cultures, identities, arts: AAAD 210, 284; AAAD/ WMST 200; ANTH 102, 103, 123, 144, 147, 259, 280, 284, 320, 334, 429, 435, 440, 477, 525; ARAB 150; ARTH 153, 155, 157, 456; ARTH/HIST 514; ASIA 147, 150, 455; ASIA/ RELI 183; COMM 574; DRAM 486; ENGL 364; FOLK 525; FREN 375, 377; GEOG 56, 447, 452; GLBL 290, 390*, 490*; IDST 256; JOMC 446; MUSC 146, 258; PWAD/SLAV 467; RELI 121, 284, 285, 328, 428; SLAV 101; SPAN 344, 345; WMST 124, 290, 297, 410

- Three courses from one of the following world areas (asterisked courses may require approval of the topic or the section in which students enroll):
o Africa: AAAD 101, 110, 200, 201, 210, 212, 214, 301, 307, $315,316,318,320,400,412,414,421,487,498$; ANTH 226, 238; ARTH 255; GLBL 390*; HIST 67, 130, 279, $390 \mathrm{H}^{*}$; POLI 431; WMST 237, 289, 290*
o Asia: ANTH 330, 375; ANTH/ASIA 545, 574; ASIA 147, $150,162,183,243,244,253,261,331,333,451,460,461$, 490*, 586; ASIA/HIST 286; ASIA/RELI 183, 285; CHIN 252, 253, 354, 463, 464, 562; COMM 669; GEOG 390*; GLBL 290*, 390*; HIST 134, 136, 282, 287, 288, 292; JAPN 161, 162, 375, 490*; KOR 150, 151; POLI 190*; RELI 285; SOCI 265; VIET 252
o Latin America: AAAD 260, 278, 460; ANTH 360; ANTH/ FOLK 130; GEOG 259, 430, 457, 458; GLBL 390*; HIST 142, 143, 176H, 242, 528, 532, 533; JOMC 447; LTAM 101; MUSC 147; POLI 231, 238, 434, 435, 450; PORT 270, 275, 388; SOCI 453; SPAN 330, 344, 345; WMST 280, 290*, 352, 388
o Middle East: ARAB 150, 151, 452; ARTH 290*; ASIA 62, 222, 224, 490*; COMM 669; GEOG 447; HIST 276, 490*; HIST/PWAD 275; JWST 107; POLI 190*; RELI 64, 180, 181, 480, 581, 583, 584; SOCI 419
o Western Europe and the European Union: ANTH 377; ARTH 152, 283; CMPL/EURO/FREN 332H; CMPL 270/GERM 270/JWST 239/RELI 239; DRAM 286, 289; DTCH 405; ECON 461; ENGL 278; EURO/HIST 159; FREN 350, 372,

373, 377, 398; GEOG 464; GERM 255, 280, 302, 350, 382; GERM/POLI/SOCI 257; HIST 259, 262, 390H*, 475; HNRS 353; ITAL 330, 333, 335, 343, 398; POLI 190*, 239, 433, 438; PORT 388; ROML 56; SPAN 340, 398*

- Russia and Eastern Europe: HIST 162; HUNG 490; JWST/ PLSH 412; POLI 235; POLI/PWAD/RUES/SOCI 260; RUSS 273, 274, 425, 441, 442, 469; SLAV 248


## Additional Information

Of the seven courses in the thematic and world area concentrations, five must be numbered 200 and above.

The curriculum urges that, in addition to fulfilling requirements, students continue the study of a foreign language to a level as close as possible to fluency. All majors should also make every effort to include a study abroad program in their undergraduate education, preferably in their sophomore or junior year.

Students must complete all General Education requirements. No courses fulfilling major requirements may be taken Pass/D+/D/Fail.

## Advising

All majors and minors have a primary academic advisor in Steele Building. Students are strongly encouraged to meet regularly with their advisor and review their Tar Heel Tracker each semester. The department's director of undergraduate studies works with current and prospective majors by appointment (see "Contact Information" below) to discuss major requirements, how study abroad credits transfer into the major, and other issues of relevance to global studies. Further information on courses, the honors program, internships, and more are available on the department's Web site.

## Special Opportunities in Global Studies

## Honors in Global Studies

Honors study involves the completion of a substantial piece of original research and the formal presentation of the results in an honors thesis and oral defense. Those who successfully complete the program are awarded their B.A. degree with either honors or highest honors in global studies. Students who wish to submit a thesis for honors in global studies must have at least a 3.3 cumulative grade point average and, under normal circumstances, a 3.5 grade point average in the major and must enroll in GLBL 691H and 692H. GLBL 692 H may count toward the major as a theme or area studies course with departmental approval. GLBL 691 H will count as elective credit only. Each prospective honors student must submit a two- to three-page prospectus outlining his/her project in the fall of the junior year. Students accepted into the global studies honors program will enroll in GLBL 691H in the spring of the junior year and GLBL 692H in the fall of the senior year.

## Study Abroad (recommended, but optional)

Global studies majors are strongly urged to gain experiential knowledge of the countries and thematic concerns they are studying through participation in an approved study abroad program appropriate to their areas of concentration. Every effort will be made by the curriculum to integrate study abroad courses into the major. Students must receive course approval from the director of undergraduate studies prior to departure for a program abroad. No credit will be given unless programs are preapproved.

## Undergraduate Awards

All majors in the Curriculum in Global Studies who study abroad are considered for two study abroad awards that are presented each year. These funds may be used to defray any expenses associated with studying abroad.
The Michael L. and Matthew L. Boyatt Award Fund provides several meritorious awards each year of no more than $\$ 2,500$ each. They are designated for majors who want to participate in a study abroad program pertinent to their area of concentration within global studies.

The Laura Hudson Richards Fund provides one award of \$2,500 each year to a major in the Curriculum in Global Studies who demonstrates both academic excellence and financial need.

In addition, each spring the curriculum awards the Douglas Eyre Prize to the student writing the best honors thesis. The curriculum also selects an annual recipient of the Anne Scaff Award for service to the curriculum and for internationalizing the College. Students chosen to receive the Eyre Prize and Scaff Award are recognized at the curriculum's spring commencement ceremony.

## Graduate School and Career Opportunities

Global studies majors are prepared for careers in business, diplomacy, international aid and economic development, and other forms of public service. The major is also excellent preparation for graduate school in one of the social sciences; in professions such as law, business, or journalism; or in international affairs and area studies. Career resources are available on the curriculum's Web site, www. global.unc.edu/globalstudies.

## Faculty

## Joint Faculty

Chad Bryant, Renee Alexander Craft, Mark Driscoll, Banu Gökariksel, Liesbet Hooghe, Nina Martin, Townsend Middleton, Michael Morgan, Christopher Nelson, Elizabeth Olson, John Pickles, Andrew Reynolds, Graeme Robertson, Eunice Sahle, Iqbal Sevea, Mark Sorensen, Michael Tsin.

Adjunct Faculty and Lecturers
Hannah Gill, Georges Nzongola-Ntalaja, Niklaus Steiner.

## Contact Information

Jonathan Weiler, Director of Undergraduate Studies, jweiler@email.unc.edu.

Nancy Gray Schoonmaker, Department Manager, nancys@email.unc.edu, (919) 962-5442.

## Courses

## GLBL-Global Studies

GLBL 89 First-Year Seminar: Special Topics (3). Special topics course. Content will vary each semester.

GLBL 181 Teaching Great Decisions (1). Permission of the department. This course gives credit to the Great Decisions coordinating committee for organizing the eight lectures in GLBL 381.

GLBL 193 Global Studies Internship (1). Internship in a sponsoring organization whose work or mission is meaningfully connected to a global studies topic.

GLBL 196 Independent Study (1-12). Permission of the instructor. Reading and research on special topics in global studies.
GLBL 210 Global Issues in the 20th Century (ANTH 210, GEOG 210, HIST 210, POLI 210) (3). Survey of international social, political, and cultural patterns in selected societies of Africa, Asia, America, and Europe, stressing comparative analysis of 20thcentury conflicts and change in different historical contexts. LAC recitation sections offered in French, German, and Spanish.

GLBL 281 Phillips Ambassadors Program (3). This academic course is mandatory for Phillips Ambassadors.
GLBL 290 Current Topics in Global Studies (0.5-21). An interdisciplinary approach to the study of the background, current status, and future prospects for one of a series of global issues such as the nuclear age, the environment, technological transition.

GLBL 381 Great Decisions (1). Eight evening guest lectures, with a discussion session after each, on eight issues in current foreign policy. May be repeated for credit.
GLBL 382 Latin American Migrant Perspectives: Ethnography and Action (3). This class combines fieldwork, oral history, and service learning in a course that examines concepts of globalization, migration, and transnationalism, and their intersections with anthropological theory and practice.

GLBL 383 Global Whiteness (3). This course will look at race as a theory and practice as it has been constructed in academic disciplines, popular culture, and social struggle.
GLBL 390 Current Topics in Global Studies (3). Topics vary from semester to semester.

GLBL 394 Great Decisions and International Relations (2). Pre- or corequisite, GLBL 381. This course links the Great Decisions lecture series with readings and analyses of international relations. Its purpose is to provide the students on the Great Decisions coordinating committee with a practical and intellectual engagement with United States foreign policy and global issues.
GLBL 405 Comparative Political Economics of Development (3). Political, economic dynamics of selected countries in Asia, Latin America, Caribbean, and Africa.

GLBL 406 Transitions to Democracy (3). Transitions to liberal democratic political structures in Latin America, Asia, Africa, and the former Soviet bloc.

GLBL 450 Social Changes in Times of Crisis: Knowledge, Action, and Ontology (3). Examines dominant, alternative, and emergent narratives of change and the future from around the world. Takes as a premise that we live in a period of multidimensional crises characterized by uncertainty and conflict about how to pursue sustainable economic, ecological, political, social, and cultural projects.
GLBL 470 Globalization and Childhood (3). Surveys major issues in the interdisciplinary study of globalization and the lives of children. Course themes include children's rights, migration, child
labor, exploitation, transnational adoption, inequality, the growth of consumerism and consumption, and children in crisis and conflict situations.

GLBL 481 NGO Politics (3). This course will investigate how nongovernmental organizations emerge, how they structure their organizations, how they function, and how they influence public policy.

GLBL 482 Soviet and Post-Soviet Politics and Institutions (3). This course is an introduction to the history and contemporary politics of the post-Soviet region and explores topics of religious, ethnic, and identity politics; international influences; and civil society and social movements.

GLBL 483 Comparative Health Systems (3). This course provides students with an understanding of the origins and comparative performance of a range of international healthcare systems.

GLBL 484 History and Politics of Central Asia (3). This course is an introduction of the history, politics, and societies of Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan. The class explores the foundations and conditions of change in the modern history of these societies and investigates how these issues influence contemporary politics.

GLBL 485 Comparative Development (3). This course is an APPLES service-learning course whose goal is to integrate real-world experience working with development-oriented organizations, theoretical discussions about the origins and evolution of development thinking, and exposure to the challenges facing practitioners of development, in some of its many substantive and geographical contexts.

GLBL 486 Sports and Globalization (3). This course explores some of the relationships between sports and globalization and will delve into sports as an important social and cultural practice within larger social, cultural, and political forces shaping studies of globalization.

GLBL 487 Social Movements: Rethinking Globalization (3). This course explores the history, objectives, and manifestations of global social movements.

## GLBL 488 International Migration and Citizenship (3).

 This class explores the moral, economic, political, and cultural dimensions of movements across international borders.GLBL 490 Current Topics (3). Current topics in global studies. Topics vary by semester.

GLBL 560 Human Rights, Ethics, and Global Issues (3). This seminar examines the political, economic, and intellectual developments that led to the emergence of human rights as a global phenomenon historically and in the current phase of globalization. Also engages with debates concerning the role of human rights as an ethical philosophy in thinking through current issues.

GLBL 691H Honors in Global Studies (3). Permission of the instructor. Preparation for writing the honors thesis.
GLBL 692H Honors in Global Studies (3). Permission of the instructor. Completion of the honors thesis and an oral examination of the thesis.

# Department of History 

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## W. FITZHUGH BRUNDAGE, Chair

## Introduction

The study of history is an essential part of a liberal arts education and offers valuable preparation for many careers: in law, journalism, libraries, and museums; in local, state, and national public service; in business; in international work; and, of course, in historical research and teaching. More broadly, by an exposure to a variety of cultures and human experience and by training in the interpretation of conflicting evidence, the Department of History seeks to prepare a person for the responsibilities of citizenship and for dealing with the ambiguities of human existence. Diversity in the history major program encourages a comparative approach to human problems and discourages parochialism; specialization in the program promotes an appreciation of the complexity of human affairs and the difficulties involved in interpreting them. Finally, the discipline of history stimulates imagination and analytical thinking.

## History Major, B.A.

## Core Requirements

- A total of 10 HIST courses
- Four to six courses in a field of concentration: African, Asian, and Middle Eastern history; ancient/medieval history; gender and women's history; global history; Latin American history; modern European history; Russian, Eurasian, and Eastern European history; United States history; thematic history
- Four to six courses outside the field of concentration
- HIST 398. This seminar can be in the field of concentration or outside it.
- One course in Latin American or African, Asian, and Middle Eastern history
- At least six courses numbered 200 or above

Each major shall concentrate in one area (see lists below), or students must devise a thematic concentration and have it approved by the chair of the Undergraduate Studies Committee.

At least seven of the 10 courses must be completed with a grade of C or better.

The Department of History offers multiple sections of the required HIST 398 undergraduate seminar each semester. Each section focuses on a different topic. Prior to the course registration period, the Department of History will distribute to all history majors information about the next semester's offerings of HIST 398.

All College of Arts and Sciences policies apply, including (but not limited to) the following. No history course may be taken for Pass/D+/D/Fail credit (even if the course serves as a free elective). A maximum of 15 history courses ( 45 hours) may be applied toward the B.A. degree. Any courses beyond the minimal 10 (but not above the maximum of 15) will count as free electives.

No more than five courses ( 15 hours) of transfer credit and College Board Advanced Placement/International Baccalaureate credit may count toward the major. Up to five courses (15 hours)
of transfer credit may count toward the major, but only up to two courses (six hours) of College Board Advanced Placement or International Baccalaureate credit may count toward the major. In no case can the combination of transfer credits and AP/IB credits exceed 15 hours.

Below are listed history courses for each field of concentration.
Field according to Topic: HIST 190, 291, 390, 398, 490, 493, 495, 496, 691H, 692H, 697

African, Asian, and Middle Eastern History: HIST 52, 61, 62, $74,83,130,131,132,133,134,135,136,138,139,163,174 \mathrm{H}$, 202, 203, 271, 274, 275, 276, 277, 278, 279, 281, 282, 284, 285, $287,288,331,379,483,484,513,534,535,536,537,538,539$, 550, 570

Ancient/Medieval: HIST 75, 106, 107, 151, 177H, 225, 226, $227,228,255,345,398$ (based on topic), 420, 421, 422, 423, $424,425,427,428,431,432,433,434,435,436,437,438,452$, 453, 460

Gender and Women's History: HIST 72, 130, 144, 259, 264, $280,354,355,356,358,361,370,375,389,438,475,479,500$, 501, 517, 535, 537, 562, 566, 568, 569, 576

Global History: HIST 53, 62, 66, 73, 76, 83, 138, 139, 140, 202, 203, 205, 206, 210, 212, 213, 242, 246, 247, 249, 268, 278, 281, $302 \mathrm{H}, 325,329,330,345,351,354,370,371,379,389,398$ (based on topic), 459, 465, 474, 479, 501, 510, 513, 514, 516, 517, 534, 538

Latin American History: HIST 51, 76, 142, 143, 175H, 203, 240, 242, 280, 398 (based on topic), 513, 526, 527, 528, 529, 531, 532, 533

Modern European History: HIST 53, 54, 56, 64, 66, 72, 73, 77, 82, 84, 85, 151, 152, 153, 156, 157, 158, 159, 161, 162, 164, $165,177 \mathrm{H}, 178 \mathrm{H}, 205,206,251,252,253,254,255,256,257$, 259, 260, 262, 264, 268, 269, 308, 309, 310, 311, 325, 334, 347, 354, 370, 398 (based on topic), 433, 451, 452, 453, 454, 455, 458, $460,461,462,463,464,465,466,467,468,469,470,471,472$, $473,474,476,477,478,479,480,481,482,485,500,501,510$, 513, 516, 517

Russian, Eurasian, and Eastern European History: HIST 64, 161, 162, 163, 176H, 264, 311, 334, 398 (based on topic), 476, 477, 478, 480, 481, 482, 483, 484

United States History: HIST 53, 57, 60, 66, 68, 70, 79, 110, 120, $121,124,125,127,128,144,179 H, 205,206,231,232,233$, $234,235,239,241,242,245,246,302 \mathrm{H}, 325,355,356,357$, $358,360,361,362,363,364,365,366,367,368,369,370,371$, $372,373,374,375,376,377,378,379,380,381,389,398$ (based on topic), $459,475,510,517,561,562,563,564,565,566,568$, $569,570,571,574,576,577,581,582,584,586,587,589,622$, 624, 625, 670, 671

## History Major, NUS Joint Degree

History majors may wish to consider applying for the Joint Degree Program, an innovative undergraduate degree program joining UNC-Chapel Hill and the National University of Singapore, one of the top universities in Asia and the world. UNC-Chapel

Hill undergraduates spend from two to four semesters at the National University of Singapore and receive a joint bachelor of arts degree with a major in history from both institutions. For further information about the Joint Degree Program, see history.unc.edu/ undergraduate-program/joint-degree-program-with-the-national-university-of-singapore or contact the Study Abroad Office and the director of undergraduate studies in the Department of History.

## History Minor

The minor in history consists of five courses taken in the Department of History. A maximum of two courses can be numbered below 200. Students must have a grade of C or better in at least four of the five courses; three must be taken at UNCChapel Hill or a program officially sponsored by the University. No more than one course (three hours) of College Board Advanced Placement or International Baccalaureate credit may count toward the minor.

## Medieval and Early Modern Studies (MEMS) Minor

The undergraduate minor in medieval and early modern studies provides students with a broad, humanities-based approach to the rich and fascinating cultures that flourished globally from around 500 CE to 1800 CE. This interdisciplinary minor requires students to take five classes representing at least three different subject codes.

- One core course chosen from ARTH/ASIA 154 or ARTH 264, ASIA/HIST 135; ASIA/RELI 180; CMPL 120, ENGL 120, HIST 107 or 158, or MUSC 251
- At least one course at the 300 level or above
- No more than three courses at the 100 level (including the core course)
The following courses are approved for the MEMS minor. With the prior approval of the MEMS minor supervisor up to two courses can be applied to the minor as transfer credits from other institutions.

AMST/ANTH 54; AMST/HIST 110; ANTH 121; ARAB 433; ARTH 54, 151, 258, 264, 265, 270, 271, 274, 362, 363, 450, 466, 467, 471, 472, 490 (based on topic); ARTH/ASIA 154, 158, 251, 266, 273, 458, 561; ASIA/HIST 131, 135, 138; ASIA/RELI 180, 183, 284, 285, 487, 488, 489, 581, 582, 584; ASIA 300/ RELI 283, ASIA 301/RELI 286, ASIA 303/RELI 288; CLAS 259; CLAS/CMPL 364; CMPL 120, 121, 122, 123, 124, 223, 277, 452, 453, 454, 456, 458, 473, 478, 558; CMPL/ENGL 321, 621; ENGL 120, 225, 226, 227, 228, 229, 230, 319, 320, 325, 326, 327, 328, 330, 331, 332, 418, 423, 424, 430, 525; ENGL/PWAD 660; FREN 370, 371, 387, 594; GERM 53, 58, 210, 216, 310, 500, 502, 505, 511, 514, 515, 615; GERM/WMST 220; HIST $107,127,142,151,156,177,228,255,398$ (based on topic), 431, 432, 434, 435, 436, 437, 452, 453, 460, 461, 467, 473, 561, 574, 697; HIST/PWAD 254, 351; HIST/RELI 454; HIST/WMST 280; ITAL 240, 241, 357, 370, 511; JAPN 377; LATN 205, 514, 530; MUSC 251; PHIL 215, 220, 415, 421, 422, 470; PORT 501; RELI 64, 161, 165, 362, 366, 367, 371, 450, 489, 525, 566, 586; RELI/SLAV 463; RELI/WMST 371; SLAV 500; SPAN 280, 371, 383, 384, 617, 650; WMST 294

## Advising

All majors and minors have a primary academic advisor in Steele Building. Students are strongly encouraged to meet regularly with their advisors and review their Tar Heel Trackers each semester. The Department of History offers students numerous advising resources to assist them with all things related to studying history at UNC-Chapel Hill, from making the initial decision to become a history major or minor to thinking about what to do after they complete their degree. Although history majors are not assigned individual faculty advisors, they are strongly encouraged to seek out the advice of their professors during office hours, especially if they are considering an independent study project, senior honors thesis, or applying for graduate study. The department's lecturer/ advisor serves as a general advising resource for all history majors and minors as well as first- and second-year students who are considering a major in history.

## Special Opportunities in History

## Honors in History

The departmental honors program is open to any qualified history major with at least a 3.3 cumulative grade point average and, under normal circumstances, a 3.4 in history courses, and experience in research and writing derived from an undergraduate seminar in history (HIST 398). The student pursuing a degree in history with honors must take HIST 691H and 692H; these two courses contribute credit hours toward fulfilling field-of-concentration requirements, depending on the topic of the thesis. The student, in consultation with the honors director, will choose a topic and locate an appropriate faculty member to supervise a senior honors thesis. In 691 H the mechanics of researching and writing a senior essay will be discussed and a start made on the essay itself. In 692 H the essay will be completed and the student examined by the supervisor and at least one additional faculty member to be agreed upon by the student and supervisor. To receive highest honors the essay must be recommended by the examiners and a review committee. The director of honors, in consultation with the examiners and review committee, will recommend that the student who has defended the essay graduate with either honors or highest honors, or merely with course credit. Students should submit applications for the honors program by the end of February during their junior year. For detailed guidelines, see history.unc.edu/undergraduate-program/senior-honors-thesis or contact the director of honors in the Department of History.

## Departmental Involvement

Students with broad interests in the intellectual and social life of the department may volunteer to serve on the department's Undergraduate Studies Committee (UGSC). Each spring the department invites majors to volunteer for the UGSC, and the selection is made at the start of the next fall semester by the faculty members on the UGSC. Students may also plan or participate in activities organized by the Undergraduate History Club as well as, for those who are eligible, UNC's chapter of Phi Alpha Theta (described more fully below under "Undergraduate Awards"). For more information about the UGSC, the History Club, and Phi Alpha Theta, see department's Web site or contact the coordinator for undergraduate studies in the Department of History.

## Experiential Education

In some cases, students majoring in history may wish to pursue internship opportunities. Questions and requests regarding internships should be directed to the department's lecturer/advisor, who has responsibility for evaluating internship proposals and deciding whether an internship may be taken for academic credit. More information is at history.unc.edu/undergraduate-program/ internship-opportunities-for-history-majors.

## Study Abroad

The department strongly encourages its students to explore the many study abroad opportunities provided by the Study Abroad Office. The experience of studying abroad opens intellectual horizons that can be glimpsed only in unfamiliar worlds, and it deepens one's appreciation for the enduring power of historical context and circumstance.

The Department of History participates in a unique joint degree program with the National University of Singapore. The department also has an exchange program with King's College in London. For further information about both programs, contact the Study Abroad Office and the director of undergraduate studies in the department. General information for history majors wishing to study abroad can be found at history.unc.edu/undergraduate-program/study-abroad.

## Undergraduate Awards

All majors who complete the required undergraduate seminar are automatically eligible for the annual Joshua Meador Prize, awarded to the author of the best seminar paper written in the preceding calendar year. A named prize is also awarded to the author of the best honors thesis; the award is announced at the annual spring honors banquet.

The Department of History sponsors a chapter of Phi Alpha Theta, the national history honor society. Students who have taken 12 hours of history courses at UNC-Chapel Hill and who have an overall grade point average of 3.0 and an average in history courses of 3.1 are eligible to apply for membership. An announcement regarding applications for Phi Alpha Theta will be distributed to all history majors in the fall semester.

## Undergraduate Research

The Department of History encourages undergraduate research in a variety of ways. The required seminar for majors (HIST 398) introduces students to historical research. The senior honors program (HIST 691H and 692H) gives students an opportunity to carry out a yearlong research project. In both the fall and spring semesters, senior honors students may apply for competitive awards, including the Michael L. and Matthew L. Boyatt Awards in History for Undergraduate Research and the David Anthony Kusa Undergraduate Research Award, to help support travel for the purpose of research.

## Graduate School and Career Opportunities

Most history majors at UNC-Chapel Hill develop careers that do not involve practicing history in its narrow sense. These students work in a range of fields: business, law, journalism, education, and government, for example. These students have found that they can apply to many different tasks the skills that history teaches:
analyzing, conceptualizing, investigating, researching, interpreting large amounts of information, as well as communicating through writing and speaking.

Many history majors enter professional schools in a number of different areas. Law school, business school, and medical school rank high in popularity. By teaching students how to analyze problems, how to understand society and human behavior, and how to communicate effectively, a major in history provides excellent preparation for enrollment in a professional school.

Some majors end up using history directly in their vocations. Those who wish to teach history at the secondary level in public schools must obtain appropriate certification, usually through an M.A.T. degree. Other students pursue graduate study by entering a master's degree program in history that requires a thesis and takes about two years to complete. A student can then decide whether to proceed into a Ph.D. program, which normally requires an additional two years of study and the completion of a doctoral dissertation. Students who decide to pursue a Ph.D. in history generally teach at the college level. Some complete a master's degree in public history and work for government archives at the national, state, or local levels or for private nonprofit organizations, such as groups interested in restoration work.

## Faculty

## Professors

William A. Barney, W. Fitzhugh Brundage, Marcus G. Bull, Melissa M. Bullard, Kathryn J. Burns, John C. Chasteen, Peter A. Coclanis, William R. Ferris, W. Miles Fletcher, Joseph T. Glatthaar, Karen Hagemann, Konrad H. Jarausch, John F. Kasson, Lloyd S. Kramer, Klaus W. Larres, Wayne E. Lee, James L. Leloudis, Genna Rae McNeil, Louise McReynolds, Susan D. Pennybacker, Fred S. Naiden, Louis A. Pérez, Cynthia Radding, Donald J. Raleigh, Donald M. Reid, Sarah D. Shields, Jay M. Smith, Richard J.A. Talbert, Zaragosa Vargas, Harry L. Watson.

## Associate Professors

Cemil Ayden, Chad Bryant, Kathleen DuVal, Jerma A. Jackson, Michelle T. King, Lisa A. Lindsay, Malinda Maynor Lowery, Terence V. McIntosh, John W. Sweet, Michael Tsin, Brett E. Whalen.

## Assistant Professors

Karen Auerbach, Flora Cassen, Emma Flatt, Miguel A. La Serna, Michael Morgan, Iqbal Sevea, Eren Tasar, Katherine Turk, Benjamin Waterhouse, Molly Worthen.

## Lecturers

Matthew Andrews, Joseph W. Caddell.

## Joint Professors

Robert C. Allen, Daniel J. Sherman.

## Adjunct Professor

Kenneth Janken.
Adjunct Associate Professors
Daniel M. Cobb, Morgan J. Pitelka, Anne M. Whisnant.

## Adjunct Assistant Professors

Raúl Necochea, Rachel Seidman.

## Professors Emeriti

Samuel H. Baron, Stephen B. Baxter, Frederick O. Behrends, Judith M. Bennett, E. Willis Brooks, Christopher R. Browning, Stanley J. Chojnacki, Peter G. Filene, Jacquelyn D. Hall, Barbara J. Harris, John M. Headley, Michael H. Hunt, Lawrence D. Kessler, Frank W. Klingberg, Richard H. Kohn, William E. Leuchtenburg, Roger
W. Lotchin, Donald G. Mathews, W. James McCoy, Michael R. McVaugh, John K. Nelson, Theda Perdue, Richard W. Pfaff, William S. Powell, John E. Semonche, Gerhard L. Weinberg, Joel R. Williamson.

## Contact Information

Diana Chase, Undergraduate Coordinator, (919) 962-9822.
Matthew Andrews, Undergraduate Advisor, andrewsm@email.unc.edu.

Lisa Lindsay, Director of Undergraduate Studies, lalindsa@email.unc.edu.

## Courses

## HIST-History

HIST 51 First-Year Seminar: Latin American Revolutions (3). This course explores the problem of revolutionary upheaval in Latin American history, from the revolutionary wars of the independence era (1810 to 1825) to revolutionary episodes of the 20th century.

HIST 52 First-Year Seminar: Conflicts over Israel/Palestine (3). This course will familiarize students with the background of this ongoing conflict. It will begin with the growth of political Zionism in Europe, continue through early Zionist settlement, the United Nations partition and resulting war, and the history of the conflict through the present.

## HIST 53 First-Year Seminar: Traveling to European Cities:

 American Writers/Cultural Identities, 1830-1930 (3). This course examines the experiences of American writers who traveled and lived in European cities during the era between 1830 and 1930 with the goal of developing historical insights into these writers' fascination with famous European cities and the experience of travel.
## HIST 54 First-Year Seminar: Interpreting the French

Revolution, 1789-1815 (3). In this course, students will learn about the dominant interpretations of the French Revolution, elaborated over the course of the 20th century, and they will come to appreciate and criticize the work of those historians who have interpreted the evidence from the French Revolution over the past 60 years.

## HIST 56 First-Year Seminar: World War I: History and

Literature (3). This seminar will read and discuss powerful examples of literature (poetry, memoirs, and novels) produced during and after World War I that sought to come to terms with the trauma of this cataclysmic event in European history, the first experience of total war fought by modern, industrialized nations.

HIST 57 First-Year Seminar: History and Memory in the Modern South, 1865 to the Present (3). This course is organized around reading about and discussing the theme of history, memory, and popular culture in the post-Civil War South.

HIST 60 First-Year Seminar: Oral History in Action (3). Oral history is "history from the ground up," learning about the past from the people who lived it. In this seminar, students will do original research in oral history and contribute these true-life stories to a trilogy of theatrical plays concerning agriculture, labor, women, race, and political protest.

## HIST 61 First-Year Seminar: Southeast Asia in Global

Prospective (3). The course will examine some of the principal themes that have informed Southeast Asian history and continue to shape the area today. Students will focus on the relationship between material forces-environmental and economic primarilyas well as social, political, and cultural developments.

HIST 62 First-Year Seminar: Nations, Borders, and Identities (3). This seminar will explore the ways people have identified themselves in relation to specific places, nation-states, and foreign "others." Examples may include the Kurdish nationalists, Islamist political parties, the Eritrean independence movement, and the Basque separatists.

HIST 64 First-Year Seminar: Gorbachev: The Collapse of the Soviet Empire and the Rise of the New Russia (3). Examines Mikhail Gorbachev and the astonishing transformations that occurred while he governed the Soviet Union between 1985 and 1991. Students will explore post-Soviet Russia's efforts at negotiating a new set of relations with the rest of the world and how Russia continues to shape our own destiny.

## HIST 66 First-Year Seminar: Film and History in Europe and

 the United States, 1908-1968 (3). This course will examine major films in Europe and America from 1908 to 1968 in terms of how they shaped the medium and reflected important social trends.HIST 68 First-Year Seminar: American Dreams: Histories of Experience and Explanation, 1620-1900 (3). In this seminar, through systematic discussion and dialogue, students will explore dreams, visions, and apparitions in American history from the early years of colonial contact to the emergence of modern psychology around 1900.

HIST 70 First-Year Seminar: Exploring Cultural Landscapes: Chapel Hill as a Case Study (3). Course explores the concept of cultural landscapes as a way of studying history and its legacies. Through a combination of field work, historical research, and analysis, students use maps, photographs, GIS resources, and archival documents to understand how-and why-people in the past shaped our surroundings today.

HIST 72 First-Year Seminar: Women's Voices: 20th-Century European History in Female Memory (3). The course examines 20th-century European history through the lenses of women's autobiographical writings. It explores women's voices from different generational, social, and national backgrounds and asks what formed their memories.

HIST 73 First-Year Seminar: On the Train: Time, Space, and the Modern World (3). Beginning with a close reading of

Wolfgang Schivelbusch's The Railway Journey: The Industrialization of Time and Space in the 19th Century, this course will examine how railway travel impacted American and European culture.

HIST 74 First-Year Seminar: Emperors, Courts, and Consumption: The Mughals of India (3). Through a study of autobiographical texts, contemporary accounts, objects, architecture, and later representations in scholarly works, films, and novels, we will undertake a thematic investigation of the Mughal Empire (1526-1858), focusing on the period of the first six Mughal rulers of India.

## HIST 75 First-Year Seminar: Faith and Violence in the Middle

Ages (3). This course will explore intersections of faith and violence in the Christian tradition from the period from 300 to 1300. It will examine mainstream Christian attitudes toward non-Christians (pagans, Jews, Muslims) and nonorthodox groups (heretics).
HIST 76 First-Year Seminar: Understanding 1492 (3). This seminar will examine one of the most challenging topics in American and Latin American history: how to understand the conquest (la conquista) of Latin America by the Spaniards after the arrival of Columbus in 1492.

HIST 77 First-Year Seminar: Seeing the Past (3). This seminar will introduce students to practices of critical analysis that inform academic work in all the core humanistic disciplines: how do we ask analytical questions about texts, artwork, and other cultural artifacts that come down to us from the past or circulate in our own culture?
HIST 79 First-Year Seminar: Coming of Age in 20th-Century
America (3). We will employ coming of age autobiographies to explore developments in the United States during the 20th century. In these autobiographies the authors focus primarily on the periods of childhood and adolescence into young adulthood. We will consider many issues including race, racism, immigration, religion, social class, and gender.

HIST 82 First-Year Seminar: The Search for Modern Jewish
Identity (3). This course explores diverse experiences of modernity among Jewish populations from the mid-18th century to the present under the influence of political, cultural, and socioeconomic changes. Diaries, memoirs, literature, and film challenge students to develop their own analyses while becoming familiar with arguments among scholars of Jewish life.
HIST 83 First-Year Seminar: African History through Popular Music (3). Examines popular music as a way of understanding African history from the 1930s to the present. We will read background materials on African historical developments and musical styles, do a lot of listening, and try to learn what African musicians tell us about their societies.
HIST 84 First-Year Seminar: Monsters, Murders, and Mayhem in Microhistorical Analysis: French Case Studies (3). Explores the distinctive features of microhistorical approaches to the past and the attractions of microhistory for the practicing historian. Students will read a rich sampling of recent work (much of it featuring monsters, murder, and mayhem) and try their hand at writing their own microhistories.

## HIST 85 First-Year Seminar: What Concentration Camp

Survivors Tell Us (3). This is a seminar about reading so as to learn as much as we can from individuals expressing the inexpressible. It asks what (if anything) only camp survivors can tell us about the experience and what we can learn by exploring the effects of this experience on survivors.

HIST 89 First-Year Seminar: Special Topics (3). Special topics course. Content will vary each semester.

HIST 106 Ancient History (3). A topical survey of the ancient world, especially the civilization of the Near East, Greece, and Rome.

HIST 107 Medieval History (3). A survey of Western Europe and the Mediterranean World, 300 to 1500.

HIST 110 Introduction to the Cultures and Histories of Native North America (AMST 110) (3). An interdisciplinary introduction to Native American history and studies. The course uses history, literature, art, and cultural studies to study the Native American experience.

HIST 120 Sport and American History (3). A survey of American sport history, from the colonial era to the present. Course will explore how sports have reflected larger trends in American life and analyze the different ways sports have influenced American history and shaped the world we occupy today.
HIST 121 History of Religion in North America (3). Surveys religious thought and practice in the United States and Canada from the colonial era to the present day. Themes include continuities and changes in expressing ancient faiths; the relationship between religion and politics; the intersection of theology with everyday life; and evolving notions of religious truth and toleration.

HIST 124 United States History through Film (3). Explores the history of the United States through films made about various historical eras. For each film, the instructor will lecture on the time period(s), the class will read relevant primary and secondary sources, and then the class will watch and discuss the film.

HIST 125 The Social History of Popular Music in 20th-
Century America (3). Explores the relationship between popular music and major developments in 20th-century America. The course's overarching focus is how popular music has simultaneously unified and divided the nation.

HIST 127 American History to 1865 (3). A survey of various aspects of American development during the colonial, revolutionary, and national periods, with stress upon major themes and interpretations.

HIST 128 American History since 1865 (3). A survey of various aspects of American development during a century of rapid industrial, social, political, and international change, with stress upon major themes and interpretations.

HIST 130 Modern African History (3). An overview of major developments in sub-Saharan African history since the late 19th century, focusing on colonialism, nationalism and decolonization, social change, and current issues, and drawing upon fiction, film, and primary sources.

HIST 131 Southeast Asia to the Early 19th Century (ASIA
131) (3). The history of Southeast Asia from prehistory to "high imperialism." Long-term political, economic, social, and religious developments, including Indianization, the impact of China, and the first contacts with Europeans.

HIST 132 Southeast Asia since the Early 19th Century (ASIA 132, PWAD 132) (3). Comparative colonialism, nationalism, revolution, and independence movements. Topics include Indonesia and the Dutch, Indochina under French rule, United States involvement in the Philippines and Vietnam, communist and peasant movements, Cambodian revolution.

HIST 133 Introduction to Chinese History (ASIA 133) (3). Chinese history from its beginnings to the present, organized around the central theme of how the identity of China and "Chineseness" was created.

HIST 134 Modern East Asia (ASIA 134, PWAD 134) (3). Comparative and interdisciplinary introduction to China and Japan in the 19th and 20th centuries, focusing on impact of the West, nation building, industrialization, and evolution of mass society.

HIST 135 History of the Indian Subcontinent to 1750 (ASIA 135) (3). An introduction to major political, religious, social, and cultural events from 3500 BCE to 1750 CE with a focus on Hindu, Muslim, and Buddhist groups before British colonial rule.
HIST 136 History of India, Pakistan, and Bangladesh: South
Asia since 1750 (ASIA 136) (3). This course is an introduction to modern India, Pakistan, and Bangladesh. We will investigate major political, social, economic, and cultural issues from 1750 to the present.

HIST 138 History of Muslim Societies to 1500 (ASIA 138) (3). A broad, comprehensive, and interdisciplinary introduction to the traditional civilization of the Muslim world.

HIST 139 History of Muslim Societies since 1500 (ASIA 139) (3). A broad interdisciplinary survey of the later Islamic empires since the 15 th century and their successor societies in the modern Muslim world.

HIST 140 The World since 1945 (3). This introduction to the contemporary world examines the Cold War and its international aftermath, decolonization, national development across a variety of cases, and trends in the global economy.
HIST 142 Latin America under Colonial Rule (3). Social and economic development under colonial rule, especially in Mexico and Peru.

HIST 143 Latin America since Independence (3). A general introduction to Latin American society, culture, politics, and economics from a historical perspective. Focus will be on the events of the past two centuries.

HIST 144 Women in the United States from Settlement to Present (WMST 144) (3). This course will survey the history of women, gender relations, and notions of sex difference in the United States from the colonial era to present times, with a special emphasis on women's varied experiences and expectations across divisions of class, race, and region. Key themes will include work, politics, citizenship, reproduction, sociability, and sexuality.

HIST 151 European History to 1650 (3). European history from Greek antiquity to the mid-17th century.

HIST 152 European History since 1650 (3). European history from the middle of the 17 th century to the present.

## HIST 153 Jewish History: From Medieval to Modern Times

 (JWST 153) (3). This class surveys the history of the Jews from Middle Ages to Modernity. It focuses on the development of Jewish religion and culture, and the establishment of Jewish communities in the Western, Atlantic and Middle Eastern Worlds. It also explores the development of anti-Semitism and anti-Jewish violence.HIST 156 English History to 1688 (3). Prehistoric and Roman Britain, Dark Age and medieval England, Reformation, founding of the colonies, revolutions scientific and political. An introductory survey for first-year students and sophomores.

HIST 157 History of Britain since 1688 (3). Explores the interplay between Britain's domestic history and her European, transatlantic, and wider global engagements from the Glorious Revolution through the present day. Focuses on social and economic thought, Parliament, London's urban and class structures, religious and ethnic strife, racial and gender difference, and literary, cinematic, and artistic expression.

HIST 158 Early Modern European History, 1450-1815 (3). Intellectual and social structures, dynamics of social and political change, principles of authority, and bases of revolution from the Reformation to the French Revolutionary and Napoleonic period.

HIST 159 20th-Century Europe (EURO 159) (3). A critical overview of 20th-century European history, with particular attention to the constant ethnic, religious, social, economic, and cultural struggles (including Holocaust, Cold War) in various subunits of the old continent.

HIST 161 Russia Becomes an Empire (3). Between 862 and 1861 Russia expanded from agrarian settlements into Europe's most formidable empire. Subjugated by Mongols in 1240, it recovered and absorbed territories from Poland to Alaska. Conquest came on the backs of an enserfed peasantry, whose emancipation began the next chapter in Russia's history.

HIST 162 Russia under the Last Tsars and Soviet Commissars (3). This course surveys fundamental issues affecting the Russian/ Soviet/post-Soviet multinational empire in the last century and a half, emphasizing regime failures, revolutions, wars, and ethnic challenges.

HIST 163 Modern Central Asia (3). Provides an understanding of significant contemporary developments in Central Asia-9/11, the Taliban, oil and gas geopolitics, Communism and its collapse, the rise of China, Islamism, and global terrorism-through an analysis of themes in the region's history, with a focus on the 19th and 20th centuries.

HIST 164 History of Britain in the 19th Century (3). This course explores political, social, and cultural history from the Napoleonic Wars through the South African War. Surveys the history of the United Kingdom in the context of Britain's imperial expansion, including slavery, reform, women's suffrage, social movements, and Victorian wealth and poverty.

HIST 165 History of Britain in the 20th Century (3). This course explores political, social and cultural history from 1900 to the present: the two world wars, the declining empire, the extension of parliamentary democracy, the new welfare state, and a deeply diverse racial, ethnic, and religious society where social and economic differences remain. Who is British?

HIST 174H Honors Seminar in African, Asian, and Middle Eastern History (3). Examines selected themes in the history of Africa, Asia, and/or the Middle East. Theme(s) chosen by the instructor. Possible subjects: colonialism, resistance movements, religion, gender, economic transformations.

HIST 175H Honors Seminar in Latin American History (3). Examines selected themes in the history of Latin America. Theme(s) chosen by the instructor. Possible subjects: indigenous societies, colonialism, religion, the family, economic transformations.

HIST 176H Honors Seminar in Russian, Eurasian, and Eastern European History (3). Examines selected themes in the history of Russia, Eurasia, and/or Eastern Europe. Theme(s) chosen by the instructor. Possible subjects: imperialism, revolution, the Soviet Union, war and society.

HIST 177H Honors Seminar in Early European History (3). Examines selected themes in the history of Europe from ancient to early modern times. Theme(s) chosen by the instructor. Possible subjects: legacies of antiquity, philosophy and religion, feudal society, gender, and power.
HIST 178H Honors Seminar in Modern European History
(3). Examines selected themes in the history of modern Europe. Theme(s) chosen by the instructor. Possible subjects: effects of industrialism, nationalism, history of ideas, consumer society, modern revolutions, imperialism.

HIST 179H Honors Seminar in American History (3).
Examines selected themes in American history. Theme(s) chosen by the instructor. Possible subjects: colonial diversity, emerging nation, intellectual traditions, labor and capitalism, slavery and race relations, markets and political power, war and society.
HIST 190 Special Topics in History (3). Subject matter will vary with instructor but will focus on some particular topic or historical approach. Course description available from the departmental office. Closed to graduate students.

HIST 202 Borders and Crossings (3). This course will examine how collective identities have been created, codified, and enforced; and will explore possibilities for building bridges between groups in order to resolve conflicts.

HIST 203 Empires and Cultures in the Modern World (3). This course will examine the relationship between Asia, Africa, the Middle East, Latin America, and the making of the modern world in the 20th century.

HIST 205 Statecraft, Diplomacy, and War, 1618-1815 (3). The history of European international politics from the outbreak of the Thirty Years War to the Congress of Vienna. Considers the sources of national power, the reasons for war, and the changing nature of diplomacy.

HIST 206 Statecraft, Diplomacy, and War, 1815-1945 (3). The history of international politics from the fall of Napoleon to the end of the Second World War, with special attention to European nationalism, imperialism, the emergence of non-European great powers, the reasons for war, and the search for peace.
HIST 210 Global Issues in the 20th Century (ANTH 210, GEOG 210, GLBL 210, POLI 210) (3). See GLBL 210 for description.

HIST 212 History of Sea Power (PWAD 212) (3). The influence of sea power on international affairs will be surveyed from ancient times to the present. Emphasis on United States naval history and its interaction with diplomacy, economics, and technology.

HIST 213 Air Power and Modern Warfare (AERO 213, PWAD 213) (3). Examines air power theory and practice from 1914 to the present. Focuses on the application of air power as an instrument of war and the effectiveness of that application.

HIST 225 History of Greece (3). A survey of Greek history and culture from the Bronze Age to the Hellenistic period.

HIST 226 History of Rome (3). Origins to the first two centuries CE. Focuses upon Rome's growth as a world power and the shift from republican government to autocracy.
HIST 227 Cathedral and Castle in Medieval England (3). An approach to the Middle Ages through the architectural masterpieces of medieval England.

HIST 228 The Medieval Expansion of Europe (3). This course examines the formation of Christian Europe and its relationship with the wider world through the lens of European expansionism.
HIST 231 Native American History: The East (AMST 231) (3). See AMST 231 for description.

HIST 232 History of Native Americans in the Southeast (3). An examination of selected topics concerning the most significant Native American cultures and tribes in the southeastern United States from the earliest times to the present.

HIST 233 Native American History: The West (AMST 233)
(3). Deals with the histories of Native Americans living west of the Mississippi River. It begins in the pre-Columbian past and extends to the end of the 19th century.
HIST 234 Native American Tribal Studies (AMST 234, ANTH 234) (3). This course introduces students to a tribally specific body of knowledge. The tribal focus of the course and the instructor change from term to term.
HIST 235 Native America in the 20th Century (AMST 235) (3). See AMST 235 for description.

HIST 239 Religion in North America since 1865 (3). A survey of modern religion in the United States and Canada. Themes include religious pluralism; new religious movements, immigrant faiths; the relationship between religion and urban life, industrialization, and new science; religion and foreign affairs; questions of church and state; and the conflict between secular modernity and religious fundamentalism.

HIST 240 Introduction to Mexico: A Nation in Four
Revolutions (3). History of Mexico seen through four moments
of change: conquest, independence, 19th-century reforms, and 20th-century revolution. This course is an introductory survey for students who want to know more about Mexico, its place in Latin America, and its relations with the United States.

HIST 241 History of Latinos in the United States (3). A comparative examination of the historical experiences of Latinos in the United States, from the 19th century to the present, drawing on experiences of Mexican Americans, Puerto Ricans, Dominicans, and Central Americans. Special emphasis on the events, people, and ideas that have made distinctive contributions.

HIST 242 United States-Latin American Relations (3). This course examines the history of United States involvement in Latin America and the Caribbean. The material will cover two centuries of United States intervention, from the wars of the 19th century to the covert CIA operations of the Cold War and the more recent wars on drugs and terror.

## HIST 245 The United States and the Cold War: Origins,

 Development, Legacy (3). This is both a wide-ranging and detailed course that looks at the origins, the evolution, and the termination of the Cold War from 1945 to 1989/90. It also considers the "New Cold War" with Russia that developed in 2014. The course is based on an international and multinational perspective.HIST 246 The Long Cold War: United States Foreign Relations in the 20th and 21st Centuries (3). This is both a wide-ranging and detailed lecture course that looks at the rise of the United States to world power status and the evolution of United Sstates foreign relations from the late 19th century to the present. The course is based on a multinational and global perspective.

## HIST 247 Early Modern Japanese History and Culture (JAPN

 246) (3). See JAPN 246 for course description.HIST 249 World Christianity since 1450 (3). An intermediate survey of global Christianity from the late Middle Ages to the present day that traces evolving theology and worship; the role of religion in the politics of empire; modern challenges to traditional religion; and the international expansion of the faith.
HIST 251 The Thirty Years' War (1618-1648): Europe in an Age of Crisis (PWAD 251) (3). A critical examination of the significance of the Thirty Years' War for 17th-century Europe's social, religious, military, and geopolitical history. The representation of the conflict in art and literature also receives attention.

HIST 252 Politics, Society, and Culture in Modern Germany (1871-1945) (EURO 252) (3). This course explores the history of Modern Germany, by focusing on Imperial Germany, the Weimar Republic, and the Third Reich. We will study continuities and changes in politics, society, and culture and examine the lasting impact of World War I, World War II, and the Holocaust.
HIST 253 Art and Power in Early Modern Europe (3). This seminar interrogates the relationship between art and political power in the 15th through 17th centuries, assessing the nature of visual propaganda and art as an effective means of early modern communication, with special emphasis on gendered conceptions of power.

HIST 254 War and Society in Early Modern Europe (PWAD 254) (3). A critical examination, from the Renaissance to the Napoleonic period, of the changes in European land and naval warfare and their impact on society and government.

HIST 255 Manor to Machine: The Economic Shaping of Europe (3). From agriculture to industry, Europe's march to industrialization. Survey from the medieval manor through revival of trade, rise of towns, credit and capitalism, overseas expansion and mercantilism to the Industrial Revolution.

HIST 256 From Liberating France to Liberation of the French (3). Three events shaped contemporary France: collaboration and resistance in occupied France; the Algerian War; and the political, cultural, and social movements in the late 1960s and 1970s. This class will examine these events, how they are remembered and given meaning, and their role in making the France we know today.
HIST 257 Society and Culture in Postwar Germany (GERM 257, POLI 257, SOCI 257) (3). See GERM 257 for description.
HIST 259 Women in Politics and Society of Modern Europe (WMST 259) (3). This course examines and compares the situation of women in politics, the work force, society and family from the French Revolution to the new women's movement in the 1970s with a focus on Britain, France and Germany. One major theme is the history of the struggle for women's emancipation.

## HIST 260 East Central Europe from the 18th Century to

 the Present (3). A study in the emergence of nations of Eastern Europe, their internal development, mutual conflicts, and struggle for independence.HIST 262 History of the Holocaust: The Destruction of the European Jews (JWST 262, PWAD 262) (3). Anti-Semitism; the Jews of Europe; the Hitler dictatorship; evolution of Nazi Jewish policy from persecution to the Final Solution; Jewish response; collaborators, bystanders, and rescuers; aftermath.
HIST 264 Gender in Russian History (WMST 264) (3). Traces the development of sexual identities and changes in masculine and feminine ideals from Tsarist Russia through the post-Soviet period with emphasis on politics, society, and popular culture.

## HIST 268 War, Revolution, and Culture: Trans-Atlantic

 Perspectives, 1750-1850 (3). The course explores the dramatic historical changes from 1750 to 1850 and their intersection with and reflection in arts, literature, and music in a trans-Atlantic perspective.HIST 269 The History of London, World City, 1890-Present (3). Explores the history, culture, and politics of London from the decade before the First World War, through the "Swinging" 1960s, to the recent Olympics fever. Surveys the architecture, cultural institutions, and the arts, against the background of the city's changing racial, ethnic, religious, and socio-economic composition.

HIST 271 Premodern Japanese History and Culture (JAPN 231) (3). See JAPN 231 for description.

HIST 274 History of the Ottoman Empire, 1300-1923 (3). Approaches the history of the Ottoman Empire from a world historical perspective. Situates the Ottoman imperial experience in relation to Muslim, Mongolian, and Byzantine traditions. Discusses
the early modern and modern transformation of the Ottoman Empire and its legacy for contemporary Eastern Europe, the Middle East, and North Africa.

HIST 275 History of Iraq (ASIA 275, PWAD 275) (3). History of Iraq from ancient times to the present.
HIST 276 The Modern Middle East (ASIA 276) (3). This course introduces students to the recent history of the Middle East, including a comparison of the Middle East to the United States.

HIST 277 The Conflict over Israel/Palestine (ASIA 277, PWAD 277) (3). Explores the conflict over Palestine during the last 100 years. Surveys the development of competing nationalisms, the contest for resources and political control that led to the partition of the region, the war that established a Jewish state, and the subsequent struggles between conflicting groups for land and independence.
HIST 278 The Trans-Atlantic Slave Trade (3). Slavery in select African communities, economic and political foundations of the trans-Atlantic slave trade, and its impact on African and New World societies.

HIST 279 Modern South Africa (3). Beginning with the discovery of gold and diamonds in the mid-19th century and reaching to the present, this course considers colonialism, industrialization, social change, and political protest in South Africa, with particular attention to the rise, fall, and legacies of apartheid.

## HIST 280 Women and Gender in Latin American History

 (WMST 280) (3). Examines the experiences of women and gender relations in Latin American societies from pre-Columbian times to the present, providing a new perspective on the region's historical development.HIST 281 The Pacific War, 1937-1945: Its Causes and Legacy (ASIA 281, PWAD 281) (3). An examination of the origins of the Pacific War, the course of this bitter and momentous conflict, and its complex legacy for both Asia and the United States.
HIST 282 China in the World (ASIA 282) (3). See ASIA 282 for description.

HIST 284 Late Imperial China (3). This course introduces undergraduates to significant themes of the Ming (1368-1644) and Qing (1644-1911) dynasties. Topics include family, religion, art, fiscal change, trade networks, conquest, emperorship, Manchu ethnicity, the examination system and book culture, legal codes, gender, the Taiping Rebellion, and the Boxer Uprising, among others. No prior coursework required.
HIST 285 20th-Century China (3). China today is poised to become the next world superpower. What is the story of its modern transformation? This lecture course will introduce undergraduates to the history of 20th-century China, through a thematic approach to its culture, politics, and society. No prior coursework required.
HIST 287 Japan's Modern Revolution (ASIA 287) (3). Covering the period from 1600 to 1900 , this course examines the causes and impact of the Meiji Restoration of 1868, which marked the start of modern Japan.

HIST 288 Japan in the 20th Century (ASIA 288) (3). Topics include the Japanese Empire, the road to the Pacific War, defeat, the Allied occupation, Japan's recovery from war, and development into a democracy and the world's second largest economy.

HIST 291 Putting Literature and History in Dialogue (3). Dialogues between historiographic and fictional treatments of important historical problems. Explores works of history and literature to determine how different genres of writing give meaning to the past.

HIST 302H Film and History in Europe and the United States, 1908-1968 (3). This course explains how and why certain films helped shape the medium even as they reflected broader aspects of historical change. Beginning with the development of narrative film in 1908, the course looks at those nationally specific genres that had repercussions beyond national borders, ending in about 1968.
HIST 308 The Renaissance and the Jews (JWST 308) (3). The Renaissance (1300-1600) is known as a time of great artistic, scientific, and political renewal. But did Jews, the only religious minority in Europe, get an opportunity to benefit from and participate in that progress? This class studies the history of the Jews at a time of great cultural change.

HIST 309 Old Regime France, 1661-1787 (3). This course focuses on the period in French history between the ascendancy of absolute monarchy in the middle of the 17th century and the collapse of absolutism at the onset of the French Revolution.

HIST 310 The French Revolution (3). The French Revolution was a source of much that the modern world recognizes as its own: nationalism, human rights, class conflict, ideology, communism, conservatism, show trials, citizen armies, terrorism, and the concept of revolution itself. This course probes issues that underlie the continuing relevance of the French Revolution today.

HIST 311 Ghettos and Shtetls? Urban Life in East European Jewish History (JWST 311) (3). The migration of Jewish populations from small towns to large cities in Eastern Europe altered notions of Jewish community, space, cultures, and identities. This course will explore the roles of ghetto and shtetl in both history and memory of the Jewish past, drawing on memoirs, literature, film, and photography.
HIST 325 Food and History: The Local and Global, the United Kingdom and the United States (3). An examination of how food, its production, distribution, and consumption have shaped the history of the United States, the United Kingdom, and the world at large. The course will study how these nations and their empires have been intertwined but remained distinctive from colonial times to the present.

HIST 329 An Introduction to the History of Medicine (3). This course underscores the ways in which Western medicine has become a global political and cultural phenomenon in history, and discusses evidence of how different social actors have parsed the distinction between sickness and health over time.

HIST 330 Jesus and the Jews: From the Bible to the Big Screen (JWST 330) (3). This class will study the history of the claim that the Jews are responsible for Christ's death. Students will examine the power of this idea to travel through time and space and
discuss how it is portrayed differently and with different purposes throughout history.
HIST 331 Sex, Religion, and Violence: Revolutionary Thought in Modern South Asia (3). Which of the following would you consider potentially political issues: celibacy; semen retention; body-building; depiction of gods/goddesses; or bomb making? Well, they all are. This course examines debates over sex, religion, and violence that constituted a key part of revolutionary thought and anti-colonial struggles in modern South Asia.

HIST 334 Tsarist Russia on the Edge: Erotic, Decadent, Revolutionary (3). The turn of the 20th century was characterized by a highly stylized angst, and nowhere more so than in Russia. This course explores how the political, social, cultural, and economic transformations that vibrated throughout Russia provided a fertile context for the burst of creativity that spawned its modernist artistic movements.

HIST 345 Comparative Strategies of Empire (3). This teamtaught course compares premodern empires, inquiring into rulers' strategies and subject peoples' experiences. Empires studied will depend on instructors' areas of expertise, but may include Greeks, Romans, Chinese, Incas, West Africans, Mughals, and Ottomans, among others. We anticipate comparing three premodern empires in any given semester.

HIST 347 Fascist Challenge in Europe, 1918-1945 (3). The course focuses on theories of fascism, national cultures of fascism (e.g., Nazi Germany, Fascist Italy, Hungary) as well as selected topics that are essential to understanding the attraction and functioning of fascist movements and regimes since 1918 in Europe (e.g., racism, war, culture, charismatic leadership).

HIST 351 Global History of Warfare (PWAD 351) (3). The history of warfare from its prehistoric origins to the present. The focus is on interactions between peoples around the world and particularly on the problems of innovation and adaptation.

## HIST 354 War and Gender in Movies (PWAD 354, WMST

353) (3). The course examines and compares the images of war and gender that movies from different time periods and countries propagate and explores the different factors that influence these images and thereby the perception and recollection of war.
HIST 355 American Women's History to 1865 (3). This course will explore women's experiences in America from 1500 to 1865. Topics will include the ways in which women have shaped American politics, economy, society, and culture.

## HIST 356 American Women's History: 1865 to the Present

 (3). This course will examine the changing lives of women in the United States after 1865: their contribution to the economy, society, cultural change, and political struggles.HIST 357 Childhood in America (3). An examination of the changing history of childhood (emphasizing preadolescence) from the colonial times through slavery, homeless news boys, and the Great Depression to the present. Materials will include a variety of primary documents (novels, letters, slave narratives, prints and drawings, films) as well as recent scholarship.

HIST 358 American Sexualities (3). An introduction to the history of sexuality in North America from the colonial period to the sexual revolution, this course critically examines such issues as regulation, reproduction, reform, and identity.
HIST 360 Modern American Intellectual History (3). This course surveys questions that have preoccupied leading thinkers and shaped intellectual culture in America since 1870. Themes include the problem of defining American identity, the clash between faith and reason, social injustice, the meaning of "modernity," the power and pitfalls of ideology, conceptions of human nature.

HIST 361 Lesbian, Gay, Bisexual, and Transgender Histories in the United States (WMST 360) (3). This course investigates the history of people who might today be defined as lesbian, gay, bisexual, or transgender (LGBT) in the United States. Key themes will include identity formation, culture, politics, medical knowledge, discrimination, and community.
HIST 362 Baseball and American History (3). Course explores the historical significance of baseball in American life, using the history of the game to investigate topics such as industrialization, urbanization, and immigration; conflicts between labor and capital; racial prejudice and integration; patriotism and American identity; evolving gender ideals; and the role of myth in American culture.

HIST 363 Popular Culture and American History (3). Study of the popular arts and entertainments of the 19th and 20th centuries and the ways in which they illuminate the values, assumptions, aspirations, and fears of American society.
HIST 364 History of American Business (MNGT 364) (3). A survey of the rise and development of the major financial, commercial, manufacturing, and transportation enterprises that transformed the United States from an agricultural into a leading industrial nation.

## HIST 365 The Worker and American Life (MNGT 365)

(3). From the experience of colonial artisans to contemporary factory and office workers, organized and unorganized, this course examines the effect of the industrial revolution on the American social and political landscape.
HIST 366 North Carolina History before 1865 (3). The history of North Carolina from the original Indian cultures to the end of the Civil War. Important topics include colonization, the American Revolution, evangelical religion, slavery, economic and political reform, the rise of sectionalism, and the Civil War.

HIST 367 North Carolina History since 1865 (3). The history of North Carolina from the end of the Civil War to the present. Important topics include Reconstruction, agrarian protests, disfranchisement and segregation, industrialization and workers' experience, the civil rights movement, and 20th-century politics.
HIST 368 War and American Society to 1903 (PWAD 368) (3). The American military experience from colonial times to the early 20th century. Major themes include the problem of security, the development of military policies and institutions, and the way in which the country waged and experienced war.

## HIST 369 War and American Society, 1903 to the Present

 (PWAD 369) (3). Survey of America's military experience inthe 20th century, focusing on national security policy, military institutions, World Wars I and II, the Cold War, the Korean and Vietnam Wars, and recent interventions.
HIST 370 Samurai, Monks, and Pirates: History and Historiography of Japan's Long 16th Century (JAPN 363) (3). See JAPN 363 for description.
HIST 371 Emancipation in the New World (AAAD 385) (3). Will examine the way that the process of emancipation unfolded in Haiti, Jamaica, and Cuba, with major emphasis on emancipation in the United States.

HIST 372 Politics and Society since the New Deal (3). Diverse developments as interpreted within the framework of certain broad and open-ended themes, particularly individual freedom, social welfare, mass culture, and community.
HIST 373 The United States in World War II (PWAD 373) (3). A history of the United States in World War II (1941-1945): home front and military front.

HIST 374 The American West, 1800 to the Present (3). A survey of the growth and development of the American West from the nineteenth century to the present as a culture, economy, and society. Considers the interactions between Native Americans and other people of different races, national origins and genders as agents and contributors to the forging of the American West.
HIST 375 History of Gender in America (WMST 375) (3). See WMST 375 for description.

HIST 376 History of African Americans to 1865 (3). Survey of African American history to abolition of slavery in North America with some attention to experiences of people of African descent in Latin America and the Caribbean.

HIST 377 History of African Americans, 1865 to Present (3). Survey of African American history since emancipation in North America with some attention to experiences of people of African descent in Latin America and the Caribbean.

HIST 378 Slavery and Place: The South Carolina Case (3). This Maymester three-week course will examine slavery in the American South by focusing on slavery in South Carolina both on large plantations and in the urban setting of Charleston.
HIST 379 Race, Segregation, and Political Protest in South Africa and the United States (3). This course explores the origins, consolidation, and unmaking of segregationist social orders in the American South and South Africa from the colonial era up to the 20th century.

HIST 380 Quilting African American Family History (3).
Examines methods African American people used to create the family as an institution once they became free. Looks at families under segregation and Jim Crow, through the civil rights movement, to the growth of a black middle and underclass. Also explores nontraditional African American families, including interracial and gay families.
HIST 381 Bebop to Hip-Hop: The Modern Black Freedom Struggle through Music (3). The struggle for freedom has been a pivotal theme in African American history. This course turns to
music to explore the shifting contours and permutations of that struggle between the 1940s and 1990s.

HIST 389 Maid in America, Made in China: Laboring Women in Global Perspective (WMST 389) (3). Explores women's experiences in the workforce historically and today. Lectures, readings, and discussions examine the larger social and political consequences of women's presence in the workplace, efforts to fashion identities as wage laborers on their own terms, race and class divisions, and the boundaries between their waged and unwaged labors.

HIST 390 Special Topics in History (3). Subject matter will vary with instructor but will focus on some particular topic or historical approach. Course description available from departmental office. Closed to graduate students. Repeatable for credit.

HIST 398 Undergraduate Seminar in History (3). Permission of the department. The course is in general limited to 15 students. The subject matter will vary with the instructor. Each course will concern itself with a study in depth of some historical problem. Students will write a substantial research paper.

HIST 420 Politics and Religion in Ancient Greece (3). This course deals with ancient Greek religious practices and seeks to place them in their legal, political, and cultural contexts, and thus integrate them into the study of Greek history.

HIST 421 Alexander (PWAD 421) (3). The rise of Macedonia; the careers of Philip II and Alexander (with emphasis on the latter's campaigns); the emerging Hellenistic Age. The course integrates computer (including Web site) and audiovisual materials throughout.

HIST 422 Ancient Greek Warfare (PWAD 422) (3). War and the warrior in the archaic and classical Greek world, seventh to the fourth centuries BCE.

HIST 423 Archaic Greece, 800-480 BCE (3). HIST 225 strongly recommended. Topical approach to the social and cultural history of the ancient Greek city states, ca. 800-336 BCE.

HIST 424 Classical Greece (Sixth-Fourth Centuries BCE) (3). HIST 225 strongly recommended. The life and times of the ancient Athenians from the sixth to fourth centuries BCE.

HIST 425 Roman History, 154 BCE-14 CE (3). Explores the transformation from Republic to Principate. Conducted in considerable part by student reports and classroom discussions.
HIST 427 The Early Roman Empire, 14 CE-193 CE (3). Focuses upon administrative, social, and economic themes. Conducted in considerable part by student reports and classroom discussions.

## HIST 428 The Later Roman Empire, 193 CE-378 CE (3).

Focuses upon administrative, social, and economic themes. Conducted in considerable part by student reports and classroom discussions.

HIST 431 The Medieval Church (3). The nature and workings of the Western church between roughly 600 and 1300. Emphasis on the church "from within," organization, missionary strategies, liturgy, monasticism, popular religion.

HIST 432 The Crusades (3). Students in this course will examine Christian attitudes toward holy war, crusading, and other forms of coercive violence from the 11th until the 15th centuries, with a focus on the major crusades to the Holy Land.

HIST 433 English Society, 1200-1700 (3). Examines critical issues in the development of English society and economy in the centuries before industrialization.

HIST 434 Medieval England (3). A consideration of England's origins, unification, and development as a national monarchy. Primary emphasis is on political, ecclesiastical, and cultural aspects.

HIST 435 The Medieval University (3). The origins and development of the university during the period 1100 to 1400; types of organization, curricula and degrees, intellectual life, towngown and student-master relationships.
HIST 436 Medieval Theology, Gender, and the Body (3). This course will explore notions of male and female sanctity from Late Antiquity to the High Middle Ages. Topics will include martyrdom, the cult of relics, and bodily resurrection.

HIST 437 Aristocratic Culture in the Central Middle Ages
(3). This course has as its theme the lives of aristocratic men and women in western Europe between about 850 and 1200 CE. Discusses the nature of aristocratic identity, the trends that shaped the lives of aristocratic men and women, and the different roles of men and women within aristocratic culture.

HIST 438 Medieval Masculinities, 500-1200 (3). This course examines the multifaceted constructions of masculinity found in narrative texts produced in medieval western Europe. Focuses on topics such as gender relations, male self-fashioning, homosocial bonding, family structures. Sources studied range from epic and romance to chronicles and visual records.

HIST 451 1492: The Expulsion of the Jews from Spain (JWST 451) (3). The largest and most prosperous Jewry of Europe lived in medieval Spain. The 1492 expulsion, driven by the Inquisition and Catholic monarchy, not only ended Spanish Jewish life but also forced a traumatic redefinition of Jewish identity. This course focuses on the causes and consequences of the expulsion of 1492.

## HIST 452 The Renaissance: Italy, Birthplace of the

Renaissance, 1300-1550. (3). A study of the people, culture, and intellectual achievements of the Italian Renaissance with emphasis on the interaction between culture and society.

HIST 453 Mediterranean Societies and Economics in the
Renaissance World (3). A picture of Mediterranean social and economic life 1300 to 1600 , with special focus on rural and urban society, family structure, patronage, work and wages, public and private finance.

HIST 454 The Reformation (RELI 454) (3). Examines a movement of religious reform that shattered Latin Christendom and contributed many of the conditions of early modern Europe. Emphases: religious, political, social.

HIST 455 Europe in the 17th Century (3). The century marks the watershed in European development. Emphases: statecraft, the emerging state-system, the new scientific world view, the evolution of European society.

HIST 458 Europe and the World Wars, 1914-1945 (3). Europe and the experience of total war, with special focus on national conflicts; ideological conflicts among fascism, communism, and liberalism; and the dictatorships of Hitler and Stalin.

HIST 459 Global Evangelicalism since 1600 (3). This is a survey of evangelical Christianity from 1600 to the present. We will trace the roots of evangelicalism in post-Reformation Europe, its diverse expressions and political influence in modern Western culture, and its recent spread throughout the Global South.

HIST 460 Late Medieval and Reformation Germany (3). Examines the major late medieval religious, social, and political developments plus the Reformation and Counter-Reformation. Topics include Luther's theology, the German Peasant's War, JewishChristian relations, witch-hunting, and family life.

HIST 461 Early Modern Germany, 1600-1815 (3). Examines major political, social, and cultural developments. Topics include the growth of absolutist government, Prussia's militarism and rivalry with Austria, German Jewry, Baroque music, the Enlightenment, and the Napoleonic wars.

HIST 462 Germany, 1806-1918: Politics, Society, and Culture (3). This course examines the changes in German politics, culture, and society during the long 19th century, with a focus on the AntiNapoleonic Wars and the following era of restoration, the Vormärz and the Democratic Revolution of 1848 to 1849, the German Unification of 1871 and the Wilhelmine Empire, and finally World War I.

HIST 463 Germany since 1918: Politics, Society, and Culture (3). This course examines the changes in German politics, culture, and society during the 20th century, with a focus on the Weimar Republic, the Third Reich and World War II, the reshaping of East and West Germany since the post-war era, and the unification in 1989.

HIST 464 History of Spain (3). A survey of Spanish history from the Islamic invasion to Napoleon. Particular attention will be given to the period of the Hapsburgs, 1516 to 1700.
HIST 465 Intellectual History of Europe, Early Period (3). The course examines the gradual erosion of and criticism within the classical Christian tradition that led to the emergence of a new mentality by the end of the 17 th century. Two lectures, one discussion per week.

HIST 466 Modern European Intellectual History (3). The main developments in European thought from the Enlightenment to the 20th century, with some attention to social context. Readings include Voltaire, Rousseau, Hegel, Marx, Tocqueville, Sand, Flaubert, Nietzsche, Freud.

HIST 467 Society and Family in Early Modern Europe (3). A survey of changes in social organization, family life, courtship practices, sexual behavior, and the relations between the economy and population that occurred in preindustrial Europe, 1500-1815.

HIST 468 Art, Politics, and Society in France, 1850-1914 (ARTH 483) (3). See ARTH 483 for description.

HIST 469 European Social History, 1815-1970 (3). The social transformation of Europe from agrarian through postindustrial
society, discussing population growth, family history, spread of education, class structure, social conflict, group ideologies, and mass politics, as well as everyday lives and popular lifestyles.

HIST 470 The Scientific Revolution (3). Traces the creation of scientific thought 1500 to 1700 , from Leonardo to Newton, examining the various strands-Greek science, art, engineering, experimentation, occultism, etc.-woven into it.

HIST 471 History of Science from Newton to Einstein (3). A survey of the development since 1700 of the various branches of physical and biological science, culminating in the 20th-century revolution in physics.

HIST 472 Medicine and Health in Early Modern Europe (3). Shows how the age of Shakespeare and Newton (16th- to 17thcentury England) fused old and new ideas about medicine and health, anticipating some of our own beliefs and practices.

HIST 473 Tudor and Stuart England, 1485-1660 (3). A lecture course, open to juniors, seniors, and graduate students.

HIST 474 Britain in World Affairs: British Foreign Policy since World War II (3). The course provides an historical, political, and socioeconomic framework for understanding British history and politics in the 20th and 21st centuries. We will assess important turning points in domestic British politics, the main focus will be on Britain's foreign relations during both the Cold War and the post-Cold War years.

HIST 475 Feminist Movements in the United States since 1945 (WMST 476) (3). This course will examine the unprecedented surge of feminist thought and activism in the postwar United States. Course materials and discussions will trace feminists' varied conceptions of empowered womanhood and their expectations of the state, society at large, and each other.

HIST 476 Borderlands: Religion and Ethnicity in Modern East Central Europe (JWST 476) (3). The history of modern Eastern, East Central, and southeastern Europe has been shaped by the ethnic and religious diversity of the regions. This course examines experiences in the Russian, Habsburg, and Ottoman Empires and their successor states from the 19th century to the present day.

HIST 477 Revolution in Russia, 1900-1930 (3). A close study of Russia's age of revolution from the reign of the last tsar to the turbulent Stalin Revolution of 1929, with emphasis on the revolutions of 1917.

HIST 478 Stalin and After: The USSR, 1929-Present (3). An in-depth examination of Soviet and post-Soviet history from 1929 to the present.

## HIST 479 History of Female Sexualities in the West (WMST

 479) (3). Spanning the ancient, medieval, and modern West, this course explores normative and non-normative female sexualities, ideas about female bodies, and the regulation of female sexuality by families, religions, and states.HIST 480 Russia's 19th Century: Cultural Splendor, Imperial
Decay (3). The diplomatic, military, and ideological confrontations with the West; the decline and fall of the Russian autocracy; the evolution of reform thought; and revolutionary opposition.

HIST 481 Eastern Europe since World War II (3). An examination of the countries of Eastern Europe, their origins and development since World War II, their cohesion and conflict.

HIST 482 Russia, Eurasian Empire (3). This course examines the development of the Russian Empire, from the Mongol conquest in the 13th century to the transformation of Imperial Russia in the Soviet Union after 1917.

## HIST 483 Nation and Religion in Tsarist and Soviet Russia

 (3). This course explores the role of nation and religion in shaping political, cultural, and social experience and change in Tsarist and Soviet Russia through the prism of Christianity, Islam, and Judaism.HIST 484 Islam in Tsarist and Soviet Russia (3). This course examines the role that Islam has played in the history of the Russian sphere-interior Russia, Siberia, the Caucasus, and Central Asiafrom the 18th century to the present. Topics include methods of rule, social change, Islamic institutions, attempts to bureaucratize religion, and resistance.

## HIST 485 Modern East European Jewish History (JWST

485) (3). Eastern Europe was one of the largest centers of Jewish civilization from premodern times to the Second World War, giving rise to important religious, cultural, and political developments in Jewish modernity. This course examines main developments of Jewish society from the late 18th century until the aftermath of the Holocaust.

HIST 490 Special Topics in History (3). Subject matter will vary with instructor but will focus on some particular topic or historical approach. Course description available from the departmental office.

HIST 493 Internship in History (1-3). Permission of the director of undergraduate studies. A supervised internship at an organization or institution engaged in the promotion of historical studies or the collection and preservation of historical documents and artifacts.

HIST 495 Independent Research in History (1-3). Permission of the director of undergraduate studies. Directed primary source research and production of a research project, supervised by a member of the department. Prior coursework in the selected field is recommended.

HIST 496 Directed Readings in History (1-3). Permission of the director of undergraduate studies. Directed reading and relevant writing, supervised by a member of the department, in a selected field of history.

HIST 500 Gender, Empire, and Nation in Europe and Beyond, 18th to the 20th Century (WMST 500) (3). This course explores the growing body of research on gender, empire, and nation/nationalism in modern European history by focusing on problems of national belongings and citizenship, state and nation building and empire formation, and the gendered discourses and representations of nation and empire.

HIST 501 The Gender of Welfare: Comparative Perspectives, 19th and 20th Century (WMST 501) (3). This course explores the growing body of research on gender and welfare in a comparative perspective by focusing on the sexual division of labor in the workforce and the family, related social and family policies,
including child care, and social citizenship in a comparative perspective.
HIST 510 Human Rights in the Modern World (3). This course looks at the international history of human rights from the Enlightenment to the present and considers how human rights ideas first emerged, how they evolved, and how they became so influential.

HIST 513 Imperialism and the Third World (3). This course explores the processes by which 19th-century imperialism set the contours of the modern world, establishing relations among societies and reconfiguring both colonial cultures and European cultures.

## HIST 514 Monuments and Memory (ARTH 514) (3). See ARTH 514 for description.

HIST 516 Historical Time (3). This course explores the ways in which Western historians and other students of the past from Adam Ferguson to Stephen Jay Gould have conceptualized and packaged historical time.

## HIST 517 Gender, Military, and War in Comparative

Perspective (PWAD 517, WMST 517) (3). This course introduces students to new research on the history of gender, the military, and war in a comparative perspective. It explores the interrelations between changing military systems, types of warfare, the gender order, as well as political, social, and cultural currents in modern history.

HIST 526 History of the Andes (3). This course offers a survey of the history of the Andean region. The primary focus will be either the pre-Inca, Inca, and colonial periods or the 19th and 20th centuries, depending on the instructor.

HIST 527 Latin American Indigenous Peoples (3). This course surveys the history of Latin American indigenous peoples from the conquest to the present. Focus is on indigenous struggles and survival strategies.

HIST 528 Guerrillas and Counterinsurgencies in Latin America (3). This course examines the leftist guerrilla movements that swept Latin America and the Caribbean during the latter half of the 20th century. Students will analyze the origins, trajectories, and legacies of these insurgencies, paying particular attention to the roles of race, class, and gender.
HIST 529 Mexico, 1750-1870: War, Independence, and Reforms: Citizenship and Conflict in a New Nation (3). This upper-division course focuses on the major issues, debates, and conflicts that arose over citizenship in a multiethnic society, tensions between church and state, and the definition of national territory in Mexico as a new and modernizing nation.

HIST 531 History of the Caribbean (3). Thematic approach to the history of the West Indies, with emphasis on the period from European conquest through the 20th century. Topics include colonialism, slavery, monoculture, United States-Caribbean relations, and decolonization.

HIST 532 History of Cuba (3). Thematic approach to Cuban history, from conquest to the revolution. Attention is given to
socioeconomic developments, slavery and race relations, the 19thcentury independence process, and the 20th-century republic.

HIST 533 History of Brazil (3). This course is concerned primarily with the creation of a new society through race mixture and culture change, and with the political and economic development of Brazil.

HIST 534 The African Diaspora (3). A comparative examination of the movements, experiences, and contributions of Africans and people of African descent from the period of the Atlantic slave trade to the present.

HIST 535 Women and Gender in African History (3). Analysis of historical transformations in Africa and their effects on women's lives and gender relations. Particular themes include precolonial societies, colonialism, religious change, urban labor, nationalism, and sexuality.
HIST 536 Revolution in the Modern Middle East (ASIA 536) (3). This course will focus on revolutionary change in the Middle East during the last century, emphasizing internal social, economic, and political conditions as well as international contexts.

HIST 537 Women in the Middle East (ASIA 537, WMST 537)
(3). Explores the lives of women in the Middle East and how they have changed over time. Focus will change each year.
HIST 538 The Middle East and the West (ASIA 538) (3). This course explores changing interactions between the Middle East and the West, including trade, warfare, scientific exchange, and imperialism, and ends with an analysis of contemporary relations in light of the legacy of the past.

HIST 539 The Economic History of Southeast Asia (ASIA 539) (3). This course is intended as a broad overview of Southeast Asian economic history from premodern times to the present day.
HIST 550 Gender in Chinese History (3). This course is designed to introduce undergraduates to recent historical scholarship in the field of Chinese gender studies. Topics include family and kinship, the body and bodily practices, social space, writing, sexuality, work, and law, covering both the premodern and modern periods. No prior coursework required.

HIST 561 The American Colonial Experience (3). An in-depth history of colonial North America. Topics include interactions among Native Americans, Europeans, and Africans and the founding and development of English, French, and Spanish colonies in the lands that eventually became the United States.

## HIST 562 Oral History and Performance (COMM 562, FOLK

 562, WMST 562) (3). See COMM 562 for description.HIST 563 Jacksonian America, 1815-1848 (3). The society and politics of the United States during the period dominated by President Andrew Jackson. Topics include economic development, the expansion of slavery, religion and reform, the changing roles of women, and the political movements associated with "Jacksonian democracy."
HIST 564 Revolution and Nation Making in America, 17631815 (PWAD 564) (3). Major topics: constitutional conflict in the British empire; independence and war; Confederation and

Constitution; growth of political parties and nationality in a period of domestic change and international conflict.
HIST 565 Civil War and Reconstruction, 1848-1900 (PWAD
565) (3). Focus is on causes, nature, and consequences of the Civil War.
HIST 566 The History of Sexuality in America (3). A history of the sexual practices, desires, and understandings of Americans, from earliest colonial encounters to the late 20th century.

HIST 568 Women in the South (WMST 568) (3). An
exploration of the distinctive themes in Southern women's lives, using the evidence of history and literature.

## HIST 569 African American Women's History (WMST 569)

(3). The course covers the history of black women in the United States from the 18 th century to the present. It deals with such themes as work, family, community, sexuality, politics, religion, and culture.

HIST 570 The Vietnam War (ASIA 570, PWAD 570) (3). A wide-ranging exploration of America's longest war, from 19thcentury origins to 1990s legacies, from village battlegrounds to the Cold War context, from national leadership to popular participation and impact.
HIST 571 Southern Music (FOLK 571) (3). Explores the history of music in the American South from its roots to 20th-century musical forms, revealing how music serves as a window on the region's history and culture.

HIST 574 Spanish Borderlands in North America (3). The history of the Spanish colonial experience north of Mexico, to 1820.

## HIST 576 The Ethnohistory of Native American Women

 (WMST 576) (3). Introduces students to the study of Native American women through the perspectives of anthropology, history, and autobiography.
## HIST 577 United States Foreign Relations in the 20th Century

(PWAD 577) (3). How the United States came to occupy a leading role in world affairs as a diplomatic, military, economic, and cultural power and what that role has meant to Americans and to other peoples, especially during the Cold War.
HIST 578 Trans-Atlantic Relations and Contemporary Geopolitics from the Cold War to the Present (3). This course considers trans-Atlantic relations in its security, political and economic dimensions. The course also analyzes United States attempts to construct a more united European continent. It is the main aim of this course to give students a structured overview of trans-Atlantic relations and geopolitical developments from 1945 to the present.

HIST 581 American Constitutional History to 1876 (3). In a classroom environment characterized by discussion, simulation, and interaction, the antecedents, formation, and interpretation of the Constitution are confronted in a broad historical matrix.

HIST 582 American Constitutional History since 1876 (3). Using a classroom environment similar to HIST 581, constitutional adjustments and change are related to psychological, political, social, and economic factors, and to Supreme Court members.

HIST 584 The Promise of Urbanization: American Cities in the 19th and 20th Centuries (3). A survey of the development of American cities since 1815 and their influence upon American history.

HIST 586 The Old South (3). Economic, cultural, and social history of the antebellum South. The region's political history will serve as a supporting part of the study.

HIST 587 The New South (3). This course explores the transformation of the South from the time of the Civil War and emancipation to the contemporary rise of the Sunbelt.

HIST 589 Race, Racism, and America: (United States) Law in Historical Perspective (3). This course will historically and critically examine the changing legal status of people of color in the United States. Within a broad historical matrix from the colonial era to the present, it will focus on African Americans, Native Americans, Asian Americans, Latina/os, and United States law.

HIST 622 Medicine and Society in America (3). A survey of major developments in the history of American medicine. Emphasis will be placed upon setting the practice of medicine as well as the experience of health and disease into broad social, cultural, and political contexts.

HIST 624 Intellectual History of African Americans (3). Examines African American intellectuals in North America with some attention to black writers in the Caribbean. Emphasizes American Negro Academy, black scholars, scholar-activists, writers, and public intellectuals.

HIST 625 Technology and American Culture (3). Technology's impact on American thought and society and the response it has engendered. Topics will include the factory town, search for utopia, impact of Henry Ford, war, and depersonalization.

HIST 670 Introduction to Oral History (FOLK 670) (3).
Introduces students to the uses of interviews in historical research. Questions of ethics, interpretation, and the construction of memory will be explored, and interviewing skills will be developed through field work.

HIST 671 Introduction to Public History (3). Introduces the theory, politics, and practice of historical work conducted in public venues (museums, historic sites, national parks, government agencies, archives), directed at public audiences, or addressed to public issues.

HIST 691H Honors in History (3). Permission of the instructor. Introduction to the methods of historical research; designed to lead to the completion of an honors essay.
HIST 692H Honors in History (3). Permission of the instructor. Introduction to the methods of historical research; designed to lead to the completion of an honors essay.

HIST 697 Myth and History (3). Myths and legends are the stuff of history. An interdisciplinary capstone course treating topics such as Alexander the Great and George Washington as mytho-historical heroes, the Holy Grail, and uses of myth in the modern world.

## Interdisciplinary Studies

curricula.unc.edu/students/interdisciplinary-studies
3018 Steele Building, CB\# 3504
JAMES THOMPSON, Program Director

## Introduction

Students interested in an interdisciplinary degree program not covered by any degree-granting department or curriculum should apply to the program director for interdisciplinary studies.

An IDST major has more focus than many of the more traditional majors and therefore should not be seen as a default major for someone undecided about his or her course of study. The IDST major must be well conceived but substantially different from majors that students pursue through traditional departments, schools, and curricula. Students must have a grade point average of at least 2.75 and at least 45 hours left before graduation. All IDST students must identify a faculty sponsor who will serve as their mentor on course selections, career planning, graduate work, and advanced study. Students are strongly encouraged to meet all of the General Education Foundations and Approaches requirements before pursuing the interdisciplinary studies major.

In the past, students have designed their own majors in such varied fields as medieval studies, food studies, arts management, medical geography, and urban studies.

## Interdisciplinary Studies Major, B.A.

The interdisciplinary studies major, designed by the student and the student's faculty sponsor, is for students who wish to develop a major outside those offered by the departments and curricula belonging to the College of Arts and Sciences. The degree program consists of eight courses, which must be chosen from at least three departments (with a maximum of four courses from any one department) and which must be appropriate for juniors and seniors majoring in those departments. The courses should form a coherent major to which the student is able to assign a title. Additionally, students are encouraged to select electives and General Education courses that complement the eight courses chosen for the major.

With the permission of the relevant professional school, a student may use up to 12 hours of professional courses (e.g., in business administration, media and journalism, information and library science, public health, education) in the IDST major. This can be advantageous to students who want some concentration in these areas but who also want a degree in arts and sciences.

## Advising

Appointments may be made with James Thompson. Inquiries may be made through e-mail at uthomp@email.unc.edu. Students should come prepared with a draft of their major proposal. Students are strongly encouraged to meet regularly with their advisor and review their Tar Heel Tracker each semester.

## Special Opportunities in <br> Interdisciplinary Studies

Qualified students may pursue honors through one of the departments or curricula included in their major core.

IDST students may participate in the undergraduate research opportunities available in the departments and curricula that constitute their program of study, and they sometimes complete an internship either in the summer or during the academic year.

## Graduate School and Career Opportunities

Since IDST can provide a broad background in the liberal arts, graduate study in a number of academic disciplines is possible. Students are encouraged to contact the graduate or professional school to which they wish to gain admission to determine the specific undergraduate academic requirements necessary for admission. An IDST major is generally not recommended for students planning graduate study in the sciences.

Career opportunities for IDST are as varied as the reasons students give for selecting the major.

## Contact Information

Professor James Thompson, Program Director, uthomp@email.unc.edu.

## Courses

## IDST-Interdisciplinary Studies

IDST 89 First-Year Seminar: Special Topics (3). Content varies each semester.

IDST 101 Topics in Teaching: The Sciences (1). Teaching as an intellectual discipline, including its impact on society. Students experience teaching, study how people learn, reflect upon their own learning, and discuss the role of education in society. Pass/Fail only.
IDST 110 It Only Looks Easy: The Art and Science of Teaching (1). Teaching as an intellectual discipline, including its impact on society. Students experience teaching, study how people learn, reflect upon their own learning, and discuss the role of education in society. Pass/Fail only.

IDST 184 Research beyond Academia (1). Researchers from the Triangle region and beyond will discuss their research to provide students with exposure to research opportunities and careers outside academia. This course meets a requirement for the Carolina Research Scholars Program.
IDST 190 Special Topics in Interdisciplinary Studies (1-3). Special topics course. Content varies each semester.

IDST 194 Modes of Inquiry (1). A seminar in which faculty discuss their own work. Students will learn how topics are defined and investigated and how undergraduates can engage in discovery. Pass/Fail only.

IDST 295 Introduction to Research (1). The work must involve at least four hours per week of mentored research in a campus research laboratory. Does not count as a course in the major. Pass/ Fail only.

IDST 296 Course Correspondent Project (1). Permission of the instructor and the instructor's department. Learning contract required. Students participating in UNC-led study abroad programs develop activities to supplement instruction in on-campus courses. Supervised by the on-campus instructor, students file reports on the sites, language, and culture of the country in which they are studying. Pass/Fail only.
IDST 301 American Colleges and Universities: Junior Transfer Seminar (3). This course will examine American colleges and universities from a variety of perspectives, ranging from the individual student's experience to the role of higher education in larger social systems. The course will survey diverse institutions in American higher education. Students will compare the unique needs of these institutions as well as the populations they serve.

IDST 396 Independent Study (1-3). Independent project to be arranged with an instructor.
IDST 496 Independent Study (1-6). Permission of the department. Special reading and research for graduate and undergraduate students on a specific interdisciplinary topic under the direction of a faculty member.

IDST 691H Senior Honors Thesis (3). Permission of the instructor. Required of all senior honors candidates.

IDST 692H Senior Honors Thesis (3). Permission of the instructor. Second semester of senior honors thesis; required of all senior honors candidates.

## Curriculum in Latin American Studies

isa.unc.edu
FedEx Global Education Center, CB\# 3205; (919) 962-0398
LOUIS A. PÉREZ, Chair

## Introduction

The three main goals of the Curriculum in Latin American Studies are 1) to develop students' basic knowledge and comprehension of key themes in Latin American and Caribbean history, cultures, and contemporary social, economic, and political issues; 2) to develop students' abilities to think critically, in an interdisciplinary manner, about Latin American and Caribbean issues, past and present, and to locate them within broader global perspectives; and 3) to develop students' proficiency in Spanish or Portuguese and other languages of the region as needed, as part of their program of study.

## Latin American Studies Major, B.A.

## Core Requirements ( $\mathbf{1 0}$ courses)

- LTAM 101 (recommended) and 697 (required); both courses may count in any sequence.
- Four courses required in the declared primary sequence
- Two courses in each of the other three sequences

The Curriculum in Latin American Studies is divided into two concentrations: humanities and social sciences. These concentrations are further divided into sequences: humanities, into history and culture-literature sequences; social sciences, into journalism-political science and anthropology-economicsgeography sequences. To ensure depth in a single discipline of Latin American and Caribbean studies, four of the 10 courses required for the major must be selected from one of the sequences. To ensure breadth of exposure to other areas of Latin American and Caribbean studies, two courses must be selected from each of the other three sequences.

## Humanities Concentration

## History Sequence

- AAAD 260; AAAD 385/HIST 371; HIST 142, 143, 240, 241, 242, 278, 528, 529, 530, 531, 532, 533, 534, 574; HIST/ WMST 280; LTAM 291


## Culture-Literature Sequence

## Portuguese

- PORT 270, 275, 310, 323, 382, 388, 503, 504, 535

Spanish

- SPAN 270, 330, 335, 344, 345, 348, 350, 361, 373, 381, 385, 387, 389, 613, 614, 625; SPAN/WMST 620


## Other Courses

- ARTH 157, 160, 267, 277, 352; CMPL 133; DRAM 288, 486; ENGL 685; LING 558, 560, 561; LTAM 411, 512; MAYA 101; MUSC 147


## Social Sciences Concentration

## Journalism-Political Science Sequence

- JOMC 443, 446, 490; PLCY 349; POLI 231, 238, 434, 435, 436, 450


## Anthropology-Economics-Geography Sequence <br> Anthropology <br> - ANTH 103, 142, 231, 232, 320, 360, 439, 453; ANTH/FOLK 130

## Economics

- ECON 450, 454, 465, 560; ECON/EURO/PWAD 460

Geography

- GEOG 130, 259, 430, 452, 457, 458

Other Courses

- AAAD 260, 460; ANTH/LING 303; LTAM 411, 512; RELI 245; SOCI 453
Listed above are the most commonly offered courses in each sequence. Please note that not all the courses on Latin American and Caribbean topics are listed here, and many other courses may satisfy the major requirements. Special topics courses, firstyear seminars, undergraduate seminars, independent studies, and capstone courses taught by Latin Americanist and Caribbeanist faculty members on Latin American and Caribbean topics also may
count.


## Additional Requirements

- Spanish or Portuguese at least through the fifth-semester course

Majors are encouraged to work toward proficiency in both Spanish and Portuguese. There are also language across the curriculum (LAC) courses, which allow students to use their Spanish or Portuguese in select courses. Students taking LAC courses with Spanish or Portuguese recitation sections may receive one hour of additional credit by enrolling in SPAN 308 or PORT 308. For details on the LAC program see isa.unc.edu/language-programs/ language-across-the-curriculum.

All General Education requirements apply. First- and secondyear students are strongly encouraged to enroll in LTAM 101, an interdisciplinary introductory course offered each year, usually in the spring.

The following courses are recommended for fulfilling General Education requirements for students interested in majoring in Latin American studies:

Foreign Language: Spanish or Portuguese should be used to satisfy the Foundations foreign language requirement. The foreign language 1 through 4 sequence (PORT 101, 102, 203, and 204 or SPAN 101, 102, 203, and 204) may be completed in two semesters by enrolling in intensive courses (PORT 111 and 212, or SPAN 111 and 212).

Visual and Performing Arts: DRAM 486; MUSC 146
Literary Arts: PORT 270, 275; SPAN 260, 270, 373
Social and Behavioral Sciences: ANTH 130, 142, 320;
ECON 101; GEOG 120, 130; HIST 142, 143; PLCY 349;
POLI 231, 238

## Advising

All majors have a primary academic advisor in Steele Building. Students are strongly encouraged to meet regularly with their advisor and review their Tar Heel Tracker each semester. The department's director of undergraduate studies (DUS) works with current and prospective majors by appointment. Majors are expected to meet with the LTAM DUS once a semester and to attend at least one meeting of the LTAM majors a year. Departmental academic advising is particularly important for those majors who are considering going on to graduate school. Further information on courses, undergraduate research and internship funding opportunities, and the honors program may be obtained through the Curriculum in Latin American Studies Web page at isa. unc.edu or by contacting the director of undergraduate studies at riefkohl@email.unc.edu.

## Special Opportunities in Latin American Studies

## Honors in Latin American Studies

Latin American studies majors with an overall grade point average of 3.3 are invited to pursue a degree with honors by writing an honors thesis during the senior year. Each honors thesis is written
under the direction of an appropriate faculty advisor; when completed, the thesis must be defended orally before an examining board of faculty members. Honors candidates enroll in the two honors courses (LTAM 691H and 692H). LTAM 691H counts as a course in the student's concentration.

## Experiential Education

Students who are particularly committed to field experience or experiential education in Latin America may be able to arrange for this through independent study credit. Students wishing to do so should have the academic support of a regular faculty member and contact the institute's associate director well in advance of the semester in which the experience is to take place.

## Intensive Yucatec Maya

Each summer the Consortium in Latin American and Caribbean Studies at the University of North Carolina and Duke University offers intensive instruction in modern Yucatec Maya, with a secondary focus on ancient, colonial, and modern Maya culture. The courses include classroom instruction in Chapel Hill (LTAM 411) or in Mérida, Mexico (LTAM 512 and 690), and a field study experience in Yucatán, Mexico. See the Maya program Web site at isa.unc.edu/language-programs/yucatec-maya-institute for current course information.

## Independent Study

Any student may enroll in independent study (LTAM 396) with the permission of the curriculum faculty advisor and the agreement of a Latin American or Caribbean studies faculty member who will supervise the student's independent study project. This course may be used to fulfill the requirements of the major, and it is often linked to internships or to undergraduate grants for summer research travel.

## Study Abroad

Study abroad is not a requirement of the major; however, living and studying in Latin America or the Caribbean is highly recommended as an experience that majors should consider. The UNC-Chapel Hill Study Abroad Office offers a broad range of programs in Latin America and the Caribbean. Visit the Study Abroad Office Web site at studyabroad.unc.edu. ISA and the Study Abroad Office offer competitive scholarships for majors wishing to undertake study in Latin America and the Caribbean.

## Undergraduate Awards

Each year UNC-Chapel Hill offers funding opportunities for students conducting research or studying abroad in Latin America or the Caribbean. These include the Julia Crane, Halpern, and Mellon Awards. The Federico Gil award recognizes the best undergraduate honors thesis written on a Latin American or Caribbean topic. Contact the director of undergraduate studies for information.

## Undergraduate Research

Latin American Studies majors are eligible to develop a senior thesis project in their last year. The thesis may be related to a field work project the summer after the junior year. A small number of grants might be available for undergraduate field research in Latin America, especially in connection with a senior thesis.

## Graduate School and Career Opportunities

The Curriculum in Latin American Studies provides advice for students interested in pursuing graduate school and career opportunities in Latin America or the Caribbean. Please contact the director of undergraduate studies for an appointment. The Curriculum in Latin American Studies participates in a fiveyear cooperative B.A.-M.A. program with the Center for Latin American Studies at Georgetown University. The agreement allows qualified Latin American studies majors to earn an M.A. in Latin American studies from Georgetown in a year and a summer rather than the normal three to four semesters. For details on the cooperative degree program see isa.unc.edu/academics/ undergraduate and contact the director of undergraduate studies.

## Affiliated Faculty

Gustavo Angeles (Maternal and Child Health), Shrikant Bangdiwala (Biostatistics), Clare Barrington (Health Behavior), Brandon Bayne (Religious Studies), Deborah Bender (Health Policy and Administration), Brian Billman (Anthropology), Richard Bilsborrow (Biostatistics), Kathryn Burns (History), Kia Caldwell (African, African American, and Diaspora Studies), Teresa Chapa (Latin American and Iberian Resources Bibliographer), John Chasteen (History), Richard Cole (Media and Journalism), Rudolf Colloredo-Mansfeld (Anthropology), Glynis Cowell (Romance Studies), Altha Cravey (Geography), Emilio Del Valle Escalante (Romance Studies), Eduardo Douglas (Art), Arturo Escobar (Anthropology), Bruno Estigarribia (Romance Studies), Oswaldo Estrada (Romance Studies), David Garcia (Music), Juan Carlos González-Espitia (Romance Studies), Jacqueline Hagan (Sociology), Jonathan Hartlyn (Political Science), Joanne Hershfield (Women's and Gender Studies), Evelyne Huber (Political Science), Miguel LaSerna (History), Julia Mack (Romance Studies), Nina Martin (Geography), Cecilia Martínez-Gallardo (Political Science), Patricia McAnany (Anthropology), David Mora-Marín (Linguistics), Todd Ochoa (Religious Studies), Rosa Perelmuter (Romance Studies), Louis Pérez Jr. (History), Krista Perreira (Public Policy), Cynthia Radding (History), Monica Rector (Romance Studies), Alvaro Reyes (Geography), Alicia Rivero (Romance Studies), Diego Riveros-Iregui (Geography), Daniel Rodríguez (City and Regional Planning), Lars Schoultz (Political Science), Tanya Shields (Women's and Gender Studies), Karla Slocum (Anthropology), Brendan Jamal Thornton (Religious Studies), Lucila Vargas (Media and Journalism), Zaragosa Vargas (History), Adam Versényi (Dramatic Art), Stephen Walsh (Geography), Deborah Weissman (Law), Lyneise Williams (Art).

## Contact Information

Beatriz Riefkohl-Muñiz, Director of Undergraduate Studies, (919) 962-2418, riefkohl@email.unc.edu.

## Courses

## LTAM-Latin American Studies

LTAM 89 First Year Seminar: Special Topics (3). Special topics course. Content will vary each semester.

LTAM 101 Introduction to Latin American Studies (3). A broad interdisciplinary introduction to the field of Latin American studies.

LTAM 291 The Latino Experience in the United States (3). This is a reading and discussion seminar that will introduce students to topics in the history of Latinos in the United States from the 19th century to the present.

LTAM 396 Independent Study (1-3). Independent project to be arranged with an instructor.

LTAM 411 Summer Intensive Introductory Course in Yucatec Maya (6). A three-part intensive introduction to spoken and written modern Yucatec Maya, including classroom instruction; culture, history, and linguistics workshops; and a four-week field study in Yucatán, Mexico.

## LTAM 512 Summer Intensive Continuing Course in Yucatec

Maya (6). Prerequisite, LTAM 411. Permission of the instructor for students lacking the prerequisite. Continuing instruction in spoken and written Yucatec Maya. Classroom instruction; culture, history, and linguistics workshops; and field study. Taught in Yucatán, Mexico.

LTAM 690 Seminar in Latin American Issues (3).
LTAM 691H Honors in Latin American Studies (3). Directed independent research leading to the preparation of an honors thesis.

LTAM 692H Honors in Latin American Studies (3). Completion of the honors thesis and an oral examination of the thesis.

LTAM 697 Capstone Seminar (3). Interdisciplinary core seminar required of Latin American studies majors and open to other students. Topics vary by semester.

## Department of Linguistics

linguistics.web.unc.edu
104A Smith Building, CB\# 3155; (919) 962-1192
PAUL ROBERGE, Chair

## Introduction

Courses in the department are offered for the general student and for those who wish to receive the bachelor of arts with a major in linguistics. Courses in linguistics are intended to open up systematic perspectives on the nature of human language by means of detailed studies of language structure, language change and language acquisition, the sound system of language, and the syntactic/ semantic system of language. The major is designed to provide a fundamental understanding of modern linguistics for the student seeking a general education in the liberal arts as well as for the student preparing for graduate study.

## Linguistics Major, B.A.

## Core Requirements

- LING 101 (gateway course)
- One course each from three of the following four pairs (total of three courses): LING 200 or 520, 201 or 537, 202 or 541, 203 or 540
- Four additional linguistics courses chosen from the following lists:
- Up to four LING courses numbered 200 to 699, excluding LING 400, 523, 525, 528, and 530
o No more than two courses chosen from AAAD 421; COMP 455; ENGL 313, 314; GERM 500, 501, 514, 515, 521, 545; ITAL 526; PHIL 345; PORT 526; PSYC 432; SLAV 405; SPHS 530, 540, 570, 582
Thus, the major requires eight courses, including LING 101. Students majoring in linguistics may concentrate entirely in linguistics, or they may select their major courses to include a field related to linguistics, such as linguistic anthropology, computer processing of language data, philosophy of language, psychology of language, sociology of language, speech and hearing sciences, or study of a particular language or language family. Any such secondfield option should be planned in consultation with the student's advisor. Students interested in a career in speech pathology may pursue a minor in speech and hearing sciences through the Division of Speech and Hearing Sciences in the UNC School of Medicine. Students interested in the linguistics major are encouraged to consult with the department's director of undergraduate studies, Professor Misha Becker. Additional information about the major is provided on the department's Web site at linguistics.web.unc.edu; select the link for the undergraduate program.


## Dual Bachelor's-Master's Degree Program

The dual B.A.-M.A. program offers highly motivated undergraduates the opportunity to earn an M.A. in less than the usual time by completing some of the M.A. requirements while still an undergraduate. Students must have a grade point average of 3.3 overall and 3.5 in linguistics. Students interested in pursuing this program should consult the department's director of undergraduate studies, Professor Misha Becker, to assess feasibility.

## Linguistics Minor

The minor in linguistics consists of four linguistics courses numbered 200 or higher. Two of these courses must be selected from LING 200, 201, 202, and 203 (LING 101 is a prerequisite for these courses). In order to fashion a coherent program of study that complements the student's major, the department encourages students to select the remaining two courses in consultation with the department's director of undergraduate studies, Professor Misha Becker.

## Advising

All majors and minors have a primary academic advisor in Steele Building. Students are strongly encouraged to meet regularly with their advisor and review their Tar Heel Tracker each semester. The department's director of undergraduate studies works with current and prospective majors and minors by appointment. Departmental
academic advising is particularly important for those majors who are considering going on to graduate school or who are considering the dual B.A.-M.A. program.

## Special Opportunities

## Honors in Linguistics

Any linguistics major with a cumulative total grade point average of at least 3.3 and at least 3.5 within the linguistics major is eligible to attempt a degree with honors in linguistics. To graduate with honors, a student must work with a faculty supervisor, enroll in LING 691 H and 692 H during the senior year, and complete and defend an honors thesis according to departmental and Honors Carolina requirements. Interested students should contact the honors advisor, Professor Katya Pertsova, during their junior year.

## Departmental Involvement

Many linguistics majors and minors join Underling, the undergraduate linguistics club, which sponsors a variety of educational, outreach, social, and career-development events each year.

## Study Abroad

Students in linguistics are encouraged to consider study abroad. Courses that can be applied toward the linguistics major and minor are available through many of the programs administered by the Study Abroad Office.

## Undergraduate Awards

The Marc Adam Eisdorfer Award recognizes the graduating senior judged most outstanding in academic achievement in linguistics. It was established in 1998 by Sandra Eisdorfer in memory of her son, a graduate of the class of 1984.

## Graduate School and Career Opportunities

The Department of Linguistics offers an M.A. program with opportunities for specialization in a number of subareas. Detailed information is available from the department Web site. Additionally, more than 100 colleges and universities offer linguistics programs, including several dozen that are considered major programs nationally. Faculty members are pleased to advise students regarding programs best suited to their needs and interests.

In general, the linguistics major is good preparation for a number of career paths because it develops problem solving, the ability to find patterns in complicated data, and writing and argumentation skills. Law and journalism schools and other professional schools are becoming increasingly aware that students with a major in linguistics have strengths in these important areas. United States citizens with a background in linguistics also may find jobs with United States government agencies.

Some students choose to continue specializing in linguistics teaching or research. For this, they typically need to obtain a graduate degree in linguistics. Other possible careers for linguistics majors that have a close connection to language and linguistics include language teaching, speech pathology/speech and hearing science, language and information technologies (including speech synthesis and recognition, text-content analysis, and machine translation), information and library science, or editing and publishing; some careers in these areas may require a graduate degree.

## Faculty

## Professors

Randall Hendrick, Paul Roberge.

## Associate Professors

Misha Becker, David Mora-Marín, Elliott Moreton, Jennifer Smith, J. Michael Terry.

## Assistant Professor

Katya Pertsova.

Affiliated Faculty<br>Jennifer Arnold (Psychology), Uffe Bergeton (Asian Studies), Lucia Binotti (Romance Studies), Connie Eble (English and Comparative Literature), Bruno Estigarribia (Romance Studies), Benjamin Frey (American Studies), Peter C. Gordon (Psychology), Larry D. King (Romance Studies), William G. Lycan (Philosophy), Patrick O’Neill (English and Comparative Literature), Dean Pettit (Philosophy), Patricia E. Sawin (American Studies), Mamarame Seck (African, African American, and Diaspora Studies).

## Contact Information

Professor Misha Becker, Director of Undergraduate Studies, CB\# 3155, Smith Building, (919) 962-1192.

## Courses

## LING-Linguistics

LING 50 First-Year Seminar: Language in the U.S.A. (3). The linguistic landscape of the United States in historical and contemporary perspective: American English dialects, language maintenance and shift among Native American and immigrant groups, language politics and policy.
LING 89 First-Year Seminar: Special Topics (3). Special topics course. Content will vary each semester.

LING 101 Introduction to Language (3). Introduction to the formal analysis of human language, including sounds, words, sentences, and language meaning, plus child language acquisition, language change over time, social attitudes toward language, and similarities and differences among languages. Other topics may include writing systems, animal communication, and language analysis by computers.
LING 145 Language and Communication (PHIL 145) (3). See PHIL 145 for description.

LING 200 Phonology (3). Prerequisite, LING 101. Description and analysis of sound patterns from languages around the world. Introduction to formal phonological models, written argumentation, and hypothesis testing.
LING 201 Syntax (3). Prerequisite, LING 101. Introduction to the goals and methods of transformational analysis, using English primarily, but examining how these techniques can be used to describe syntactic processes in other languages.

## LING 202 Linguistic Variation and Language Change

(3). Prerequisite, LING 101. Introduction to the analysis and
description of language change, relationships among languages, and types of linguistic structure.

LING 203 Language Acquisition and Development (3).
Prerequisite, LING 101. Provides an introduction to first-language acquisition, focusing on the acquisition of phonology, morphology, syntax, and semantics, as well as on the social context of language acquisition and issues of atypical language development.

LING 222 Language and Communication (3). An examination of the differences between natural human languages and other communication systems. Includes a philosophical inquiry into how languages relate to the world and the mind.

LING 290 Special Topics in Linguistics (3). Prerequisite, LING 101. In-depth treatment of a selected issue or topic in linguistics. Topic will vary with the instructor. Course may be taken more than once when the topic varies.

LING 302 Language and Power (ANTH 302, WMST 302) (3). This course provides an overview of language and power studies. Issues: sexist and sex-neutral language; languages of subcultures defined by gender, sexual orientation, ethnicity; hate speech; "politically correct" language.

LING 303 Native Languages of the Americas (ANTH 303)
(3). This course is an introduction to languages indigenous to the Americas. The course touches on the linguistic structure and classification of Native American languages as well as on social issues.

LING 304 Introduction to Discourse (3). Prerequisite, LING 101. Focuses on the use of linguistic forms to express communicative intentions. How language is used for the purposes of persuasion, manipulation, irony, humor, poetry, propaganda, and attitudes.

LING 306 Language and Nationalism (SLAV 306) (3). See SLAV 306 for description.
LING 310 Formal Perspectives on African American English (3). Prerequisite, LING 101. This course treats the structural properties of African American English. Students will learn to use sentence data to test hypotheses about language structure by investigating the syntax and semantics of African American English.

## LING 333 Human Language and Animal Communication

Systems (3). Comparative study of human language alongside selected non-human communication systems. Anatomy, acoustics, combinatorial structure, innateness and acquisition, evolution. Sizable lab and field component.
LING 376 Phonetics and Phonology (SPAN 376) (3). See SPAN 376 for description.

LING 377 Grammatical Structure of Spanish (SPAN 377) (3). See SPAN 377 for description.

LING 383 Linguistic Structuralism: Sources and Influences (3). Linguistic structuralism as a background for modern theories of language.

LING 400 Introduction to General Linguistics (ANTH 400) (3). An introduction to the scientific study of language. The nature of language structure. How languages are alike and how they differ.

LING 401 Language and Computers (3). Prerequisite, LING 101. Uses simple linguistic problems to introduce students to the
use of programming languages especially suited to analyze and process natural language on the computer. No prior programming knowledge is presupposed.

LING 409 Cognitive Linguistics (3). Development of and present state of research in cognitive linguistics. Readings discuss various language phenomena and are drawn from linguistics, psychology, philosophy, artificial intelligence, and literary analysis of metaphor.

LING 422 Research Methods in Phonetics and Laboratory Phonology (3). Prerequisite, LING 200, 520, 523, or SPHS 540 . Focuses on the practical skills required to carry out basic experiments in speech production or perception. Includes training in a general-purpose programming language (such as Perl) for automating repetitive tasks, experiment-control software, audio stimulus manufacture and editing, palatography, aerodynamic measurements, and other laboratory techniques relevant to student interests.

LING 444 Origin and Evolution of Human Language (3). Prerequisite, LING 101. Recommended preparation, at least one higher-level core course in linguistics. Surveys current answers to such questions as, When and how did language first appear? What do other animal communication systems share with language? Do restricted linguistic systems (e.g., pidgins) preserve "fossils" of early human language?

LING 445 Philosophy of Language (PHIL 445) (3). See PHIL 445 for description.
LING 455 Symbolic Logic (PHIL 455) (3). See PHIL 455 for description.

## LING 484 Discourse and Dialogue in Ethnographic Research (ANTH 484, FOLK 484) (3). See ANTH 484 for description.

LING 490 Advanced Topics in Linguistics (3). Directed readings on linguistic topics not covered in specific courses.
LING 496 Independent Study in Linguistics (1-3). Permission of the director of undergraduate studies. LING 101 and additional coursework in linguistics strongly recommended. An intensive mentored project; topic to be determined in a learning contract between student and instructor.

LING 506 Greek Dialects (GREK 506) (3). See GREK 506 for description.

LING 520 Linguistic Phonetics (ANTH 520) (3). Introduction to the general principles of linguistic phonetics; anatomy of vocal tract, physiology of speech production, universal phonetic theory. Practice in the recognition and transcription of speech sounds.

LING 522 Experimental Phonetics and Laboratory Phonology (3). Prerequisites, LING 520, and 200 or 523. This course relates linguistic theory to experimental findings. Students design and carry out experiments to test theoretical issues of current theoretical importance.

LING 523 Phonological Theory I (ANTH 523) (3). Prerequisite, LING 520, or SPHS 530 or 540 . Permission of the instructor for undergraduates. Introduction to the principles of modern generative phonology. Methods and theory of phonological analysis.

LING 524 Phonological Theory II (3). Prerequisite, LING 200 or 523. Intermediate phonological theory and analysis.

## LING 525 Introduction to Historical and Comparative

Linguistics (3). Permission of the instructor for undergraduates. Theories and methods of historical and comparative linguistics, with emphasis upon the Indo-European family.
LING 527 Morphology (3). Prerequisite, LING 101 or 400. Cross-linguistic investigation of internal word structure: inflection and derivation, word formation rules versus affixation, autosegmental morphology, morpholexical and morphophonemic rules, and the interaction of morphology with phonology and syntax.

LING 528 Language Acquisition I (3). Permission of the instructor for undergraduates. One course in phonology or syntax recommended. Child language from a theoretical perspective. Topics include segmentation problems, acquisition of phonology, morphology and syntax, lexical acquisition, and language development in blind and deaf children and in bilinguals.
LING 529 Language Acquisition II (3). Prerequisites, LING 203 or 528, and LING 201 or 530. This course focuses on the development of syntax in first-language acquisition in children. Topics will include parameter setting, null subjects, root infinitives, aspect, A-movement, binding theory, and control.

LING 530 Syntactic Theory I (3). Permission of the instructor for undergraduates. Methods and theory of grammatical analysis within the transformational generative framework. Special emphasis on analyzing syntactic and semantic structures of English.
LING 533 Syntactic Theory II (3). Prerequisite, LING 530. Methods and theory of grammatical analysis, with special reference to transformational grammar.

LING 537 Semantic Theory I (3). Prerequisite, LING 101 or 400. Semantics as a part of linguistic theory: co- and disjoint reference among nominals, "crossover" phenomena, quantifier scope, lexical semantics, Montague grammar and compositional semantics, and explanatory universals in semantic theory.
LING 538 Semantic Theory II (3). Prerequisite, LING 537. A continuation of LING 537 (Semantic Theory I), this course prepares the student to read the formal semantic literature and to do original research in the field.

LING 539 Language of Time (3). Prerequisite, LING 101 or 400. The representation of time and temporal relations in natural languages. Cross-linguistic study of tense and aspect distinctions, modality, temporal adverbials, temporal anaphora, and sequences of tenses.

LING 540 Mathematical Linguistics (3). Prerequisite, LING 101. Introduction to topics in logic, set theory, and modern algebra with emphasis on linguistic application. Automata theory and the formal theory of grammar with special reference to transformational grammars. No previous mathematics assumed.
LING 541 Sociolinguistics (ANTH 541) (3). Prerequisite, LING 101 or 400 . Introduction to the study of language in relation to society; variation as it correlates with socioeconomic status, region, gender; the social motivation of change; language and equality;
language maintenance, planning, shift.
LING 542 Pidgins and Creoles (ANTH 542) (3). Prerequisite, LING 101 or 400 . Examination of the social contexts of language contact and their linguistic outcomes, with particular emphasis on the formation of pidgins and creoles. The course investigates the structural properties of these new contact languages and evaluates the conflicting theories that explain their genesis.

LING 543 Language in Politics (3). Examines language as a political issue in the 19th and 20th centuries. Emphasis placed on American and British politics but attention to one other national context as well.

LING 545 Language and Mind: Linguistics and the Brain (3). Prerequisite, ENGL 313, or LING 101 or 400, or PHIL 145. Permission of the instructor for students lacking the prerequisite. The course treats the relationship among linguistics, artificial intelligence, neurobiology, cognitive psychology, and the philosophies of mind, language, and science.

LING 547 Language Deficits and Cognition (3). Prerequisite, LING 101 or 400 . Survey of the linguistic properties associated with aphasia, autism, Williams syndrome, dyslexia, and schizophrenia. Emphasis on the implications of these conditions for theories of mind.

LING 550 Introduction to Indo-European: Phonology (3). A survey of the phonological systems of the major Indo-European languages and their development from Proto-Indo-European.

LING 551 Introduction to Indo-European: Morphology (3). Prerequisite, LING 550. Introduction to the major morphological categories in the Indo-European languages and their development from the proto-language.

LING 558 Mesoamerican Writing Systems (3). This course is an introduction to the ancient scripts of pre-Columbian Mexico and Central America. It focuses on the following scripts: Mayan, EpiOlmec, Zapotec, and Mixtec.
LING 560 Mesoamerican Languages and Linguistics (3). Surveys the basic characteristics that unify Mesoamerica as a cultural and linguistic area (e.g., sound systems, word order, color systems, diffused vocabulary, etc.), the basic sources of cultural and linguistic information available (e.g., ancient hieroglyphs, colonial manuscripts, contemporary documents, linguistic fieldwork), and the consequences of ancient and modern cross-cultural interaction.

LING 561 Native Languages of the Americas (3). Prerequisite, LING 101 or 400 . This course explores the phonological and morphological structure of selected Amerindian languages indigenous to the Americas. Emphasis is on the linguistic analysis of original as well as published primary data.
LING 562 Structure of Russian (3). Prerequisite, LING 101 or RUSS 102. Permission of the instructor for students lacking the prerequisite. Examines Russian from the perspective of linguistic analysis. How do sounds, words, and sentences pattern in Russian? How do these compare with patterns in other languages? Also considers the influence of evidence from Russian on the development of linguistic theory.

LING 563 Structure of Japanese (JAPN 563) (3). Prerequisite, JAPN 102 or LING 101. Introductory linguistic description of modern Japanese. For students of linguistics with no knowledge of Japanese and students of Japanese with no knowledge of linguistics.

LING 564 History of the French Language (FREN 564) (3). See FREN 564 for description.
LING 565 French Phonetics and Phonology (FREN 565) (3). See FREN 565 for description.

LING 566 Structure of Modern French (FREN 566) (3). See FREN 566 for description.

LING 573 Linguistic Field Methods I (ANTH 793) (3). Analysis and description of a language unknown to the class from data solicited from a native-speaker consultant.

LING 574 Linguistic Field Methods II (ANTH 794) (3). Continuation of LING 573.

LING 583 History and Philosophy of Linguistics (3).
Prerequisite, LING 101. Linguistic theories from classical times to the present with special emphasis on the origins of contemporary theories.

LING 613 Modern English Grammar (ENGL 613) (3). See ENGL 613 for description.

LING 678 Cultural and Linguistic History of the Spanish Language (SPAN 678) (3). See SPAN 678 for description.

LING 691H Senior Honors Thesis (3). See the program for honors in the College of Arts and Sciences and the department honors advisor.

LING 692H Senior Honors Thesis (3). See the program for honors in the College of Arts and Sciences and the department honors advisor.

## Yucatec Maya (MAYA)

MAYA 401 Introduction to Yucatec Mayan (3). Introduction to basic grammar and vocabulary, as well as cultural context and literary genres.

## Department of Marine Sciences

www.marine.unc.edu
3202 Venable and Murray Halls, CB\# 3300; (919) 962-1252
HARVEY SEIM, Chair

## Introduction

The Department of Marine Sciences provides instruction and conducts research in biological, chemical, geological, and physical oceanography. Although it emphasizes graduate training, the department offers basic coursework, opportunities for supervised practical experience, and an academic minor to all advanced undergraduates. The minor is designed to allow students access to departmental courses, facilities, and advisors in order to develop marine specializations related to their majors and to prepare for
postgraduate study in marine sciences or a related field. Introductory courses are also offered for all undergraduates who are interested in marine sciences.

## Marine Sciences Minor

To fulfill the requirements for the marine sciences minor, a student should take four courses, as follows:

- One course emphasizing global oceanic processes: MASC 101 or 401 (students may not receive credit for both MASC 101 and 401)
- One course emphasizing the coastal ocean: ENEC 222; MASC 55, $58,220,223,411,430,432,440,448,471,472$; or an equivalent course with a focus on the coastal ocean and approved by the director of undergraduate studies
- One course featuring practical experience in marine sciences. Choose one from the following four groups:
o ENEC 222; MASC 52, 220, 223, 430, 432, 448, 471, 472, 503,504 ; or an equivalent field course approved by the director of undergraduate studies
o MASC 415, 480, 483, 561, or an equivalent mathematical modeling or data analysis course approved by the director of undergraduate studies
o MASC 431, 444, 445, or an equivalent laboratory course approved by the director of undergraduate studies
o Undergraduate research (MASC 395) or independent study (MASC 396).
- A marine sciences course of the student's choosing


## Advising

The director of undergraduate studies advises students on selecting appropriate coursework in marine sciences, reviews progress toward completion of the minor, and assists in approving equivalent courses. All current and prospective minors are strongly encouraged to meet with the director of undergraduate studies prior to declaring their minor.

## Special Opportunities in Marine Sciences

## Undergraduate Research

The department offers opportunities to undergraduates to conduct directed research in our laboratories. Students work directly with faculty members and may enroll for credit as part of an honors or research project. The liaison for undergraduate research provides information about research opportunities in marine sciences, and assists undergraduates in finding a faculty advisor/research group that matches their interests.

## Experiential Education

There are three opportunities for experiential education in the Department of Marine Sciences:
MASC 220 North Carolina Estuaries: Environmental Processes and Problems is taught during Maymester at the main campus with one week at the UNC-Chapel Hill Institute of Marine Sciences in Morehead City, NC.
MASC 395 Undergraduate Research in Marine Sciences can be taken with the permission of a faculty advisor.
MASC 472 Barrier Island Ecology and Geology is taught at the UNC-Chapel Hill Institute of Marine Sciences in Morehead City,

NC, during the summer session and provides an experience in the field.

## Facilities

Research laboratories are equipped for general studies in marine sciences and special research interests of faculty and students. The Institute of Marine Sciences, located in Morehead City, NC, houses laboratory buildings with dock and ocean access. The Institute operates a modern 48 -foot coastal vessel, the R.V. Capricorn, and a fleet of outboard-powered boats.

## Graduate School and Career Opportunities

The director of undergraduate studies advises students on graduate school and/or career opportunities in marine sciences.

## Faculty

## Distinguished Professors

Richard A. Luettich, Christopher S. Martens, Brent A. McKee, Hans W. Paerl, Charles H. Peterson.

## Professors

Carol Arnosti, John M. Bane Jr., Larry K. Benninger, Jaye E. Cable, Niels Lindquist, Rachel Noble, Harvey Seim, Andreas Teske.

## Associate Professors

Marc J. Alperin, Michael Piehler, Antonio Rodriguez, Alberto Scotti, Brian L. White.

## Assistant Professors

Karl Castillo, F. Joel Fodrie, Scott Gifford, Adrian Marchetti, Alicia Septer.

## Research Associate Professor

Stephen Fegley.

## Research Assistant Professors

Barbara MacGregor, Johanna Rosman.

## Adjunct Professors

Frederick Bingham (UNC-Wilmington), Jeffry Hanson (U.S. Army Corps of Engineers Field Research Facility, Duck, NC), Samantha Joye (University of Georgia), R. Wayne Litaker (National Oceanic and Atmospheric Administration Lab, Beaufort, NC), Kenneth J. Lohmann (Biology), Stephen A. Skrabal (UNCWilmington), Patricia Tester (National Oceanic and Atmospheric Administration Lab, Beaufort, NC), Joan D. Willey (UNCWilmington).

## Professors Emeriti

Dan Albert, Brigitte Kohlmeyer, Jan J. Kohlmeyer, A. Conrad Neumann.

## Contact Information

Professor Marc Alperin, Director of Undergraduate Studies, alperin@email.unc.edu.

Violet Anderson, Student Services Manager, vmanders@email.unc. edu, (919) 962-1270.

## Courses

## MASC-Marine Sciences

MASC 51 First-Year Seminar: Global Warming: Serious Threat or Hot Air? (3). Students will examine evidence that human activity has caused global warming, investigate scientists' ability to predict climate change, and discuss the political and social dimensions of global climate change.

MASC 52 First-Year Seminar: Living with Our Oceans and Atmosphere (3). Modern theories of changing weather, severe weather events, oceanic hazards, interactions between the oceans and atmosphere, and changes that are linked to human activity.
MASC 53 First-Year Seminar: The Ends of the Earth: Polar Oceanography and Exploration (3). What explains the "pull of the poles"? This seminar combines a modern survey of polar oceanography with historical views of early polar explorations, as reported by the explorers themselves.

MASC 55 First-Year Seminar: Change in the Coastal Ocean (3). This course provides an opportunity to explore changes in marine and closely linked terrestrial environments caused by the interactions of fascinating oceanographic processes. Introductory presentations and discussions will focus on published works of active marine scientists who combine disciplinary training with knowledge and skills from other fields.

MASC 57 First-Year Seminar: From "The Sound of Music" to "The Perfect Storm" (MATH 63) (3). Students will develop the conceptual framework necessary to understand waves of any kind, starting from laboratory observations.

MASC 58 First-Year Seminar: Connections to the Sea: Challenges Faced by Using and Living near Coastal Inlets (3). This course explores the natural history of several inlets, impact of human intervention, and political/policy challenges faced; includes several group projects/presentations and a field trip to a coastal inlet.
MASC 59 First-Year Seminar: Extreme Microorganisms: Pushing the Limits of Life on Earth and Beyond (3). We will expand our horizons in biology by learning about some of the most extreme microorganisms on the planet-microorganisms that thrive without oxygen, under high temperatures (for example, in pressurized water above the boiling point), and under chemical stress factors (high sulfide and heavy metal concentrations) that were once thought to be incompatible with life.

MASC 89 First-Year Seminar: Special Topics (3). Special topics course. Content will vary each semester.
MASC 101 The Marine Environment (GEOL 103) (3). Introduction to marine sciences emphasizing physical, chemical, biological, and geological phenomenon in oceanic and coastal environments. Human use of, and impact on, marine resources. (Science majors should take MASC 401.)

MASC 108 Our Energy and Environmental Crises: Challenges and Opportunities (4). Students quantify global depletion of energy resources and accompanying environmental degradation,
discovering the profound changes in attitudes and behavior required to adjust to diminished fossil fuels and modified climate.

MASC 190 Special Topics in Marine Sciences (3). An undergraduate seminar course that is designed to be a participatory intellectual adventure on an advanced, emergent, and stimulating topic within a selected discipline in marine sciences.

MASC 220 North Carolina Estuaries: Environmental Processes and Problems (3). Natural processes and human impacts on estuarine systems using the Neuse River estuary as a case study. Course includes one week of intensive field work based at the Institute of Marine Sciences. A student may not receive credit for this course after receiving credit for ENEC 222.

MASC 223 Geology of Beaches and Coasts (GEOL 223) (3). See GEOL 223 for description.

MASC 310 Our Changing Planet: Science, Social Impacts, Solutions (3). An overview of the scientific basis for global warming, current and future impacts on society, options for mitigation and adaptation, and the role of politics and the media.

MASC 312 From the Equator to the Poles: Case Studies in Global Environmental Change (3). Case studies in environmental change, highlighting human and environmental dynamics in terrestrial and marine ecosystems on multiple spatial and temporal scales. Includes active-learning modules, group presentations, writing assignments.

MASC 314 Earth Systems in a Changing World (3). This course presents an integrated view of our planet, how it evolved during the past, why it has changed (and continues to change) and what makes earth a habitable planet.

MASC 390 Special Topics in Marine Sciences (1-4). Special topics in marine sciences for undergraduate students.
MASC 395 Undergraduate Research in Marine Sciences (2-4). Permission of a faculty research director. Directed readings with laboratory study on a selected topic.

MASC 396 Independent Study in Marine Sciences (1-3). Permission of the instructor. Directed readings on a selected topic.

MASC 401 Oceanography (BIOL 350, ENVR 417, GEOL 403) (3). Required preparation, major in a natural science or two courses in natural sciences. Studies origin of ocean basins, seawater chemistry and dynamics, biological communities, sedimentary record, and oceanographic history. Term paper. Students lacking science background should see MASC 101. No credit for MASC 401 after receiving credit for MASC 101.

MASC 410 Earth Processes in Environmental Systems (ENEC 410, GEOL 410) (4). See ENEC 410 for description.

MASC 411 Oceanic Processes in Environmental Systems (ENEC 411, GEOL 411) (4). See ENEC 411 for description.

MASC 415 Environmental Systems Modeling (ENEC 415, GEOL 415) (3). See ENEC 415 for description.

MASC 430 Coastal Sedimentary Environments (GEOL 430) (3). See GEOL 430 for description.

MASC 431 Micropaleontology (GEOL 431) (4). See GEOL 431 for description.

MASC 432 Major Rivers and Global Change: Mountains to the Sea (3). What are the linkages between rivers and global change? This course examines the hydrological, geological, and biogeochemical processes that control material flux from land to the oceans via rivers.

MASC 440 Marine Ecology (BIOL 462) (3). See BIOL 462 for description.

MASC 441 Marine Physiological Ecology (ENEC 441) (3). This course introduces students to the physiological, morphological, and behavioral factors employed by marine organisms to cope with their physical environment. Emphasis will be placed on the response of marine organisms to environmental factors such as seawater temperature, light, water salinity, ocean acidification, etc.

MASC 442 Marine Biology (BIOL 457) (3). Recommended preparation, BIOL 201 or 475. A survey of plants and animals that live in the sea: characteristics of marine habitats, organisms, and the ecosystems will be emphasized. Marine environment, the organisms involved, and the ecological systems that sustain them.

MASC 443 Marine Microbiology (3). Restricted to junior or senior science majors or graduate students, with permission of the instructor. Seminar class focuses on the primary research literature. Physiology of marine microorganisms, microbial diversity and ecology of the marine environment, biogeochemical processes catalyzed by marine microorganisms.

MASC 444 Marine Phytoplankton (ENEC 444) (3). Permission of the instructor. For junior and senior science majors or graduate students. Biology of marine photosynthetic protists and cyanobacteria. Phytoplankton evolution, biodiversity, structure, function, biogeochemical cycles and genomics. Harmful algal blooms, commercial products, and climate change. Three lecture/ practical session hours per week.

MASC 445 Marine Invertebrate Biology (BIOL 475) (4). See BIOL 475 for description.

MASC 448 Coastal and Estuarine Ecology (ENEC 448) (4). Prerequisites, CHEM 102 and MATH 231. A field-intensive study of the ecology of marine organisms and their interactions with their environment, including commercially important organisms. Laboratory/recitation/field work is included and contributes two credit hours to the course.

MASC 450 Biogeochemical Processes (ENEC 450, GEOL 450) (4). See ENEC 450 for description.

MASC 460 Fluid Dynamics of the Environment (3). Prerequisite, MATH 232. Permission of the instructor for students lacking the prerequisite. Principles and applications of fluid dynamics to flows of air and water in the natural environment. Conservation of momentum, mass, and energy applied to lakes, rivers, estuaries, and the coastal ocean. Dimensional analysis and scaling emphasized to promote problem-solving skills.

MASC 470 Estuarine and Coastal Marine Science (4). For graduate students; undergraduate students should take ENEC 222 or have permission of the instructor. Introduction to estuarine environments: geomorphology, physical circulation, nutrient loading, primary and secondary production, carbon and nitrogen
cycling, benthic processes and sedimentation. Considers human impacts on coastal systems, emphasizing North Carolina estuaries. Three lecture hours and one recitation hour per week.

MASC 471 Human Impacts on Estuarine Ecosystems (ENEC 471) (4). See ENEC 471 for description.

## MASC 472 Barrier Island Ecology and Geology (6).

Recommended preparation, one introductory geology course. An integration of barrier island plant and animal ecology within the context of physical processes and geomorphological change. Emphasis on management and impact of human interference with natural processes.

MASC 480 Modeling of Marine and Earth Systems (ENVR 480, GEOL 480) (3). Prerequisite, MATH 232. Permission of the instructor for students lacking the prerequisite. Mathematical modeling of dynamic systems, linear and nonlinear. The fundamental budget equation. Case studies in modeling transport, biogeochemical processes, population dynamics. Analytical and numerical techniques; chaos theory; fractal geometry.

MASC 483 Geologic and Oceanographic Applications of Geographical Information Systems (GEOL 483) (4). See GEOL 483 for description.
MASC 490 Special Topics in Marine Sciences for Undergraduates and Graduates (1-3). Directed readings, laboratory, and/or field study of marine science topics not covered in scheduled courses.

MASC 503 Marine Geology (GEOL 503) (4). For graduate students; undergraduates need permission of the instructor. Investigates formation of ocean basins, coastal and fluvial processes, sediment transport, plate tectonics, petrography of marine rocks, evolution of ocean chemistry, oceanic biogeochemical cycles, application of geochemical proxies in paleoceanographic reconstructions, macroevolutionary patterns of marine biota, and global oceanic change. Mandatory weekend fieldtrip.
MASC 504 Biological Oceanography (BIOL 657, ENVR 520)
(4). For graduate students; undergraduates need permission of the instructor. Marine ecosystem processes pertaining to the structure, function, and ecological interactions of biological communities; management of biological resources; taxonomy and natural history of pelagic and benthic marine organisms. Three lecture and one recitation hours per week. Two mandatory weekend fieldtrips.

MASC 505 Chemical Oceanography (ENVR 505, GEOL 505)
(4). Graduate students only; undergraduates must have permission of the instructor. Overview of chemical processes in the ocean. Topics include physical chemistry of seawater, major element cycles, hydrothermal vents, geochemical tracers, air-sea gas exchange, particle transport, sedimentary processes, and marine organic geochemistry. Three lecture and two recitation hours per week.
MASC 506 Physical Oceanography (GEOL 506) (4). For graduate students; undergraduates need permission of the instructor. Descriptive oceanography, large-scale wind-driven and thermohaline circulations, ocean dynamics, regional and nearshore/ estuarine physical processes, waves, tides. Three lecture and one recitation hour per week.

MASC 550 Biogeochemical Cycling (GEOL 550) (3).
Recommended preparation, four ENVR, GEOL, or MASC courses above 400. This course explores interfaces of marine, aquatic, atmospheric, and geological sciences emphasizing processes controlling chemical distributions in sediments, fresh and salt water, the atmosphere, and fluxes among these reservoirs.
MASC 552 Organic Geochemistry (ENVR 552) (3). See ENVR 552 for description.

MASC 553 Geochemistry (GEOL 512) (3). See GEOL 512 for description.

MASC 560 Fluid Dynamics (ENVR 452, GEOL 560, PHYS 660) (3). Prerequisite, PHYS 301. Permission of the instructor for students lacking the prerequisite. The physical properties of fluids, kinematics, governing equations, viscous incompressible flow, vorticity dynamics, boundary layers, irrotational incompressible flow.

MASC 561 Time Series and Spatial Data Analysis (3). Prerequisite, MATH 233. Permission of the instructor for students lacking the prerequisite. Three components: statistics and probability, time series analysis, and spatial data analysis. Harmonic analysis, nonparametric spectral estimation, filtering, objective analysis, empirical orthogonal functions.

MASC 562 Turbulent Boundary Layers (3). Prerequisite, MASC 506 or 560. Permission of the instructor for students lacking the prerequisite. Turbulence and transport in near-bottom boundary regions. Turbulence and mixing theory in boundary layers. Field deployment and recovery of turbulence measuring instruments. Data analysis from turbulence measurements.

MASC 563 Descriptive Physical Oceanography (GEOL 563) (3). Prerequisite, MASC 506. Permission of the instructor for students lacking the prerequisite. Observed structure of the largescale and mesoscale ocean circulation and its variability, based on modern observations. In-situ and remote sensing techniques, hydrographic structure, circulation patterns, ocean-atmosphere interactions.

## Department of Mathematics

www.math.unc.edu
Phillips Hall, CB\# 3250; (919) 962-1294
RICHARD MCLAUGHLIN, Chair

## Introduction

Mathematics has always been a fundamental component of human thought and culture, and the growth of technology in recent times has further increased its importance. UNC-Chapel Hill offers several degrees in mathematics and the mathematical sciences, providing students a choice of careers in this field. Among the jobs in industry, government, and the academic world that involve mathematics are actuary, analyst, modeler, optimizer, statistician, and computer analyst.

Students majoring in mathematics may enter either the B.A. or the B.S. program. The B.A. program is more flexible than the B.S. program; it allows students to specialize in mathematics and at the same time either to follow a broad liberal arts program or to specialize in a second area (possibly even taking a second major). The B.S. program is more comprehensive; it provides solid preparation for work or for further study in mathematics and related fields. Within the B.S. program there is an applied option, which is designed for students who are primarily interested in using mathematics for the study of other sciences. The specific requirements for the B.A. and B.S. degrees are described below.

Students intending to teach mathematics in elementary and middle school and students enrolled in the School of Education who intend to major in mathematics should consult the School of Education section of the Bulletin or the director of mathematical education in the Department of Mathematics. A section below suggests course selections for future high school teachers.

## Mathematics Major, B.A.

## Core Requirements

- MATH 381 and 383
- MATH 521
- MATH 547 or 577 (preferably before the senior year)
- At least three more MATH courses numbered above 500
- Eighteen hours of C or better (not C-) in MATH 233, 381, 383, or MATH courses numbered above 500


## Additional Requirements

- MATH 231 or 241, 232 or 283, and 233

All Foundations, Approaches, Connections, and Supplemental General Education requirements apply (see the "General Education Requirements" in this bulletin).

## Mathematics Major, B.S.

## Core Requirements

- COMP 116 or MATH 565
- MATH 381 and 383
- MATH 521
- MATH 522, 523, 528, or 566
- MATH 533, 534, 578, or 548
- MATH 547 or 577 (preferably before the senior year)
- At least three additional MATH courses numbered above 520
- Eighteen hours of C or better (not C-) in MATH courses numbered above 520


## Additional Requirements

- MATH 231 or 241, 232 or 283 , and 233
- PHYS 104 and 105 , or 114 , or 116 and 117 , or 118 (118 is highly recommended)
- At least four courses in the Division of Natural Sciences and Mathematics (beyond the General Education requirements), but not in mathematics


## Mathematics Major, B.S.-Applied Option

## Core Requirements

- COMP 116
- MATH 381 and 383
- MATH 521
- Four of MATH 522, 523, 524, 528, 529, 535, 548, 564
- MATH 547 or 577
- MATH 566 or 661
- Eighteen hours of C or better (not C-) in MATH courses numbered above 520


## Additional Requirements

- MATH 231 or 241, 232 or 283, and 233
- PHYS 104 and 105 , or 114 , or 116 and 117 , or 118 (118 is highly recommended)
- Strongly recommended: MATH 535/STOR 435 and STOR 555
- At least four courses in the Division of Natural Sciences and Mathematics (beyond the General Education requirements), but not in mathematics. STOR 555 can be counted for this requirement.
Students must complete either the B.S. or B.S.-Applied Option for a B.S. degree with a major in mathematics. All Foundations, Approaches, and Connections requirements of the General Education curriculum apply to students in both options.


## Mathematics Minor

## Core Requirements

- MATH 381 and 383
- Three mathematics courses numbered above 500 , all with a grade of C (not C-) or better


## Additional Requirements

- MATH 231 or 241, 232 or 283, and 233


## Advising

All majors and minors have a primary academic advisor in Steele Building. Students should regularly meet with their advisors and review their Tar Heel Trackers to be sure that they are satisfying distribution and degree requirements. In addition, junior and senior majors are assigned each semester a mathematics faculty member as an advisor with whom they must meet to discuss course selections and any other questions before a hold on registration is lifted. The department's director of undergraduate studies and assistant (see contact information below) are also available by appointment. Further information on courses, undergraduate research opportunities, the honors program, careers, and graduate schools may be obtained from the department's Web site: www. math.unc.edu.

## Placement into Mathematics Courses

Standardized test scores such as the Advanced Placement (AP), Scholastic Achievement Test Subject Levels I or II (SAT), or the American College Test (ACT) can be used for placement into mathematics courses. Please visit the placement page of the
department's Web site for specific information regarding placement: math.unc.edu/for-undergrads/placement-info.

## Special Opportunities in Mathematics

Special activities for qualified students include an undergraduate Mathematics Club, problem solving seminars, the Putnam Mathematical Competition, and the Virginia Tech Mathematics Contest. Students interested in these activities should consult the departmental honors advisor.

Qualified undergraduate students may work as research assistants in the Fluid Laboratory or as tutors in the Math Help Center. Students can conduct original research with the guidance of a faculty member, usually in conjunction with the preparation of an honors project. Study Abroad opportunities include semester or yearlong programs in a variety of countries. The Archibald Henderson Medal and the Alfred Brauer Prize recognize outstanding performance and promise in mathematics.

Undergraduate honors research projects as well as some internships or study abroad programs might qualify for experiential education credit. MATH 290, 396, and 410 satisfy this requirement.

## Honors in Mathematics

Special honors (H) sections are given in some mathematics courses when student demand is sufficient (for example, $62 \mathrm{H}, 233 \mathrm{H}, 383 \mathrm{H}$ ).

Promising students are encouraged to work toward a bachelor's degree with honors in mathematics. This program consists of six or more courses approved by the departmental honors advisor and satisfactory completion of an honors project completed over the two semesters of the senior year. The honors project is conducted in association with a departmental faculty member on a topic approved by the departmental honors advisor, and spans two semesters of independent research, during which time the honors candidate must be enrolled in 691 H and 692 H . The final report on the project includes both a written description and an oral presentation before a committee of three faculty (including the project advisor) approved by the departmental honors advisor. The committee will then report to the departmental honors advisor, who, in conjunction with a subcommittee of the undergraduate committee, will make the final recommendation on awarding a degree with honors or highest honors. The candidate must have a 3.5 grade point average in mathematics courses to begin an honors project and must maintain the 3.5 average through the completion of the senior year.

## UNC-BEST

The UNC Baccalaureate Education in Science and Teaching (UNC-BEST) Program is a collaboration between the School of Education and the College of Arts and Sciences and is designed to allow undergraduate mathematics (and science) majors interested in teaching high school mathematics the opportunity to earn their degree and obtain licensure as a North Carolina high school mathematics teacher in four years. UNC-BEST students meet all the degree requirements for their mathematics major and complete a teaching methods class (MATH 410). Students also fulfill teaching licensure coursework requirements (see list below) as well as many General Education and elective requirements. For more
details on admission requirements and application processes, visit the School of Education Web site: soe.unc.edu/services/apply/ug.

- EDUC 403, 516 or $689,532,533$, and 601
- EDUC 503 and 593 (final semester)


## Graduate School and Career Opportunities

The B.S. degree program, especially if it includes the sequences MATH 521-522 and 577-578, is excellent preparation for graduate study in the mathematical sciences. The B.A. degree can be excellent preparation for graduate study in many fields, including admission into professional schools of law, business, and medicine. Both degrees are viewed by many employers as attractive, especially when accompanied by electives in areas such as statistics, computer science, economics, and operations research. Undergraduate mathematics majors with critical thinking skills and good analytical abilities are in demand in many business, industry, and government fields.

Following are suggested course selections (within the degree requirements) for students who have an interest in a particular direction.

## B.A. or B.S. degree with a major in mathematics, suggestions for pure mathematics:

These courses provide a solid theoretical understanding of central mathematics and excellent preparation for graduate study in mathematics or the mathematical sciences.

- MATH 521 and 522
- MATH 577 and 578
- Enough upper-level mathematics courses to satisfy the degree requirements
Those planning graduate study in mathematics or the mathematical sciences may consider taking some of MATH 653, 676, 680, or subsequent courses.


## B.S. degree with a major in mathematics, suggestions for mathematical biology:

For students interested in careers or further study in mathematical life sciences.

- BIOL 101 and CHEM 101 or CHEM 102
- At least one of BIOL 201, 202, 205
- At least two of BIOL 452, 454, 526, 551
- MATH 521
- One of MATH 522, 523, 528, 566
- One of MATH 534, 548, 578
- MATH 547 or 577
- Three or more mathematics courses numbered above 500. Consider especially MATH 524, 529, 535, and 564


## B.A. degree with a major in mathematics, suggestions for mathematical economics:

Suitable for students planning to go on to graduate school in economics or a related area, or pursue a career in economics, business, or finance. Note: With three more ECON courses numbered above 400 , the requirements for the B.A. in economics could also be satisfied.

- ECON 101, 410, 420
- At least two of ECON 510, 511, 520, 570
- MATH 521
- At least three of MATH 522, 524, 535, 550, 555, 564, 565
- Either MATH 535/STOR 435 and STOR 555, or ECON 400 and 570
- MATH 547 or 577
B.A. degree with a major in mathematics, suggestions for future high school teachers:
- MATH 231 or 241,232 or $283,233,381$, and 383
- At least one of MATH 515, 534, 535, 548, 550
- MATH 521
- MATH 533
- MATH 547 or 577
- MATH 551
- STOR 155
- The Supplemental General Education requirement
- Eighteen hours of C or better (not C-) in MATH 233, 381, 383, or MATH courses numbered above 500


## Faculty

## Professors

Idris Assani, Prakash Belkale, Roberto Camassa, Ivan V. Cherednik, James N. Damon, M. Gregory Forest, Jane M. Hawkins, Jingfang Huang, Christopher Jones, Shrawan Kumar, Richard McLaughlin, Sorin Mitran, Peter J. Mucha, Karl E. Petersen, Robert Proctor, Richárd Rimányi, Lev Rozansky, Michael E. Taylor, Alexander N. Varchenko, Jonathan M. Wahl, Mark Williams.

## Associate Professors

David Adalsteinsson, Jason Metcalfe, Laura Miller.

## Assistant Professors

Hans Christianson, Ellen Eischen, Boyce Griffith, Jeremy Marzuola, Katherine Newhall, Nancy Rodruguez, Justin Sawon.

## Lecturers

Debra Etheridge, Linda Green, Mark McCombs, Elizabeth McLaughlin, Brenda Shryock, Miranda Thomas.

## Professors Emeriti

Joseph A. Cima, Patrick B. Eberlein, Ladnor D. Geissinger, Sue E. Goodman, Robert G. Heyneman, Norberto Kerzman, Ancel Mewborn, Joseph F. Plante, Michael Schlessinger, William W. Smith, Johann Sonner, James D. Stasheff, Warren R. Wogen.

## Contact Information

Richárd Rimányi, Director of Undergraduate Studies, CB\# 3250, 429 Chapman Hall, rimanyi@email.unc.edu.
Susan Stedman, Assistant to the Director of Undergraduate Studies, CB\# 3250, 356 Phillips Hall, sstedman@email.unc.edu.

## Courses

## MATH-Mathematics

## MATH 50 First-Year Seminar: The Predictability of Chance

 and Its Applications in Applied Mathematics (3). This seminar will examine the ways in which some types of behavior of random systems cannot only be predicted, but also applied to practical problems.
## MATH 51 First-Year Seminar: "Fish Gotta Swim, Birds Gotta

 Fly": Mathematics and Mechanics of Moving Things (3). This seminar allows students to have hands-on exposure to a class of physical and computer experiments designed to challenge intuition on how motion is achieved in nature.
## MATH 52 First-Year Seminar: Fractals: The Geometry of

Nature (3). Many natural objects have complex, infinitely detailed shapes in which smaller versions of the whole shape are seen appearing throughout. Such a shape is a fractal, the topic of study.

## MATH 53 First-Year Seminar: Symmetry and Tilings (3).

Through projects using software programs, Web sites, and readings, students will discover the geometric structure of tilings, learn to design their own patterns, and explore the many interdisciplinary connections.

MATH 54 First-Year Seminar: The Science of Conjecture: Its Math, Philosophy, and History (3). Seminar will cover the history and philosophy of probability, evidence, and conjecture, consider the development of the field of probability, and look at current and future uses of probability.

## MATH 55 First-Year Seminar: Geometry and Symmetry in

Nature (3). The nature of space imposes striking constraints on organic and inorganic objects. This seminar examines such constraints on both biological organisms and regular solids in geometry.

MATH 56 First-Year Seminar: Information and Coding (3). With the growth of available information on almost anything, can it be reliably compressed, protected, and transmitted over a noisy channel? Students will take a mathematical view of cryptography throughout history and information handling in modern life.
MATH 57 First-Year Seminar: The Fourth Dimension (3). The idea of a fourth dimension has a rich and varied history. This seminar explores the concept of fourth (and higher) dimensions both mathematically and more widely in human thought.

MATH 58 First-Year Seminar: Math, Art, and the Human Experience (3). Students will explore the relevance of mathematical ideas to fields typically perceived as "nonmathematical" (e.g., art, music, film, literature) and how these "nonmathematical" fields influence mathematical thought.

## MATH 59 First-Year Seminar: The Mystery and Majesty of

 Ordinary Numbers (3). Problems arising from the arithmetic of ordinary counting numbers have for centuries fascinated both mathematicians and nonmathematicians. This seminar will consider some of these problems (both solved and unsolved).MATH 60 First-Year Seminar: Simulated Life (3). This seminar introduces students to the thought process that goes into
developing computational models of biological systems. It will also expose students to techniques for simulating and analyzing these models.
MATH 61 First-Year Seminar: The Language of Mathematics: Making the Invisible Visible (3). This course will consider mathematics to be the science of patterns and will discuss some of the different kinds of patterns that give rise to different branches of mathematics.

MATH 62 First-Year Seminar: Combinatorics (3). Students will discuss combinatorics' deep roots in history, its connections with the theory of numbers, and its fundamental role for natural science, as well as various applications, including cryptography and the stock market.
MATH 63 First-Year Seminar: From "The Sound of Music" to "The Perfect Storm" (MASC 57) (3). See MASC 57 for description.

## MATH 64 First-Year Seminar: A View of the Sea: The

 Circulation of the Ocean and Its Impact on Coastal Water (3). Why is the Gulf Stream so strong, why does it flow clockwise, and why does it separate from the United States coast at Cape Hatteras? Students will study the circulation of the ocean and its influence on coastal environments through readings and by examining satellite and on-site observations.MATH 65 First-Year Seminar: Colliding Balls and Springs: The Microstructure of How Materials Behave (3). Students will follow the intellectual journey of the atomic hypothesis from Leucippus and Democritus to the modern era, combining the history, the applications to science, and the mathematics developed to study particles and their interactions.

MATH 66 First-Year Seminar: Non-Euclidean Geometry in Nature and History (3). The seminar will investigate nonEuclidean geometry (hyperbolic and spherical) from historical, mathematical, and practical perspectives. The approach will be largely algebraic, in contrast to the traditional axiomatic method.
MATH 67 First-Year Seminar: The Mathematics of Climate Change: Can We Predict the Future of Our Planet? (3). Is the earth warming? Predictions are based largely on mathematical models. We shall consider the limitations of models in relation to making predictions. Examples of chaotic behavior will be presented.
MATH 89 First-Year Seminar: Special Topics (3). Special topics course. Content will vary each semester.
MATH 110 Algebra (3). Placement by achievement test. Provides a one-semester review of the basics of algebra. Basic algebraic expressions, functions, exponents, and logarithms are included, with an emphasis on problem solving. This course should not be taken by those with a suitable score on the achievement test.

MATH 116 Intuitive Calculus (3). Provides an introduction in as nontechnical a setting as possible to the basic concepts of calculus. The course is intended for the nonscience major. A student may not receive credit for this course after receiving credit for MATH 152, 231, or 241.
MATH 117 Aspects of Finite Mathematics (3). Introduction to basic concepts of finite mathematics, including topics such as
counting methods, finite probability problems, and networks. The course is intended for the nonscience major.
MATH 118 Aspects of Modern Mathematics (3). Introduction to mathematical topics of current interest in society and science, such as the mathematics of choice, growth, finance, and shape. The course is intended for the nonscience major.
MATH 119 Introduction to Mathematical Modeling (3). Provides an introduction to the use of mathematics for modeling real-world phenomena in a nontechnical setting. Models use algebraic, graphical, and numerical properties of elementary functions to interpret data. This course is intended for the nonscience major.
MATH 129P Precalculus Mathematics (0). Awarded as placement credit based on test scores. Does not fulfill a graduation requirement.
MATH 130 Precalculus Mathematics (3). Prerequisite, MATH 110. Covers the basic mathematical skills needed for learning calculus. Topics are calculating and working with functions and data, introduction to trigonometry, parametric equations, and the conic sections. A student may not receive credit for this course after receiving credit for MATH 231.
MATH 152 Calculus for Business and Social Sciences (3). Prerequisite, MATH 110. An introductory survey of differential and integral calculus with emphasis on techniques and applications of interest for business and the social sciences. This is a terminal course and not adequate preparation for MATH 232. A student cannot receive credit for this course after receiving credit for MATH 231 or 241.

MATH 190 Special Topics in Mathematics (3). An undergraduate seminar course that is designed to be a participatory intellectual adventure on an advanced, emergent, and stimulating topic within a selected discipline in mathematics. This course does not count as credit towards the mathematics major.
MATH 231 Calculus of Functions of One Variable I (3). Prerequisites, MATH 110 and 130. Requires a grade of C- or better in MATH 130 or placement by the department. Limits, derivatives, and integrals of functions of one variable. Students may not receive credit for both MATH 231 and MATH 241.

MATH 232 Calculus of Functions of One Variable II (3). Requires a grade of C- or better in MATH 231 or 241 or placement by the department. Calculus of the elementary transcendental functions, techniques of integration, indeterminate forms, Taylor's formula, infinite series.
MATH 233 Calculus of Functions of Several Variables (3). Prerequisite, MATH 232 or 283 . Vector algebra, solid analytic geometry, partial derivatives, multiple integrals.
MATH 241 BioCalculus I (3). Requires a grade of C- or better in MATH 130 or placement by the department. Limits, derivatives, and integrals of functions of one variable, motivated by and applied to discrete-time dynamical systems used to model various biological processes.
MATH 283 BioCalculus II (3). Requires a grade of C- or better in either MATH 231 or 241 , or placement by the department.

Techniques of integration, indeterminate forms, Taylor's series; introduction to linear algebra, motivated by and applied to ordinary differential equations; systems of ordinary differential equations used to model various biological processes. A student cannot receive credit for this course after receiving credit for MATH 383.

## MATH 290 Directed Exploration in Mathematics

(0-3). Permission of the director of undergraduate studies. Experimentation or deeper investigation under the supervision of a faculty member of topics in mathematics that may be, but need not be, connected with an existing course. No one may receive more than seven semester hours of credit for this course.

MATH 294 Undergraduate Seminar in Mathematics (0-3). Permission of the instructor. A seminar on a chosen topic in mathematics in which the students participate more actively than in usual courses.

MATH 307 Revisiting Real Numbers and Algebra (3). Central to teaching precollege mathematics is the need for an in-depth understanding of real numbers and algebra. This course explores this content, emphasizing problem solving and mathematical reasoning.

MATH 381 Discrete Mathematics (3). Prerequisite, MATH 232 or 283 . This course serves as a transition from computational to more theoretical mathematics. Topics are from the foundations of mathematics: logic, set theory, relations and functions, induction, permutations and combinations, recurrence.
MATH 383 First Course in Differential Equations (3). Prerequisite, MATH 233. Introductory ordinary differential equations, first- and second-order differential equations with applications, higher-order linear equations, systems of first-order linear equations (introducing linear algebra as needed).

## MATH 396 Undergraduate Reading and Research in

Mathematics (1-3). Permission of the director of undergraduate studies. This course is intended mainly for students working on honors projects. No one may receive more than three semester hours credit for this course.

MATH 406 Mathematical Methods in Biostatistics (1). Prerequisite, MATH 232. Special mathematical techniques in the theory and methods of biostatistics as related to the life sciences and public health. Includes brief review of calculus, selected topics from intermediate calculus, and introductory matrix theory for applications in biostatistics.

MATH 410 Teaching and Learning Mathematics (4). Study of how people learn and understand mathematics, based on research in mathematics, mathematics education, psychology, and cognitive science. This course is designed to prepare undergraduate mathematics majors to become excellent high school mathematics teachers. It involves fieldwork in both the high school and college environments.

MATH 411 Developing Mathematical Concepts (3). Permission of the instructor. An investigation of various ways elementary concepts in mathematics can be developed. Applications of the mathematics developed will be considered.

MATH 418 Basic Concepts of Analysis for High School Teachers (3). Prerequisites, MATH 233 and 381. An examination
of high school mathematics from an advanced perspective, including number systems and the behavior of functions and equations. Designed primarily for prospective or practicing high school teachers.

MATH 452 Mathematical and Computational Models in Biology (BIOL 452) (3). See BIOL 452 for description.

## MATH 452L Mathematical and Computational Models in

 Biology Laboratory (BIOL 452L) (1). See BIOL 452L for description.MATH 515 History of Mathematics (3). Prerequisite, MATH 381. A general survey of the history of mathematics with emphasis on elementary mathematics. Some special problems will be treated in depth.
MATH 521 Advanced Calculus I (3). Prerequisites, MATH 233 and 381 . The real numbers, continuity and differentiability of functions of one variable, infinite series, integration.

MATH 522 Advanced Calculus II (3). Prerequisites, MATH 383 and 521. Functions of several variables, the derivative as a linear transformation, inverse and implicit function theorems, multiple integration.

## MATH 523 Functions of a Complex Variable with Applications

 (3). Prerequisite, MATH 383. The algebra of complex numbers, elementary functions and their mapping properties, complex limits, power series, analytic functions, contour integrals, Cauchy's theorem and formulae, Laurent series and residue calculus, elementary conformal mapping and boundary value problems, Poisson integral formula for the disk and the half plane.MATH 524 Elementary Differential Equations (3). Prerequisite, MATH 383. Linear differential equations, power series solutions, Laplace transforms, numerical methods.

## MATH 528 Mathematical Methods for the Physical Sciences I

(3). Prerequisite, MATH 383. Theory and applications of Laplace transform, Fourier series and transform, Sturm-Liouville problems. Students will be expected to do some numerical calculations on either a programmable calculator or a computer. This course has an optional computer laboratory component: MATH 528L.

## MATH 528L Laboratory for Mathematical Methods for

 the Physical Sciences I (1). Prerequisite, MATH 383; pre- or corequisite, MATH 528. Training in the use of symbolic and numerical computing packages and their application to the MATH 528 lecture topics. Students will need a CCI-compatible computing device.
## MATH 529 Mathematical Methods for the Physical Sciences

II (3). Prerequisite, MATH 521, 524, or 528. Introduction to boundary value problems for the diffusion, Laplace and wave partial differential equations. Bessel functions and Legendre functions. Introduction to complex variables including the calculus of residues. This course has an optional computer laboratory component: MATH 529L.

MATH 529L Laboratory for Mathematical Methods for the Physical Sciences II (1). Prerequisite, MATH 383; pre- or corequisite, MATH 529. Training in the use of symbolic and numerical computing packages and their application to the MATH

529 lecture topics. Students will need a CCI-compatible computing device.

MATH 533 Elementary Theory of Numbers (3). Prerequisite, MATH 381. Divisibility, Euclidean algorithm, congruences, residue classes, Euler's function, primitive roots, Chinese remainder theorem, quadratic residues, number-theoretic functions, Farey and continued fractions, Gaussian integers.

MATH 534 Elements of Modern Algebra (3). Prerequisite, MATH 381. Binary operations, groups, subgroups, cosets, quotient groups, rings, polynomials.

MATH 535 Introduction to Probability (STOR 435) (3). See STOR 435 for description.
MATH 547 Linear Algebra for Applications (3). Prerequisite, MATH 233 or 283. Algebra of matrices with applications: determinants, solution of linear systems by Gaussian elimination, Gram-Schmidt procedure, eigenvalues. MATH 416 may not be taken for credit after credit has been granted for MATH 547.

MATH 548 Combinatorial Mathematics (3). Prerequisite, MATH 381. Topics chosen from generating functions, Polya's theory of counting, partial orderings and incidence algebras, principle of inclusion-exclusion, Moebius inversion, combinatorial problems in physics and other branches of science.
MATH 550 Topology (3). Prerequisites, MATH 233 and 381; corequisite, MATH 383. Introduction to topics in topology, particularly surface topology, including classification of compact surfaces, Euler characteristic, orientability, vector fields on surfaces, tessellations, and fundamental group.

MATH 551 Euclidean and Non-Euclidean Geometries (3). Prerequisite, MATH 381. Critical study of basic notions and models of Euclidean and non-Euclidean geometries: order, congruence, and distance.
MATH 555 Introduction to Dynamics (3). Prerequisite, MATH 383. Topics will vary and may include iteration of maps, orbits, periodic points, attractors, symbolic dynamics, bifurcations, fractal sets, chaotic systems, systems arising from differential equations, iterated function systems, and applications.

MATH 564 Mathematical Modeling (3). Prerequisite, MATH 283 or 383 . Requires some knowledge of computer programming. Model validation and numerical simulations using differential equations, probability, and iterated maps. Applications may include conservation laws, dynamics, mixing, geophysical flows and climate change, fluid motion, epidemics, ecological models, population biology, cell biology, and neuron dynamics.
MATH 565 Computer-Assisted Mathematical Problem Solving (3). Prerequisite, MATH 383 . Personal computer as tool in solving a variety of mathematical problems, e.g., finding roots of equations and approximate solutions to differential equations. Introduction to appropriate programming language; emphasis on graphics.

## MATH 566 Introduction to Numerical Analysis (3).

Prerequisite, MATH 383. Requires some knowledge of computer programming. Iterative methods, interpolation, polynomial and spline approximations, numerical differentiation and integration, numerical solution of ordinary and partial differential equations.

MATH 577 Linear Algebra (3). Prerequisites, MATH 381 and 383. Vector spaces, linear transformations, duality, diagonalization, primary and cyclic decomposition, Jordan canonical form, inner product spaces, orthogonal reduction of symmetric matrices, spectral theorem, bilinear forms, multilinear functions. A much more abstract course than MATH 416 or 547.

MATH 578 Algebraic Structures (3). Prerequisite, MATH 547 or 577. Permutation groups, matrix groups, groups of linear transformations, symmetry groups; finite abelian groups. Residue class rings, algebra of matrices, linear maps, and polynomials. Real and complex numbers, rational functions, quadratic fields, finite fields.

MATH 590 Topics in Mathematics (3). Permission of the instructor. Topics may focus on matrix theory, analysis, algebra, geometry, or applied and computational mathematics.
MATH 594 Nonlinear Dynamics (PHYS 594) (3). See PHYS 594 for description.

MATH 635 Probability (STOR 635) (3). See STOR 635 for description.

MATH 641 Enumerative Combinatorics (3). Prerequisite, MATH 578. Basic counting; partitions; recursions and generating functions; signed enumeration; counting with respect to symmetry, plane partitions, and tableaux.
MATH 643 Combinatorial Structures (3). Prerequisite, MATH 578. Graph theory, matchings, Ramsey theory, extremal set theory, network flows, lattices, Moebius inversion, $q$-analogs, combinatorial and projective geometries, codes, and designs.

MATH 653 Introductory Analysis (3). Requires knowledge of advanced calculus. Elementary metric space topology, continuous functions, differentiation of vector-valued functions, implicit and inverse function theorems. Topics from Weierstrass theorem, existence and uniqueness theorems for differential equations, series of functions.

MATH 656 Complex Analysis (3). Prerequisite, MATH 653. A rigorous treatment of complex integration, including the Cauchy theory. Elementary special functions, power series, local behavior of analytic functions.

MATH 657 Qualitative Theory of Differential Equations (3). Prerequisite, MATH 653. Requires knowledge of linear algebra. Existence and uniqueness theorems, linear and nonlinear systems, differential equations in the plane and on surfaces, PoincareBendixson theory, Lyapunov stability and structural stability, critical point analysis.
MATH 661 Scientific Computation I (ENVR 661) (3). Requires some programming experience and basic numerical analysis. Error in computation, solutions of nonlinear equations, interpolation, approximation of functions, Fourier methods, numerical integration and differentiation, introduction to numerical solution of ODEs, Gaussian elimination.

MATH 662 Scientific Computation II (COMP 662, ENVR 662) (3). Prerequisite, MATH 661. Theory and practical issues arising in linear algebra problems derived from physical applications, e.g., discretization of ODEs and PDEs. Linear
systems, linear least squares, eigenvalue problems, singular value decomposition.

MATH 668 Methods of Applied Mathematics I (ENVR 668) (3). Requires an undergraduate course in differential equations. Contour integration, asymptotic expansions, steepest descent/ stationary phase methods, special functions arising in physical applications, elliptic and theta functions, elementary bifurcation theory.

MATH 669 Methods of Applied Mathematics II (ENVR 669) (3). Prerequisite, MATH 668. Perturbation methods for ODEs and PDEs, WKBJ method, averaging and modulation theory for linear and nonlinear wave equations, long-time asymptotics of Fourier integral representations of PDEs, Green's functions, dynamical systems tools.

MATH 676 Modules, Linear Algebra, and Groups (3). Requires knowledge of linear algebra and algebraic structures. Modules over rings, canonical forms for linear operators and bilinear forms, multilinear algebra, groups and group actions.

MATH 677 Groups, Representations, and Fields (3). Prerequisite, MATH 676. Internal structure of groups, Sylow theorems, generators and relations, group representations, fields, Galois theory, category theory.

MATH 680 Geometry of Curves and Surfaces (3). Requires advanced calculus. Topics include (curves) Frenet formulas, isoperimetric inequality, theorems of Crofton, Fenchel, FaryMilnor; (surfaces) fundamental forms, Gaussian and mean curvature, special surfaces, geodesics, Gauss-Bonnet theorem.

MATH 681 Introductory Topology (3). Prerequisites, MATH 653 and 680. Topological spaces, connectedness, separation axioms, product spaces, extension theorems. Classification of surfaces, fundamental group, covering spaces.

MATH 690 Topics in Mathematics (3). Permission of the department. Directed study of an advanced topic in mathematics. Topics will vary.

MATH 691H Honors Research in Mathematics (3). Permission of the director of undergraduate studies. Readings in mathematics and the beginning of directed research on an honors thesis.

MATH 692H Honors Thesis in Mathematics (3). Permission of the director of undergraduate studies. Completion of an honors thesis under the direction of a member of the faculty. Required of all candidates for graduation with honors in mathematics.

# Department of Microbiology and Immunology 

www.med.unc.edu/microimm
125 Mason Farm Road, 6th Floor Marsico Hall, CB\# 7290; (919) 966-1191

WILLIAM E. GOLDMAN, Chair

The Department of Microbiology and Immunology is one of the basic science departments of the UNC School of Medicine. Although the department participates actively in the undergraduate curriculum in biology and several of its courses are open to undergraduate students in the College of Arts and Sciences, the department does not offer an undergraduate major in microbiology. MCRO 251 is an undergraduate course specifically designed to serve as the required prerequisite for students applying to pharmacy or nursing programs, although other students with the required science background may take the course. Most of the other courses offered by the department are available to highly motivated undergraduate students with the necessary preparation, although it is important for such students to consult the course instructor before registering.

## Courses

## MCRO-Microbiology

MCRO 50 First-Year Seminar: Infectious Disease in Society (3). Selected aspects of microorganisms that cause infectious diseases, how new infectious diseases emerge, what bioterrorism is and how we are trying to counteract it in the United States, and how changes in the food supply have presented new infectious disease challenges.

MCRO 251 Introductory Medical Microbiology (4). Required preparation, one semester of a basic undergraduate science class. An introductory course in microbiology that focuses on the structure, biology, and genetics of microbes in relation to human disease and the immune system. For students planning careers in pharmacy, nursing, dental hygiene, and related fields. A laboratory is required.
MCRO 255 Elementary Pathogenic Microbiology (4). Required preparation, one semester of a basic undergraduate science class. An introductory course in microbiology that focuses on the structure, biology, and genetics of microbes in relation to human disease and the immune system. For students planning careers in pharmacy, nursing, dental hygiene, and related fields. A laboratory is required.

MCRO 449 Introduction to Immunology (BIOL 449) (3) See BIOL 449 for description.
MCRO 515 Introduction to Microbiology (4). Open only to dental students. A course covering basic aspects of microbiology and immunology including sterilization, action of antimicrobial chemotherapeutic agents, concepts of infection and immunity, and the study of certain selected infectious agents.

MCRO 614 Immunobiology (3). A strong background in molecular biology, eukaryotic genetics, and biochemistry is required. Advanced survey course with topics that include molecular recognition, genetic mechanisms of host resistance,
development of cells and cell interactions; hypersensitivity, autoimmunity, and resistance to infection. Course material from textbook and primary literature.

MCRO 630 Virology (3). Required preparation, coursework in molecular biology and cell biology. Current concepts of the chemistry, structure, replication, genetics, and the natural history of animal viruses and their host cells.

MCRO 631 Advanced Molecular Biology I (BIOC 631, BIOL 631, GNET 631) (3). See GNET 631 for description.

MCRO 632 Advanced Molecular Biology II (BIOC 632, BIOL 632, GNET 632) (3). See GNET 632 for description.
MCRO 635 Microbial Pathogenesis I (3). Permission of the instructor. Required preparation, coursework in molecular biology and genetics. Topics will include aspects of basic bacteriology as well as bacterial and fungal pathogens and mechanisms of disease.

MCRO 640 Microbial Pathogenesis II (3). Permission of the instructor or a fundamental understanding of molecular virology and immunology. Molecular pathogenesis, with a primary focus on viral pathogens. Additional topics include vaccines and genetics of host-pathogen interactions.

## MCRO 643 Cell Structure, Function, and Growth Control I (BIOC 643, CBIO 643, PHCO 643, PHYI 643) (3). See CBIO 643 for description.

MCRO 644 Cell Structure, Function, and Growth Control II (BIOC 644, CBIO 644, PHCO 644, PHYI 644) (3). See CBIO 644 for description.

## MCRO 690 Special Topics in Microbiology or Immunology

 (1-21). Permission of the department except for department majors. Designed to introduce the student to research methods. Minor investigative problems are conducted with advice and guidance of the staff. Hours and credit to be arranged, any term. May be repeated for credit two or more semesters.
## Department of Military Science

unc.edu/depts/armyrotc
Army ROTC-Tar Heel Battalion, 221 S. Columbia Street, CB\# 7485; (919) 962-5546

DANIEL KNOTT, Chair

## Introduction

The United States Army Reserve Officers' Training Corps (AROTC) provides unrivalled leadership training for success in any career field. AROTC offers students the opportunity to study, develop, and demonstrate the principles of leadership and mission command. Those who are able to successfully complete the program are commissioned as second lieutenants in the United States Army. The Army ROTC program offers a variety of leadership experiences, academic challenges, and unique learning opportunities-unlike any other University program or department.

## The Army ROTC Program

## Four-Year Program

Students enrolled in the four-year program take one Army ROTC class during each semester of the four years of college study. The first two years include the ROTC basic course and concentrate on leadership development, writing and communication skills, ethics and values, orientation to the profession of arms, and basic military skills such as land navigation and small unit leadership. Starting in the junior year, cadets enter the ROTC advanced course. The advanced course curriculum focuses on the study and application of leadership skills, mission command, advanced land navigation, and military history. Qualified cadets will have the opportunity to attend multiple iterations of Cadet Summer Training at Fort Knox, Kentucky. In their senior year, cadets will submit accessions packets-including component (Active, Reserve, National Guard) and branch preferences-to compete for the opportunity to serve the nation as a commissioned officer.

## Two-Year Program

The two-year program provides an opportunity for students who did not attend the program in their first and sophomore years to meet the requirements for the cadet advanced course program and potential commissioning as officers in the United States Army. In order to be eligible for consideration, a student must have previously served in the armed services or attended Cadet Initial Entry Training at Fort Knox, Kentucky.

## Interested Students

First- and second-year students seeking to learn more about themselves, leadership, and the United States Army can take ARMY 101, 102, 201, and 202 without incurring a service obligation.

## Military Science Minor

The military science minor is designed for students who wish to augment the major they are completing in another departmental program. Military science courses are open to all UNC-Chapel Hill students who meet prerequisites. The minor in military science is a 15 semester-hour course of study with the courses selected from the lists below. Students must complete 12 semester hours with a grade of C or better.

- ARMY 301, 302, 401, 402
- One of the following: AERO/HIST/PWAD 213; ASIA/HIST/

PWAD 275, 570; HIST/PWAD 212, 351, 368, 369, 373, 564, 565
Please note: ARMY 101, 102, 201, and 202 are prerequisite courses to ARMY 301.

## Advising

All students see their primary academic advisor, based on their major, in Steele Building. Cadets are required to complete an additional academic tracking form and receive guidance from their military science instructor to ensure military and graduation requirements are simultaneously met.

## Special Opportunities in Military Science

## Extracurricular Activities

Army ROTC offers an array of extracurricular activities. Students looking for excitement and action can volunteer to compete for the opportunity to attend the basic airborne course, Air Assault, or mountain warfare training. Other opportunities include participation as a member of the Ranger Challenge Team or color guard, travel for culture and language immersion programs, as well as leadership opportunities in actual Army units both in the United States and around the world.

## Scholarships

Four-year scholarships are available for high school seniors. Three-and-a-half-, three-, two-and-a-half-, and two-year, merit-based scholarships are available to full-time students at the University. Successful candidates will need to meet eligibility requirements and have at least a 2.5 GPA. Scholarships pay full tuition and fees, $\$ 600$ per semester book allowance, and a monthly stipend between $\$ 300$ and $\$ 500$. The North Carolina Army National Guard and the United States Army Reserve also have programs that can pay costs associated with attending the University.

## Service Obligations

Upon contracting-upon receipt of a scholarship for fall semester, junior year-the cadet incurs an obligation to serve in the United States Army; that service can be active or reserve duty. Service obligations range from three to eight years.

## Faculty

## Professor

Daniel Knott, Lieutenant Colonel, U.S. Army, Professor of Military Science

## Assistant Professors

Jared Miller, Captain, U.S. Army, Executive Officer
Austin Grimes, Captain, U.S. Army, Training Officer

## Primary Trainers

Nicholas Barnes, Master Sergeant, U.S. Army, Senior Military Instructor

Brad Shedd, Sergeant First Class, U.S. Army, Assistant Military Instructor

Jeremy Smith, Sergeant First Class, U.S. Army, Assistant Military Instructor

## Contact Information

Prospective students are encouraged to check our departmental Web site at armyrotc.unc.edu, or contact Mr. Spencer Edwards, the admissions officer, CB\# 7485, 221 S. Columbia Street, (919) 9625546, or armyroo@email.unc.edu.

## Courses

## ARMY-Army

ARMY 100 Leadership Laboratory (0). Drill and ceremony, marksmanship, land navigation exercises, first aid, small unit tactics, and confidence course training. Strongly encouraged for all basic course students and required for all advanced course students.
ARMY 101 Adventures in Leadership (1). This course offers an introduction to basic leadership in both corporate America and the Army, comparing and contrasting approaches. The curriculum includes leader attributes and values, leadership styles, leadership/ management structure, written and verbal communications, time management, goal setting.

ARMY 102 Adventures in Leadership (1). Builds on ARMY 101 by offering an introduction to basic leadership theories and techniques common to both corporate America and the Army: understanding your own cognitive preferences and learning style, active listening, developmental counseling, problem solving, types and formats of briefings, communicating orally and in writing, leader values.

## ARMY 190 Seminar in Selected Topics of Military Science

 (1-3). Permission of the department. A detailed examination of current topics regarding the United States Army. Provides a course for Army ROTC cadets who require additional coursework to meet commissioning and/or scholarship requirements due to extenuating circumstances.ARMY 196 Independent Study (1-3). Permission of the department and the instructor. Any serious student unable to schedule military science courses during their allotted time frames may sign up for any Army course through independent study.
ARMY 200 Leadership Laboratory (0). Drill and ceremony, marksmanship, land navigation exercises, first aid, small unit tactics, and confidence course training. Strongly encouraged for all basic course students and required for all advanced course students.

ARMY 201 Leadership Discovery (2). Develops leadership styles for application in small organizations. Students identify successful leadership characteristics of others through observation and experiential learning exercises. Students maintain a leadership journal and discuss observations in small group settings. Required for cadets.

ARMY 202 Tactical Leadership (2). Introduction to planning, organizing, and leading small unit offensive and defensive operations. Also study of how application of leadership principles forges Army teams. Required for cadets.

ARMY 301 Military Science and Leadership (3). Prerequisites, ARMY 101, 102, 201, and 202. Permission of the instructor for students lacking the prerequisites. Analyzes the profession of arms and the role of the officer. Develops abilities to organize, plan, and execute military operations. Hands-on experience in troop leading procedures, supervising other cadets. Conducts squad-size battle drills. Required for cadets.
ARMY 302 Advanced Military Operations (3). Prerequisite, ARMY 301. Permission of the instructor for students lacking the prerequisite. Study of doctrine, organization, equipment, and
training of threat forces around the world. Continued development of abilities to conduct offensive and defensive operations building to platoon level. Required for cadets.

ARMY 401 Leadership and Management (3). Prerequisites, ARMY 301 and 302. Permission of the instructor for students lacking the prerequisites. Theory and practice in leadership, management, and counseling. Emphasis on multitask planning and execution. Required for cadets.

ARMY 402 Officership (3). Prerequisites, ARMY 301 and 302. Permission of the instructor for students lacking the prerequisites. Studies include introduction to the Uniform Code of Military Justice and establishing an ethical command climate. Emphasis is on critical areas junior officers should be familiar with to be successful future leaders. Required for cadets.

## Department of Music

music.unc.edu

Hill Hall, CB\# 3320; (919) 962-1039
LOUISE TOPPIN, Chair
Annegret Fauser, Associate Chair for Academic Studies
Allen Anderson, Associate Chair for Performance, Composition, and Music Education

## Introduction

The Department of Music provides many opportunities to students who wish to study music within a strong liberal arts curriculum. We foster creative endeavor and critical inquiry through courses, ensembles, and lessons on instruments or voice that explore music from a variety of perspectives. The department offers both the bachelor of arts (B.A.) and the bachelor of music (B.Mus.) degrees for students majoring in music, and a minor in music for students majoring in other fields. The department also offers many courses and performance opportunities to undergraduates majoring in fields other than music.

## Admission

Students are admitted to the B.A. or B.Mus. programs through the regular admissions process established by the University. Prospective students intending to major in music are urged to contact the Department of Music for an audition during the year prior to their anticipated enrollment in order to strengthen their application credentials and to compete for scholarships offered by the department, including the prestigious William R. Kenan Jr. Music Scholarship.

## Music Major, B.A.

The B.A. requires at least 33 credit hours in music and at least 75 outside the major, with 120 total credit hours in the degree. Given the ample opportunity to explore the breadth of the University's course offerings, many B.A. candidates seek minors in other fields or take on a second major.

## Core Requirements

- Foundations (three hours): MUSC 120
- Music history (six hours): MUSC 254 and 255
- Music theory (six hours): MUSC 131 and 132
- Capstone seminar (three hours): one of MUSC 233, 234, 331, 332, 333, 338, 355, 363
- Musicianship (two hours) chosen from MUSC 100-107, 111-115, 130, 133, 136, 166, 168, 200-207, 230, 236
- Ensemble performance (four hours) chosen from MUSC 211 or 212


## Additional Requirements

- Global music requirement (at least one hour): Within the required courses, ensembles, or electives, students must take at least one of the ensembles or courses that engage primarily with repertoires or concepts outside the tradition of Western art music, chosen from MUSC 146, 147, 148, 212 (in an appropriate ensemble: Gamelan, Global Rhythms, Charanga Carolina) 234, 240, 245, 258, 291, 292, or any other appropriate departmental course or ensemble (including MUSC 286, 355) approved by the director of undergraduate studies.
- Music electives (nine hours) chosen from MUSC courses: No more than three additional hours of ensembles beyond the B.A. requirement (four hours) may count for music or general elective credit.
Students may receive no more than 45 credit hours in music and must complete a minimum of 75 hours of coursework outside music, including all General Education requirements.


## Emphases within the Bachelor of Arts in Music Degree

Students working toward the bachelor of arts degree have the option to pursue one or more areas of emphasis in their musical studies.
These emphases identify recommended course selections for students who have interests in one or more areas. We suggest nine credit hours of study; students are free to take additional credits. Some of these courses also satisfy core requirements.
Composition: MUSC 166 and 266; plus three hours from MUSC 239, 266 (repeated), 331, 332, 338
Ethnomusicology: MUSC 234; plus three hours from MUSC 146, 147, 148, 258, 269, 286 (in an appropriate topic), 355 (in an appropriate topic); plus three hours from MUSC 107, 207 (in appropriate repertoire), 212 (in a global music ensemble, including Gamelan, Global Rhythms, Charanga Carolina)

Instrumental Performance: Three hours from MUSC 103-107, 203-207; plus three hours from MUSC 100, 130, 133, 136, 200, 236, 303-306; plus three hours from MUSC 163, 166, 168, 211213 (in an appropriate ensemble), 233, 269, 286 (in an appropriate topic), 331, 338, 355 (in an appropriate topic)
Jazz Studies: MUSC 135; plus six hours from MUSC 145, 163, 211-213 (in an appropriate ensemble; up to three hours), 263, 265, 280, 355 (in an appropriate topic), 363, 364
Music History: MUSC 355 (in an appropriate topic); plus six hours from MUSC 233, 258, 291, 331, 333, 338, 355 (repeated; in an appropriate topic)
Music Theory: MUSC 232; plus six hours taken from MUSC 166, $239,331,332,333,338,355$ (in an appropriate topic)

Musicology: MUSC 355; plus three hours from MUSC 331, 332, 333, 338; plus three hours from MUSC 234, 258, 355 (repeated)

Piano Performance: Three hours from MUSC 100, 200; plus six hours from MUSC 100 (repeated), 200 (repeated), 223, 224, 233, 300

Popular Music: Six hours from MUSC 143, 144, 148, 155, 156, $157,158,281,333$; plus three hours from any additional course listed in this category or from MUSC 145, 147, 239, 280, 286 (in an appropriate topic), 355 (in an appropriate topic)

Voice Performance: Two hours of MUSC 202 and two hours of MUSC 211 (in two semesters in an appropriate ensemble); plus five hours from MUSC 123, 124, 125, 168, 202 (repeated), 211-212 (in an appropriate ensemble; up to three hours), 225, 233, 302

## Music Major, Bachelor of Music (B.Mus.)

The B.Mus. is designed for those seeking a degree that offers a more extensive component in performance, history, ethnomusicology, theory, composition, or music education; it requires students to complete 63 credit hours in music and at least 54 outside the major for a total of 120 credit hours.

## Core Requirements

- Foundations (three hours): MUSC 120
- Music history (six hours): MUSC 254 and 255
- Music theory (nine hours): MUSC 131, 132, and 232
- Capstone seminar (three hours): one of MUSC 233, 234, 331, 332, 333, 338, 355, 363
- Musicianship (three hours): MUSC 130, 133, and 230
- Individual Lessons ( 14 hours): chosen from MUSC 200-207 taken over seven semesters (or the equivalent for students whose primary focus is composition; see below). Students may petition the director of undergraduate studies to count toward this requirement no more than two hours of MUSC 100-107. Two of these 14 hours may be substituted by three of MUSC 300-306. Students wishing to take an eighth semester of individual lessons may use an additional two hours of MUSC 200-207 or three of MUSC 300-306 for elective credit. In any case, MUSC 300-306 may only be taken twice within the program.
- Ensemble performance (eight hours): chosen from MUSC 211 (at least five hours), 212.
- Keyboard skills (two hours) chosen from MUSC 100, 136, 200 (with the approval of the director of undergraduate studies), 236


## Additional Requirements

- Global music requirement (at least one hour): Within the required courses, ensembles, or electives, students must take at least one of the ensembles or courses that engage primarily with repertoires or concepts outside the tradition of Western art music, chosen from MUSC 146, 147, 148, 212 (in an appropriate ensemble: Gamelan, Global Rhythms, Charanga Carolina) 234, 240, 245, $258,291,292$, or any other appropriate departmental course or ensemble (including MUSC 286, 355) approved by the director of undergraduate studies.
- Music electives (15 hours) chosen from MUSC courses: No more than six additional hours of ensembles beyond the B.Mus. requirement (eight hours) may count for music or general elective credit.

Students pursuing the B.Mus. must complete at least 63 credit hours in music, which is combined with an additional 57 credit hours for a total of 120 credit hours. Students may receive no more than 66 credit hours in music and must complete a minimum of 54 credit hours of coursework outside music, including all General Education requirements.

Students who wish to gain certification to teach music in public schools may take a prescribed course of study as part of the bachelor of music degree and apply to the music education licensure program offered through the School of Education. Admission to the music education licensure program requires a separate application to the School of Education (usually submitted during the spring of the first year) and candidates must meet North Carolina Department of Public Instruction licensure standards and be able to complete the course of study prior to spring of their senior year. Students who complete the program are eligible for North Carolina initial-level licensure.

## Emphases within the Bachelor of Music Degree

Students working toward the bachelor of music degree have the option to pursue one or more areas of emphasis in their musical studies. These emphases identify recommended course selections for students who have interests in one or more areas. We suggest 12 credit hours of study; students are free to take additional credits. Some of these courses also satisfy core requirements.

Composition: MUSC 307; plus nine hours taken from MUSC 239, 266 (repeated), 331, 332, 338, 355 (in an appropriate topic)

Etbnomusicology: MUSC 234; plus six hours from MUSC 146, 147, 148, 258, 269, 286 (in an appropriate topic), 355 (in an appropriate topic); plus three hours from MUSC 107, 207 (in appropriate repertoire), 212 (in a global music ensemble, including Gamelan, Global Rhythms, Charanga Carolina).

Instrumental Performance: Three hours from MUSC 303-306; plus three hours of individual lessons on a second instrument (MUSC 100, 102-107, 202-207) or an additional semester of MUSC 303-306; plus six hours from MUSC 163, 166, 168, 211213 (in an appropriate ensemble), 233, 269, 286, 331, 338, 355

Jazz Studies: MUSC 135, 163; plus six hours from MUSC 145, 211-213 (in an appropriate ensemble; up to three hours), 263, 265, 280, 355 (in an appropriate topic), 363,364

Music Education: MUSC 168, 226, 227, and 228
Music History: MUSC 355 (in an appropriate topic); plus nine hours taken from MUSC 233, 258, 291, 331, 333, 338, 355 (repeated; in an appropriate topic)
Music Theory: Twelve hours taken from MUSC 166, 239, 331, $332,333,338$, or 355 (in an appropriate topic)

Musicology: MUSC 355; plus three hours taken from MUSC $331,332,333$ or 338,355 (repeated); plus three hours taken from MUSC 234, 258; plus three hours from any additional course listed in this category or from MUSC 233, 363

Piano Performance: Three hours of MUSC 300; plus nine hours from MUSC 100 (on organ or harpsichord; up to three hours), $163,168,223,224,233,300$ (repeated).

Popular Music: Six hours taken from MUSC 143, 144, 148, 155, $156,157,158,281,333$; plus six hours from any additional courses listed in this category or from MUSC 145, 147, 239, 280, 286 (in an appropriate topic), 355 (in an appropriate topic)
Voice Performance: MUSC 123, 124, 125, 302; plus six hours from MUSC 168, 225, 233, 248, 302 (repeated)

## Music Minor

The minor in music requires 15 hours as follows:

- MUSC 120 (three hours)
- One of MUSC 121, 131, 141-158, or 188 (three hours)
- One of MUSC 240, 248, 251, 280-292, 363, or 390H (three hours)
- The remaining six hours are to be taken from other MUSC courses (which may include individual lessons or ensembles) subject to prerequisites and other admissions requirements.


## Individual and Group Lessons

Instruction for academic credit in keyboard, woodwind, brass, percussion, string instruments, and in voice is available to all University students. All lessons are normally offered each semester and are subject to admission and other requirements being met. Group lessons may also be available on selected instruments and in voice.

Studio assignments are based on instructor availability with preference given to music majors (B.A. and B.Mus.). Fees are charged for lessons based on an annual schedule published by the department. Music lesson fees are to be paid during the registration period; if fees remain unpaid, lessons will be discontinued.
All students wishing to enroll for lessons must first gain the permission of the appropriate area head to register (see the Department of Music's Web site for current information); this will involve an audition. Once permission has been granted, the registration process is handled by the Department of Music's registrar, who is also responsible for procedures leading to billing and the formal assignment to a teacher.
B.Mus. students whose primary focus is composition (and whether or not choosing an emphasis in composition) will fulfill the Individual Lessons core requirement by taking MUSC 166, three semesters of MUSC 266, and two hours of MUSC 100-107 or 200-207.

MUSC 100-107 may be repeated for credit to a maximum of eight hours; MUSC 200-207 may be repeated for credit to a maximum of 16 hours; MUSC 266 may be repeated for credit to a maximum of 18 hours; MUSC 300-306 may be repeated for credit for a degree to a maximum of six hours.

## Ensembles

A variety of department ensembles under MUSC 211-213 are open to all students by audition. Each carries one credit hour per semester and may be repeated for credit.
B.A. candidates majoring in music must accrue four credit hours in ensembles drawn from MUSC 211 and/or 212. B.Mus. candidates must accrue eight credit hours chosen from MUSC 211 and/or 212, at least five of which must be from MUSC 211.
B.A. candidates majoring in music may count no more than three additional hours from MUSC 211-213 towards their degree for music or general elective credit; candidates for the B.Mus. may count no more than six additional hours from MUSC 211-213 towards their degree for music or general elective credit.
B.A. students whose primary instrument is piano will normally fulfill the ensemble requirement by taking one semester of large ensemble (MUSC 211) in addition to the three-semester piano ensemble sequence (Piano Ensemble I: Piano Duet; Piano Ensemble II: Vocal Accompanying; Piano Ensemble II: Instrumental Accompanying).
B.Mus. students whose primary instrument is piano will normally take at least one semester of large ensemble (MUSC 211) and the three-semester piano ensemble sequence (Piano Ensemble I: Piano Duet; Piano Ensemble II: Vocal Accompanying; Piano Ensemble II: Instrumental Accompanying). The rest of the ensemble requirement will be fulfilled by way of additional semesters of MUSC 211 (which may include Collaborative Piano) or MUSC 214.

Students should check with the appropriate ensemble director for more information concerning requirements and procedures for the auditions, which are typically held during the first week of each semester. Ensemble directors are listed on the department Web site. The department offers the following ensembles, most of which meet the ensemble requirement for the music major:
Baroque Ensemble/Viol Consort Pep Band
Brass Chamber Music Percussion Ensemble
Carolina Choir
Chamber Singers
Charanga Carolina
Gamelan
Global Rhythms
Guitar Ensemble
Jazz Band
Jazz Combos
Marching Band
Men's Glee Club
New Music Ensemble

## Advising

All majors and minors have an academic advisor in Steele Building. Students are strongly encouraged to meet regularly with their academic advisor and review their Tar Heel Tracker each semester. In addition, the department's advisory team and the director of undergraduate studies work with current and prospective music majors individually by appointment (see "Contact Information" below). Further information on courses, undergraduate research opportunities, the honors program, careers, and graduate schools may be obtained from the department's Web site.

## Special Opportunities

## Honors in Music

Students interested in becoming candidates for a degree with honors in music should read the regulations governing departmental honors in the College of Arts and Sciences, found in the section "Undergraduate Honors" in the front of this bulletin, and should consult the honors advisor of the department toward the end of the sophomore year.

## Study Abroad

The department actively encourages students to participate in study abroad programs to pursue their musical and other interests in an international context. The department maintains a strong relationship with institutions in Hong Kong, London, and Vienna, and can facilitate connections with programs around the world.

## Faculty

## Professors

Allen Anderson, Mark Evan Bonds, Tim Carter, Annegret Fauser, Tonu Kalam, Mark Katz, James E. Ketch, Susan A. Klebanow, Stefan Litwin, James Moeser, John L. Nádas, Jocelyn Neal, Severine Neff, Donald L. Oehler, Terry E. Rhodes, Louise Toppin, Brooks de Wetter-Smith, Brent S. Wissick.

## Associate Professors

Stephen Anderson, Evan Feldman, David García, Anne MacNeil, Thomas Otten.

## Assistant Professors

Juan Álamo, Andrea Bohlman, Nicholas DiEugenio, Chérie Rivers Ndaliko, Lee Weisert, Clara Yang.

## Clinical Associate Professor

Daniel Huff.
Music Librarian and Adjunct Associate Professor
Philip Vandermeer.
Professor of the Practice
Emil Kang.
Director of University Bands
Jeffrey Fuchs.

## Assistant Director of Athletic Bands

Matthew McClure.

## Senior Lecturers

Jeanne Fischer, Michael Kris.

## Lecturer

Eugene Galvin.

## Adjunct Faculty

Robert Anderson, John Brackett, Arsenia Brickley, Laura Byrne, Dan Davis, Derison Duarte, Dave Finucane, Jason Foureman, Sue Klausmeyer, Andrew McAfee, David McChesney, Melissa Zwicker Martin, Amy Mason, Susan Moeser, Andrea Moore, Mérida Negrete,

Edmund Paolantonio, Hugh Partridge, John Pederson, Leah Peroutka, Jay Pierson, Scott Sawyer, Michael Schultz, Mimi Solomon, Timothy Sparks, William Stewart, Stephanie Vial, Ken Weiss.

## Professors Emeriti

Harold L. Andrews, Jon W. Finson, Lynn Glassock, James Haar, Howard Smither, Thomas Warburton, Francis Whang, Stafford Wing, Ann Woodward, Michael Zenge.

## Contact Information

Tonu Kalam, Director of Undergraduate Studies, CB\# 3320, Hill Hall, (919) 962-1039.

For information on scholarships, contact Professor Brent Wissick, CB\# 3320, Hill Hall, (919) 962-3763.

## Courses

The Department of Music provides the opportunity for any student to engage broadly with music. An ability to read standard musical notation is not normally required to complete the following courses: MUSC 51-65, 89, 121, 141-148, 155-158, 188, 240, 248, 280-292. Numerous courses in music also fulfill Approaches and Connections requirements; see General Education requirements or ConnectCarolina for more information.

## MUSC-Music

MUSC 51 First-Year Seminar: The Interplay of Music and Physics (PHYS 51) (3). Acoustics and music from a practical standpoint.

MUSC 52 First-Year Seminar: Building a Nation: The Stage Musicals of Rodgers and Hammerstein, 1942-1949 (3). Oklahoma!, Carousel, and South Pacific in their political, social, and cultural contexts.

MUSC 53 First-Year Seminar: Rock 'n' Roll: The First Wave, 1955-1964 (3). A sociomusical study of rock 'n' roll in its first decades.

MUSC 54 First-Year Seminar: Music and Magic (3). The perceived and actual relationships between music and magic in a range of historical periods.

## MUSC 55H First-Year Seminar: A Love Affair in Renaissance

Drama and Music (3). Music and drama in Renaissance plays within the pastoral tradition.

MUSC 56 First-Year Seminar: Early-Modern Court Spectacle (3). Music and spectacle in the late medieval, Renaissance, and baroque courts of Europe.
MUSC 57 First-Year Seminar: Music and Drama: Verdi's Operas and Italian Romanticism (3). Textual and musical analysis of Verdi's operas (libretto and score) in their sociohistorical contexts.

MUSC 58 First-Year Seminar: Music in Motion: American
Popular Music and Dance (3). A sociological analysis of the repertorial and performative aspects of dance hall/disco.

MUSC 59 First-Year Seminar: 20th-Century Music and Visual Art (3). The relationship between music and the visual arts in the modernist and postmodernist periods viewed in their historical contexts.

MUSC 60H First-Year Seminar: American Literature and Its
Music (3). Music in, and musical settings of, American literature of the Romantic, modern, and postmodern periods.

MUSC 61H First-Year Seminar: Reverberations (3). Musical crossovers in world musics and societies.

MUSC 62H First-Year Seminar: Vienna: City of Dreams (3). Vienna in the early 1900s as a locus for modernism.

MUSC 63 First-Year Seminar: Music on Stage and Screen (3). Offers tools and techniques for understanding multimedia, staged musical works like opera, musical theater, and film. The goal of the seminar is to develop students' analytical skills in verbal and nonverbal media and to encourage their visualization of the potential and implications of artistic forms and structures.
MUSC 64 First-Year Seminar: What Is a Work of Art? Listening to Music (3). Musical aesthetics, musical works, and the nature of musical art.

## MUSC 65 First-Year Seminar: Music and Culture:

Understanding the World through Music (3). This seminar focuses on the variety of performances presented by Carolina Performing Arts at Memorial Hall. Through attendance at performances and through research on the performing artists and the works being performed, students explore questions such as, How does music reflect culture? How does the culture shape the art form?

MUSC 89 First-Year Seminar: Special Topics (3). Special topics course. Content will vary each semester.

MUSC 100 Individual Keyboard Lessons (0.5-1). Individual lessons in piano, organ, or harpsichord. Sections by instructor.
MUSC 102 Individual Voice Lessons (0.5-1). Sections by instructor.

MUSC 103 Individual String Lessons (0.5-1). Individual lessons in violin, viola, cello, string bass, harp, or guitar. Sections by instructor.

MUSC 104 Individual Woodwind Lessons (0.5-1). Individual lessons in flute, oboe, clarinet, saxophone, bassoon, or recorder. Sections by instructor.
MUSC 105 Individual Brass Lessons (0.5-1). Individual lessons in horn, trumpet, trombone, tuba, or euphonium. Sections by instructor.

MUSC 106 Individual Percussion Lessons (0.5-1). Sections by instructor.

MUSC 107 Applied Instruction (0.5-1). Group or individual instruction in a specified instrument offered by the department. Sections by instructor.

MUSC 110 Group Lessons in Piano (1). Sections by instructor. May not count for music or general elective credit for music majors. Beginning group piano for nonmajors.

MUSC 111 Group Lessons in Voice (1). Sections by instructor.
MUSC 112 Group Lessons in Strings (1). Group lessons in violin, viola, cello, string bass, or guitar. Sections by instructor.

MUSC 113 Group Lessons in Woodwinds (1). Group lessons in flute, oboe, clarinet, saxophone, bassoon, or recorder. Sections by instructor.

MUSC 114 Group Lessons in Brass (1). Group lessons in horn, trumpet, trombone, tuba, or euphonium. Sections by instructor.
MUSC 115 Group Lessons in Percussion (1). Sections by instructor.

MUSC 120 Foundations in Music (3). An introduction to concepts and methods fundamental to the study, practice, and performance of music. The course provides a foundation for undergraduate students interested in the study of music. Students will gain an appreciation for music's significance across repertories and develop the aptitude to think about music in different ways.
MUSC 121 Fundamentals of Music I (3). Notational and theoretical materials of music, with musicianship skills developed. Intended for the nonmajor who wishes to learn to express musical ideas in clear, correct notational form.

MUSC 122 Fundamentals of Music II (3). Prerequisite, MUSC 121. A continuation of MUSC 121 with the addition of basic instrumentation and arranging.
MUSC 123 Diction for Singers I (English/Italian) (1). Corequisite, MUSC 202. Basic principles of diction for singers in English/Italian presented through the use of the International Phonetic Alphabet.

MUSC 124 Diction for Singers II (French) (1). Prerequisite, MUSC 123. Basic principles of diction for singers in French.

MUSC 125 Diction for Singers III (German) (1). Prerequisite, MUSC 123. Basic principles of diction for singers in German.
MUSC 130 Musicianship Skills I (1). Corequisite, MUSC 131 or 131 H . Basic musicianship skills, including music notation, basic composition, score analysis, keyboard, sight singing, and ear training.

MUSC 131 Theory I (3). Enrollment subject to a placement test. An introduction to music theory and analysis for students who intend to pursue a music degree. Course covers basic principles of melody, counterpoint, rhythm, and meter.
MUSC 132 Theory II (3). Prerequisite, MUSC 131. Prerequisite requires a grade of C or better. A continuation of MUSC 131, covering more advanced topics of melody, harmony, counterpoint, rhythm, meter, and form.

MUSC 133 Musicianship Skills II (1). Prerequisites, MUSC 130, and 131 or 131 H ; corequisite, MUSC 132. A continuation of MUSC 130, with emphasis on intermediate-level musicianship skills.
MUSC 135 Jazz Theory (3). Prerequisite, MUSC 131 or 131H. An introduction to the musical materials of jazz, including chord/ scale relationships, functional keyboard skills, and harmonic analysis.

MUSC 136 Keyboard Skills I (1). Beginning group piano instruction for music majors.

MUSC 141 Survey of Western Music History (3). May not count for music or general elective credit for music majors. A
chronological survey of the history of Western art music from roughly 1500 to the present.

MUSC 142 Great Musical Works (3). May not count for music or general elective credit for music majors. The study of selected works from the Western art tradition, with an emphasis on critical understanding.

MUSC 143 Introduction to Rock Music (3). A survey of rock music styles, focusing primarily on the period 1955 to 1990. Music by Elvis Presley, The Beatles, Led Zeppelin, Police, Madonna, and others.

MUSC 144 Introduction to Country Music (3). A survey and investigation of country music from 1920 to the present. Music of Jimmie Rodgers, Hank Williams, Willie Nelson, Patsy Cline, Garth Brooks, and others.

MUSC 145 Introduction to Jazz (3). A survey of jazz music from its origins to the present. The course builds skills in critical listening and blends discussion of musical materials and historical and cultural contexts.

MUSC 146 Introduction to World Musics (3). The study of music in and as culture. Topics may include the performance cultures of Native America, south Asia, Australia, Africa, east Asia, Southeast Asia, Europe, and the Americas.

MUSC 147 Introduction to Latin(o) American Music (3). An introduction to contemporary Latin(o) American popular music, focusing on how musicians have negotiated an increasingly global popular culture industry.

MUSC 148 Introduction to Black Music (3). An introduction to black musical cultures with a focus on understanding how music is made within social, geographical, and political contexts. The course includes experiential learning, live concert attendance, and conversations with practicing musicians in various musical traditions.

MUSC 155 The Art and Culture of the DJ (3). An exploration of the important, often misunderstood role of the DJ in modern musical life, with particular attention to the ways in which DJing challenges traditional notions of music, musicianship, and musical instruments. Guest lectures, demonstrations, and tutorials by visiting DJ form a significant component of the course.

MUSC 156 Beat Making Lab (3). An introductory hands-on study of the composition of electronic instrumental tracks for hiphop and dance music. Students make beats, learn about the history and culture of the art form, and examine beat making as a case study in entrepreneurship.

MUSC 157 Rap Lab (3). A hands-on study of the art of emceeing. Students engage in a rigorous lyricism curriculum, developing the skills to write, recite, and improvise lyrics in live and recorded settings. Students also explore the history of hip-hop culture and analyze the aesthetics of emcees from around the world.

MUSC 158 Rock Lab (3). An introduction to issues of performance practice in rock music and related styles and genres including, but not limited to, soul, funk, new wave, and punk. Through intensive coaching and rehearsal students learn performance, transcription, arranging, and improvisation.

MUSC 163 Jazz Improvisation I (3). Prerequisite, MUSC 135. An introductory course in the development of improvisational skills for the jazz idiom. The primary focus is the introduction of nomenclature, the development of basic jazz vocabulary, and the application of this knowledge using basic jazz tune types.

MUSC 166 Introduction to Composition (3). Prerequisites, MUSC 130, and 131 or 131 H . The study of compositional techniques and the development of individual creative styles through imitative and original writing.

MUSC 167 Instrumentation (3). Prerequisite, MUSC 131 or 131 H . Practical exercises in scoring and arranging for various combinations from single instrumental choirs to full concert orchestra, with trial group performances.

MUSC 168 Basic Conducting (3). Basic conducting techniques, score reading, and music performance evaluation for choral and instrumental groups.

MUSC 188 Introduction to Women and Music (WMST 188)
(3). The role of women in performance, composition, patronage, and the music business across a wide range of repertories.

MUSC 200 Advanced Individual Lessons in Keyboard (2).
Advanced individual lessons in piano, organ, or harpsichord. Sections by instructor
MUSC 202 Advanced Individual Lessons in Voice (2). Sections by instructor.

MUSC 203 Advanced Individual Lessons in Strings (2).
Advanced individual lessons in violin, viola, cello, string bass, harp, or guitar. Sections by instructor.
MUSC 204 Advanced Individual Lessons in Woodwinds (2). Advanced individual lessons in flute, oboe, clarinet, saxophone, or bassoon. Sections by instructor.

MUSC 205 Advanced Individual Lessons in Brass (2). Advanced individual lessons in horn, trumpet, trombone, tuba or euphonium. Sections by instructor.

MUSC 206 Advanced Individual Lessons in Percussion (2).
Sections by instructor.
MUSC 207 Advanced Applied Instruction (2). Advanced instruction in a specified instrument offered by the department. Sections by instructor.

MUSC 211 Ensemble I (1). Sections by ensemble: Symphony Orchestra, Wind Ensemble, Symphony Band, Carolina Choir, Chamber Singers, Men's Glee Club, Women's Glee Club, Piano Ensemble I, Piano Ensemble II, Collaborative Piano, Guitar Ensemble, Jazz Band.
MUSC 212 Ensemble II (1). Sections include Opera Workshop, Percussion Ensemble, Gamelan, Charanga Carolina, Global Rhythms.

MUSC 213 Ensemble III (1). Sections by ensemble: Marching Pep Band, Jazz Lab Band, Chamber Orchestra, University Band, Jazz Combos, Early Music Ensemble, New Music Ensemble, University Chamber Players, String Chamber Ensembles, Woodwind Brass Chamber Ensembles, Brass Chamber Ensembles.

MUSC 214 Chamber Music (1). Sections by ensemble: University Chamber Players, String Chamber Ensembles, Woodwind Chamber Ensembles, Brass Chamber Ensembles, Jazz Combos, Viol Consort, New Music Ensemble, Charanga Carolina.

MUSC 223 Piano Literature (1). Prerequisite, MUSC 100 or 200. Survey of keyboard literature from the Baroque era to the present.

MUSC 224 Piano Pedagogy (3). Prerequisite, MUSC 100 or 200. Problems, materials, and methods of teaching piano to students of all ages.

MUSC 225 Vocal Pedagogy (3). Prerequisite, MUSC 102 or 202. Practical methodology for teaching voice to students of all experience levels. Topics covered include anatomy, historical pedagogy, national vocal teaching styles, and current trends in voice science.

## MUSC 226 Woodwinds, Brass, Percussion, and Strings

Techniques (3). Primarily for students pursing teacher licensure. An introduction to basic performance skills on representative woodwind, brass, percussion, and string instruments.

MUSC 227 Keyboard, Vocal, and Elementary Music Techniques (3). Primarily for students pursuing teacher licensure. An introduction to basic performance skills in voice and piano, and approaches to teaching elementary music.
MUSC 228 Principles of Teaching Music (3). Prerequisites, MUSC 226 and 227. A continuation of MUSC 226 and 227, allowing students the opportunity to develop further performance skills and pedagogical techniques in music education. Offered in sections: instrumental, vocal, strings.

MUSC 230 Musicianship Skills III (1). Prerequisites, MUSC 132 or 132 H , and 133; corequisite, MUSC 232. A continuation of MUSC 133, with emphasis on intermediate- to advanced-level musicianship skills.
MUSC 232 Theory III (3). Prerequisite, MUSC 132. Prerequisite requires a grade of C or better. A continuation of MUSC 132, covering topics including chromatic harmony and form.

MUSC 233 Studies in Performance Practices (3). Prerequisite, MUSC 254. The study of vocal and instrumental performances practices in specific periods and repertories.
MUSC 234 World Musics in Theory and Practice (3). Prerequisites, MUSC 120 and 131. Through the use of various ethnomusicological methodologies, students explore a range of nonWestern musical systems in their cultural contexts. Topics of study may include aesthetic theories, cultural meaning, and conflict.

MUSC 236 Keyboard Skills II (1). Prerequisite, MUSC 136. Continues group piano instruction for music majors begun in MUSC 136.

MUSC 239 Introduction to Music Technology (3). A practical study of selected aspects of computerized music technology, including one or more of music-notation software, MIDI sequencing, digital sound production and storage, and computer composition.

MUSC 240 Performance in Southeast Asia: Gongs, Punks, and Shadow Plays (ASIA 240) (3). The study and comparison of
contemporary Southeast Asian performance genres (music, theatre, dance, ritual) in historical and cultural contexts.

MUSC 245 Dance in Indonesia (3). Prerequisite, MUSC 146.
This course is concerned with the performance and interpretation of Indonesian dance. It covers three areas of study: practical learning of traditional Indonesian dance repertoire, theoretical analyses and interpretation, and learning the music accompanying the dance.

MUSC 248 Women in Opera (WMST 248) (3). An examination and exploration of women's changing roles and influence, onstage and behind the scenes, in the history of opera.

MUSC 251 Studies in Medieval and Early Modern Music (3).
May not count for music or general elective credit for music majors. The study of music in its historical and cultural contexts in the medieval and early modern eras.
MUSC 254 Studies in Music History I, Antiquity to 1750 (3). Prerequisite, MUSC 131. Permission of the instructor for students lacking the prerequisite. A survey of music's development from antiquity to 1750 , in its stylistic, geographical, political, social, and cultural contexts.

MUSC 255 Studies in Music History II, 1750 to the Present (3). Prerequisites, MUSC 132 and 254. Permission of the instructor for students lacking the prerequisites. A continuation of MUSC 254, surveying music of the period since 1750 in its stylistic, geographical, political, social, and cultural contexts.
MUSC 258 Musical Movements: Migration, Exile, and Diaspora (3). The musical results of migrations of all types, voluntary or forced, by way of case studies drawn from historical and/or contemporary musics of Africa, the Americas, Asia, and Europe.

MUSC 263 Jazz Improvisation II (3). Prerequisite, MUSC 163. Continuation of MUSC 163, examining more advanced improvisational techniques, harmonic materials, and compositional tune types.
MUSC 265 Jazz Composition and Arranging (3). Prerequisites, MUSC 135 and 163. Composing and arranging for small- and large-group jazz ensembles.

MUSC 266 Composition (3). Prerequisite, MUSC 166. May be repeated for credit. Original compositions in various forms.
MUSC 267 Orchestration (3). Prerequisite, MUSC 167. Practical orchestral scoring with emphasis on understanding and imitating historical styles from Mozart through Ravel.

MUSC 269 Music in the Community (3). Connecting academic inquiry in community music with an experiential project in the making, organization, or documentation of music locally.

MUSC 280 Jazz Innovators (3). Musical, historical, cultural, and social issues in jazz studied through the examination of innovative and influential jazz artists.
MUSC 281 Popular Song in American Culture (3). The relationship between popular song and culture in American society is explored by focusing on an important historical repertoire or interpretive theme.

MUSC 282 Bach and Handel (3). May not count for music or general elective credit for music majors. The culmination of baroque music, emphasizing Bach's cantatas, concertos, organ music, and instrumental music, and Handel's oratorios and operas, all in their cultural contexts.

MUSC 283 Haydn and Mozart (3). May not count for music or general elective credit for music majors. The high point in Viennese music of the late 18th century, emphasizing Haydn's symphonies and quartets, and Mozart's operas and piano concertos.

MUSC 284 Beethoven and His Era (3). May not count for music or general elective credit for music majors. Beethoven's music will be studied in the context of social structures and concepts about artists during his lifetime.

MUSC 285 Musical Modernism (3). May not count for music or general elective credit for music majors. A study of the work of diverse composers characteristic of music since ca. 1880 viewed in their broader artistic and other contexts.

MUSC 286 Music as Culture (3). May be repeated for credit if on a different topic. May not count for music or general elective credit for music majors. Music in the framework of its social, political, economic, and cultural contexts.

MUSC 287 Opera as Drama (3). May not count for music or general elective credit for music majors. An introduction to music as related to drama, especially the development of opera and related genres. Study of selected works from different periods and styles.

MUSC 288 The Orchestra and Its Music (3). May not count for music or general elective credit for music majors. Study of the symphony orchestra, its instruments, and its historical development from the mid-18th century to the present, and the music it plays, including selected works in a variety of styles.

MUSC 289 Sounds of War and Revolution (PWAD 289) (3). Music's roles in war and revolution within various political, social, and cultural contexts. Part of the cluster "War, Revolution, and Culture-Transatlantic Perspectives, 1750-1850."

MUSC 291 Music and Politics (3). The relationship between music and politics studied through a global range of historical and geographical contexts. The course covers specific musical and political manifestations as well as theoretical approaches to the issue.

MUSC 296 Special Studies for Undergraduates (1-3). Available only to music majors by permission of the director of undergraduate studies. Intensive study on a particular topic under faculty supervision.

MUSC 300 Advanced Keyboard Lessons and Recital (3). Prerequisite, MUSC 200. Advanced individual keyboard lessons leading to a public recital.

MUSC 302 Advanced Voice Lessons and Recital (3).
Prerequisite, MUSC 202. Advanced individual voice lessons leading to a public recital.

## MUSC 303 Advanced String Lessons and Recital (3).

Prerequisite, MUSC 203. Advanced individual string lessons leading to a public recital.

MUSC 304 Advanced Woodwind Lessons and Recital (3). Prerequisite, MUSC 204. Advanced individual woodwind lessons leading to a public recital.

MUSC 305 Advanced Brass Lessons and Recital (3).
Prerequisite, MUSC 205. Advanced individual brass lessons leading to a public recital.

MUSC 306 Advanced Percussion Lessons and Recital (3). Prerequisite, MUSC 206. Advanced individual percussion lessons leading to a public recital.

MUSC 307 Advanced Composition/Recital (3). Prerequisite, MUSC 266. This course is conceived as a culminating project that showcases a student's original musical compositions.
MUSC 308 Intermediate Lessons in Conducting (3).
Prerequisite, MUSC 168. Intermediate conducting for instrumental or vocal ensembles.

MUSC 309 Advanced Lessons in Conducting (3). Prerequisite, MUSC 308. May be repeated for up to six hours of credit. Advanced conducting for instrumental or choral ensembles.

MUSC 331 Musical Form and Analysis (3). Prerequisite, MUSC 232. The study of analytical techniques as applied to significant works of the period.

MUSC 332 Counterpoint (3). Prerequisite, MUSC 232. The study of two-, three-, and four-voice counterpoint, for example in the style of Palestrina, Bach, or 20th-century idioms.

MUSC 333 Analysis of Popular Music (3). Prerequisite, MUSC 232. Analysis and transcription of blues, rock, ballads, and jazz, with an emphasis on rock music since 1955.
MUSC 338 Analysis of Music since 1900 (3). Prerequisite, MUSC 232. The study of analytical techniques as applied to significant works of the period.

MUSC 355 History and Culture of Music (3). Prerequisite, MUSC 254. Course will address a particular genre, composer, compositional issue, or repertoire, including non-Western and popular musics. Subject matter will vary with the instructor. May be repeated for credit if on a different topic.

MUSC 363 Studies in Jazz (3). May be repeated for credit if on a different topic. Advanced study on a selected topic in jazz. Topics will vary and may address a particular genre, composer, performance practice, compositional issue, or repertoire.

MUSC 364 The Summer Jazz Program (3). Lectures on theory and improvisation, small ensemble coaching, and instrument specific master classes in a classroom/lecture format. Intensive listening component through required attendance at four evening concerts. Final public student concert for a community audience. Can be repeated for credit.

MUSC 390H Honors Seminar in Music (3). Detailed investigation of a specific musical topic from historical and/or theoretical perspectives.

MUSC 471 Instrumental Performance Repertory (3). Advanced study of selected performance issues. Maybe repeated for credit.

MUSC 493 Music Internship (3). Permission of the director of undergraduate studies. Internship directly related to the study, practice, or the business of music. Students must complete at least 100 hours and submit a journal and report upon completion of the internship.

MUSC 691H Senior Honors Thesis in Music I (3). Admission by permission of the honors advisor. Independent study by a student who has been designated a candidate for undergraduate honors in music.

MUSC 692H Senior Honors Thesis in Music II (3). Prerequisite, MUSC 691H. Continuance and completion of an honors thesis in music.

## Department of Naval Science

www.unc.edu/depts/nrotc
Naval Armory, 221 South Columbia Street, CB\# 3325;
(919) 843-9279

STEPHEN M. GILLESPIE, Chair

## Introduction

The purpose of the NROTC is to provide a source of highly qualified officers to serve on United States Navy ships, submarines, and aircraft, or in the United States Marine Corps. Students (midshipmen) who obtain a baccalaureate degree and who satisfy academic and physical requirements are commissioned as either ensigns in the Navy or second lieutenants in the Marine Corps. Students may participate in NROTC in one of two programs: the NROTC Scholarship Program or the NROTC College Program. NROTC scholarships provide for tuition, books, fees, uniforms, and a monthly allowance of $\$ 250$ to $\$ 400$. Students participating in the college program receive their NROTC books, uniforms, and a monthly allowance of $\$ 350$ to $\$ 400$ during their junior and senior years. A major advantage of the college program is the excellent opportunity it offers to win two- and three-year NROTC scholarships.

Regardless of enrollment category, many features are common to both programs:

- Naval science courses carry academic credit.
- All students are welcome to join the program and "test the waters" without immediately incurring a military obligation.
- All midshipmen who successfully complete the program and graduation requirements receive commissions as officers in the Navy or Marine Corps.
- Applicants are considered without regard to race, sex, creed, or religion.


## Midshipman Life

We are dedicated to ensuring that each midshipman leads a full and productive University life. Midshipmen are encouraged to participate on University athletic teams as well as in campus politics, fraternities, sororities, intramurals, and other organizations.

Additionally, midshipmen are provided an outstanding opportunity to examine and experience many alternative career paths, social events, and experiences through field trips, summer cruises, and the midshipman military organization.

## NROTC Program

Courses offered by the Department of Naval Science, in conjunction with courses offered in the Curriculum in Peace, War, and Defense, are designed to equip an individual with the necessary tools to succeed as an officer in the naval service.

Information about applications and admissions in the UNCChapel Hill Naval ROTC may be obtained by visiting the Naval Armory on campus; by addressing an inquiry to Professor of Naval Science, CB\# 3325, University of North Carolina at Chapel Hill, Chapel Hill, NC 27599-3325; by calling (919) 962-1198; or by e-mail at NROTC@unc.edu.

## Naval Science Minor

The minor in naval science is open to all UNC-Chapel Hill undergraduate students and includes 14 hours of coursework selected from among the following courses: NAVS 101, 201, 202, 202L, 301, 302, 311, 401, 402, 411; HIST/PWAD 212; PHIL/ POLI/PWAD 272. Students must complete a minimum of 12 hours of coursework with a grade of C or better.

## Advising

All students pursuing minors have an academic advisor in Steele Building. Students are strongly encouraged to meet regularly with their advisor. Departmental academic advising appointments can be made through their respective NROTC instructor or by contacting the department's director of undergraduate studies, Lieutenant Keith Krouchick (see "Contact Information" below). Further information on courses and careers may be obtained from the department's Web site.

## Faculty

## Professor

Stephen M. Gillespie, Captain, USN.

## Associate Professor

Mark Shellabarger, Lieutenant Colonel, USMC.

## Instructors

James Barfoot, Lieutenant, USN; Keith Krouchick, Lieutenant, USN; Robert Miller, Lieutenant, USN.

## Contact Information

Lieutenant Keith Krouchick, Director of Undergraduate Studies, (919) 962-3671, krouchic@email.unc.edu.

## Courses

## NAVS-Naval Science

NAVS 101 Introduction to Naval Science (1). Fundamental orientation to the naval service emphasizing the mission, organization, regulations, customs and traditions, broad warfare components, and major challenges facing Navy/Marine Corps officers.

## NAVS 190 Seminar in Topics of Naval Science (1-12).

Permission of the department. Seminar of topics regarding the United States Navy.

NAVS 196 Independent Study in Naval Science (1-12). Permission of the department. Readings and research by an individual student on a subject related to the United States Navy.

NAVS 201 Naval Leadership and Management (3). A study of organizational principles, management theory, and leadership styles, with emphasis on applications in the Navy and Department of Defense.

NAVS 202 Navigation (3). Corequisite, NAVS 202L. A comprehensive study of the theory, principles, and procedures of ship navigation, movements, and employment. Course includes spherical trigonometry, mathematics, analysis, study and practices of navigation, sextants, navigation publications, and report logs. Covers rules of the road, lights, signals, navigational aids, and electronic and mechanical positioning devices.
NAVS 202L Navigation Laboratory (1). Corequisite, NAVS 202. Practical application of the theories and principles of navigation as presented in the lecture series.

NAVS 211 Marine Option Naval Science Laboratory (0). One laboratory hour per week designed to introduce topics and activities relevant to the professional development of the prospective Marine Corps officer. Required for Marine Option 2/C.

NAVS 301 Naval Ships Engineering Systems (3). An introductory course and survey of ship design, characteristics, propulsion (including nuclear power) and control systems, and the principles of ship stability.

NAVS 302 Naval Weapons Systems (3). A descriptive survey course in engineering aspects of ships weapons guidance, control, and propulsion systems and characteristics of ships weapons systems.
NAVS 311 Evolution of Warfare (3). Survey of the evolution of warfare through the study of selected campaigns and classic battles, with special emphasis on the principles of war, the military impact of leadership, and the evolution of tactics and weaponry.

NAVS 401 Naval Operations (4). A study of the maneuvering of ships in formation, and the operations in which naval vessels engage daily.

NAVS 402 Naval Leadership and Ethics (3). Capstone leadership course in NROTC curriculum, emphasizing leadership skills and the ethical implications of decision making for the competent commissioned officer.

NAVS 411 Amphibious Warfare (3). A survey of the projection of sea power ashore, with special emphasis on the evolution of
amphibious warfare in the 20th century, through the study of historical amphibious landings and campaigns.

NAVS 500 Naval Science Laboratory (0). Required of all NROTC students. Meets once a week to provide supplemental military training, including close order drill, physical fitness, inspections, guest lectures, and leadership training.

## Department of Pathology and Laboratory Medicine

www.med.unc.edu/pathology
Brinkhous-Bullitt Building, CB\# 7525; (919) 966-4676
J. CHARLES JENNETTE, Brinkhous Distinguished Professor and Chair

## Introduction

Pathology is the study of disease, its causes, development, and consequences. It is concerned with basic mechanisms of disease processes (pathobiology) and their structural/functional manifestations. Pathology combines the tools and the basic knowledge from many disciplines, such as molecular biology, cell biology, biochemistry, genetics, immunology, anatomy, and clinical sciences, to clarify the cause (etiology), natural course (pathogenesis), and diagnosis of disease. The department offers several pathology courses appropriate for undergraduate study.

In addition to formal courses, faculty members in the Department of Pathology and Laboratory Medicine of the UNC School of Medicine maintain active research programs and engage in training predoctoral students and postdoctoral fellows in a range of research endeavors. Undergraduate students interested in participating in a hands-on research experience should contact the director of graduate studies in pathology for more information. Contact information is available on the department's Web site.

## PATH-Pathology

PATH 128 Biology of Human Disease (BIOL 128) (3). See BIOL 128 for description.

PATH 426 Biology of Blood Diseases (BIOL 426) (3).
Prerequisite, BIOL 205. Permission of the instructor for students lacking the prerequisite. An introduction to the biology and pathophysiology of blood and the molecular mechanisms of some human diseases: anemias; leukemias; hemorrhagic, thrombotic, and vascular disorders; and HIV disease/AIDS.

PATH 462 Experimental Pathology (1-9). Hours, credits, and instructor to be arranged on an individual basis. Hands-on research experience in a predetermined instructor's laboratory. Students learn and apply specific techniques and participate in investigations of molecular mechanisms responsible for disease processes (pathobiology). Contact the director of graduate studies in pathology for information. May be repeated.

PATH 464 Light Microscopy (3). Permission of the instructor. Course focuses on practical fundamentals of light microscopy including optics, contrast mechanisms, fluorescence, laser scanning confocal microscopy, photography, and digital imaging.

## Curriculum in Peace, War, and Defense

www.unc.edu/depts/pwad
401 Hamilton Hall, CB\# 3200; (919) 962-3093
WAYNE E. LEE (History), Chair

## Introduction

Peace and war are among the oldest dreams and most difficult challenges of human experience. The curriculum brings together faculty and courses from many disciplines to provide undergraduates with a range of approaches to the fundamental issues of human conflict and national and global security and defense. The curriculum prepares majors for graduate work in several of the humanities and social sciences, for a variety of professional schools, and for a range of employment. Graduates have found employment with federal agencies, state and local governments, banks, and other businesses. Others have attended graduate and professional schools in government, history, international relations, and law. The strength of the curriculum is its broad interdisciplinary perspective combined with its depth of focus on topics that span the range of human experience across time and national boundaries, from science and technology to ethics and public policy. In addition to coursework, the curriculum sponsors guest speakers and field trips, and provides majors with help and advice on internships and career planning.

## Peace, War, and Defense Major, B.A.

## Core Requirements

- HIST/PWAD 351
- PHIL/PWAD 272
- PWAD 350
- Four courses from one of the following concentrations: the culture of peace and war, national and international defense and security, or the evolution of warfare
- Two courses chosen from outside the area of concentration The three concentrations consist of the following groups of courses:


## The Culture of Peace and War

ANTH 280; ARAB 452; ASIA/HIST 276; CMPL/PWAD 489; COMM 376, 390 (with approval, based on topic), 574, 575; COMM/PWAD 355; ENGL 659, 660; GERM/PWAD 283; HIST 132, 134, 254, 262, 268, 275, 277, 281, 373, 421, 422, 432, 528, 565, 570; HIST 354/PWAD 354/WMST 353, HIST/ PWAD/WMST 517; LAW 252 (permission of the PWAD chair and instructor); MUSC 289; PLCY 455; POLI 260, 416, 423, 449, 450, 457, 469; PSYC 490; RELI 481, 583; RUSS 475; SLAV 84, 85, 465, 467; SOCI 442

## National and International Defense and Security

ANTH 280; ARAB 452; ASIA/HIST 276; CMPL/PWAD 489;
COMM 390 (with approval, based on topic), 575; ECON 460; ENEC 108; GEOG 120, 453; HIST 134, 205, 206, 213, 262, 277, 528, 577; HPM 634; LAW 252 (permission of the PWAD chair and instructor); PLCY 210, 220, 455; PLCY/PWAD 101, 110,430 ; POLI 150, 231, 252, 253, 256, 260, 423, 443, 446, 449, 450, 469, 631; POLI/PWAD 287, 444; PSYC 490; PWAD 352, 353, 356, 357, 486, 487, 488, 670, 672; RELI 481; RUSS 475; SLAV 84, 85, 465, 467; SOCI 481

## The Evolution of Warfare

COMM 390 (with approval, based on topic); COMM/PWAD 355; ENGL 660; HIST 212, 213, 254, 262, 268, 275, 277, 281, 368, 369, 373, 421, 422, 432, 564, 565, 570, 577; HIST 354/ PWAD 354/WMST 363, HIST/PWAD/WMST 517; MUSC 289; POLI 150, 446; POLI/PWAD 444; PSYC 490 (with approval, based on topic); PWAD 352; SLAV 465

PWAD 396 Independent Study in Peace, War, and Defense; PWAD 680 Research Seminar in Peace, War, and Defense; PWAD 490 Selected Topics in Peace, War, and Defense; PWAD 690 Seminars in Peace, War, and Defense; and 691H Honors in Peace, War, and Defense may be applied toward the concentration requirement with the permission of the chair. Students can request that relevant courses not on this list, but offered as firstyear seminars, honors seminars, or "topics" courses in other departments, be used to fulfill major requirements. This requires the approval of the chair.

## Additional Requirements

- Through level 5 of a single modern foreign language. Alternatively, students can take one semester of POLI 281 or STOR 151 or STOR 155, or students may suggest a substitute statistics-heavy methodology course.

All General Education requirements must be met. In fulfilling General Education requirements, majors should consider the following courses as helpful preparation for the curriculum: ANTH 101; ECON 101; HIST 127, 128, 140, 158, 159; MATH 152; PHIL 160, 170; POLI 100, 150, 239; PSYC 101; SOCI 101; and STOR 151.

## Advising

All majors have a primary academic advisor in Steele Building. Students are strongly encouraged to meet regularly with their advisor and review their Tar Heel Tracker each semester. The curriculum's student services manager and the chair work with current and prospective majors by appointment (see "Contact Information" below). Further information on courses, internships, the honors program, careers, and graduate schools may be obtained from the curriculum's Web site.

## Special Opportunities in Peace, War, and Defense

Honors in Peace, War, and Defense

Majors who earn at least a 3.3 overall grade point average and at least a 3.3 grade point average in the major through their junior year may apply to the chair of the curriculum for permission to enroll in PWAD 691H and 692H Honors in Peace, War, and Defense. Students interested in honors must take a research seminar in peace, war, and defense (PWAD 670 or 680), a seminar in history (HIST 398), or another course that provides background in research design. For students who wish to write an honors thesis in their senior year, a thesis topic should be approved by an appropriate thesis director by the end of the junior year. Students prepare an honors thesis in PWAD 691H and 692H and defend it orally. PWAD 691 H can be used to fulfill the student's chosen concentration requirement; PWAD 692 H provides credit hours toward the major but cannot be used to satisfy concentration requirements. Based on faculty evaluations, the baccalaureate degree may be conferred with honors or with highest honors, or merely with course credit.

## Departmental Involvement

Undergraduates can participate in the activities and programs of the Triangle Institute for Security Studies at no cost by becoming a Wickersham Scholar. To become a scholar, a student must have a faculty sponsor and a demonstrated interest in international security studies. For more information contact Carolyn Pumphrey at (919) 613-9280 or pumphrey@duke.edu.

## Experiential Education

Internship courses provide students with the opportunity to earn academic credit while obtaining practical work experience in agencies and organizations clearly related to national and international security. In recent years students have served in these and other agencies: The Central Intelligence Agency, Durham Police Department, Office of Naval Intelligence, Defense Intelligence Agency, Carolina for Kibera, Center for Strategic and International Studies, Peace Action, United States Army Special Operations Command, and many more. Students are limited to one internship for credit, and all internships are limited to three hours of academic credit. Although some routine administrative tasks are required in any professional setting, the expectation is that a majority of the intern's work will be directed toward the substantive mission of the agency and that tasks will be of a nature to justify awarding academic credit. All internships require prior approval, and all must consist of at least eight hours per week and at least 100 hours per semester. Students must sign an internship contract with their agency and faculty supervisors, setting out expectations and course requirements. Interns are required to keep a daily internship journal. Once approved for an internship, students enroll in PWAD 393, which is offered on a Pass/Fail basis only and does not count toward the nine courses required for the major. Students wishing credit towards the major derived from their internship work should pursue an independent study with a faculty supervisor either while taking the internship or in the next semester. That independent study should produce a major written product, would be graded normally, and receives credit in the major.

## Study Abroad

The curriculum encourages all undergraduates to study abroad either for a summer, a semester, or an entire year. Students should consult the study abroad Web site at studyabroad.unc.edu and visit the Study Abroad Office as early as possible in their course of study to meet with a study abroad advisor. A number of foreign programs contain courses that qualify for major credit. Of particular usefulness is study at the King's College, University of London War Studies Department, the closest analogue to the Curriculum in Peace, War, and Defense in the English-speaking world and a program with a renowned faculty. Students with at least a 3.3 grade point average are eligible to apply to King's College. While supervision arrangements need to be negotiated and agreed with relevant faculty members, students writing honors theses in their senior year may also apply to spend the year at King's College.

## Undergraduate Research

Students who qualify are encouraged to experience original research by writing a senior honors thesis described in the honors section above.

## Graduate School and Career Opportunities

The curriculum prepares majors for graduate work in several of the humanities and social sciences, for a variety of professional schools, and for a range of employment. Graduates work for federal agencies, state and local governments, nongovernmental organizations, businesses, and other employers. Others have attended graduate and professional schools in government, history, international relations, and law. The curriculum's strength is its broad interdisciplinary perspective combined with its depth of focus on topics that span the range of human experience across time and national boundaries, from science and technology to ethics and public policy.

## Faculty

## Advisory Committee

Navin Bapat (Political Science), Bernard R. Boxill (Philosophy), Peter Coclanis (History), Cori Dauber (Communication Studies), Stephen Gent (Political Science), Stephen Gillespie (Naval Science), Bradford Green (Aerospace Studies), Daniel Knott (Military Science), Douglas MacLean (Philosophy), Mark Shellaberger (Naval Science), Patricia Sullivan (Public Policy), Jonathan Weiler (Global Studies).

## Adjunct Professors

Christopher Armitage (English and Comparative Literature), Joseph Glatthaar (History), Karen Hagemann (History), Klaus Larres (History), Wayne Lee (History).

## Adjunct Associate Professors

Navin Bapat (Political Science), Cori Dauber (Communications Studies), Fred Naiden (History), David Schanzer (Triangle Center on Terrorism and Homeland Security).

## Adjunct Assistant Professor

Patricia Sullivan (Public Policy).

## Adjunct Lecturers

Joseph Caddell (History), Tim Nichols, Shai Tamari.

## Contact Information

Professor Wayne Lee, Chair and Director of Undergraduate Studies, wlee@unc.edu.

Jackie Gorman, Student Services Manager, jackie@unc.edu.

## Courses

PWAD-Peace, War, and Defense
PWAD 89 First-Year Seminar: Special Topics (3). Content varies by semester.
PWAD 101 Making Public Policy (PLCY 101) (3). See PLCY
101 for description.
PWAD 108 Our Energy and Climate Crises: Challenges and Opportunities (ENEC 108) (4). See ENEC 108 for description.
PWAD 110 Global Policy Issues (PLCY 110) (3). See PLCY 110 for description.
PWAD 120 World Regional Geography (GEOG 120) (3). See GEOG 120 for description.

PWAD 132 Southeast Asia since the Early 19th Century (ASIA 132, HIST 132) (3). See HIST 132 for description.
PWAD 134 Modern East Asia (ASIA 134, HIST 134) (3). See HIST 134 for description.

PWAD 150 International Relations and World Politics (POLI 150) (3). See POLI 150 for description.

PWAD 212 History of Sea Power (HIST 212) (3). See HIST 212 for description.
PWAD 213 Air Power and Modern Warfare (AERO 213, HIST 213) (3). See HIST 213 for description.

PWAD 220 The Politics of Public Policy (PLCY 220) (3). See PLCY 220 for description.
PWAD 251 The Thirty Years War (1618-1648): Europe in an Age of Crisis (HIST 251) (3). See HIST 251 for description.
PWAD 252 International Organizations and Global Issues (POLI 252) (3). See POLI 252 for description.

PWAD 253 Problems in World Order (POLI 253) (3). See POLI 253 for description.
PWAD 254 War and Society in Early Modern Europe (HIST 254) (3). See HIST 254 for description.

PWAD 260 Crisis and Change in Russia and Eastern Europe (POLI 260, SOCI 260) (3). See POLI 260 for description.

PWAD 262 History of the Holocaust: The Destruction of the European Jews (HIST 262, JWST 262) (3). See HIST 262 for description.
PWAD 268 War, Revolution, and Culture: Trans-Atlantic Perspectives, 1750-1850 (3). The course explores the dramatic historical changes from 1750 to 1850 and their intersection with and reflection in arts, literature, and music in a trans-Atlantic perspective.

PWAD 272 The Ethics of Peace, War, and Defense (PHIL 272, POLI 272) (3). See PHIL 272 for description.
PWAD 275 History of Iraq (ASIA 275, HIST 275) (3). See HIST 275 for description.
PWAD 277 The Conflict over Israel/Palestine (ASIA 277, HIST 277) (3). See HIST 277 for description.

PWAD 280 Anthropology of War and Peace (ANTH 280) (3). See ANTH 280 for description.
PWAD 281 The Pacific War, 1937-1945: Its Causes and Legacy (ASIA 281, HIST 281) (3). See HIST 281 for description.
PWAD 283 Freedom, Terror, and Identity: Modern Philosophy from Kant to Arendt (GERM 283) (3). See GERM 283 for description.

PWAD 287 Strategy and International Relations (POLI 287) (3). See POLI 287 for description.

PWAD 289 Sounds of War and Revolution (MUSC 289) (3). See MUSC 289 for description.

PWAD 350 National and International Security (3).
Introduction to the problem of war and violent conflict in human experience and the contemporary world, and efforts to prevent, avoid, or ameliorate war and its effects. Content will vary by instructor and disciplinary perspective but will include causes of war, deterrence, irregular war, and the future of war.
PWAD 351 Global History of Warfare (HIST 351) (3). See HIST 351 for description.

PWAD 352 History of Intelligence Operations (3). This course reviews the historic development of intelligence organizations and operations. The primary focus is on the modern world and the correlation between intelligence and national security concerns.
PWAD 353 Intelligence Analysis: Research Methods and Writing (3). Examines intelligence analysis methodology and products from a variety of settings and customer-types. An overview of the intelligence process and of collection strategies will also be conducted. The primary emphasis will be on conducting actual analysis of raw information to produce an intelligence estimate as a capstone to the course.

PWAD 354 War and Gender in Movies (HIST 354, WMST 353) (3). See HIST 354 for description.

PWAD 355 Terrorism and Political Violence (COMM 355) (3). See COMM 355 for description.
PWAD 356 Strategic Intelligence and International Security (3). Course investigates policies, issues, key problems, and potential solutions in strategic intelligence and international security. In addition to readings and class simulations, students will write an issue paper similar to those prepared within the national security community assessing the future environment and suggesting policies and strategies.
PWAD 357 International Intelligence Services (3). This course examines international intelligence services within the context of national and homeland security. Prominent subjects include human intelligence (HUMINT), covert action, and counterintelligence, as
well as the organizations, missions, and functions of international intelligence and security services.

PWAD 368 War and American Society to 1903 (HIST 368) (3). See HIST 368 for description.
PWAD 369 War and American Society, 1903 to the Present (HIST 369) (3). See HIST 369 for description.

PWAD 373 The United States in World War II (HIST 373) (3). See HIST 373 for description.

PWAD 376 The Rhetoric of War and Peace (COMM 376) (3). See COMM 376 for description.
PWAD 393 Internship in Peace, War, and Defense (3-6). Students are encouraged to undertake unpaid internships with branches of the federal government, international organizations, and selected nongovernment organizations. Pass/Fail only, with the written approval of the department chair. Does not count as a course in the major, but can be combined with an independent study such as PWAD 396.

PWAD 396 Independent Study in Peace, War, and Defense (1-6). Permission of the instructor. Independent study and reading. Special reading and research activities in a selected field under the supervision of a faculty member.

PWAD 416 Constitutional Policies and the Judicial Process (POLI 416) (3). See POLI 416 for description.

PWAD 421 Alexander (HIST 421) (3). See HIST 421 for description.
PWAD 422 Ancient Greek Warfare (HIST 422) (3). See HIST 422 for description.

PWAD 423 Peace Settlements in Ethnically Divided Societies
(POLI 423) (3). See POLI 423 for description.
PWAD 430 Analysis of National Security Policy (PLCY 430) (3). See PLCY 430 for description.

PWAD 432 The Crusades (3). Students in this course will examine Christian attitudes toward holy war, crusading, and other forms of coercive violence from the 11th until the 15 th centuries, with a focus on the major crusades of the Holy Land.

PWAD 442 Conflict and Bargaining (SOCI 442) (3). See SOCI 442 for description.

PWAD 443 American Foreign Policy: Formulation and Conduct (POLI 443) (3). See POLI 443 for description.

PWAD 444 Seminar on Terrorism (POLI 444) (3). See POLI 444 for description.

PWAD 446 Defense Policy and National Security (AERO 446, POLI 446) (3). See POLI 446 for description.
PWAD 452 Imagining Palestine (ARAB 452) (3). See ARAB 452 for description.

PWAD 453 Political Geography (GEOG 453) (3). See GEOG 453 for description.

PWAD 455 9/11 and Its Aftermath (PLCY 455) (3). See PLCY 455 for description.

PWAD 457 International Conflict Processes (POLI 457) (3). See POLI 457 for description.

PWAD 460 International Economics (ECON 460, EURO 460) (3). See ECON 460 for description.

## PWAD 465 Literature of Atrocity: The Gulag and the

 Holocaust in Russia and Eastern Europe (JWST 465, SLAV 465) (3). See SLAV 465 for description.PWAD 467 Language and Political Identity (SLAV 467) (3). See SLAV 467 for description.

PWAD 469 Conflict and Intervention in the Former Yugoslavia (POLI 469) (3). See POLI 469 for description.

PWAD 475 Literature of Russian Terrorism: Arson, Bombs, Mayhem (RUSS 475) (3). See RUSS 475 for description.

PWAD 481 Religion, Fundamentalism, and Nationalism (RELI 481) (3). See RELI 481 for description.

PWAD 486 National Security Decision Making (3). Permission of the instructor. Explores national security policy formation through analyzing the United States national security apparatus, the elements of national power, and historical examples of their application. Also examines the merits of various approaches to national security decision making. A course for senior majors in PWAD.

PWAD 487 Intelligence for National Security (3). Permission of the instructor. Course investigates the intelligence function associated with United States national security, focusing on how national security decision makers (Congress and the Executive Branch) have designed and employed the intelligence apparatus as a component of national power. Case studies and in-class simulations complement the readings and seminar discussions.

PWAD 488 Nuclear Security in the 21st Century (3). Examines the history of and contemporary problems associated with nuclear security and counter-proliferation.

PWAD 489 Empire and Diplomacy (CMPL 489) (3). Examines the history of the British Empire and the role of peace, war, defense, diplomacy, and letters in shaping Britain's presence on the world stage.
PWAD 490 Special Topics in Peace, War, and Defense (3). Subject matter will vary with instructor, but will focus on some particular topic or historical approach. Course description available from departmental office.

PWAD 517 Gender, Military, and War in Comparative Perspective (HIST 517, WMST 517) (3). See HIST 517 for description.
PWAD 564 Revolution and Nation Making in America, 17631815 (HIST 564) (3). See HIST 564 for description.

PWAD 565 Civil War and Reconstruction, 1848-1900 (HIST 565) (3). See HIST 565 for description.

PWAD 570 The Vietnam War (ASIA 570, HIST 570) (3). See HIST 570 for description.
PWAD 574 War and Culture (COMM 574) (3). See COMM 574 for description.

PWAD 575 Presidential Rhetoric (3). The power of the presidency depends in part upon the president's ability to rally public opinion, which depends upon the president's ability to use the "bully pulpit." This course examines the hurdles presidents face, and the steps presidents take to shape opinion.
PWAD 577 United States Foreign Relations in the 20th Century (HIST 577) (3). See HIST 577 for description.

PWAD 634 Public Health Issues in Community Preparedness and Disaster Management (HPM 634) (3). See HPM 634 for description.
PWAD 652 International Law (LAW 252) (3). See LAW 252 for description.
PWAD 659 War in 20th-Century Literature (ENGL 659) (3). See ENGL 659 for description.

PWAD 660 War in Shakespeare's Plays (ENGL 660) (3). See ENGL 660 for description.
PWAD 670 Peace Making in the Israeli-Palestinian Conflict (3). Research-intensive seminar focusing on the barriers preventing peace making from occurring. The course will make a distinction between making peace among individuals and achieving a political solution between governments and organizations.
PWAD 672 Political Violence and Insurgency (3). Course explores the concepts and problems of political violence and insurgency in the context of national and international security from a policy maker perspective. Students will conduct research and analysis for policy formulation aimed at countering these problems, and will write a substantial research policy paper.
PWAD 680 Research Seminar in Peace, War, and Defense (3). Undergraduate research seminar intended to provide an intensive research and writing experience for juniors and seniors in the major. Topic will vary by instructor. This course will emphasize developing research, writing, and presentation skills in topics relevant to the study of the problems of peace and security.

PWAD 690 Seminars in Peace, War, and Defense (3). Seminars on aspects of peace, war, and defense that lead to the production of a significant research product. Past topics have included arms control, public opinion and national security, and the Cold War.
PWAD 691H Honors in Peace, War, and Defense (3).
Permission of the instructor. Directed research on an independent basis for majors who are preparing an honors thesis and for the oral examination on the thesis.

PWAD 692H Honors in Peace, War, and Defense (3).
Prerequisite, PWAD 691H. Directed research on an independent basis for majors who are preparing an honors thesis and for the oral examination on the thesis.

## Department of Philosophy

philosophy.unc.edu
Caldwell Hall, 240 East Cameron, CB\# 3125; (919) 962-7291
MARC LANGE, Chair

## Introduction

The principal goal of the study of philosophy is to enable students to think more clearly, deeply, and appreciatively about themselves and their world. Study of philosophy enhances analytical, critical, and interpretive capacities that are applicable to any subject matter in almost any context. It provides many opportunities for expressing oneself, for reflecting on questions that human beings have pondered for millennia, for exchanging reasoned beliefs and engaging in focused debate, and for learning how to come to terms with problems for which there are no easy answers. A good philosophical education also helps to prepare students for responsible and intelligent participation in political and community affairs.

The most important outcome of philosophical study is the ability to engage in thinking that is at once disciplined and imaginatively creative. While such thinking lies at the heart of the philosophical enterprise, it is also needed for success in any complex intellectual or practical endeavor. Philosophy's attention to critical thought, rigorous argument, and articulate expression makes the philosophical curriculum absolutely central to a liberal education and valuable as a basis for further training in a variety of pursuits.
Examples of philosophical questions are

- How should we understand truth, existence, validity, fact, value, free will?
- What are the principles or presuppositions of science, language, political systems, religious and moral views?
- What is the nature of a person, of space and time, of a work of art?
- What is the wisdom of the past on these enduring questions? How can we learn from people such as Plato, Aristotle, Descartes, and Kant?

Students are encouraged to view philosophy not as a specialized, esoteric discipline, but instead as an activity integral to a liberal arts education, helping students to think more cogently and appreciatively about themselves and their world.

PHIL 101, 110, or 112 is recommended as a first course for those interested in philosophical issues and their cultural significance and for those who wish to examine a broad range of philosophical topics, problems, or historical figures. Other good starting points are PHIL 155, which deals with logic and the analysis of argument; PHIL 160, which deals with moral thought and experience; and PHIL 150, which deals with the concepts, methods, and foundations of the biological and physical sciences.

PHIL 155 is recommended for all students who major or minor in philosophy.

## Philosophy Major, B.A.

## Core Requirements

- Nine PHIL courses, at least six of which are numbered above 199
- The nine courses must include at least one course in three of the following four distribution areas:
o History of philosophy: courses above 100 with a second digit of 1 or 2
o Metaphysics, epistemology, philosophy of mind, and philosophy of language: courses above 100 with a second digit of 3 or 4
- Logic and philosophy of science: courses above 100 with a second digit of 5
o Value theory: courses above 100 with a second digit of 6,7 , or 8
While first-year seminars may be used in the major core, they are numbered below 100, and their second digits do not correspond to the four distribution areas above.

Within the framework of the major, students can elect a prelaw concentration designed specifically for those planning on pursuing a career in law. Professors Corrado and Postema, both of whom also hold appointments in the School of Law, are available to advise those electing this concentration.

## Philosophy Minor

A minor in philosophy requires five philosophy courses, including at least one course in each of three of the four areas listed above. No more than three courses may be numbered 199 or below.

## Philosophy, Politics, and Economics (PPE) Minor

The PPE minor requires five courses:

- PHIL 384 Introduction to Philosophy, Politics, and Economics
- PHIL 698 Capstone Course
- One philosophy course chosen from PHIL 160, 163, 164, 165, 170, 272, 273, 280, 364, 370
- One political science course chosen from PLCY 352 H ; POLI 130, 216, 271, 288, 401, 470, 472
- One economics course chosen from ECON 101, 234, 267, 434, 454, 460, 510, 511

Detailed information is available on the program's Web site at ppe.unc.edu.

## Advising

All majors and minors have a primary academic advisor in Steele Building. Students are strongly encouraged to meet regularly with their advisor and review their Tar Heel Tracker each semester. The department's director of undergraduate studies works with current and prospective majors by appointment (see "Contact Information" below). Departmental academic advising is particularly important for those majors who are considering going on to graduate school. Further information on courses, undergraduate research opportunities, the honors program, careers, and graduate schools may be obtained from the department's Web site.

## Special Opportunities in Philosophy

## Honors in Philosophy

Students majoring in philosophy who have at least a 3.3 grade point average and a 3.5 grade point average within the major may be eligible to write an honors thesis during their senior year. Students writing honors theses take two semesters of honors thesis coursework; PHIL 691H and 692H contribute toward fulfilling major requirements but cannot be applied toward a distribution area. Students registered for 692 H will meet periodically as a group, organized by the director of undergraduate studies, to present and discuss their research in progress. Departmental approval is required. Interested students are encouraged to contact the director of undergraduate studies for more information.

## Philosophy Outreach Program

The Philosophy Outreach Program provides students with many exciting opportunities to put their philosophical education to use in their communities. Outreach volunteers teach philosophy to students in local elementary and secondary schools, lead discussions with senior citizens in retirement communities, and participate in a variety of topical public events. For more information, please contact Outreach Coordinator Steven Swartzer at swartzer@email. unc.edu or visit the Web site at www.philosophy.unc.edu/outreach.

## Undergraduate Philosophy Club

This group meets weekly to discuss topics of interest and the work of current faculty members. The club sponsors an annual undergraduate philosophy symposium. Detailed information is available on the program's Web site at philosophy.unc.edu/ undergraduate-program/philosophy-club.

## Phi Sigma Tau

The Eta Chapter of the international honor society in philosophy is open to students who have completed a minimum of three semesters, have completed at least two philosophy courses, have a minimum 3.7 grade point average in their philosophy courses, and have a cumulative 3.2 grade point average.

## Study Abroad

The Department of Philosophy enjoys close relations with a number of departments in Australia, New Zealand, and the United Kingdom and is willing and able to work closely with the Study Abroad Office to arrange opportunities for study in these and other countries.

## Undergraduate Research

There are opportunities for students to work closely with faculty members in the Department of Philosophy on individual research projects. This usually takes the form of an honors thesis project. It may also be done as a directed readings course.

## Speaker Series

The Department of Philosophy sponsors a series of talks given by distinguished philosophers from around the world, as well as work-in-progress talks by faculty and graduate students. All students are welcome to attend all of these talks. The schedule can be found online at philosophy.unc.edu/events/category/department-talk.

## Undergraduate Symposium

The Philosophy Club and Phi Sigma Tau coordinate a student conference of selected papers. The one-day conference is set in the format of a professional conference during which students have an opportunity to present their research.

## Intercollegiate Ethics Bowl

The Intercollegiate Ethics Bowl provides students with a unique opportunity to practice applying the moral theories and argumentation principles learned in their ethics classes. The team sent to the Ethics Bowl competition will be selected from those registered in the course. For more information contact Professor Geoffrey Sayre-McCord, Interim Director, Parr Center for Ethics, CB\# 3125, 207A Caldwell Hall, (919) 627-1403, sayre-mccord@unc.edu.

## Graduate School and Career Opportunities

A major in philosophy offers excellent preparation for many careers in which clear thinking and analytical ability are valued. Some majors choose to pursue graduate work in philosophy in preparation for college or university teaching (Ph.D. normally required), but the philosophy major also provides the form of rigorous and systematic intellectual training that is of crucial importance in law, medicine, business, and other fields.

## Faculty

## Distinguished Professors

Simon Blackburn, Bernard Boxill, Thomas E. Hill Jr., Marc Lange, William G. Lycan, Alan Nelson, Gerald J. Postema, C.D.C. Reeve, Geoffrey Sayre-McCord, Susan Wolf.

## Professors

Thomas Hofweber, Douglas MacLean, Ram Neta, L.A. Paul, John T. Roberts.

## Distinguished Associate Professor

Matthew Kotzen.
Associate Professor
Mariska Leunissen.

## Assistant Professor

Ryan Preston-Roedder.

## Adjunct Professors

James Lesher, Rebecca Walker.
Teaching Professor
Jan Boxill.

## Research Assistant Professors

Jonathan Anomaly, Barry Maguire, Christopher Melenovsky.

## Lecturer

Steven Swartzer.
Visiting Lecturer
Dana Falkenberg.

## Professors Emeriti

Edward M. Galligan, Douglas C. Long, Stanley Munsat, Michael D. Resnik, Robert D. Vance.

## Contact Information

Professor John Roberts, Director of Undergraduate Studies, CB\# 3125, 102B Caldwell Hall, (919) 962-4885,
jtrosap@email.unc.edu.

## Courses

Courses numbered below 199 have no prerequisites. These serve as suitable first courses in philosophy for many students, as do some courses below 299, in particular PHIL 230, 266, and 280. Courses numbered 101 to 120 are general survey courses. Courses numbered 130 to 290 are oriented toward particular problems or topics. Courses numbered 210 to 229 concern the history of philosophy. Courses numbered 300 to 399 are designed for advanced undergraduates and majors and carry a prerequisite of one course in philosophy. (Some may carry additional prerequisites.) Courses between 400 and 699 are for advanced undergraduates as well as graduate students. Detailed information on upcoming courses is available on the department's Web site.

Please note that not all courses are offered on a regular basis. For information on which courses are most likely to be offered in a given year or semester, please contact the department's director of undergraduate studies.

## PHIL-Philosophy

PHIL 51 First-Year Seminar: Who Was Socrates? (3). Socrates is the quintessential philosopher-a man for all seasons, a foundational figure of the West.

PHIL 52 First-Year Seminar: Reason and Religion at the Dawn of Modern Science (3). Students will read some of the most important philosophical reflections of the 17th and 18th centuries.
PHIL 53 First-Year Seminar: Theories in Human Nature (3). Students will explore a variety of issues that arise when human beings begin to reflect on our own natures and will be introduced to main theories that have been developed.

PHIL 54 First-Year Seminar: Thinking about Time (3). What is time? Do the past and the future exist, or only the present? Is the "flow of time" an objective feature of reality?

PHIL 55 First-Year Seminar: Paradoxes (3). Paradoxes have been a driving force in philosophy since the fourth century BCE. They force us to rethink old ideas and conceptions.

PHIL 56 First-Year Seminar: Abortion (3). A general philosophical discussion of the value of life, the evil in death, and the wrongness of killing.

PHIL 57 First-Year Seminar: Race and Affirmative Action (3). The goal of the course is to get a mature and correct understanding of race, racism, and affirmative action.

PHIL 58 First-Year Seminar: From Vengeance to Mercy:
Dealing with Evil (3). This course will explore the ethical
dimensions of the responses to evil that we have developed over history. Revenge, retribution, reparation; hatred, resentment, forgiveness; punishment, pardon, mercy.
PHIL 63 First-Year Seminar: Mind, Brain, and Consciousness (3). What are minds and how are they related to bodies?

PHIL 65 First-Year Seminar: Philosophy through Mathematics (3). This seminar introduces several of the central problems in philosophy through reflection on the nature of mathematics.

PHIL 66 First-Year Seminar: Ethics: Theoretical and Practical (3). This seminar examines theoretical issues, relativism, utilitarianism, deontological ethics, and virtue ethics.
PHIL 67 First-Year Seminar: Issues in a World Society: Sports and Competition (3). This seminar examines ethical issues in sports, including Title IX, gender equity, racism, sexism, cheating, violence, and drug use.

PHIL 68 First-Year Seminar: Moral Life (3). This course will explore the meaning of basic moral concepts as they are understood in philosophy, science, and art.
PHIL 75 First-Year Seminar: Evil (3). What is evil? Who, if anyone, is responsible for it? How different are evil people from the rest of us? How should we respond to them? The course will explore the nature of evil through philosophy, nonfiction, fiction, and film.
PHIL 76 First-Year Seminar: Is Free Will an Illusion? (3). This course will examine whether our belief in freedom of action is compatible with the modern picture of ourselves.

## PHIL 77 First-Year Seminar: Moral Weakness and Conscience

(3). Is man's reason a powerful thing: if one had knowledge or belief about something that should be done, would that be enough to position one to do it?

## PHIL 78 First-Year Seminar: Death as a Problem for

 Philosophy: Metaphysical and Ethical (3). This course explores both old and new questions regarding death. It will examine the presuppositions and cogency of the classical religious-philosophical conception of death.PHIL 79 First-Year Seminar: Words That Bind: The Structure of Constitutions (3). In this seminar we will examine a number of constitutions and try to determine what makes a constitution better or worse, and when it makes sense to borrow constitutional principles from other countries. We will also try our hand at designing a constitution.

PHIL 85 First-Year Seminar: Reason, Religion, and Reality in the Copernican Revolution (3). The arguments by which Galileo and his contemporaries defended the Copernican model of the solar system puzzle philosophers even today.
PHIL 89 First-Year Seminar: Special Topics (3). Special topics course. Content will vary each semester.
PHIL 101 Introduction to Philosophy: Main Problems (3). An introduction to philosophy focusing on a few central problems, for example: free will, the basis of morality, the nature and limits of knowledge, and the existence of God.

PHIL 105 Critical Thinking (3). A course on how to identify,
analyze, and evaluate arguments by other people and how to construct arguments. Topics include argument reconstruction, informal logic, fallacies, introductory formal logic, probabilistic reasoning.
PHIL 110 Introduction to Philosophy: Great Works (3). An introduction to philosophy focusing on several great books from the history of Western philosophy. See course description at the department's Web site for which books will be covered each semester.

PHIL 112 Making Sense of Ourselves (3). An examination of some of the most influential attempts to understand human beings, their lives, and their moral and political values. Authors include Plato, Aristotle, St. Matthew, Nietzsche, and Rand.
PHIL 134 Philosophy of Western Religion (RELI 126) (3). A philosophical inquiry into the problems of religious experience and belief, as expressed in philosophic, religious, and literary documents from traditional and contemporary sources.
PHIL 145 Language and Communication (LING 145) (3). An examination of the differences between natural human languages and other communication systems. Includes a philosophical inquiry into how languages relate to the world and the mind.
PHIL 150 Philosophy of Science (3). What is distinctive about the kind of knowledge called "science"? What is scientific explanation? How are scientific theories related to empirical evidence?

PHIL 154 Philosophy of the Social Sciences (3). How do social sciences explain human actions? Are there social facts over and above facts about various individuals? Do values enter into social science?

PHIL 155 Introduction to Mathematical Logic (3). Introduces the theory of deductive reasoning, using a symbolic language to represent and evaluate patterns of reasoning. Covers sentential logic and first-order predicate logic.
PHIL 157 Logic and Decision Theory (3). A broader discussion of practical reasoning, including inductive and deductive logic, which provides a good introduction to decision and game theory that is important for the social sciences, especially economics.

PHIL 160 Introduction to Ethics (3). Exploration of different philosophical perspectives about right and wrong, personal character, justice, moral reasoning, and moral conflicts. Readings drawn from classic or contemporary sources. Critical discussion emphasized.
PHIL 163 Practical Ethics (3). Topics may include war, medical ethics, media ethics, sexual ethics, business ethics, racism, sexism, capital punishment, and the environment.

PHIL 164 Morality and Business (3). An examination of business ethics and the types of ethical dilemmas people may face in business practices.
PHIL 165 Bioethics (3). An examination of ethical issues in the life sciences and technologies, medicine, public health and/ or human interaction with nonhuman animals or the living environment.

PHIL 170 Social Ethics and Political Thought (3). An examination of major issues in political philosophy, e.g., liberty, individual rights, social responsibility, legal authority, civil authority, civil disobedience. Readings include classical and contemporary writings.

PHIL 180 Philosophy of Comedy (3). A course on philosophical issues related to laughter and humor. Historical and contemporary philosophical theories of humor; connections between traditional issues in aesthetics and humor; moral questions about humor, such as what is involved in a joke being racist/sexist/homophobic; and connections between jokes and various epistemological fallacies.

PHIL 185 Introduction to Aesthetics (3). The nature of art and artworks and their aesthetic appraisal.
PHIL 210 Ancient Greek Philosophy (3). The emergence of philosophy in Greece during the sixth century BCE and its development during the classical period. The major figures studied are the Pre-Socratic philosophers, Socrates, Plato, and Aristotle.

PHIL 213 Asian Philosophy (3). An examination of some of the philosophical traditions of Asia. Possible topics include Advaita Vedanta, Nyaya-Vaisheshika, Madhyamaka Buddhism, neoConfucianism, Mohism, and philosophical Taoism.
PHIL 215 Medieval Philosophy (3). A survey of medieval philosophy from Augustine through Ockham. Topics: God and the world, faith and reason, knowledge and reality, the problem of universals. Additional main authors: Anselm, Aquinas, Duns Scotus.

## PHIL 220 Modern Philosophy: Descartes to Hume (3).

 Prerequisite, one previous PHIL course. The writings of Descartes, Spinoza, Locke, Berkeley, Leibniz, and Hume on such questions as, Can we know that the things we see and touch are real and not a dream?PHIL 224 Existential Philosophy (3). A survey of European philosophers in the phenomenological and existentialist traditions. Philosophers studied may include Kierkegaard, Nietzsche, Husserl, Heidegger, Sartre, Camus.

PHIL 228 American Philosophy (3). An exploration of the distinctively American approaches to philosophy from Jonathan Edwards to the present.

PHIL 229 20th-Century Western Philosophy (3). An introductory survey of British and continental philosophy in the 20th century.
PHIL 230 Experience and Reality (3). Topics in metaphysics, such as, Is your mind different from your brain? Is time travel possible? What are cause and effect? What makes you today and yesterday the same person?

PHIL 261 Ethics in Practice (3). Required preparation, one previous PHIL ethics course. Permission of the instructor. Ethics Bowl provides a unique experiential opportunity for students to apply theory to practical global issues. Students will prepare cases to present locally and at Ethics Bowl competition.
PHIL 266 Ethics of Sports (3). An analysis of the moral significance of sports, the nature of sport and competition, and
issues such as racism, gender equity, violence, and performanceenhancing drugs.
PHIL 272 The Ethics of Peace, War, and Defense (POLI 272, PWAD 272) (3). An analysis of ethical issues that arise in peace, war, and defense, e.g., the legitimacy of states, just war theory, terrorism, weapons of mass destruction.
PHIL 273 Philosophical Perspectives on Justice (3). This course will focus on justice and the common good, applying theoretical justifications to contemporary social and economic issues. Readings will include classical and contemporary literature on the nature of justice and rights.

PHIL 274 African American Political Philosophy (3). Race, identity, discrimination, multiculturalism, affirmative action, and slave reparations in the writings of Walker, Delany, Douglass, Cooper, DuBois, King, and Malcolm X.
PHIL 275 Moral and Philosophical Issues of Gender in Society (WMST 275) (3). A survey of feminist perspectives on topics such as the meaning of oppression, sexism and racism, sex roles and stereotypes, ideals of female beauty, women in the workplace, pornography, rape.

PHIL 280 Morality and Law (3). Explores issues in legal philosophy such as, What is law? Does it serve justice or undermine it? Can punishment be justified? When is a person responsible?
PHIL 282 Human Rights: Philosophical Interrogations (3). The philosophy of human rights addresses questions about the existence, content, nature, universality, justification, and legal status of human rights. The strong claims made on behalf of human rights frequently provoke skeptical doubts and countering philosophical defenses. These will be addressed through classical and contemporary history of philosophy.

PHIL 285 Moral and Philosophical Issues in Education (3). A critical examination of the moral and philosophical issues in education: What does it mean to be well educated? What is a liberal education?

## PHIL 292 Introducing and Integrating Philosophy into

 Primary and Secondary Schools (3). Prerequisite, two previous PHIL courses. This course combines on-campus structured learning with substantial on-site field work incorporating philosophy into the primary and/or secondary school curriculum. Philosophy subjects and school partners will vary by semester.PHIL 330 Metaphysics (3). Prerequisite, one previous PHIL course. An examination of general theories of the nature of reality. What kinds of things exist? What are space, time, and causation? Are abstract entities (such as numbers) real?

PHIL 335 Theory of Knowledge (3). Prerequisite, one previous PHIL course. What is knowledge and how does it relate to belief, justification, and truth? What makes beliefs reasonable or irrational? Can skepticism be defeated?
PHIL 340 Philosophy of Mind (3). Prerequisite, one previous PHIL course. The mind-body problem, the nature of thinking, the puzzles of consciousness, and the qualitative character of felt experience.

PHIL 345 Reference and Meaning (3). Prerequisite, one previous PHIL course. Survey of major topics in contemporary philosophy of language. Topics may include truth and meaning, speech acts, reference, descriptions, names, and demonstratives.

PHIL 351 Philosophy of Physics (3). Prerequisite, one previous PHIL course. Topics may include the nature of space and time, the ontological status of fields and energy, or causation and locality in quantum physics.

PHIL 352 Philosophy of Biology (3). Prerequisite, one previous PHIL course. Philosophical issues raised by biological theories, which may include the logical structure of evolutionary theory, fitness, taxonomy, the notion of a living thing, reductionism, evolutionary explanations, or teleology.
PHIL 353 Philosophy of Cognitive Science (3). Prerequisite, one previous PHIL course. Philosophical questions raised by linguistics, computer science, cognitive psychology, and neuroscience. Topics may include the innateness of language, artificial intelligence, and the neural correlates of consciousness.

PHIL 354 Quantum Mechanics, Weirdness, and Reality (PHYS 354) (3). See PHYS 354 for description.

PHIL 355 Intermediate Mathematical Logic (3). Prerequisite, PHIL 155. Quantificational logic with identity; basic meta-theory; modal logic.
PHIL 357 Induction, Probability, and Confirmation (3). Prerequisite, one previous PHIL course. Current accounts of evidence and observation, the confirmation of scientific theories, the logic of inductive reasoning, and the metaphysics and epistemology of chance.
PHIL 360 History of Ethics (3). Prerequisite, one previous PHIL course. PHIL 160 recommended. Major developments in the history of moral philosophy, from Plato to Nietzsche.
PHIL 362 Contemporary Ethical Theory (3). Prerequisite, one previous PHIL course. Using 20th- and 21st-century texts, this course explores some general questions about morality in depth. For example, Is there moral truth? Are any moral rules absolute? Why be moral?

PHIL 364 Ethics and Economics (PLCY 364) (3).
Recommended preparation, at least one course in ethics (PHIL 160,163 , or 170 ) or one course in economics. Issues at the intersection of ethics and economics, including value; the relation between values and preferences; rationality; the relevance to economics of rights, justice, and the value of human life.
PHIL 368 Environmental Ethics (ENEC 368) (3). The meaning of environmental values and their relation to other values; the ethical status of animals, species, wilderness, and ecosystems; the built environment; environmental justice; ecofeminism; obligations to future generations.

PHIL 370 Political Philosophy (3). Prerequisite, one previous PHIL course. Advanced discussion of competing philosophical approaches to questions of justice, authority, freedom, rights, and the like, including libertarianism, liberalism, communitarianism, Marxism, and feminism.

PHIL 381 Philosophy and Film (3). Prerequisite, one previous PHIL course. An examination of how philosophical issues are explored in the medium of film.
PHIL 384 Introduction to Philosophy, Politics, and Economics (ECON 384, POLI 384) (3). One course in economics strongly recommended. This interdisciplinary gateway course provides an introduction to subjects and quantitative techniques used to analyze problems in philosophy, political science, and economics.

PHIL 390 Seminar in Selected Topics (3). Prerequisite, one previous PHIL course. Intensive exploration and discussion of selected topics in philosophy.

PHIL 396 Directed Readings (1-3). Prerequisite, one previous PHIL course. Permission of the instructor. See the director of undergraduate studies of the department.
PHIL 397 Colloquium for Philosophy Majors (3). Prerequisite, one previous PHIL course. Students will present papers on selected topics for critical discussion. Recommended for philosophy majors in their junior year.

PHIL 411 Aristotle (3). An examination of some representative works of Aristotle, with reference to common emphases and basic problems, together with an analysis of their philosophic content.
PHIL 412 Plato (3). An examination of some representative works in the context of contemporary scholarship.

PHIL 415 Medieval Philosophy (3). An intensive study of some medieval philosophical author (e.g., Aquinas, Scotus, or Ockham) or topic (e.g., arguments for the existence of God, universals, knowledge of individuals).
PHIL 421 Rationalism (3). An in-depth study of the Continental rationalist philosophers Descartes, Spinoza, and Leibniz.
PHIL 422 Empiricism (3). An in-depth study of the British empiricist philosophers, Locke, Berkeley, and Hume.

PHIL 423 Kant (3). An intensive introduction to Kant's accounts of space, time, concepts, perception, substance, causation, and the thinking self through a careful study of his masterwork, The Critique of Pure Reason.
PHIL 427 Hegel (3). In-depth study of Hegel's systematic philosophy emphasizing its roots in Kant's critical philosophy. Primary focus on Phenomenology of Spirit, supplemented by selections from the Encyclopedia and Philosophy of Right.

PHIL 428 History of American Philosophy (3). An in-depth study of American contributions to philosophy, including for example the transcendentalists, the pragmatists, Quine, Rorty, and others.

PHIL 432 The Beginnings of Analytic Philosophy (3). Two courses in philosophy other than PHIL 155 strongly recommended. Frege, Russell, Moore, and Wittgenstein among others are considered.

PHIL 433 Current Issues in Analytic Philosophy (3). Two courses in philosophy other than PHIL 155 strongly recommended. Recent work in epistemology and metaphysics.

PHIL 440 Philosophy of Mind (3). At least two courses in philosophy other than PHIL 155, including PHIL 340, strongly recommended. An examination of dualism, behaviorism, the identity theory, and forms of functionalism with special focus on the problems of mental aboutness and the problems of consciousness.

PHIL 445 Philosophy of Language (LING 445) (3). At least two courses in philosophy other than PHIL 155, including PHIL 345 , strongly recommended. A study of important contemporary contributions in philosophy of language. Topics include meaning, reference, and truth.

PHIL 450 Philosophy of Natural Sciences (3). An in-depth survey of general issues in contemporary philosophy of natural science intended for advanced philosophy students. Topics include confirmation, explanation, theory-choice, realism, reduction.
PHIL 451 Philosophy of Physics (3). Topics may include the nature of space and time, the ontological status of fields and energy, or causation and locality in quantum physics.
PHIL 452 Philosophy of Biology (3). The logical structure of evolutionary theory, fitness, taxonomy, the notion of a living thing, reductionism, evolutionary explanations, teleology.

PHIL 453 Philosophy of Psychology (3). Topics may include reasoning, the relationship between language and thought, concepts, moral cognition, and emotions.
PHIL 454 Philosophy, History, and the Social Sciences (3). The nature of historical explanation, structural and functional explanation, the weighing of historical testimony, the concept of meaning, normative judgments, and predictions in the social sciences.

PHIL 455 Symbolic Logic (LING 455) (3). Introduction for graduates and advanced undergraduates not taking the PHIL 155-356 sequence.
PHIL 456 Advanced Symbolic Logic (3). Prerequisite, PHIL 455. Presupposes propositional and quantificational logic as a basis of further deductive development with special attention to selected topics: alternative systems, modal and deontic logic, inductive logic, the grammar of formalized languages, paradoxes, and foundations of mathematics.

PHIL 457 Set Theory and Logic (3). Prerequisite, PHIL 455. Permission of the instructor for students lacking the prerequisite. Natural and real numbers. Infinite cardinal and ordinal numbers. Alternative axiom systems and their consistency problems.
PHIL 459 Philosophy of Mathematics (3). Philosophical problems concerning logic and the foundation of mathematics.

PHIL 460 History of Moral Philosophy (3). Two courses in philosophy other than PHIL 155, including PHIL 360, strongly recommended. Examination of classic texts of Plato, Aristotle, Aquinas, Hobbes, Butler, Hume, Kant, and Mill. Selections may vary from year to year.
PHIL 462 Contemporary Moral Philosophy (3). Required preparation, two courses in philosophy other than PHIL 155, including PHIL 362. Advanced discussion of moral issues such as fact and value, reason and morality, the nature of morality.

PHIL 463 Contemporary Moral and Social Problems (3). Two courses in philosophy other than PHIL 155 strongly recommended. A detailed examination of one or more of the following contemporary issues: environmental ethics, animal rights, abortion, euthanasia, pornography, racism, sexism, public versus private morality.
PHIL 465 Justice in Health Care (3). One course in philosophy strongly recommended. Medical students welcome. The course will focus on the question of how scarce health care resources ought to be distributed in order to meet the demands of justice.

PHIL 468 Risk and Society (3). Prerequisite, PHIL 155. One additional course in philosophy strongly recommended. The course examines attitudes toward risk and how they affect our preferences for different public policies in the areas of environmental protection, technology regulation, and workplace and product safety.
PHIL 470 Political Philosophy from Hobbes to Rousseau (3). Two courses in philosophy other than PHIL 155, including PHIL 170 or 370 , strongly recommended. Explores the foundations of justice and authority in the idea of contract or covenant, the nature of law, rights, liberty, and democracy in the work of Hobbes, Locke, Hume, Rousseau.

## PHIL 471 Hegel, Marx, and the Philosophical Critique of

Society (3). An examination of central issues in social and political philosophy as they figure in the work of Hegel, Marx, Nietzsche, and others.

PHIL 473 American Political Philosophy (3). One course in philosophy other than PHIL 155 strongly recommended. Juniors and seniors only. The issue of unity and diversity in America is analyzed through the writings of Jefferson, the Federalists and AntiFederalists, Calhoun, MacKinnon, DuBois, and Rawls.

PHIL 474 Foundations of Modern Political Philosophy (3). Prerequisite, PHIL 170. This course traces the emergence and development of central themes of modern political philosophy from the 13th through the 17th century.
PHIL 475 Philosophical Issues in Gender, Race, and Class (WMST 475) (3). Prerequisite, PHIL 275 or WMST 101. Examines in greater depth and complexity one or more of the issues addressed in PHIL 275, investigating issues of gender, race, and class within the dominant theories of philosophy.

PHIL 476 Recent Developments in Political Philosophy (3). Two courses in philosophy other than PHIL 155, including PHIL 370, strongly recommended. Investigation of major contemporary contributors (Rawls, Nozick, Dworkin, Cohen, Waldron, Arrow) to philosophical debate concerning justice, equality, liberty, democracy, public reason, or rights versus community.
PHIL 480 Philosophy of Law (3). An exploration of whether and under what conditions the state has the right to control crime by punishment of past crimes and preventive detention to prevent future crimes.

PHIL 482 Philosophy and Literature (CMPL 482) (3).
Philosophical readings of literary texts, including novels, plays, and poems.

PHIL 485 Philosophy of Art (3). Competing theories of art and art criticism. The relationship between art and emotional expression, the formal character of art, and standards of taste.

PHIL 491 Health Care, Science, and Philosophy (3). Interdisciplinary course to develop critical thinking capacities through philosophical study of the nature of scientific presuppositions and concepts, including events, causality, and determinism, with specific application to health care issues.
PHIL 494 Existentialism and Phenomenology (3). A study of one or two major systematic works by Sartre, Heidegger, or Merleau-Ponty.

PHIL 496 Advanced Directed Studies (1-3). Permission of the director of undergraduate studies. Advanced independent work in philosophy.
PHIL 562 Ethics, Responsibility, and Justice (1). Ethics explores obligations to act in the interest of others as well as ourselves. Justice explores the ways people should organize and govern themselves. Course addresses such questions as, What principles govern our relationships with other people? What do we owe others and ourselves? How should we treat other people?

PHIL 691H Courses for Honors (3). Permission of the director of undergraduate studies. See the director of undergraduate studies of the department.
PHIL 692H Courses for Honors (3). Permission of the director of undergraduate studies. See the director of undergraduate studies of the department.

PHIL 698 Philosophy, Politics, and Economics II: Capstone Course (ECON 698, POLI 698) (3). Prerequisite, PHIL 384. Permission of the department. This capstone course advances PHIL 384, focusing on such theoretical and philosophical issues as the analysis of rights or distributive justice and the institutional implications of moral forms.

## Department of Physics and Astronomy

 www.physics.unc.eduPhillips Hall, CB\# 3255; (919) 962-2078
JAMES CHRISTOPHER CLEMENS, Chair

## Introduction

The goal of physics is a unified description of the properties of matter and energy. The study of matter and energy encompasses a range of phenomena, from the subnuclear to the cosmological. Physics seeks to understand the way the universe "works," from the very small scale (quarks and neutrinos) to the human scale (materials encountered in daily life) to the structure of the cosmos. Different approaches and technologies are used in these different regimes.

The areas of active research at UNC-Chapel Hill can be divided into nuclear physics and nuclear astrophysics, condensed matter and materials physics, field and particle physics, astronomy
and astrophysics, and biophysics. Often the separation between subfields is not as distinct as it appears. For example, nuclear and particle physics are used to address questions in astrophysics. As scientists have learned more about the universe, they have realized that even the boundaries between the sciences have blurred. Today, physics shares interests with biology, chemistry, and computer science. Physicists are also responsible for the invention of much of our modern technology, including computers, lasers, medical imaging devices such as MRI and ultrasound, nuclear reactors, and the World Wide Web.

Physics has played a significant role in shaping modern society and culture, and some knowledge of physics is essential to fully appreciate the world. As the frontiers of physics and astronomy have advanced, old questions have been answered or refined, new questions have been asked, and major surprises have been encountered. The joy of doing physics is "To see a world in a grain of sand and a heaven in a wild flower, hold infinity in the palm of your hand and eternity in an hour" (William Blake).

## Physics and Astronomy

## Major, B.A.-Standard Option

## Core Requirements

- PHYS 118 (gateway)
- PHYS 119, 201 or 401, 211 or 311, 281L, and 331
- Nine additional credits chosen from ASTR (numbered above 300) and PHYS (numbered above 200)


## Additional Requirements

- CHEM 101/101L and 102/102L
- MATH 231, 232, 233, and 383


## Physics and Astronomy

Major, B.A.-Astronomy Option

## Core Requirements

- PHYS 118 (gateway)
- PHYS 119, 201 or 401, 211 or 311, 281L, and 331
- Six additional credits chosen from ASTR (numbered above 300)
- Three additional credits chosen from ASTR (numbered above 300); PHYS 231, 295, 395, 585, 691H, 692H


## Additional Requirements

- ASTR 101, 101L or 111L, 102, and 301
- MATH 231, 232, 233, and 383


## Physics and Astronomy <br> Major, B.A.-Biological Physics Option

## Core Requirements

- PHYS 118 (gateway)
- PHYS 119, 201 or 401, 211 or 311, 281L, 331, and 405
- PHYS 441 or CHEM 481
- PHYS 585 (capstone)


## Additional Requirements

- BIOL 101
- CHEM 101/101L and 102/102L
- MATH 231, 232, 233, and 383
- Six additional credits chosen from BIOL (numbered above 200); CHEM 261, 262, 430; PHYS (numbered above 200)


## Physics and Astronomy <br> Major, B.A.-Energy Option

## Core Requirements

- PHYS 118 (gateway)
- PHYS 119, 131, 131L or 281L, 201 or 401, 211 or 311, 331, and 351
- PHYS 581 or 582


## Additional Requirements

- BIOL 101/101L, and 202 or 271
- CHEM 101/101L, 102, 261, and 481
- MATH 231, 232, 233, and 383


## Physics and Astronomy <br> Major, B.A.-Quantitative Finance Option

## Core Requirements

- PHYS 118 (gateway)
- PHYS 119, 201 or 401, 211 or 311, 281L, and 331
- PHYS 441 or CHEM 481
- Six additional credits chosen from BUSI (numbered above 400), MATH (numbered above 200), and PHYS (numbered above 200)


## Additional Requirements

- BUSI 408*, 580, 588, 589, 600, and 688
- CHEM 101 and 102
- MATH 231, 232, 233, and 383
*BUSI 101 and ECON 410 are prerequisites for BUSI 408.
As part of these course requirements, candidates for the B.A. degree must earn grades of C (not C-) or better in at least 18 credit hours of courses that are listed under Core Requirements.


## Physics and Astronomy <br> Major, B.S.-Standard Option

## Core Requirements

- PHYS 281L, 311, 321, 331, 351, 358, 401, 412, 441, 481L, and 521
- PHYS 395 or 692H (optional for UNC-BEST students)
- Two additional courses chosen from ASTR (numbered above 300); ENGL 303; MATH 528, 529; PHYS 231 and any PHYS course numbered above 300


## Additional Requirements

- CHEM 101/101L and 102/102L
- MATH 231, 232, 233, and 383
- PHYS 118 and 119


## Physics and Astronomy Major, B.S.-Astrophysics Option

## Core Requirements

- ASTR 519
- PHYS 281L, 311, 321, 331 (with project on an astrophysics topic), 351, 358, 401, 412, 441, and 521
- PHYS 395 or 692H (optional for UNC-BEST students)
- One additional course chosen from ASTR (numbered above 300)
- One additional course chosen from ASTR (numbered above 300); ENGL 303; MATH 528, 529; PHYS 231


## Additional Requirements

- ASTR 102 and 301
- CHEM 101/101L (CHEM 102/102L are recommended but not required)
- MATH 231, 232, 233, and 383
- PHYS 118 and 119

As part of these course requirements, candidates for the B.S. degree must earn grades of C (not C-) or better in at least 18 credit hours of courses that are listed under Core Requirements.

It is strongly recommended that students planning to major in physics fulfill the Foundations requirement in English composition and rhetoric by enrolling in ENGL 105I Writing in the Natural Sciences.

Most students will find it advantageous to defer some of the General Education requirements to the junior and/or senior year(s).

## Astronomy Minor

The minor in astronomy consists of six courses:

- ASTR 101, 101L or 111L, 102, and 301
- PHYS 118 and 119


## Physics Minor

The minor in physics consists of five courses:

- PHYS 118, 119, 281L, and 331
- One additional course chosen from ASTR (numbered above 300) and PHYS (numbered above 200)


## Advising

All majors and minors have a primary academic advisor in Steele Building. Students are strongly encouraged to meet regularly with their advisor and review their Tar Heel Tracker each semester. The department's director of undergraduate studies and undergraduate advisors work with current and prospective majors by appointment (see "Contact Information" below). Departmental academic advising is particularly important for those majors who are considering going on to graduate school. Further information on courses, undergraduate research opportunities, the honors program, careers, and graduate schools may be obtained from the department's Web site.

## Special Opportunities in Physics and Astronomy

## Honors in Physics and Astronomy

The honors program offers exceptionally well-qualified students an opportunity to perform original research with a faculty member and graduate with honors or highest honors. It requires an overall grade point average of at least 3.3 and a grade point average of at least 3.4 for physics courses at the end of the junior year.

Students who wish to enter the honors program should consult with the departmental coordinator for the program no later than the preregistration period in the spring semester of their junior year.

## Departmental Involvement

The Society of Physics Students, open to anyone interested in physics, builds connections between undergraduates, graduate students, faculty, and alumni. The society invites visitors to give talks and sponsors a number of events for students each year. Women in Physics at UNC-Chapel Hill, an organization that aims to provide resources, advice, and an encouraging social atmosphere for women in the field of physics, welcomes physics majors and all women interested in physics.

## UNC-BEST

The UNC Baccalaureate Education in Science and Teaching (UNC-BEST) Program is a collaboration between the School of Education and the College of Arts and Sciences and is designed to allow undergraduate science majors interested in teaching high school science the opportunity to earn their science degree and obtain licensure as a North Carolina high school science teacher in four years. UNC-BEST students meet all the degree requirements for their degree using PHYS 410 as one of their upper-level physics courses. UNC-BEST students also fulfill teaching licensure coursework requirements as well as many General Education and elective requirements as they complete 10 credit hours in teaching and learning, including EDUC 403, 516 or 689, 532, 533, and 601. During their final semester, students engage in a full-time student teaching internship (EDUC 593) and participate in an education leadership seminar (EDUC 503). For more details on admission requirements, application deadlines, and submitting an online application, visit the School of Education Web site: soe.unc. edu/services/apply/ug.

## Undergraduate Awards

The department gives awards each year to the senior (Shearin Award) and junior (Johnson Award) who demonstrate the greatest achievement. In addition, the department awards the major with the most research achievement (Robert Sheldon Award for Undergraduate Research).

## Undergraduate Research

All majors conduct at least one semester of research under the supervision of a faculty member. Many enjoy the experience so much that they continue for several semesters. An approved learning contract is required prior to registering for PHYS 295 and 395, and students must be registered within the first week of classes.

## Graduate School and Career Opportunities

Employers know that physicists understand how to think and reason effectively about the world, which equips them to solve unconventional challenging problems. Over 90 percent of physics majors do something other than teach and conduct research at a university. Physics will prepare you to pursue anything from medicine to energy to business. The American Institute of Physics' Career Resources site (aip.org/career-resources) provides useful information about the careers of physics bachelor's degree recipients, including who is hiring them in North Carolina.

Those who are considering going on to graduate school in physics, astronomy, and other physical science and engineering fields, should contact one of the physics advisors. Those who are considering marine sciences as a graduate specialty should consult the material under the Department of Marine Sciences. Those who plan careers in health sciences, including dentistry, medicine, and veterinary medicine, should consult advisors in the Health Professions Advising Office in Hanes Hall. Those interested in science teaching can take the educational coursework required for a high school science teaching license through the UNC Baccalaureate Education in Science and Teaching (UNC-BEST) program (unc.edu/uncbest).

## Faculty

## Professors

Gerald N. Cecil, Arthur E. Champagne, Thomas B. Clegg, James Christopher Clemens, Louise A. Dolan, Jonathan H. Engel, Charles R. Evans, Christian G. Iliadis, Hugon J. Karwowski, Dmitri V. Khveshchenko, Jianping Lu, Laurie E. McNeil, Yee Jack Ng, Lu-Chang Qin, Dan Reichart, Richard Superfine, Frank Tsui, Sean Washburn, John Wilkerson, Yue Wu, Otto Zhou.

## Associate Professors

Reyco Henning, Sheila Kannappan, Rene Lopez, Laura MersiniHoughton.

## Assistant Professors

Rosa Tamara Branca, Joaquin Drut, Adrienne Erickcek, Jonathan Heckman, Fabian Heitsch, Nicholas Law, Amy Oldenburg.

## Research Professors

Mike Falvo, Alfred Kleinhammes, Pabitra Sen.

## Research Assistant Professors

David Hill, Edward Timothy O'Brien III.

## Adjunct Professors

Fred Chaffee, William Clark, Richard Hammond, Ryan M. Rohm, Jie Tang.

## Adjunct Associate Professor

John Hunn.

## Adjunct Assistant Professors

Christopher Bower, Yueh Lee.

## Lecturers

Alice Churukian, Duane Deardorff, Stefan Jeglinski, Shaleen Shukla, David Smith, Colin Wallace, Jennifer Weinberg-Wolf.

## Professors Emeriti

Charles V. Briscoe, Bruce Carney, Sang-Il Choi, Wayne Christiansen, Kian S. Dy, John P. Hernandez, William M. Hooke, Paul S. Hubbard, Horst Kessemeier, Edward J. Ludwig, J. Ross Macdonald, James A. Rose, Lawrence G. Rowan, Dietrich Schroeer, Stephen M. Shafroth, Lawrence M. Slifkin, William J. Thompson, James W. York Jr.

## Contact Information

Logan Phillips, Student Services Coordinator, Physics and Astronomy, CB\# 3255, 278 Phillips Hall, (919) 962-2078, lmphilli@email.unc.edu.

Dr. Frank Tsui, Director of Undergraduate Studies, CB\# 3255, 333 Chapman Hall, (919) 962-0305, ftsui@physics.unc.edu.

Dr. Rene Lopez, Academic Advisor (students with last names beginning with A-G), CB\# 3255, 343 Chapman Hall, (919) 9627216, rln@physics.unc.edu.
Dr. Christian Iliadis, Academic Advisor (students with last names beginning with H-O), CB\# 3255, 174 Phillips Hall, (919) 9623016, iliadis@physics.unc.edu.

Dr. Yue Wu, Academic Advisor (students with last names beginning with P-Z), CB\# 3255, 341 Chapman Hall, (919) 962-0307, yuewu@physics.unc.edu.

## Courses

## ASTR-Astronomy

ASTR 61 First-Year Seminar: The Copernican Revolution (PHYS 61) (3). This seminar explores the 2,000-year effort to understand the motion of the sun, moon, stars, and five visible planets. Earth-centered cosmos gives way to the conclusion that earth is just another body in space. Cultural changes accompany this revolution in thinking.

## ASTR 63 First-Year Seminar: Catastrophe and Chaos:

 Unpredictable Physics (3). Physics is often seen as the most precise and deterministic of sciences. Determinism can break down, however. This seminar explores the rich and diverse areas of modern physics in which "unpredictability" is the norm.ASTR 89 First-Year Seminar: Special Topics (3). Special topics course. Content will vary each semester.

ASTR 101 Introduction to Astronomy: The Solar System (3). Celestial motions of the earth, sun, moon, and planets; nature of light; ground and space-based telescopes; comparative planetology; the earth and the moon; terrestrial and gas planets and their moons; dwarf planets, asteroids, and comets; planetary system formation; extrasolar planets; the search for extraterrestrial intelligence (SETI).

## ASTR 101L Introduction to Astronomy Laboratory: Our

Place in Space (1). Pre- or corequisite, ASTR 101. Observing with robotic telescopes in Chile, Australia, and around the world:
planets, dwarf planets, moons, asteroids, binary and variable stars, supernovae, star-forming regions, star clusters, and galaxies; the seasons, the Galilean revolution; the cosmic distance ladder; the Great Debate; dark matter; Hubble's Law; dark energy.

ASTR 102 Introduction to Astronomy: Stars, Galaxies, and Cosmology (3). Prerequisite, ASTR 101. The sun, stellar observables, star birth, evolution, and death, novae and supernovae, white dwarfs, neutron stars, black holes, the Milky Way galaxy, normal galaxies, active galaxies and quasars, dark matter, dark energy, cosmology, early universe.

ASTR 111L Educational Research in Radio Astronomy (1). Permission of the instructor. One-week field experience at the National Radio Astronomy Observatory in Green Bank, WV, for experiential education (EE) credit. Observing with radio telescopes and antennae: supernova remnants, star-forming regions, normal and active galaxies, quasars, solar system objects (sun, moon, Jupiter), radio spectroscopy.

## ASTR 205 The Medieval Foundations of Modern Cosmology

(3). This course will examine science as it emerged and developed in the West starting in the 13th century. We will use example problems from cosmology that are relevant today.

ASTR 301 Stars, Galaxies, and Cosmology (1). Corequisites, ASTR 102, and PHYS 117 or 119. Stellar observables; galaxies; novae; cosmology; the early universe. This one-credit course can be taken with ASTR 102 for students who wish to major or minor in astrophysics.

## ASTR 390 Research and Special Topics for Juniors and Seniors

(1-12). Permission of the instructor. To be taken by honors candidates and other qualified juniors and seniors.

ASTR 501 Astrophysics I (Stellar Astrophysics) (3). Prerequisites, ASTR 301, MATH 383, and PHYS 331. Permission of the instructor for students lacking the prerequisites. An introduction to the study of stellar structure and evolution. Topics covered include observational techniques, stellar structure and energy transport, nuclear energy sources, evolution off the mainsequence, and supernovae.

## ASTR 502 Astrophysics II (Modern Research in Astrophysics)

(3). Prerequisites, ASTR 301 and MATH 383; pre- or corequisite, PHYS 331. An introduction to modern research in astrophysics based on scientific journal articles addressing a current topic of interest in galactic or extragalactic astrophysics, including training in computer modeling and statistical analysis, culminating in the completion of a research project.

ASTR 503 Structure and Evolution of Galaxies (3). Prerequisites, ASTR 301, MATH 383, and PHYS 331. Internal dynamics and structure of galaxies; physics of star formation, active galactic nuclei, and galaxy interactions; large-scale clustering and environmentdependent physical processes; evolution of the galaxy population over cosmic time.

ASTR 504 Cosmology (3). Prerequisites, ASTR 301 and PHYS 401; pre- or corequisite, PHYS 321. An introduction to modern cosmology: the study of the contents and evolution of the universe. Covers expanding spacetime, the thermal history of the early universe, including nucleosynthesis and the cosmic microwave
background, the inflationary model for the origins of cosmic structure, and the growth of that structure though time.

ASTR 505 Physics of Interstellar Gas (3). Prerequisites, ASTR 301, MATH 383, and PHYS 331. Surveys the physical processes governing the interstellar medium (ISM), which takes up the "refuse" of old stars while providing fuel for young stars forming. Covers the processes regulating the galactic gas budget and the corresponding observational diagnostics. Topics: radiative transfer, line formation mechanisms, continuum radiation, gas dynamics, star formation.

ASTR 519 Observational Astronomy (4). Prerequisite, ASTR 102; pre- or corequisite, PHYS 331. Permission of the instructor for students lacking the requisites. A course designed to familiarize the student with observational techniques in optical and radio astronomy, including application of photography, spectroscopy, photometry, and radio methods. Three lecture and three laboratory hours a week.

## PHYS-Physics

## PHYS 51 First-Year Seminar: The Interplay of Music and

 Physics (MUSC 51) (3). See MUSC 51 for description.PHYS 52 First-Year Seminar: Making the Right Connections (3). This seminar investigates the multiple roles that computers and microprocessors perform in scientific investigations and the impact of technological advances on society. Students perform experiments, take field trips to research laboratories, and gain hands-on experience with computer-based instrumentation.

PHYS 53 First-Year Seminar: Handcrafting in the Nanoworld: Building Models and Manipulating Molecules (3). This seminar provides a general introduction to nanoscience and nanotechnology, focusing on recent advances in molecular electronics, nanomaterials, and biomedical research. Course activities include group modelbuilding projects, presentations, and discussions of reading material.

PHYS 54 First-Year Seminar: Physics of Movies (3). Students watch and analyze short movie clips that demonstrate interesting, unusual, or impossible physics. Group analysis emphasized.

PHYS 61 First-Year Seminar: The Copernican Revolution (ASTR 61) (3). See ASTR 61 for description.

PHYS 63 First-Year Seminar: Catastrophe and Chaos:
Unpredictable Physics (3). Physics is often seen as the most precise and deterministic of sciences. Determinism can break down, however. This seminar explores the rich and diverse areas of modern physics in which "unpredictability" is the norm.
PHYS 71 First-Year Seminar: Power Down: Preparing Your Community for the Transition from Cheap Oil (3). This seminar quantifies what will be required to supplement declining supplies of cheap oil for transportation with increased electrification from nonfossil fuel sources. What are viable paths forward to a decarbonized or carbon-neutral energy system?

PHYS 89 First-Year Seminar: Special Topics (3). Special topics course. Content will vary each semester.
PHYS 100 How Things Work (3). Demystifying the working of objects such as CD players, microwave ovens, lasers, computers,
roller coasters, rockets, light bulbs, automobiles, clocks, copy machines, X-ray and CAT-scan machines, and nuclear reactors.

PHYS 101 Basic Concepts of Physics (4). Basic principles of physics with introduction to quantum physics, atoms, nuclei, and relativity. Not to be taken for credit after PHYS 104-105 or 114115 or 116-117 or 118-119. Three lecture and two laboratory hours a week.

PHYS 104 General Physics I (4). Pre- or corequisite, MATH 130. Permission of the instructor for students lacking the requisite. Only one of PHYS 104, 114, 116, 118 may be taken for credit. Three lecture hours and two laboratory hours a week.

PHYS 105 General Physics II (4). Pre- or corequisite, PHYS 104. Permission of the instructor for students lacking the requisite. Only one of PHYS 105, 115, 117, 119 may be taken for credit. Three lecture hours and two laboratory hours a week.

PHYS 106 Inquiry into the Physical World (4). A hands-on/ minds-on approach to learning the basic concepts of physical science. Emphasis will be placed on examining the nature of science, your own learning, and the way scientists learn science.

## PHYS 108 Our Energy and Climate Crisis: Challenges

 and Opportunities (4). Students quantify global depletion of energy resources and accompanying environmental degradation, discovering the profound changes in attitudes and behavior required to adjust to diminished fossil fuels and modified climate.PHYS 114 General Physics I: For Students of the Life Sciences (4). Prerequisite, MATH 231. Basic principles of physics, including forces, energy, oscillations, sound, diffusion, and heat transfer, and applications to biological systems. Intended to meet the needs of, but not restricted to, students majoring in the life sciences. Students may not receive credit for PHYS 114 in addition to PHYS 104, 116, or 118.

PHYS 115 General Physics II: For Students of the Life Sciences (4). Prerequisite, PHYS 114. Basic principles of physics, including fluids, electricity, magnetism, optics, quantum physics, and nuclear physics, and applications to biological systems. Intended to meet the needs of, but not restricted to, students majoring in the life sciences. Students may not receive credit for PHYS 115 in addition to PHYS 105,117 , or 119 .

PHYS 116 Mechanics (4). Prerequisite, MATH 231; pre- or corequisite, MATH 232. Permission of the instructor for students lacking the prerequisites. Only one of PHYS 104, 114, 116, 118 may be taken for credit. Mechanics of particles and rigid bodies. Newton's laws; conservation principles. Oscillatory and wave motion. Sound. Lecture, recitation, and laboratory.
PHYS 117 Electromagnetism and Optics (4). Prerequisites, MATH 232 and PHYS 116; pre- or corequisite, MATH 233. Permission of the instructor for students lacking the prerequisites. Only one of PHYS 105, 115, 117, 119 may be taken for credit. Electricity and magnetism; laws of Coulomb, Ampere, and Faraday. Electromagnetic oscillations and waves. Light; diffraction and interference. Lecture, recitation, and laboratory.

PHYS 118 Introductory Calculus-based Mechanics and Relativity (4). Prerequisite, MATH 231; pre- or corequisite,

MATH 232. Permission of the instructor for students lacking the prerequisites. Mechanics of particles and rigid bodies. Newton's laws; mechanical and potential energy; mechanical conservation laws; frame-dependence of physical laws; Einstein's Theory of Relativity. Lecture and studio. Students may not receive credit for PHYS 118 in addition to PHYS 104, 114, or 116.

PHYS 119 Introductory Calculus-Based Electromagnetism and Quanta (4). Prerequisites, MATH 232 and PHYS 118; pre- or corequisite, MATH 233. Permission of the instructor for students lacking the prerequisites. Unification of the laws of electricity and magnetism; electromagnetic waves; the particle-wave duality; fundamental principles and applications of quantum mechanics. Lecture and studio. Students may not receive credit for PHYS 119 in addition to PHYS 105, 115, or 117.

PHYS 128 Modern Physics (3). Prerequisite, PHYS 117; corequisite, PHYS 128L. Permission of the instructor for students lacking the prerequisite. Special relativity theory, black body radiation, photons and electrons; wave particle duality. Elements of atomic theory, nuclei and fundamental particles. Three lecture hours a week.

PHYS 128L Modern Physics Laboratory (1). Pre- or corequisite, PHYS 128. Selected modern physics experiments. Written research reports and oral presentations. Three laboratory hours per week.

## PHYS 131 Energy: Physical Principles and the Quest for

 Alternatives to Dwindling Oil and Gas (3). Corequisite, PHYS 131L. A quantitative exploration of the physical principles behind energy development and use within modern civilization, the stark impact of depleted fossil fuel reserves, and alternative sources.
## PHYS 131L Energy: Physical Principles and the Quest for

 Alternatives to Dwindling Oil and Gas (1). Corequisite, PHYS 131. Explore renewable and nonrenewable energy sources. Three laboratory hours per week.PHYS 132 Science and Society (3). A description of the scientific community and how scientists relate to such sociotechnical issues as the space program, the arms race, the energy problem, computer technology, medical technology, and pseudosciences.
PHYS 133 How Bio Works (3). Physics of biology and biotechnology. Life as an assembly of molecular machines that manipulate DNA, replicate cells, propel bacteria, and contract muscles. Nanotechnology for DNA biotechnology and microscale fluid chips.

PHYS 201 Basic Mechanics (3). Prerequisites, MATH 233 and one of PHYS 105, 115, 117, 119. Permission of the instructor for students lacking the prerequisites. A one-semester course in statics, kinematics, simple harmonic motion, central forces, and applications from modern physics.
PHYS 211 Intermediate Electromagnetism (3). Prerequisites, MATH 233 and one of PHYS 105, 115, 117, 119. Electric fields and potentials, dielectrics, steady currents, magnetic flux and magnetic materials, electromagnetic induction. Emphasis on Maxwell's equations and their application to electromagnetic waves in bounded and unbounded media.

PHYS 231 Physical Computing (3). Prerequisite, PHYS 114 or 118; pre-or corequisite, PHYS 115 or 119. Course focuses on
combining sensors and precision motions so that microcomputers can measure environmental conditions locally or worldwide via the Internet and manipulate that environment. Students propose a project, execute it with popular microcomputers, utilize threedimensional design tools and printers, write a final report, and publish a demonstration on YouTube.
PHYS 281L Experimental Techniques in Physics (2). Prerequisite, PHYS 119. Permission of the instructor for students lacking the prerequisite. Exploration of modern physics experiments, techniques, and data analysis to prepare students for research and advanced laboratory work. Written and oral reports with peer review. Meets four hours per week.

PHYS 295 Research with Faculty Mentor I (1-12). Research with a faculty mentor. Approved learning contract required.
PHYS 311 Electromagnetism I (3). Pre- or corequisite, PHYS 358. Permission of the instructor for students lacking the requisite. Brief treatment of DC and AC circuit theory. Electrostatics: dielectrics, the magnetic field, magnetic materials. Maxwell's equations and their application to electromagnetic waves.

PHYS 313 Space and Time in Physics and Philosophy (3). Contingent and necessary properties of space and time. The direction and flow of time. Fatalism. Effects preceding their causes.

## PHYS 321 Introduction to Quantum Mechanics (3).

Prerequisites, MATH 383; MATH 547 or PHYS 331; pre- or corequisite, PHYS 401. Permission of the instructor for students lacking the requisites. Origins of quantum theory. Uncertainty principle. Schroedinger equation for simple systems, including hydrogen atom. Perturbation theory. Spin. Identical particles.

## PHYS 331 Introduction to Numerical Techniques in

Physics (4). Prerequisite, one of PHYS 104, 114, 116, 118; pre- or corequisite, MATH 383. Applications of calculus, vector analysis, differential equations, complex numbers, and computer programming to realistic physical systems. Three lecture and two computational laboratory hours per week.
PHYS 351 Electronics I (4). Prerequisites, MATH 233 and one of PHYS $105,115,117,119$. Permission of the instructor for students lacking the prerequisites. DC and AC circuit analysis. Diodes, transistor amplifiers, analog devices and signal conditioning. Boolean logic and digital logic circuits. Extensive practice designing and debugging circuits.

PHYS 352 Electronics II (4). Prerequisite, PHYS 351. Permission of the instructor for students lacking the prerequisite. Introduction to digital circuits: gates, flip-flops, and counters. Computers and device interconnections, converters and data acquisition. Signal analysis and digital filters. Graphical (LabVIEW) programming and computer interfacing. Individual projects and practical applications.

## PHYS 354 Quantum Mechanics, Weirdness, and Reality

(PHIL 354) (3). Prerequisites, MATH 231 and any PHYS course numbered 100 or greater. Permission of the instructor for students lacking the prerequisites. An interdisciplinary course on the weirdness of quantum mechanics and the problem of interpreting it. Nonlocality, the measurement problem, superpositions, Bohm's theory, collapse theories, and the many-worlds interpretation.

PHYS 358 Physical Modeling (4). Prerequisite, PHYS 331. Modeling of celestial dynamics, nuclear physics problems, electrostatics; Monte Carlo integration in particle and theoretical physics; data modeling for physics and astronomy; gravitation, electromagnetism, fluid dynamics and quantum mechanics. Three lecture and two computational laboratory hours per week.
PHYS 391 Senior Seminar (1-21). To be taken by seniors with permission of the department.

PHYS 395 Research with Faculty Mentor II (1-12). Research with a faculty mentor. Approved learning contract required. Additionally, students write and submit a proposal to an internal or external competition for funding intended for students. They also give a poster or oral presentation on the topic of their research at an appropriate symposium or meeting.
PHYS 401 Mechanics I (3). Pre- or corequisites, MATH 383 and PHYS 331. Permission of the instructor for students lacking the prerequisites. Particle kinematics, central forces, planetary motions. Systems of particles, conservation laws, nonlinearity. Statics, motion of rigid bodies. Lagrange's and Hamilton's equations. Euler's equations. Vibrations and waves.

PHYS 405 Biological Physics (BIOL 431) (3). Prerequisites, PHYS 116 and 117, or PHYS 118 and 119. How diffusion, entropy, electrostatics, and hydrophobicity generate order and force in biology. Topics include DNA manipulation, intracellular transport, cell division, molecular motors, single molecule biophysics techniques, nerve impulses, neuroscience.
PHYS 410 Teaching and Learning Physics (4). Prerequisites, PHYS 116 and 117, or PHYS 118 and 119. Permission of the instructor for students lacking the prerequisites. Learning how to teach physics using current research-based methods. Includes extensive fieldwork in high school and college environments. Meets part of the licensure requirements for North Carolina public school teaching.

PHYS 412 Electromagnetism II (3). Prerequisite, PHYS 311. Permission of the instructor for students lacking the prerequisite. Brief treatment of DC and AC circuit theory. Electrostatics: dielectrics; the magnetic field; magnetic materials. Maxwell's equations and their application to electromagnetic waves.
PHYS 415 Optics (3). Prerequisites, PHYS 311 and 412. Permission of the instructor for students lacking the prerequisites. Elements of geometrical optics; Huygens' principles, interference, diffraction, and polarization. Elements of the electromagnetic theory of light; Fresnel's equations, dispersion, absorption, and scattering. Photons. Lasers and quantum optics.

PHYS 422 Physics of the Earth's Interior (GEOL 422) (3). Prerequisites, MATH 383 and either PHYS 201 and 211, or 311 and 401 . Origin of the solar system: the nebular hypothesis. Evolution of the earth and its accretionary history. Earthquakes: plate tectonics and the interior of the earth. The earth's magnetic field. Mantle convection.

PHYS 424 General Physics I (4). PHYS 104 or 114 equivalent, specifically for certification of high school teachers.

PHYS 425 General Physics II (4). PHYS 105 or 115 equivalent, specifically for certification of high school teachers.

PHYS 441 Thermal Physics (3). Prerequisites, MATH 233, and PHYS 117 or 119 . Permission of the instructor for students lacking the prerequisites. Equilibrium statistical mechanics; the laws of thermodynamics, internal energy, enthalpy, entropy, thermodynamic potentials, Maxwell's equations.
PHYS 471 Physics of Solid State Electronic Devices (3). Prerequisite, PHYS 117 or 119; pre- or corequisite, PHYS 211 or 311. Properties of crystal lattices, electrons in energy bands, behavior of majority and minority charge carriers, PN junctions related to the structure and function of semiconductor diodes, transistors, display devices.

PHYS 472 Chemistry and Physics of Electronic Materials Processing (APPL 472, CHEM 472) (3). Prerequisite, CHEM 482 or PHYS 117 or 119. Permission of the instructor. A survey of materials processing and characterization used in fabricating microelectronic devices. Crystal growth, thin film deposition and etching, and microlithography.
PHYS 481L Advanced Laboratory I (2). Prerequisite, PHYS 351 or 352. Permission of the instructor for students lacking the prerequisite. Selected experiments illustrating modern techniques such as the use of laser technology to study the interaction of electromagnetic fields and matter. Six laboratory hours a week.

PHYS 482L Advanced Laboratory II (2). Prerequisite, PHYS 481. Permission of the instructor for students lacking the prerequisite. Independent laboratory research projects. Scientific writing and oral presentations, abstracts, and reports. Six laboratory hours per week.
PHYS 491L Materials Laboratory I (APPL 491L) (2). Prerequisites, APPL 470 and PHYS 351. Structure determination and measurement of the optical, electrical, and magnetic properties of solids.

PHYS 492L Materials Laboratory II (APPL 492L) (2).
Prerequisite, APPL 491L or PHYS 491L. Continuation of PHYS 491L with emphasis on low- and high-temperature behavior, the physical and chemical behavior of lattice imperfections and amorphous materials, and the nature of radiation damage.

## PHYS 510 Seminar for Physics and Astronomy Teaching

Assistants (1). How students learn and understand physics and astronomy. How to teach using current research-based methods.

PHYS 521 Applications of Quantum Mechanics (3).
Prerequisite, PHYS 321. Emphasizes atomic physics but includes topics from nuclear, solid state, and particle physics, such as energy levels, the periodic system, selection rules, and fundamentals of spectroscopy.
PHYS 543 Nuclear Physics (3). Prerequisite, PHYS 321. Permission of the instructor for students lacking the prerequisite. Structure of nucleons and nuclei, nuclear models, forces and interactions, nuclear reactions.

PHYS 545 Introductory Elementary Particle Physics (3). Prerequisites, PHYS 321 and 412. Relativistic kinematics, symmetries and conservation laws, elementary particles and bound states, gauge theories, quantum electrodynamics, chromodynamics, electroweak unification, standard model and beyond.

PHYS 573 Introductory Solid State Physics (APPL 573) (3). Prerequisite, PHYS 321. Permission of the instructor for students lacking the prerequisite. Crystal symmetry, types of crystalline solids; electron and mechanical waves in crystals, electrical and magnetic properties of solids, semiconductors; low temperature phenomena; imperfections in nearly perfect crystals.
PHYS 581 Renewable Electric Power Systems (3). Prerequisites, BIOL 101L, and 202 or 271 ; and PHYS 131, and 131L or 281L, and 201 or 401 , and 211 or 311 , and 351 ; pre-or corequisites, CHEM 261 and 481. Broad and quantitative study of renewable electric power systems: wind systems, photovoltaic cells, distributed generation (concentrating solar power, microhydro, biomass), and the economics of these technologies.

PHYS 582 Decarbonizing Fuels (3). Prerequisites, BIOL 101L, and 202 or 271 ; and PHYS 131, and 131L or 281L, and 201 or 401, and 211 or 311, and 351; pre- or corequisites, CHEM 261 and 481 . Assess quantitatively the feasibility of powering humanity without increasing release of climate-altering carbon dioxide and other organic greenhouse gases into the atmosphere. Can these gases be removed? Which bio-chemical-physical novelties may scale to meet growing demand and at what cost?

PHYS 585 Imaging Science: From Cells to Stars (3). Prerequisites, MATH 233 and PHYS 118. Fundamentals of imaging as applied to biological, medical and astronomy imaging systems. Physics of radiation and particle sources, image formation and detection physics. Principles of optics, coherence, Fourier methods, statistics, especially as they cross disciplinary boundaries for new opportunities in imaging.
PHYS 594 Nonlinear Dynamics (MATH 594) (3). Prerequisite, MATH 383. Permission of the instructor for students lacking the prerequisite. Interdisciplinary introduction to nonlinear dynamics and chaos. Fixed points, bifurcations, strange attractors, with applications to physics, biology, chemistry, finance.
PHYS 631 Mathematical Methods of Theoretical Physics I (3). Prerequisites, PHYS 281L and PHYS 358. Vector fields, curvilinear coordinates, functions of complex variables, linear differential equations of second order, Fourier series, integral transforms, delta sequence.
PHYS 632 Mathematical Methods of Theoretical Physics II (3). Prerequisite, PHYS 631. Permission of the instructor for students lacking the prerequisite. Partial differential equations, special functions, Green functions, variational methods, traveling waves, and scattering.

PHYS 633 Scientific Programming (3). Prerequisite, MATH 528 or 529, or PHYS 631 or 632. Required preparation, elementary Fortran, C, or Pascal programming. Structured programming in Fortran or Pascal; use of secondary storage and program packages; numerical methods for advanced problems, error propagation and computational efficiency; symbolic mathematics by computer.
PHYS 660 Fluid Dynamics (ENVR 452, GEOL 560, MASC 560) (3). See MASC 560 for description.

PHYS 671L Independent Laboratory I (3). Prerequisites, PHYS 401 and 412. Permission of the instructor for students lacking the prerequisites. Six laboratory hours a week.

PHYS 672L Independent Laboratory II (3). Prerequisites, PHYS 401 and 412. Permission of the instructor for students lacking the prerequisites. Six laboratory hours.
PHYS 691H Senior Honor Thesis Research I (3). Permission of the instructor. Readings in physics and directed research for a senior honor thesis project. Required of all candidates for graduation with honors in physics.

PHYS 692H Senior Honor Thesis Research II (3). Prerequisite, PHYS 691H. Readings in physics and directed research for a senior honor thesis project. Required of all candidates for graduation with honors in physics.

## Department of Political Science

politicalscience.unc.edu
361 Hamilton Hall, CB\# 3265; (919) 962-3041

## EVELYNE HUBER, Chair

## Introduction

Political science is concerned with the description and explanation of political ideas, institutions, processes, policies, and behavior, both in the United States and in other countries. The undergraduate program provides students with a basic knowledge of the political and economic relationships that exist among nations, international agencies, and governmental and nongovernmental organizations. It also introduces students to the role that traditions of thought and political ideologies have played in shaping our understanding of politics in the past and today.

The undergraduate major is designed to provide 1) a broad understanding of political ideas, institutions, and issues as a central element of a general education; 2) a basic knowledge of the governmental process as preparation for those considering a career in public service as well as for active and informed citizenship; 3) preprofessional training for students planning to enter law school; and 4) a foundation in political science for those contemplating specialization at the graduate level.

## Political Science Major, B.A.

## Core Requirements

- Eight courses ( 24 credit hours) offered by the department at the 100 level or above, including the following courses:
- POLI 100
- POLI 150
- At least one course in comparative politics chosen from POLI 130, 131, 232, 235, 236, 237, 238, 239, 257
- At least one course in political theory chosen from POLI 265, 270, 271, 272, 274, 276, 280, 470, 471, 472, 475
o At least one 400-level course


## Additional Requirements

- ECON 101

Students must earn a grade of C or better in six of the eight political
science courses used to satisfy the core requirements of the major. This grade requirement does not apply to ECON 101. First-year seminars do not count toward the political science major. Whenever possible, students should take an introductory course in a subfield (American politics, comparative politics, international relations, political theory) before taking more advanced courses.

## Political Science Major, NUS Joint Degree

Political science majors may wish to consider applying for the Joint Degree Program, an innovative joint undergraduate degree program joining the University of North Carolina at Chapel Hill and the National University of Singapore. UNC-Chapel Hill undergraduates spend anywhere from two to four semesters at the National University of Singapore and receive a joint bachelor of arts degree from both institutions. For further information, contact the Study Abroad Office.

## Advising

All majors have a primary academic advisor in Steele Building. Students are strongly encouraged to meet regularly with their advisor and review their Tar Heel Tracker each semester. Students seeking advice about the political science major are encouraged to meet with the department's undergraduate advisor or the director of undergraduate studies during their office hours (see "Contact Information" below). Further information on courses, undergraduate research opportunities, the honors program, careers, and graduate schools may be obtained from the department's Web site.

## Special Opportunities in Political Science

## Honors in Political Science

The honors program provides political science majors the opportunity to pursue an independent research project over a twosemester period. Students begin the program by taking POLI 691H Honors Seminar in Research Design in the spring semester of their junior year. During this course they complete a thesis proposal.

If the proposal is acceptable, students continue their thesis research in the senior year under the supervision of the honors director and a faculty advisor in POLI 692H and POLI 693H. A maximum of two honors thesis courses can count as elective credit in the major. Upon successful completion of the program, which includes an oral defense of the thesis, students are awarded a degree with honors or with highest honors in political science.

To be admitted to the honors program, students must have at least a 3.3 overall grade point average and 3.5 in political science. They should have completed four courses in the major. Students interested in participating in the honors program should apply by October 15 of their junior year.

## Experiential Education

Internship courses provide students with the opportunity to earn academic credit while obtaining practical work experience in agencies and organizations clearly related to the study of political science. Political science majors who would like to obtain credit for internship work in government or public service must enroll in POLI 193. While this course satisfies the experiential education

General Education requirement, POLI 193 is offered on a Pass/Fail basis only and does not count towards the eight courses required for the major. For specific information about the procedures and requirements for POLI 193, please consult the department's Web site at politicalscience.unc.edu/undergraduate-programs/current-students/internships-poli-193.

## Study Abroad

Because we live in an increasingly globalized society, students are encouraged to study abroad as they are able. Students interested in the fields of comparative politics and international relations are strongly urged to participate in a study abroad program; indeed, all students may find the experience to be transformational and helpful in choosing a career path. Students are advised to work with the Study Abroad Office and to contact the undergraduate advisor when planning their study abroad experience. For information about applying study abroad credit toward the political science major, please consult the department's Web site at politicalscience. unc.edu/undergraduate-programs/current-students/study-abroad.

## Training for Public Service

The undergraduate major in political science provides a sound foundation for professional master's programs in public administration such as that offered at this university and many other universities. For students planning to enter public service, regardless of undergraduate major, the following courses are recommended consistent with other college requirements: ECON 101; ENGL 300; POLI 100, 150; PSYC 101, and courses in statistics or quantitative research methods, such as POLI 209 or 281.

## Undergraduate Awards

Pi Sigma Alpha is the national political science honorary society. Membership is restricted to those political science majors who have completed 15 hours of political science with an overall grade average of 3.3 or better and a political science grade average of 3.5 or better.

The Thad L. Beyle Research Award is given to undergraduate political science majors, with priority given to students writing a senior honors thesis.

The William Scott Bryant Award funds research and travel for undergraduate majors in the Department of Political Science, with priority given to seniors.

The D'Amico Endowment Fund for Honors Students funds academic research and activities for honors students in the Department of Political Science.

The Shepard Jones Undergraduate Award in International Relations is given to an undergraduate student for the best essay in international relations (any field and broadly defined).

The L. Richardson Preyer Award for Excellence in Political Science is given to a senior judged by a committee of the faculty to have the most distinguished record of scholarship in political science and service to the community.

The Terry Sanford Award for Excellence is given to the undergraduate student judged to have written the best political science honors thesis.

## Undergraduate Research

Courses in political science often include a research component, and students may engage in directed research under the supervision of a faculty advisor. The honors program provides political science majors the opportunity to pursue an independent research project over a two-semester period, culminating in a senior thesis.

## Graduate School and Career Opportunities

Students with a major in political science may choose to continue their studies in a number of professional areas, including law, business administration, public administration, public policy analysis, international relations, and area studies. Students seeking to become professional political scientists should pursue graduate study in a Ph.D. program in political science.

The following is a brief listing of careers for which a major in political science is valuable preparation: positions with government agencies such as the Foreign Service, with international public organizations such as agencies in the United Nations, or with internationally oriented nongovernmental organizations engaged in development projects, humanitarian relief, or human rights activities; secondary- and university-level teaching of government and politics; law-related professions; educational administration at all levels; federal and state government employment, with its varied administrative, management, and executive opportunities; governmental research in universities, libraries, and public affairs agencies; municipal management and general administration; and corporate positions in environmental protection, statistical analysis, and public affairs.

## Faculty

## Professors

Frank Baumgartner, Thomas Carsey, Pamela Conover, Mark Crescenzi, Virginia Gray, Jonathan Hartlyn, Liesbet Hooghe, Evelyne Huber, Michael Lienesch, Stuart Elaine Macdonald, Michael MacKuen, Gary Marks, Kevin McGuire, Timothy McKeown, Layna Mosley, Lars Schoultz, Donald Searing, Jeffrey Spinner-Halev, John Stephens, James Stimson.

## Associate Professors

Navin Bapat, Susan Bickford, Stephen Gent, Michele Hoyman, Stephen Leonard, Rahsaan Maxwell, Thomas Oatley, Andrew Reynolds, Jason Roberts, Graeme Robertson, Terry Sullivan, Isaac Unah, Milada Vachudova.

## Assistant Professors

Cameron Ballard-Rosa, Anna Bassi, Andrea Benjamin, Xi Chen, Christopher Clark, Justin Gross, Cecilia Martinez-Gallardo, Timothy Ryan, Sarah Treul.

## Adjunct Professors

John Aldrich, Michele Berger, Daniel Gitterman, Holger Moroff, Michael Munger, Jonathan Oberlander, Niklaus Steiner, Sue Tolleson-Rinehart.

## Senior Lecturer

Robert Jenkins.

## Lecturer/Advisor

Hollie Mann.

## Professors Emeriti

Thad Beyle, Raymond Dawson, Lewis Lipsitz, Robert Rupen, Jurg Steiner, James White.

## Contact Information

Susan Heske, Undergraduate Studies Coordinator, CB\# 3265, 356 Hamilton Hall.

Professor Hollie Mann, Undergraduate Advisor, CB\# 3265, 354 Hamilton Hall.

Professor Stephen Gent, Director of Undergraduate Studies, CB\# 3265, 352 Hamilton Hall.

## Courses

## POLI-Political Science

POLI 50 First-Year Seminar: Movies and Politics (3). Movies often reflect important social and political issues. In this course students will see a set of movies, discuss them, and put them into social and political context.

POLI 51 First-Year Seminar: Plessy v. Ferguson: The Play (3). This course will introduce students to the law, civil rights, Southern history, politics, moral questions, and culture surrounding the 1896 case of Plessy $v$. Ferguson, a case that has had an impact on every part of our life in America.

POLI 53 First-Year Seminar: The Politics of Shakespeare (3). Literature often provides insight into political life. Issues such as power, justice, equality, and rights have long been illuminated by authors seeking to capture a wide variety of political relationships.
POLI 54 First-Year Seminar: The American Worker: Sociology, Politics, and History of Labor in the United (3). This course will survey a wide range of topics on the American Laborer and the American Worker unions

POLI 55 First-Year Seminar: Democracy and the Civic Ideal (3). This course examines the emergence of the increasingly diverse and divided ethnic and racial compositions.

POLI 56 First-Year Seminar: American Political Autobiography (3). How we think about ourselves as Americans, and how our identities influence our ideas about politics.

POLI 58 First-Year Seminar: Global Production and Workers' Rights: North Carolina, Latin America, and East Asia (3). This course explores the politics of economic globalization, with a focus on the relationships among trade, multinational corporations, and workers' rights.

## POLI 60 First-Year Seminar: International Politics and

International Terrorism (3). This course will address the nature of terror and its use by private individuals and by governments.

POLI 61 First-Year Seminar: The United States and Cuba: Making Sense of United States Foreign Policy (3). This interdisciplinary seminar is designed for students who wish to learn about Latin America in the disciplines of history and political science.

POLI 62 First-Year Seminar: How Leaders Lead Others (3). This course prepares the student for an understanding of influence and the practice of political leadership and persuasion.

POLI 63 First-Year Seminar: Social Movements and Political Protest and Violence (3). Unconventional collective political behavior: mass movements, riots, demonstrations, revolts, and revolution.

POLI 65 First-Year Seminar: Pressure and Power: Organized Interest in American Politics (3). An examination of the paradox of interest groups: a sign of democracy in new nations, yet ruining United States democracy? We address a variety of questions about organized interests.
POLI 66 First-Year Seminar: The United States and the European Union: Partners or Rivals? (3). The alliance between America and the European Union is one of the most important political relationships today.
POLI 67 First-Year Seminar: Designing Democracy (3). Introducing the study of using political institutions as levers of conflict management in ethnically plural, postconflict national states.

## POLI 70 First-Year Seminar: The Politics of the European

Union (3). This course examines the ongoing development of the European Union.

## POLI 71 First-Year Seminar: Politics of Race, Ethnicity,

 Language, Religion, and Gender (3). This course explores the concepts of race, ethnicity, language, religion, and gender in a comparative context in order to gain a better understanding of their application in the United States.POLI 72 First-Year Seminar: Entrepreneurship in Community and Economic Development (3). This is a survey course of entrepreneurial strategies as they are used in community and economic development. It involves an individual research or service project by each student.
POLI 73 First-Year Seminar: Politics and Animal Life (3). Humans and animals have always lived together. Increasingly, philosophers question the exclusion of animals from political life. We explore their centrality to political thought and consider important aspects of human-animal relationships today. Finally, we reexamine the claim that animal life is incongruent with political life.

POLI 74 First-Year Seminar: Utopias and Dystopias (3). Focuses on the political imagination of a variety of thinkers and on the political ideas and ideals of utopias and dystopias. Through novels, prose descriptions of a utopia, and films we will investigate what utopias and dystopias tell us about our society and how the genre changed over time.

POLI 89 First-Year Seminar: Special Topics (3). Course content will vary each semester.

## POLI 100 Introduction to Government in the United States

(3). An introductory course designed to explain the basic processes and issues of the American political system.
POLI 101 State and Local Government in the United States (3). An introductory course on the government, politics, and policies at
the state and local levels of the United States federal system.
POLI 130 Introduction to Comparative Politics (3). This course highlights the comparative method by seeking to understand differences among diverse states on several continents.
POLI 131 Political Change and Modernization (3). An overview of politics and government in the Third World, emphasizing characteristics, problems, and solutions (successful and otherwise) common to nations making the attempt to modernize.

POLI 150 International Relations and World Politics (PWAD
150) (3). The analysis of politics among nations.

POLI 190 Undergraduate Seminar (3). A detailed examination of selected topics in the field of political science.

POLI 193 Internship in Political Science (3). Required preparation, six hours of POLI course credit. An opportunity to obtain credit for an internship in a government or public service organization. Pass/Fail only. Does not count toward the political science major. Requires permission of the department. Open to political science majors only.
POLI 196 Independent Study in Political Science (1-3). Permission of the director of undergraduate studies. Readings and research under the supervision of a member of the department. Open to political science majors.

POLI 200 The President, Congress, and Public Policy (3). An analysis of the roles and influence of the President, the Congress, and other participants in the making of national policy.

POLI 201 Politics of Bureaucracy (3). Problems of the public service; internal dynamics of public organizations; acquisition and allocation of public funds; the roles of bureaucracy in relation to public policy, clients, the citizenry, and society.
POLI 202 The United States Supreme Court (3). Examination of the process of policy making on the Supreme Court. Focuses upon the selection of justices, factors affecting the court's decision making, and the impact of its policies.

POLI 203 Race, Innocence, and the Decline of the Death Penalty (3). A large majority of Americans supports the death penalty in the abstract, but the number of death sentences and executions has been declining since the mid-1990s. This course explores the decline of the death penalty by looking at race, questions of innocence, and the new politics of capital punishment.

## POLI 206 Ethics, Morality, Individual Liberty, and the Law

 (3). This course introduces students to moral and ethical issues that arise when individual rights conflict with the law and the central role race plays in American society's response.POLI 207 The Politics of Organized Interests (3). This course examines how interests organize themselves, enter into and then interact within interest communities, and seek to influence government policy through electoral activity and lobbying legislators, executives, and courts.

POLI 208 Political Parties and Elections (3). An analysis of the dynamics of party alignment and realignment and of nomination and election to public office in American national government.

POLI 209 Analyzing Public Opinion (3). A study of forces affecting public opinion and its expression in various political activities. Emphasis on gathering and analyzing opinion data. Course may be taught in the computer classroom.
POLI 210 Global Issues in the 20th Century (ANTH 210, GEOG 210, GLBL 210, HIST 210) (3). See GLBL 210 for description.

POLI 215 Political Psychology: An Introduction (3). Findings of the behavioral sciences are examined as they relate to politics. Includes such issues as human nature, community, political socialization, alienation, mass movements, belief systems, and personality.

POLI 216 Constitutional Democracy (3). Examines the theory and practice of constitutional democracy, including the process of constitution writing, constitutional maintenance, and constitutional change, with special emphasis on the United States Constitution.
POLI 217 Women and Politics (WMST 217) (3). A comparison of men and women as political actors at the mass and elite level in America. Topics considered include the "gender gap," the women's movement, abortion, and the Equal Rights Amendment.

POLI 218 Politics of Sexuality (WMST 218) (3). Examines the role of lesbians, gays, and bisexuals as political actors in the United States, both as individuals and collectively as a social movement.

## POLI 219 Violence against Women: The Legal Perspective

 (WMST 219) (3). This course examines violence against women by examining theories, causes, and contributing factors surrounding violence against women.POLI 220 Race, Ethnicity, and Electoral Representation in the United States (3). This course examines the electoral representation of racial and ethnic minorities in the United States. While multiple ethnic groups are studied, there will be an emphasis on the two largest minority groups in the country: Latinos and African Americans.

POLI 230 Democracy and Citizenship (3). An introduction to the life of the citizen in modern democracies: conceptions of citizenship, patriotism, political identities, tolerance, conceptions of rights and duties, civic engagement, civility, discussing public affairs, and democratization.

POLI 231 Latin America and the United States in World Politics (3). A survey of the events, institutions, and issues that have dominated relations between Latin America and the United States.

POLI 232 Politics of the United Kingdom (3). An introduction to contemporary UK politics emphasizing the political battle between socialist and conservative ideologies.

POLI 235 Politics of the Soviet Union and Its Successor States (3). Factors and forces that explain the rise and demise of the Soviet political system and consideration of emerging new political configurations in the area.
POLI 236 Politics of East-Central Europe (3). Examines contemporary politics in east-central Europe by looking at the communist period, the 1989 revolutions, and the political,
economic, and social transformations underway in the area.
POLI 237 The Politics of China (3). An introduction to the politics of People's Republic of China with a focus on the Reform Era. Provides a working knowledge for understanding political events in contemporary China in three parts: historical background, evolution of political institutions, and changing relations between ordinary people and the Chinese state.

POLI 238 Contemporary Latin American Politics (3).
An introduction to contemporary political conditions in Latin America, including consideration of leading theoretical explanations. Country emphasis varies with instructor.

POLI 239 Introduction to European Government (EURO 239) (3). A treatment of the political institutions and processes of western European democracies, with special attention to France, Germany, England, and Italy.
POLI 240 African American Politics (AAAD 240) (3). See AAAD 240 for description.

POLI 252 International Organizations and Global Issues (PWAD 252) (3). Examines international organizations and their relationships with and impact upon international politics, international law, and selected global issues.
POLI 253 Problems in World Order (PWAD 253) (3). An examination of selected topics in international relations, such as security and defense, international integration, and north-south relations.

POLI 254 International Environmental Politics (ENEC 254)
(3). Covers the politics of environmental issues, with a focus on issues that have become internationalized. It focuses on the special problems that arise in creating rules for environmental management and regulation when no single government has authority to enforce those rules.
POLI 255 International Migration and Citizenship Today (3). This class explores the moral, economic, political, and cultural dimensions of international migration. It is discussion-based and tackles such thorny questions as, Do we have an obligation to let poor people into our rich country? What constitutes persecution? How do foreigners affect national identity? How should citizenship be allocated?
POLI 257 Society and Culture in Postwar Germany (GERM 257, HIST 257, SOCI 257) (3). See GERM 257 for description.
POLI 259 Evolution of the International System (3). An examination of changes in the nature of the international system from about 1870 to the present, emphasizing changing patterns of alliance politics and crisis behavior.

POLI 260 Crisis and Change in Russia and East Europe (PWAD 260, RUES 260, SOCI 260) (3). Draws on historical, political, economic, and sociological perspectives to analyze social, cultural, and institutional change.
POLI 265 Feminism and Political Theory (WMST 265) (3). Introduction to feminist theory and its implications for the study and practice of political theory. Topics: women in feminist critiques of the Western political tradition, schools of feminist political theory.

POLI 270 Classical Political Thought (3). Survey designed to introduce students to major political thinkers and ideas of the ancient world and of the medieval period.

POLI 271 Modern Political Thought (3). Survey course designed to introduce students to major political thinkers and schools of thought dating roughly from the 16th century to the present.

POLI 272 The Ethics of Peace, War, and Defense (PHIL 272, PWAD 272) (3). See PHIL 272 for description.

POLI 274 African American Political Thought (3). A consideration of the political thought of African Americans, particularly within the context of the broader spectrum of American political thought, and both as reaction and contribution to that thought.

POLI 276 Major Issues in Political Theory (3). An examination of major issues in political thought, including equality; obedience; violence and nonviolence; justice; forms of social, economic, and political life; liberty; and human nature and politics.

POLI 280 American Political Thought (3). A survey course in American political ideas from the 17th century to the present, with emphasis on the role of politics, society, and economy in American thought.
POLI 281 Quantitative Research in Political Science (3). An introduction to 1) conceptual foundations of scientific study of politics, 2) research design, 3) descriptive statistics, and 4) inferential statistics. To accomplish these goals, the course employs class lectures, readings, and problem set assignments.

POLI 285 Research Methods and Experiments (3). This course is designed to provide students with a thorough understanding of the various quantitative research methods available to researchers in social science. No prerequisite is required. The course will focus on experimental methods in political science, including laboratory experiments, field experiments, and survey experiments.
POLI 287 Strategy and International Relations (PWAD 287) (3). Introduction to the study of strategic decision making in international relations, with an emphasis on the application of basic game theoretic models. Incorporates in-class simulations of international relations scenarios.

POLI 288 Strategy and Politics (3). Offers an introduction to positive political theory, the application of rational choice analysis (or economic models) to the study of political phenomena. Topics include social choice theory, legislative voting, problems of cooperation and collective action, and public choice theory. Encourages students to think about politics from a critical vantage point.
POLI 333 Race and Public Policy in the U.S. (AAAD 333) (3). See AAAD 333 for description.

POLI 381 Great Decisions (2). Major issues of contemporary international relations, in conjunction with the Great Decisions lecture series. May be repeated for credit once unless credit has already been received for GLBL 381. May not be taken in the same semester as GLBL 381.

POLI 384 Introduction to Philosophy, Politics, and Economics (ECON 384, PHIL 384) (3). See PHIL 384 for description.

POLI 400 Executive Politics (3). This course explores how presidents select policy options, how they decide timing, what shapes their congressional support, and how they build successful coalitions.

POLI 401 Political Economy I: The Domestic System (3). Problems of the national government in managing capitalist development and economic growth; political constraints; patterns of conflict among domestic actors.

POLI 404 Race, Immigration, and Urban Politics (3). Prerequisite, POLI 100. This course provides a survey of the literature on race, immigration, and urban politics in the contemporary United States. The goal is to understand the complex relationship between racial/ethnic identity and local political processes. Students explore topics such as police brutality, immigration, the education system, and coalition politics.

POLI 406 State Governments: Laboratories of Democracy (3). Prerequisite, POLI 100 or 101. Advanced topics in state government and politics, including political behavior and processes, governmental institutions, public policies. Emphasis on how states serve as the laboratories of democracy in a federal system.

POLI 409 Mock Constitutional Convention (3). Students employ their understanding of political philosophy and practical politics to write a new constitution for the United States. Emphasis is on creative blending of theory and practice.

POLI 410 The Constitution of the United States (3). A study of the fundamental principles of constitutional interpretation and practice in the United States by means of lectures, textbooks, and cases. Emphasis will be on the political context surrounding and the impact following Supreme Court decisions.
POLI 411 Civil Liberties under the Constitution (3). An analysis of the complex political problems created by the expansion of protection for individual liberties in the United States. Emphasis will be on contemporary problems with some supplemental historical background.
POLI 412 United States National Elections (3). Course studies United States presidential and congressional elections. Emphasis on individual vote, changing party strengths, and the relation of outcomes to policy.

POLI 414 The Adversary System (3). An overview of the theories, problems, and practices of police, courts, and corrections, and the values underlying our adversary system, especially with relation to constitutional principles, judicial integrity, and racial discrimination.

POLI 415 Criminal Law (3). This course is concerned with traditional substantive criminal law: crime, defenses and excuses to criminal liability, issues of morality attached to criminal law, constitutional limitations on punishments.
POLI 416 Constitutional Policies and the Judicial Process (PWAD 416) (3). Analysis of the structure and functions of judicial systems emphasizing the organization, administration, and politics of judicial bureaucracies and roles of judges, juries, counsel,
litigants, and interested groups in adjudication processes.
POLI 417 Advanced Political Psychology (3). Examines in greater depth issues in the field of political psychology, including conflict and conflict resolution, socialization, attitude formation, mass movements, leader-follower relationships, and psychobiography.
POLI 418 Mass Media and American Politics (3). Junior-senior standing required. Examination of the role, behavior, and influence of the mass media in American politics.

POLI 419 Race and Politics in the Contemporary United States (3). Restricted to juniors and seniors. Surveys the vast literature on race and politics in the contemporary United States and examines the complex relationship between racial and ethnic identity and political outcomes. It explores broad political science concepts in the context of racial and ethnic groups.
POLI 420 Legislative Politics (3). Examines the politics of the United States Congress. Emphasis on representation, the legislative process, and policy making.

POLI 421 Framing Public Policies (3). This course will focus on the process by which policies get framed, or defined, in public discussions. Framing is focusing attention on some elements of a complex public problem rather than others. Readings combine psychological background with case histories of United States and comparative public policy changes over time.
POLI 422 Minority Representation in the American States (3). This class explores the political representation of blacks, Latina/ os, women, and gays and lesbians in the American states. How do these groups achieve descriptive and substantive representation? How does state context shape the political representation of these minorities? Students taking this course should have a strong interest in state politics.

## POLI 423 Peace Settlements in Ethnically Divided Societies

 (PWAD 423) (3). Examines political peace settlements as components of conflict resolution in ethnically or regionally divided societies. The course identifies the aspects of negotiated settlements which seek to manage civil conflict.POLI 424 Legislative Procedure in Congress (3). Examines legislative procedure in Congress. Requires active participation in a Model Congress.
POLI 431 African Politics and Societies (3). The problems of race, class, and ideology are explored in the countries south of the Zambezi River, along with the political and economic ties that bind these countries.

POLI 432 Tolerance in Liberal States (3). This course will compare the theory and practice of tolerance in the United States and Europe, with particular attention to Great Britain and France.

POLI 433 Politics of the European Union (3). Examines the politics and political economy of institutional change and policy making in the European Union in comparative perspective.
POLI 434 Politics of Mexico (3). This course provides a survey of 20th-century politics in Mexico, including the construction of the single-party regime under the PRI and the political and economic
changes in the second half of the century that marked the end of the one-party regime and inaugurated a new era of political competition.

POLI 435 Democracy and Development in Latin America (3). The analysis of central issues of democracy and development in Latin America.

## POLI 436 Democracy and Development in Latin America

 (Spanish) (3). The analysis of central issues of democracy and development in Latin America.POLI 437 Political Change in Asia (3). This course will address how various nations in Asia are handling the pressures of democratization, the globalization of "democratic norms," and internal challenges to authoritarian regimes.
POLI 438 Democracy and International Institutions in an Undivided Europe (3). Explores the collapse of communist rule in 1989 and the reaction of international institutions to the challenges of democratization, economic transition, ethnic conflict, and European integration in an undivided Europe.

POLI 441 Israeli Politics and Society (3). This course will explore Israeli society, Israeli politics, and the Arab-Israeli conflict.
POLI 442 International Political Economy (EURO 442) (3). Prerequisites, ECON 101 and POLI 150. Theories of international political economy, major trends in international economic relations, selected contemporary policy issues.

POLI 443 American Foreign Policy: Formulation and Conduct (PWAD 443) (3). Prerequisite, POLI 150. Permission of the instructor for students lacking the prerequisite. The role of Congress, the press, public opinion, the president, the secretary and the Department of State, the military, and the intelligence community in making American foreign policy. Emphasizes the impact of the bureaucratic process on the content of foreign policy.
POLI 444 Seminar on Terrorism (PWAD 444) (3). This course explores the causes of terrorist behavior. The course also examines the government's response to terrorism, the internal implications of terrorists' campaigns, and prospects for conflict resolution.

POLI 446 Defense Policy and National Security (AERO 446, PWAD 446) (3). Prerequisite, POLI 150. Permission of the instructor for students lacking the prerequisite. A study of national defense policy as affected by the constitutional and political setting, as well as its relation to foreign policy. Some attention to strategic doctrine.

POLI 449 Human Rights and International Criminal Law (3). This course examines international efforts to punish genocide, crimes against humanity, and war crimes. The evolution of international criminal law, jurisdiction, remedies, problems, alternatives, and recent case studies is included.

POLI 450 Contemporary Inter-American Relations (3). A comprehensive analysis of hemispheric international relations and foreign policies of individual Latin American nations.
POLI 452 Africa and International Conflict (3). The purpose of this course is to examine Africa's conflicts using an historical examination and advances in international relations theory. We will
examine European colonial intervention, the wars of independence, the Cold War, and the use of proxies, insurgencies, the African World War, the Sudanese War, and the "war of terrorism."

## POLI 457 International Conflict Processes (PWAD 457) (3).

Analysis of international conflict and the causal mechanisms that drive or prevent conflict. Emphasis is on the conditions and processes of conflict and cooperation between nations.

POLI 458 International Conflict Management and Resolution (3). Prerequisite, POLI 150. Examines the management and resolution of international and civil wars.

POLI 469 Conflict and Intervention in the Former Yugoslavia (PWAD 469) (3). Focuses on ethnic and political conflicts in the former Yugoslavia and efforts by the international community to end conflict and promote peace and reconstruction.
POLI 470 Social and Political Philosophy (3). An examination of the logic of social and political thought with an analysis of such concepts as society, state, power, authority, freedom, social and political obligation, law, rights.

POLI 471 Recent Contemporary Political Thought (3). Survey of the historical foundations, central tenets, and political consequences of prominent 20th-century political theories. Topics include contemporary liberalism and Marxism, fascism, theories of development, populism, feminism.
POLI 472 Problems of Modern Democratic Theory (3). Major problem areas in democratic theory including definitions, presuppositions, and justifications of democracy, liberty, equality, minority rights, public interest, participation, dissent, and civil disobedience.

POLI 473 Politics and Literature (3). Identifies and interprets political ideas using historical and contemporary literary sources. Examines literature as political practice.
POLI 474 Religion and Politics (3). Examines the relationship between religion and politics, with emphasis on the United States. Topics include church-state issues, religious-political movements, religion and public policy, religion and voting.

POLI 475 Marxism and Socialism (3). A consideration of the political thought of major Marxist and socialist schools-including Marxism, Leninism, contemporary democratic and revolutionary socialism-with reference to utopian socialism and recent controversies on the left.

POLI 477 Advanced Feminist Political Theory (WMST 477)
(3). Examines in greater depth and complexity current issues in feminist political theory. Topics: theories of subjectivity and solidarity, feminist poststructuralist and post-Marxist thinking, gender in the public sphere.

POLI 488 Advanced Game Theory (3) Prerequisite, POLI 287 or 288. Increasingly, political and social scientists are using game theory to analyze strategic interactions across different settings. This course aims to give students a deep technical understanding of the most relevant concepts of game theory and how these concepts have been applied to the study of political and economic phenomena.

POLI 490 Advanced Undergraduate Seminar (3). A detailed examination of advanced special topics in political science.

POLI 630 Political Contestation in Europe (3). Permission of the instructor for undergraduates. Examines recent developments in the European integration process by exploring the potential for political contestation concerning European Union matters in national politics. Familiarizes students with the main theoretical approaches and the extensive empirical work dealing with the effects of European integration.

POLI 631 European Security: The Enlarging European Union and the Trans-Atlantic Relationship (3). Permission of the instructor for undergraduates. Since the collapse of communism from 1989 to 1991, the European Union has faced a fundamentally different geopolitical neighborhood and an evolving relationship with the United States. We will explore how Europe has addressed new challenges to its security in its neighborhood and beyond.

POLI 632 The European Union as a Global Actor (3). Permission of the instructor for undergraduates. This seminar introduces students to basic theoretical approaches to both international relations and the European Union by focusing on the European Union's external relations and foreign policies.

POLI 633 Tolerance and Liberal States (3). Permission of the instructor for undergraduates. This course examines tolerance and citizenship in the European Union and North America, with particular attention to the United States, Britain, France, Spain, Italy, Germany, and The Netherlands.
POLI 691H Honors Seminar in Research Design (3). Required of all students in the honors program in political science.

POLI 692H Honors Thesis Research (3). Required of all students in the honors program in political science.

POLI 693H Honors Thesis Research (3). Required of all students in the honors program in political science.
POLI 698 Philosophy, Politics, and Economics II: Capstone Course (ECON 698, PHIL 698) (3). See PHIL 698 for description.

## Department of Psychology

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Davie Hall, CB\# 3270; (919) 843-5467
DONALD T. LYSLE, Chair
Regina M. Carelli, Associate Chair
Jon S. Abramowitz, Associate Chair

## Introduction

In the undergraduate study of psychology, the emphasis is on a broad acquaintance with the behavioral sciences, not specialization. The subject matter is preparatory to a career in psychology either in basic research and teaching, or in any number of professional applications to various human problems. A psychology major may prove valuable to those planning other professional careers such as medicine, law, education, or business, as well as to those who seek a broad cultural background in the behavioral sciences. The courses in the department available to undergraduate students are listed on the following pages. No courses numbered 700 or above may be taken by undergraduate students. Consult the current directory of classes for each semester's offerings. PSYC 101 is prerequisite to ALL courses offered in the department except for first-year seminars, which are numbered below 100 . Students and their advisors should take careful note of the specified prerequisites for advanced offerings in this listing.

## Psychology Major, B.A.

## Core Requirements

- PSYC 101 with a grade of C or better (gateway course)
- PSYC 210 or 215
- PSYC 270
- One course below 400 from four of the five following psychology program areas: behavioral neuroscience (PSYC 220 or 225), clinical (PSYC 242 or 245), cognitive (PSYC 222, 225, or 230), developmental (PSYC 250), and social (PSYC 260). PSYC 225 can meet either the behavioral neuroscience or cognitive requirement, but not both.
- Two additional psychology courses numbered between 400 and 650; may not include PSYC 493
- Two additional psychology courses above 101; may include three hours of PSYC 395 and/or up to six hours of PSYC 693H or 694H; may not include PSYC 190


## Additional Requirements

- BIOL 101 and 101L
- One other physical and life sciences course, which must be from a department other than psychology
- One of COMP 101, 110, 116; MATH 130, 152, 231, 241
- Three social and behavioral science courses from two departments other than psychology; at least one of the three courses must be an historical analysis (HS) course
A student may submit a maximum of 45 hours of credit in psychology courses (including PSYC 101) toward the completion of the B.A. degree.


## Psychology Major, B.S.

## Core Requirements

- PSYC 101 with a grade of C or better (gateway course)
- PSYC 210 or 215
- PSYC 270
- One course below 400 each from the behavioral neuroscience (PSYC 220 or 225) and cognitive (PSYC 222, 225, or 230) psychology program areas. PSYC 225 can meet either the behavioral neuroscience or cognitive requirement, but not both.
- One course below 400 from two of the three following psychology program areas: clinical (PSYC 242 or 245), developmental (PSYC 250), or social (PSYC 260)
- Two additional psychology courses numbered between 400 and 650; may not include PSYC 493
- Two additional psychology courses above 101; may include three hours of PSYC 395 and/or up to six hours of PSYC 693H or 694 H ; may not include PSYC 190


## Additional Requirements

- BIOL 101 and 101L
- MATH 231 or 241
- One of COMP 101, 110, 116; MATH 232, 283
- At least four additional nonpsychology physical and life sciences courses, including one with a laboratory and one physical science course chosen from ASTR 101, 205; BIOC 107, 108; CHEM $70,71,72,101,102,102 \mathrm{H}, 200$; ENEC 202; GEOG 110, 111, 212; GEOL 70-77, 101, 103, 105, 109, 110, 111, 202, 204, 413, 478, 503, 506, 563; MASC 505, 506, 552, 561, 563; MUSC 51; PHIL 150; PHYS 51, 53, 54, 61, 63, 71, 100, 101, $104,105,114,115,116,117,118,119,131$
- One additional nonhistorical social and behavioral sciences Approaches course, which must be from a department other than psychology (the remaining three social and behavioral sciences Approaches courses must be from departments other than psychology)
All majors must complete PSYC 101 and at least six psychology courses above PSYC 101 with a grade of C (not C-) or better. Students planning to enter graduate programs in psychology are urged to include a research-intensive course such as PSYC 395, 470,530 , or 693 H and 694 H in their program and as many courses numbered 400 and above as possible.

Details of the student's program may be worked out in consultation with college and departmental advisors.

## Cognitive Science Minor

The cognitive science minor consists of five disciplinary areas: behavioral, biological, computational, linguistic, and philosophical. Each course, except the overview, falls into one or more disciplinary areas. Please refer to the appropriate departments for course descriptions.

Students must earn a grade of C or better in at least four of the five courses. Courses used to satisfy psychology core requirements cannot also satisfy requirements in the cognitive science minor. The minor is open to all, including psychology majors, who are still limited to no more than 45 credit hours in the department. Students and their advisors should take careful note of the specified
prerequisites for advanced offerings in this listing. The specified courses (or their equivalent from other institutions) provide a necessary background for entry into these advanced courses. Students interested in pursuing the minor should contact the program director for further information.

- PSYC 330 (prerequisites PSYC 101 and 210)
- Four other courses distributed over at least two disciplinary areas, at least two of which must be numbered 400 or above, as follows:
o Behavioral: ANTH 143; BIOL 278, 455; INLS 512; PSYC 222, 225, 230, 425, 430, 432, 433, 434, 461, 469
o Biological: BIOL 278, 455, 469; PSYC 225
${ }^{\circ}$ Computational: COMP 101, 116, 401, 455; INLS 382, 500, 509, 512, 523, 541, 582, 613; MATH 566; PSYC 433; STOR 215, 305, 435, 565
o Linguistic: ANTH/LING 520; INLS 512; LING 200, 201, 202, 401, 523, 540, 547; PHIL 145, 445; PSYC 432
o Philosophical: ANTH 146; ANTH/CMPL/FOLK 435; LING/ PHIL 455; PHIL 145, 155, 164, 230, 335, 340, 440, 445


## Neuroscience Minor

The minor is open to all students, including psychology majors. However, students should note that they are limited to no more than 45 credit hours within a specific department. Students must earn a grade of C or better in at least four of the five courses.

- PSYC 315 (prerequisite PSYC 101 or BIOL 101)
- Four courses distributed over at least two academic departments, selected from the following lists:
${ }^{\circ}$ Psychology: PSYC 225, 245, 320, 401, 402, 403, 404, 425, 426, 427, 428, 429, 431, 434, 437, 455, 469, 507, 533, 568, 602
o Biology: BIOL 252, 278, 431, 450, 451, 452, 455, 552
o Chemistry: CHEM 430
- Computer Science: COMP 555
o Exercise and Sport Science: EXSS 380
${ }^{\circ}$ Mathematics: MATH 383, 452, 528, 529, 547, 564, 566, 577
- Physics: PHYS 405
o Statistics and Operations Research: STOR 215, 445, 455, 456, 565


## Advising

All psychology majors have a primary academic advisor in Steele Building. Students are strongly encouraged to meet regularly with their advisor and review their Tar Heel Tracker each semester. Several faculty members (see list at psychology.unc.edu/ undergraduate-studies/academic-advising) are available to meet with current and prospective majors by appointment. Students who are considering graduate studies in psychology are particularly encouraged to contact departmental academic advisors. Additional information about courses, undergraduate research opportunities, the honors program, and the Psychology Club may be obtained from the department's Web site.

## Special Opportunities in Psychology

Honors in Psychology

Any major in the program with an overall grade point average of 3.3 or higher and a psychology grade point average of at least 3.5 is eligible for enrollment in the departmental senior honors program. Each candidate for honors participates in a two-semester course sequence (PSYC 693 H and 694 H ) and carries out independent research in an area of the student's choice under the guidance of a psychology faculty member. Please see the department Web site for the application form and additional information (psychology.unc. edu/undergraduate-studies/honors-program).

## Departmental Involvement

Membership in the Psychology Club is open to any interested psychology major. There is no minimum grade point average requirement. The club meets frequently to discuss psychologyrelated topics and learn about careers in psychology.

## Experiential Education

Several opportunities for experiential education are available. The Karen M. Gil Internship Program offers both course credit and a monthly stipend to selected psychology majors who are placed in approved internship sites in the community. Interns are selected through a competitive process (minimum grade point average is 3.4). See psychology.unc.edu/undergraduate-studies/gil-internship for more information. Other experiential education opportunities include PSYC 395 Independent Research; PSYC 294 Service Learning in Psychology; APPLES, performed either through the APPLES program or in conjunction with a specific psychology class; and other classes for which service learning is a central focus. See course listings for details.

## Undergraduate Awards

The David Bray Peele Award (administered in the Department of Psychology) and several fellowships and grants administered through the UNC Office for Undergraduate Research are available to students who conduct research in psychology. Each year, the Dashiell-Thurstone Prize is awarded for the best undergraduate research project. An additional honor is election to Psi Chi, the national honor society for psychology undergraduates. Psychology majors who have completed at least three courses in psychology and who have a grade point average of at least 3.2 at UNC-Chapel Hill will be invited to join Psi Chi.

## Undergraduate Research

Qualified students interested in doing independent research under the direction of a faculty member may enroll for independent research credit (PSYC 395). Students interested in this option should speak directly with psychology faculty members regarding opportunities in their laboratories. Additional information is available at psychology.unc.edu/undergraduate-studies/ undergraduate-research.

## Graduate School and Career Opportunities

Both the B.A. and B.S. degree programs prepare students for entry into graduate programs in psychology and a large number of related areas. Both programs, augmented by courses dictated by various graduate and professional schools, also provide training that has proved beneficial for those applying to business, law, and medical schools.

Undergraduate psychology majors seek and find employment in a wide range of occupations, and many continue their education and training in graduate school. Students should understand that many of the occupations traditionally associated with psychology (e.g., clinical psychologist) are licensed specialties that require graduate training.

## Faculty

## Professors

Jonathan S. Abramowitz, Donald H. Baucom, Daniel J. Bauer, Regina M. Carelli, Martha J. Cox, Patrick Curran, Linda A. Dykstra, Barbara L. Fredrickson, Karen M. Gil, Peter C. Gordon, Mark Hollins, Joseph Hopfinger, Andrea M. Hussong, Deborah J. Jones, Beth E. Kurtz-Costes, Joseph C. Lowman, Donald T. Lysle, Neil Mulligan, Peter A. Ornstein, Abigail T. Panter, B. Keith Payne, David Penn, Mitchell J. Picker, Mitchell J. Prinstein, J. Steven Reznick, Paschal J. Sheeran, Todd Thiele, David M. Thissen, Eric A. Youngstrom.

## Associate Professors

Jennifer Arnold, Anna Bardone-Cone, Carol L. Cheatham, Stacey B. Daughters, Enrique W. Neblett, Jean Louis Gariepy, Kelly Giovanello.

## Assistant Professors

Sara B. Algoe, Charlotte A. Boettiger, Laura Castro-Schilo, Sylvia Fitting, Kathleen M. Gates, Kurt J. Gray, Kristen A. Lindquist, Kathryn J. Reissner, Lilly Shanahan.

## Clinical Professors

Erica Wise, Jennifer K. Youngstrom.
Research Associate Professor
Montserrat N. Thiele.

## Research Assistant Professors

Aaron Boulton, Nisha Gottfredson, April Harris-Britt, Nicole Heilbron, John Sideris.

Adjunct Professor
Gordon Pitz.
Adjunct Assistant Professors
Deanna Larus, William Sampson.

## Senior Lecturers

Elizabeth Jordan, Jeannie Loeb, F. Charles Wiss, Viji Sathy.

## Lecturers

Steven Buzinski, Desiree Griffin, Marsha Penner.

## Professors Emeriti

Paul M. Brinich, Elliot M. Cramer, David Eckerman, Samuel Fillenbaum, Chester A. Insko, Edward S. Johnson, Lyle V. Jones, Richard King, Robert C. MacCallum, Paul G. Shinkman, Vaida M. Thompson.

## Contact Information

Dr. Beth Kurtz-Costes, Director of Undergraduate Studies, CB\# 3270, 221 Davie Hall, (919) 962-4137, bkc@unc.edu.

Dr. Beth Jordan, Associate Director for Undergraduate Studies, CB\# 3270, 334 Davie Hall, (919) 843-7759, eajordan@email.unc. edu.

Dr. Steven Buzinski, Director of the Karen M. Gil Internship Program, CB\# 3270, 236 Davie Hall, (919) 843-7753, buzinski@ email.unc.edu.

Dr. Marsha Penner, Director for Undergraduate Research in Psychology, CB \#3270, 237 Davie Hall, (919) 962-4942, mpenner@email.unc.edu.

Mr. Christopher Coffey, Student Services Manager, CB\# 3270, 203
Davie Hall, (919) 962-7149, ctcoffey@email.unc.edu.
Ms. Lori Shamblin, Undergraduate Instructional Program Coordinator, CB\# 3270, 235 Davie Hall, (919) 962-4155, Lori_ Shamblin@unc.edu.

Ms. Dana Ripperton, Program Manager, Karen M. Gil Internship Program, CB \#3270, 213C Davie Hill, (919) 962-4977, dripperton@unc.edu.

Follow us on Twitter (@uncCHpsych) and Facebook (facebook. com/uncCHpsychology).

## Courses

PSYC-Psychology
PSYC 50 First-Year Seminar: Stress Management (3). This course will address basic stress management skills; how to develop emotion-focused coping skills and how to use exercise, time management, and assertive communication skills to reduce stress.
PSYC 51 First-Year Seminar: The Mind and the Computer (3). This course will examine the nature of human thought in relation to the operations of contemporary computers and will also consider how computers will likely develop in the future.

PSYC 52 First-Year Seminar: Evolutionary Psychology (3). Students will gain an in-depth understanding of evolutionary psychology, a current amalgam of evolutionary biology, psychology, and anthropology that aims to view complex social and personality features of human behavior.
PSYC 53 First-Year Seminar: Talking about Numbers:
Communicating Research Results to Others (3). This course introduces the many ways that research results are disseminated to the public in our everyday lives-through advertising and mass media, Internet, and research-based policy statements.
PSYC 54 First-Year Seminar: Families and Children (3). This course will consider family from a life-course perspective and family
influences on child development. Research and theory concerning divorced and step families, single parents, gay and lesbian parents, and family processes that shape children's development will be examined.

PSYC 55 First-Year Seminar: Children's Eyewitness Testimony (3). The course will address relevant literature on children's memory and cognition involving allegations of child sexual abuse.

PSYC 56 First-Year Seminar: Human Infancy (3). The goals of this course are to describe what we know about the psychological development of human infants, to evaluate the procedures that have given rise to that knowledge, and to explore the implications of the knowledge.

PSYC 58 First-Year Seminar: The Psychology of Mental States and Language Use (3). Examines how language use is affected by one's reasoning about the mental activities of others. We will examine the development of language, adult language use, and the language of autistic individuals, who are known to have difficulty reasoning about others' minds. This seminar will follow a discussion format.

## PSYC 62 First-Year Seminar: Positive Psychology: The Science

 of Optimal Human Functioning (3). This course invites students to explore the opportunities presented by the vibrant and emerging field of positive psychology.PSYC 64 First-Year Seminar: Prejudice and Stereotyping (3). This course explores the psychological underpinnings of prejudice and discrimination.

## PSYC 65 First-Year Seminar: Judgment and Decision Making

 in Everyday Life (3). This course focuses on understanding people's judgment and decision-making processes in everyday life. Students will draw upon other areas of psychology and other interdisciplinary approaches (e.g., economics, decision sciences).PSYC 66 First-Year Seminar: Eating Disorders and Body
Image (3). Students will learn about anorexia and bulimia nervosa, as well as prevention and treatment efforts. The course explores factors related to these disorders and body image from a psychosocial perspective. Learning will occur through discussions, readings, videos, guest speakers, experimental assignments, writing assignments, and research projects.

PSYC 67 First-Year Seminar: The Senses of Animals (3). This course deals with the sensory systems of animals. A description of the human senses is included, but senses that differ from our own are emphasized. Some treatment of research methods is also included. Classes will be a mixture of lecture, discussion, and student reports.
PSYC 68 First-Year Seminar: Psychology of Emotion (3). This first-year seminar is designed for students interested in exploring the psychological study of emotion. Topics include theoretical models of emotion process and structure, as well as a review of research questions about emotional expressions, autonomic physiology, affective neuroscience, emotion and reasoning, emotion and health.

PSYC 89 First-Year Seminar: Special Topics (3). Content varies by semester.

PSYC 101 General Psychology (3). A survey of major principles of psychology and an introduction to scientific modes of thought about behavior. Students participate in ongoing psychological research in the department. PSYC 101 is a prerequisite for all psychology courses.
PSYC 190 Special Topics in Psychology (3). An undergraduate seminar course that is designed to be a participatory intellectual adventure on an advanced, emergent, and stimulating topic within a selected discipline in psychology. This course does not count as credit towards the psychology major.

PSYC 210 Statistical Principles of Psychological Research (3). Prerequisite, PSYC 101. Consideration of the methodological principles underlying psychological research, descriptive and inferential techniques, and the manner by which they may be employed to design psychological experiments and analyze behavioral data. Three lecture hours and one laboratory hour a week.

PSYC 215 Statistical Principles of Psychological Research (B.S. Majors) (3). Prerequisites, MATH 231 and PSYC 101. Considers the methodological principles underlying psychological research, descriptive, and inferential techniques. This section is for students in the B.S. psychology program or for B.A. students with a calculus background and strong interest in quantitative psychology. Note: PSYC 215 will substitute for PSYC 210 as a prerequisite for other psychology courses.

PSYC 220 Biopsychology (3). Prerequisite, PSYC 101. Study of the biological basis of behavior. Emphasis will be placed on human findings and applications.
PSYC 222 Learning (3). Prerequisite, PSYC 101. Topics in conditioning, verbal learning, memory, and problem solving.

PSYC 225 Sensation and Perception (3). Prerequisite, PSYC 101. Topics in vision, audition, and the lower senses. Receptor mechanisms, psychophysical methods, and selected perceptual phenomena will be discussed.
PSYC 230 Cognitive Psychology (3). Prerequisite, PSYC 101. Topics in attention; memory; visual, auditory, and other forms of information processing; decision making; and thinking.

PSYC 242 Introduction to Clinical Psychology (3). Prerequisite, PSYC 101. Overview of clinical psychology: history, scientific basis, and major activities and concerns, including assessment, psychotherapy and other psychological interventions, community psychology, ethics, and professional practice. Students may not receive credit for both PSYC 242 and 505.

PSYC 245 Abnormal Psychology (3). Prerequisite, PSYC 101. Major forms of behavior disorders in children and adults, with an emphasis on description, causation, and treatment.
PSYC 250 Child Development (3). Prerequisite, PSYC 101. Study of the development of social and intellectual behavior in normal children and the processes that underlie this development. Emphasis is typically on theory and research.
PSYC 260 Social Psychology (3). Prerequisite, PSYC 101. Introductory survey of experimental social psychology covering attitudes, interpersonal processes, and small groups.

PSYC 270 Laboratory Research in Psychology (4). Prerequisites, PSYC 101, and 210 or 215. Experiments in biological, behavioral, cognitive, developmental, personality, and social psychology will be discussed, prepared, performed, and reported. One lecture hour and four laboratory hours per week.
PSYC 290 Current Topics in Psychology (1-3). Prerequisite, PSYC 101. Various special areas of psychological study, offered as needed. Course may be repeated for credit.

PSYC 294 Service Learning in Psychology: APPLES (1-3). Permission of the instructor. Service-learning component for students enrolled in psychology APPLES courses. May not count toward the major.

## PSYC 310 Applied Statistical Methods in the Psychological

 Sciences (3). Prerequisite, PSYC 210, SOCI 252, or STOR 155. This course extends statistical and data analytic concepts covered in PSYC 210 with direct applications to empirical data commonly encountered in psychological research. Topics include measurement, group comparisons, linear associations, and prediction. An equal balance is placed on statistical concepts, computer-based data analysis, and interpretation of findings.PSYC 315 Introduction to Neuroscience (3). Prerequisite, PSYC 101 or BIOL 101. Neuroscience seeks to understand the structure and function of the nervous system and brain. This course provides a broad overview of the field. Topics include current methods used in neuroscience, the function of nerve cells, neuroanatomy of the mammalian brain, neuroplasticity, and diseases of the brain.
PSYC 320 Drugs and Human Behavior (3). Prerequisite, PSYC 101. This course will examine the use of drugs to alter behavior. Social implications of drug use and methods for preventing and treating drug abuse also will be considered.

## PSYC 330 Introduction to Cognitive Science (3).

Prerequisites, PSYC 101, and 210 or 215 . An introduction to the interdisciplinary study of the mind, intelligent behavior, information processing, and communication in living organisms and computers.
PSYC 390 Current Topics in Psychology (1-3). Prerequisite, PSYC 101. Various special areas of psychological study, offered as needed. Course may be repeated for credit.

PSYC 395 Independent Research (1-3). Prerequisite, PSYC 101. Also required, two additional psychology courses, at least one of which must be numbered 200 or greater, a minimum of a 2.5 grade point average, and permission of the instructor. Supervised research resulting in a written report. May be repeated for credit up to six hours.

PSYC 400 Conditioning and Learning (NBIO 400) (3). Prerequisites, PSYC 101 and 222. A comprehensive survey of the methods, findings, and theories of classical and operant conditioning. Skills necessary to evaluate, integrate, and summarize significant original literature will be developed.

PSYC 401 Animal Behavior (NBIO 401) (3). Prerequisites, PSYC 101, and BIOL 101 or PSYC 222. PSYC 270 recommended. Ethological, genetic, and physiological variables will be studied in relation to their behavioral effects.

PSYC 402 Advanced Biopsychology (NBIO 402) (3). Prerequisites, PSYC 101 and 220. Elements of neurophysiology, neuroanatomy, and neurochemistry as they apply to the understanding of brain-behavior relationships.
PSYC 403 Advanced Biopsychology Laboratory (3).
Prerequisites, PSYC 101, and 220 or 402. "Hands on" laboratory course designed to introduce students to experimental protocols emphasizing "brain-behavior" relationships. Topics include gross neuroanatomy, stereotaxic surgery, and the effects of drugs on behavior.

PSYC 404 Clinical Psychopharmacology (3). Prerequisite, PSYC 101. This course will investigate the pharmacological effects and the clinical efficacy of drugs used to treat behavior disorders.
PSYC 415 History of Neuroscience (3). Prerequisite, PSYC 220 or 315. In this class, we will consider how neuroscience emerged as a multidisciplinary field. The class will cover key research findings that propelled the field forward. We will also delve into the autobiographies of some of the pioneering researchers who made these important discoveries.

PSYC 425 Advanced Perceptual Processes (3). Prerequisites, PSYC 101, and one of PSYC 220, 225, or 230. The perception of objects and events; the role of cognitive factors in perception.
PSYC 426 Molecular Mechanisms of Memory (3). Prerequisite, PSYC 220 or 315 . This course focuses on current knowledge about the cellular and molecular basis of learning and memory. Course material focuses primarily on hippocampus-dependent memory, considering behavior, cellular physiology, and molecular and genetic contributions. In addition, we will consider learning and memory disorders, including Alzheimer's disease.

PSYC 427 Neurobiology of Aging (3). Prerequisite, PSYC 220 or 315 . This course will survey clinical and experimental literature regarding the neurobiology of aging, considering different theories of aging, how aging is studied in the laboratory, and recent findings. Biochemical, molecular, physiological, and behavioral changes associated with both "normal" and pathological aging will be considered.

PSYC 428 Neuroscience, Society, and the Media (3). Prerequisite, PSYC 220 or 315 . Neuroscience is a "hot" topic in popular media. In this course we will consider media coverage of neuroscientific research by reading the popular press versions of studies alongside the findings from primary sources. We will also consider what kinds of topics are most often covered by the media and why.

PSYC 429 Neuroeconomics and the Science of Consequence (3). Prerequisite, PSYC 220 or 315. This seminar will cover current research on psychological, economic, and neuroscientific aspects of decision-making behaviors. Topics will include decisions involving risk and uncertainty, decisions that involve learning from experience, and decisions in strategic interactions and games. In addition, we will consider the neural underpinnings of these processes.
PSYC 430 Human Memory (3). Prerequisites, PSYC 101, and 222 or 230 . This course explores classic and current issues in the study of human memory. Topics include working memory,
encoding and retrieval processes, implicit memory, reconstructive processes in memory, eyewitness memory, developmental changes in memory, neuropsychology and neuroscience of memory and memory disorders, memory improvement, and the repressed/ recovered memory controversy.

PSYC 432 Psychology of Language (3). Prerequisites, PSYC 101 and 230, or LING 101, or 400 . This course examines the mental representations and cognitive processes that underlie the human ability to use language. Covers what people know about language, how they process it, and how people make inferences about the speaker's meaning based on context. Recent work in experimental psycholinguistics is discussed.

PSYC 433 Behavioral Decision Theory (3). Prerequisite, PSYC 101. Simple mathematical and psychological models of judgment and choice, and related experiments, are treated, as are applications to real world problems in medical, environmental, policy, business, and related domains.

PSYC 434 Cognitive Neuroscience (3). Prerequisites, PSYC 101, and 210 or 215 ; and one of PSYC 220, 222, 225, 230, or BIOL 450,455 . Introduction to cognitive neuroscience. Higher mental processes including attention, memory, language, and consciousness will be covered, with an emphasis on the neural mechanisms that form the substrates of human cognition.

PSYC 436 Cognitive Science and the Novel (3). Prerequisite, PSYC 220, 222, 225, 230, 260, 330, 432, 433, or 469. Introduces topics in cognitive science by reviewing their use in recent novels. Explores their influence on the novel, and how the novelist might offer relevant insights.
PSYC 437 Neurobiology of Learning and Memory (3). Prerequisites, PSYC 101 and 220. BIOL 101 recommended. This course surveys current knowledge about and research into the neurobiological basis of learning and memory. Using a combination of lectures and student-led discussions, we will critically evaluate the molecular, cellular, systems, and behavioral research that strives to explain how the brain learns and remembers.

PSYC 461 Cognitive Development (3). Prerequisites, PSYC 101 and 250. An examination of the development of attention, perception, learning, memory, and thinking in normal children.
PSYC 463 Development of Social Behavior and Personality (3). Prerequisites, PSYC 101 and 250, and 210 or 215. Developmental processes during early childhood as these relate to social behavior and personality.

PSYC 465 Poverty and Development (3). Prerequisites, PSYC 101 and 250. Poverty is one of the most consistent and influential risk factors for problematic development. This course focuses on the scientific study of how poverty affects development across the human life span.

## PSYC 467 The Development of Black Children (3).

Prerequisites, PSYC 101 and 250. PSYC 210 or 215 recommended. A survey of the literature on the development of black children. Topics include peer and social relations, self-esteem, identity development, cognitive development, school achievement, parenting, family management, and neighborhood influences.

PSYC 468 Family as a Context for Development (3).
Prerequisites, PSYC 101 and 250, and 210 or 215. Explores how the family influences children's development. Topics include family theories, genetics, family structure (e.g., single parents, working mothers, divorce), discipline, parent behavior and values and beliefs, fathers and ethnic diversity.
PSYC 469 Evolution and Development of Biobehavioral Systems (3). Prerequisites, BIOL 101 and PSYC 101, and 210 or 215. Examines the evolution and development of behavior patterns and their physiological substrates.

PSYC 470 Developmental Research on the Family (3). Prerequisites, PSYC 101 and 250, and 210 or 215 . Child and adolescent development within the context of family is examined. Course topics include family theory, cognitive development, divorce, poverty, and gender. Each student will complete a research project.
PSYC 471 The Study of Adolescent Issues and Development
(3). Prerequisites, PSYC 101, 210 or 215 , and 250 . The developmental period of adolescence is studied from a multidisciplinary perspective. The course will distinguish among early, middle, and late adolescence and will cover several theoretical perspectives.

PSYC 472 Racial Discrimination and Minority Youth (3). Prerequisites, PSYC 101, 210 or 215, 250, and 260. This course examines the effects of racial discrimination among African American, Latino, Asian American, and Native American adolescents using a psychological perspective to critically examine empirical research. The course examines racial discrimination, power, and equity and is recommended for students interested in serious, thought-provoking discussions.

## PSYC 475 Practical Perspectives on Early Psychological Development: Parents, Practitioners, and Politicians (3).

 Prerequisites, PSYC 101, 210 or 215, and 250. A description and discussion of research on various aspects of early psychological development that are relevant for the decisions faced by parents, practitioners, and politicians.PSYC 490 Current Topics in Psychology (3). Various special areas of psychological study, offered as needed. Course may be repeated for credit.

PSYC 493 Internship in Psychology (3). Prerequisite, PSYC 101. Required preparation, minimum of two other psychology courses and junior/senior standing. Designed for highly motivated psychology majors interested in exploring professional opportunities in psychology-related areas. Students complete handson internships at community sites for approximately 120 hours across the semester. Students also attend a weekly one-hour class with other interns.

PSYC 500 Developmental Psychopathology (3). Prerequisites, PSYC 101, 245, and 250. A survey of theories bearing on atypical development and disordered behavior, and an examination of major child and adolescent behavior problems and clinical syndromes.

PSYC 501 Theoretical, Empirical Perspectives on Personality (3). Prerequisite, PSYC 101. An in-depth coverage of the traditional clinically based personality theories of the early 20th century contrasted with more recent empirically based perspectives.

## PSYC 502 Psychology of Adulthood and Aging (3).

Prerequisites, PSYC 101 and 250. A developmental approach to the study of adulthood, from young adulthood through death. Topics include adult issues in personality, family dynamics, work, leisure and retirement, biological and intellectual aspects of aging, dying, and bereavement.

PSYC 503 African American Psychology (3). Prerequisite, PSYC 101. This course examines race and culture in the psychological processes and behavior of African Americans.

PSYC 504 Health Psychology (3). Prerequisites, PSYC 101 and 245. An in-depth coverage of psychological, biological, and social factors that may be involved with health.

PSYC 506 Assessment and Treatment of Older Persons (3). Prerequisites, PSYC 101 and 245. Addresses methods to assess, treat, and rehabilitate older persons with serious mental health disorders.

PSYC 507 Autism (3). Prerequisites, PSYC 101, 245, and 250. Intensive service-learning seminar on autism includes a supervised community placement. Topics include historical diagnostic issues, etiological theories, assessing patterns of functioning, developmental/life span issues, family concerns, and intervention approaches.

PSYC 509 Applied Behavioral Analysis (3). Prerequisites, PSYC 101 and 245. PSYC 222 recommended. A survey of applications of learning theory in solving clinical, educational, and societal problems. Practicum experience included.

PSYC 512 Popularity, Friendship, and Peer Relations (3). Prerequisite, PSYC 101. This course will review literature regarding peer relations among children and adolescents, including peer acceptance/rejection, popularity, bases of friendship selection, peer crowds, romantic relationships, and theories of peer influence.

PSYC 514 Mania and Depression (3). Prerequisites, PSYC 101 and 245. The social, developmental, and biological contributions to mania and depression are examined, as well as the impact of these moods on the brain, creativity, relationships, quality of life, and health.

## PSYC 515 Psychological Approaches to Prevention Science

 (3). Prerequisite, PSYC 270. Permission of the instructor required. Prevention science is an interdisciplinary field between research and practice, with the goal of developing prevention programs for people's lives. Course will emphasize psychological approaches to preventing substance use as a motivating example. Discussions, lectures, a research project, and an experiential learning component.PSYC 516 Child Maltreatment, Trauma, and Trauma-Focused Treatment (3). Prerequisite, PSYC 101. This course offers a multidisciplinary perspective on child maltreatment, including the types of maltreatment to which children are exposed, the prevalence of child maltreatment, and the impact of maltreatment on individual, familial, and societal functioning.

PSYC 517 Addiction (3). Prerequisite, PSYC 101. PSYC 245 and 270 recommended but not required. This course will provide students with a comprehensive overview of the etiology and treatment of addiction, along with exposure to real-life stories of addiction.

PSYC 530 Design and Interpretation of Psychological
Research (3). Prerequisites, PSYC 101 and 270. Emphasis on the methodological principles underlying experimental and correlational research. Interaction of theory and practice in the design and interpretation of psychological studies.
PSYC 531 Tests and Measurement (3). Prerequisites, PSYC 101 , and 210 or 215 . Basic psychometric theory underlying test construction and utilization. Detailed study of issues and instruments used in assessing intellectual functioning, educational progress, personality, and personnel selection.

PSYC 532 Quantitative Psychology (3). Prerequisite, PSYC 210 or 215 or SOCI 252 or STOR 155. This course examines the science of quantitative psychology. Topics include the analysis of data, the design of questionnaires, and the assessment of psychological attributes, among others.
PSYC 533 The General Linear Model in Psychology (3). Prerequisite, ECON 400 or PSYC 210 or 215 or SOCI 252 or STOR 155. Consideration of multiple regression and the general linear model in psychological research, including hypothesis testing, model formulation, and the analysis of observational and experimental data.

PSYC 560 Self and Society (3). Prerequisites, PSYC 101 and 260, and 210 or 215 . PSYC 270 recommended. Content, structure, and functions of the self-concept. How the self-concept is shaped by society and developmental processes; ways in which the self-concept affects perception of others; self-esteem. Class participation and presentations required.
PSYC 561 Social Cognition (3). Prerequisites, PSYC 101 and 260 , and 210 or 215 . Theory and research in social psychology, which explores the cognitive processes underlying social phenomena. Specific topics covered include attributions, emotions, automaticity, heuristics, self, goals, stereotyping, expectancies, social motives, and others.

PSYC 563 Small Groups (3). Prerequisites, PSYC 101 and 260 , and 210 or 215 . Intensive survey of research and theory on behavior in small groups combined with appropriate experience in studying various structured groups.
PSYC 564 Interpersonal Processes (3). Prerequisites, PSYC 101 and 260 , and 210 or 215 . Intensive coverage of normal interpersonal processes, focusing on the dyad.

PSYC 565 Stereotyping, Prejudice, and Discrimination (3). Prerequisites, PSYC 101 and 260, and 210 or 215. PSYC 270 recommended. Examines the determinants, functions, processes, and consequences of stereotyping, prejudice, and discrimination. Prospects for change are considered. Class presentations and participation required.
PSYC 566 Attitude Change (3). Prerequisites, PSYC 101 and 260 , and 210 or 215 . A detailed consideration of the theoretical issues in attitude and belief change.

PSYC 567 Research in Positive Psychology (3). Prerequisites, PSYC 101 and 270, and 210 or 215. Majors only. This advanced course in positive psychology is research intensive and intended as a capstone for majors in psychology.

PSYC 568 Emotion (3). Prerequisite, PSYC 101. This course will provide a comprehensive overview of the scientific study of emotion. Topics will include theoretical models of emotion process and structure. A range of perspectives, including social, cultural, developmental, clinical, and cognitive psychology, as well as behavioral neuroscience, will be considered.

PSYC 569 Practical Wisdom from Advanced Social Psychology (3). Prerequisites, PSYC 101, 260, and 270. Surveys cutting-edge research across the field of social psychology and how it matters for everyday life. Topics include morality, mind perception, judgment and decision making, happiness, affective forecasting, emotion, relationships, negotiation, personality, free will, stress/health, and religion. Clear communication of research also emphasized through figures, presentations, and papers.

## PSYC 570 The Social Psychology of Self-Regulation (3).

 Prerequisites, PSYC 101, 260, and 210 or 215 . PSYC 270 recommended. An intensive review of self-regulation theory and research, focusing on the cognitive, motivational, and affective processes involved in goal commitment, monitoring, and overriding behavioral responses.PSYC 600 Historical Trends in Psychology (3). Prerequisite, PSYC 101. Limited to senior majors or to graduate students in psychology; others by permission of the instructor. Overview of the origins of psychological concepts, movements, and fields of study.

PSYC 601 Psychology and Law (3). Prerequisites, PSYC 101, and 210 or 215 . Examines the legal system from the perspective of psychology methods and research, with a focus on criminal law. Discusses dilemmas within the law and between the legal system and psychology.
PSYC 602 Evolutionary Psychology (3). Prerequisite, PSYC 101. Major topics of general psychology are examined from an evolutionary perspective with an emphasis on empirical studies asking why much current human behavior and experience would have been adaptive for our early ancestors.

PSYC 693H Honors in Psychology I (3). By application to the psychology honors committee and enrollment in the honors program. To be taken as the first course in the two-semester honors sequence. Students conduct research under the direction of a faculty advisor and receive classroom instruction in research-related topics.
PSYC 694H Honors in Psychology II (3). Prerequisite, PSYC $693 H$. Admission to the psychology honors program required. To be taken as the second course in the two-semester honors sequence. Students conduct research under the direction of a faculty advisor and receive classroom instruction in research-related topics.

## Department of Public Policy

publicpolicy.unc.edu
114 Abernethy Hall, CB\# 3435; (919) 962-1600
DANIEL P. GITTERMAN, Chair

## Introduction

Public policy is an interdisciplinary social science major designed to provide students with the theoretical perspective, analytical skill, and substantive knowledge needed to respond to major domestic and global policy problems.

The core curriculum includes exposure to multiple disciplinary fields, including economics, political science, policy analysis, philosophy, research methods, and statistics.

The undergraduate major in public policy provides students with conceptual and analytical skills that prepare them for work or graduate school. The combination of a liberal arts education, the development of writing and analytical abilities, and knowledge in a domestic or global policy field serves as the foundation for graduate work in many professions, including law, business, public policy, public and international affairs, social work, public health, education, and city and regional planning.

## Public Policy Major, B.A.

First-year and sophomore students considering a major in public policy are encouraged to complete PLCY 101 or 110.

## Core Requirements

- PLCY 210/210H Policy Innovation and Analysis
- PLCY 220 The Politics of Public Policy
- PLCY 340 Justice in Public Policy
- ECON 310 or 410, or PLCY 410 Microeconomics Foundations of Public Policy
- PLCY 460 Quantitative Analysis for Public Policy
- PLCY 581 Research Design for Public Policy
- PLCY 698 Senior Capstone in Public Policy or PLCY 692H Honors in Public Policy
- At least six credit hours of required electives. Three credit hours may be for a 100 - or 200 -level PLCY course. The remaining three credit hours must be for a field course at the 300 level or above. PLCY 130, 293 (formerly PLCY 320), and 393 (formerly 325) may not count as electives for the public policy major.
- Policy Field/Concentration (optional): Students who complete an additional three credit hours in a specific policy field may elect to graduate with a concentration. These additional three credit hours must be at the 300 level or above. PLCY 393 may not count as an optional field course. For students completing the honors thesis, PLCY 691H fulfills the field concentration. Common policy fields include child and family policy; economics, business policy, and community development; education policy; environment and sustainability; global studies; global and domestic health policy; law, governance, and the policy process; poverty and social justice; and social innovation and entrepreneurship.
Additionally, students may select courses across fields and design their own policy field. For information on which elective courses are recommended for each policy field, please confirm with the
director of undergraduate studies or the department's student services manager. The particular title of a policy field is not listed on students' diplomas or transcripts. The Department of Public Policy keeps records of student policy fields, and students are encouraged to list their policy field on their résumés.
Note: A maximum of 24 semester hours of courses from professional schools may be taken for credit toward the B.A. degree in the College of Arts and Sciences.

The following courses satisfy the electives requirement and optional policy field concentration:
o Any PLCY course at the 100 level or above, except PLCY 130 or 293 or 393
o AAAD 307, 412, 488, 485, 498; AMST 386, 390, 486; ANTH $312,318,319,344,360,377,380,422,429,439,440,441$, $460,470,491,502,537,567,585$; BUSI 404, 405, 500, 503, 504, 506, 512, 513, 515, 550, 551, 610, 611; COMM 312, $325,372,375,376,470,521,524,525,571,572,574,575$, 576, 624, 625, 652; ECON 320, 325, 363, 380, 385, 423, 430, 440, 445, 450, 454, 460, 465, 480, 511, 586; EDUC 401, 441, 506, 521, 533, 535; ENGL 364, 365; ENEC 306, 307, 308, 309, 330, 350, 351, 352, 370, 462, 474, 586, 685, 698; ENEC/ENVR 470, 585; ENEC/ENVR/PLAN/PLCY 686; ENEC/PHIL 368; ENVR 600; GEOG 370, 391, 414, $416,423,428,430,435,445,446,447,448,450,457,458$, 460, 470, 480, 481, 491, 541, 542; GLBL 382, 390, 394, 405, 406, 560; HBEH 611; HIST 365, 564, 566, 568, 569, 577, 580, 584, 589, 625; HNRS 352.01S, 352.02S, 357; HPM 310, 330, 340, 350, 351, 352, 404, 435, 465, 470; INLS 382, 461, 515; JOMC 340, 441, 442, 443, 445, 446, 451, 458, 551, 560; MASC 310, 314; MNGT 345, 365, 380, 410, 412, 415, 427; PHIL 364, 370, 384, 473, 480, 698; PLAN 330, 574, 585, $636,637,641,651,685$; POLI 400, 401, 405, 406, 411, 412, $414,416,418,419 \mathrm{H}, 420,430,431,433,434,436,437,438$, 442, 443, 444, 446, 447, 449, 457, 470, 472; PSYC 465, 467, $469,470,471,500,502,504,512,514,515,530,531,532$, 561, 565, 601; PUBH 510, 680; PWAD 350, 368, 395, 416, 443, 444, 453, 455, 460, 469, 574, 575, 577; RELI 423, 443; STOR 305, 358, 415, 455, 456; SOCI 410, 412, 415, 416, 418, 420, 422, 423, 424, 425, 426, 427, 431, 442, 444, 468, 469, 490; WMST 368, 388, 410, 436, 569, 610, 662

## Additional Requirements

- ECON 101

ECON 101 is a prerequisite for PLCY 410. PLCY 460 is a prerequisite for PLCY 698 and 691 H , and a pre- or corequisite for PLCY 581. PLCY 581 is a pre- or corequisite for PLCY 691H and 698.

## Program Restrictions

PLCY 130, 293, and 393 may not count as electives for a public policy major or field. A maximum of one three-credit independent study course (PLCY 395, 396, 496, 596, or 696) may be counted toward the elective for a public policy major or policy field. A maximum of one three-credit transfer or study abroad course, or two Burch Field Research Seminars in Domestic and International Affairs may be counted toward the elective for a public policy
major or field. For credit toward the major, an independent study proposal form must be completed by the student, approved by the independent study instructor, submitted to the student services manager, and approved by the director of undergraduate studies before the internship begins.

## Public Policy Minor

First-year and sophomore students considering a minor in public policy are encouraged to complete PLCY 101 or 110.

The undergraduate minor in public policy consists of five courses.

- Students must complete at least four of the following core courses:
o PLCY 210/210H Policy Innovation and Analysis
- PLCY 220 The Politics of Public Policy
o PLCY 340 Justice in Public Policy
- ECON 310 or 410, or PLCY 410 Microeconomics Foundations of Public Policy
o PLCY 460 Quantitative Analysis for Public Policy
o PLCY 581 Research Design
- One additional PLCY course at the 100 level or above (not including PLCY 130).
The regulations governing a minor in an interdisciplinary department, as set forth in this bulletin, apply to the minor in public policy.


## Advising

All majors and minors have a primary academic advisor in Steele Building. Students are strongly encouraged to meet regularly with their advisor and review their Tar Heel Tracker each semester. The Department of Public Policy's director of undergraduate studies and student services manager work with current and prospective students by appointment (see "Contact Information" below). For additional information on courses, undergraduate research opportunities, and faculty in the department, see publicpolicy.unc. edu/academics/undergraduate-program.

## Special Opportunities in Public Policy

## Honors in Public Policy

Some students cap their undergraduate experience with a senior honors thesis, partnering with a faculty mentor to develop original research and creative work. Students who successfully defend their theses before a faculty review panel graduate with honors or highest honors.

Students begin the program by taking PLCY 691H Honors in Public Policy in the first semester of their senior year. During this course students will work under the direction of their thesis advisor to complete a research proposal, obtain Institutional Review Board (IRB) approval for the research proposal, and complete the first two chapters of their proposed thesis.

If the research proposal is approved by the IRB and the first two chapters are approved by the thesis advisor, students continue their thesis research in the second semester under the direction of a faculty advisor in PLCY 692H. Upon successful completion of the written thesis and an oral examination of the thesis research, the student may graduate with honors or highest honors.

To be admitted to the honors program, students must have at least a 3.3 overall grade point average and 3.5 in the core public policy courses. Core public policy courses include PLCY 210, 220, 340, 460, 581, and ECON 310 or 410 or PLCY 410. Honors students should also have completed at least four core courses in the public policy major, including the prerequisites for PLCY 691 H (PLCY 460 and 581). In addition, they should have a written recommendation from at least one faculty member in public policy agreeing to serve as their thesis advisor. Students interested in participating in the honors program should contact the department's director of undergraduate studies and submit an application form prior to registering for PLCY 691H. For more information, see publicpolicy.unc.edu/undergraduates/honors.

The honors thesis provides a total of six credit hours toward the major. The completion of PLCY 691H provides three credits toward a policy field concentration. For December graduates, the honors thesis must be submitted to the department and approved by early November. For May graduates, the honors thesis must be submitted to the department and approved by early April.

## Undergraduate Research

Most courses in public policy include a research component. In addition, the department offers opportunities for students to work directly with a faculty member on a research project through independent study. The honors thesis process enables students to undertake a major independent policy research project. PLCY 195, $210 / 210 \mathrm{H}, 296,393,396,496,596$, and 698 are designated as research-intensive courses, and PLCY 460 and 581 are designated as research methods courses by the Office for Undergraduate Research. Earning a grade of C or higher in any of these courses partially fulfills the requirements for the Carolina Research Scholar designation. The Duncan MacRae Jr. Public Policy Fund provides grants on a competitive basis to public policy majors engaged in mentored research with a public policy faculty member, policy-relevant independent research, and honors theses in public policy.

## Experiential Education

Students are encouraged to gain experience through their senior capstone course, through internship placements, and through other experiential education opportunities. PLCY 130, 293, 393, 493, $691 \mathrm{H}, 692 \mathrm{H}$, and 698 are all approved as experiential education courses.

## Capstone Course

The senior capstone course (PLCY 698) is required of all majors except those writing an honors thesis. It provides students with the experience of working together to produce a policy analysis for a community organization. The projects provide students with a unique opportunity to apply their academic training in a clientcentered policy environment.

## Internships

Public policy majors have the option to complete an internship. Students may receive academic credit for an approved internship if it provides an academically relevant experience in policy analysis or research. PLCY 293 is a Pass/Fail course and is used for internship placement. PLCY 293 is available for public policy majors and minors only. PLCY 393 is graded and can be used for students who
participate in the Policy Clinic. The Duncan MacRae Jr. Public Policy Internship Grant aims to support internship opportunities for public policy majors and to defer some of the costs associated with engaging in unpaid summer internships. This is a needs-based award.

## Undergraduate Awards

Each year the Department of Public Policy holds a graduation ceremony to honor students' achievements. The Kathy Taft Education Policy Award recognizes a rising senior majoring in public policy with an interest in and dedication to education policy. The Michael A. Stegman Award for Policy Research and Advocacy is awarded to a graduating public policy major who has demonstrated an ability to use policy research and analysis to advocate for social change and a commitment to play a future role in policy research and advocacy.

## Faculty

## Professors

Richard N.L. Andrews, Maryann P. Feldman, Daniel P. Gitterman, Sudhanshu (Ashu) Handa, Krista M. Perreira.

## Associate Professors

Douglas L. Lauen, Patricia L. Sullivan.

## Assistant Professors

Christine P. Durrance, Steven W. Hemelt, Pamela Jagger, Douglas MacKay, Benjamin Mason Meier, Jeremy G. Moulton.

## Professors of the Practice

W. Hodding Carter III, James R. Sasser.

## Lecturers

Gail A. Corrado, Anna Krome-Lukens, Aimee McHale.

## Professors Emeriti

David D. Dill, Michael A. Stegman.

## Contact Information

Molly Smith, Student Services Manager, CB\# 3435, 114 Abernethy, mcfowler@email.unc.edu.

Professor Patricia Sullivan, Director of Undergraduate Studies, CB\# 3435, 117 Abernethy, tsulli@email.unc.edu.

Professor Daniel Gitterman, Chair, CB\# 3435, 202B Abernethy, danielg@email.unc.edu.

## Courses

## PLCY-Public Policy

## PLCY 51 First-Year Seminar: The Global Environment in the

21st Century (3). This seminar explores linkages among nations, global environmental institutions, and the environmental problems they cause and seek to rectify. The course will examine how global environmental policy is made, with specific attention to the roles of institutions, nations, commercial and nonprofit entities.

PLCY 55 First-Year Seminar: Higher Education, the College Experience, and Public Policy (3). This first-year seminar provides
an introduction to contemporary policy issues in higher education. Students will discuss challenges to current models of higher education, including accessibility, academic freedom, safety and security, and athletics

PLCY 61 First-Year Seminar: Policy Entrepreneurship and Public/Private Partnerships (3). This seminar will define a policy entrepreneur and examine strategies used by policy entrepreneurs to achieve policy change or innovation in the policy making process. We will also explore models of innovative public-private partnerships in the delivery of public goods.

PLCY 65 First-Year Seminar: The Politics of Numbers (3). Explores what lies behind official government economic well-being measures: racial diversity, global warming, how we know how many people are poor, welfare reform, Social Security reform, costs and benefits of immigration.

## PLCY 70 First-Year Seminar: National Policy: Who Sets the

 Agenda? (3). Who and what actually set our nation's policy agenda? The President? Congress? The media? Special interests? This seminar will address these questions, looking closely at current events and case histories drawn from the past three decades.PLCY 71 First-Year Seminar: Justice and Inequality (3). This seminar investigates the value of equality, and asks which forms of inequality are unjust and ought to be addressed by governments. Topics include income inequality, political inequality, marriage inequality, racial inequality, and global inequality.

PLCY 75 First-Year Seminar: Public Policy and Inequality (3). Examines the public policies leading to the growing disparities in American society during the past 25 years. Addresses the political and nonpolitical factors that have led to these inequalities.

PLCY 80 First-Year Seminar: Innovation, Entrepreneurship, and Economic Growth (3). This seminar provides an introduction to entrepreneurship and innovation and considers their relationship to economic growth.

PLCY 85 First-Year Seminar: Reforming America's Schools (3). In this course we will examine the main problems that are occurring in America's schools and three popular reform strategies: increasing resources; improving leadership and teacher working conditions; and structural reforms.

PLCY 89 First-Year Seminar: Special Topics (3). Special topics course. Content will vary each semester.

PLCY 101 Making Public Policy (PWAD 101) (3). Overview of the policy-making process and of major public policy issues. Study of policy and political challenges in areas such as economic and tax policy, the social safety net, income support and the minimum wage, health care, education, environment and energy, foreign policy and national security, and homeland security.

PLCY 110 Global Policy Issues (3). Global issues are challenges whose sources, impacts, and solutions extend beyond the borders of any one country. This course introduces students to some of the most pressing issues facing populations around the globe and to possible policy responses.

PLCY 130 Getting It Done: Social Innovation (1). A studentdriven, instructor-aided workshop open only to students who have
received the APPLES Bryan Social Innovation Fellowship. Each fellowship team develops a project's underlying theory of change and the skills necessary for successful implementation. Students study the theories and implementation of one another's projects and external case studies.

PLCY 150 Robertson Scholars Colloquium (1). Robertson Scholars Colloquium will explore current policy issues and academic facets of motivation, personal development, ethics, and leadership.

PLCY 190 Selected Topics in Public Policy (3). Selected topics in public policy.

PLCY 195 Research in Public Policy (1-6). Permission of the instructor. Undergraduate research in public policy.
PLCY 196 Independent Study/Reading in Public Policy (1-6). Supervised study for students interested in public policy.

PLCY 210 Policy Innovation and Analysis (3). Students will develop a working knowledge of the foundational theories of the public policy discipline and the integral institutions of public policy. Incorporates current substantive issues in the United States and international policy. Students will explore, summarize, and evaluate alternative policy solutions.
PLCY 220 The Politics of Public Policy (PWAD 220) (3). Examines approaches to American politics and public policy and analyzes why government responds to problems in predictable ways.

PLCY 231 Why History Matters to Public Policy (3). This course explores the uses of history and historical perspectives for public policy. Students will learn how historical processes have shaped today's public policies and examine how the origins and development of a policy can inform current policy decisions.
PLCY 290 Special Topics in Public Policy (3). Special topics in public policy for undergraduates.

PLCY 293 Internship in Public Policy (3). For public policy majors and minors. Permission of the instructor. Provides participants opportunities to work in policy-related internships for a semester. Internship sites range from governmental agencies to nonprofit organizations. Students assume active roles in their organizations and gain valuable knowledge that prepares them for the labor market after graduation.

PLCY 296 Independent Study/Reading in Public Policy (1-6). Permission of the instructor. Independent reading/study in public policy.

PLCY 305 Public Policy Communication (3). Students choose a societal problem and communicate the problem as demanded by governmental process. Course focuses on simulated public hearings; writing/revising documents (problem definition memo, witness testimony); writing/revising an organization's public comment on proposed legislation/regulation.
PLCY 326 Social Ventures (PLAN 326) (3). See PLAN 326 for description.

PLCY 327 Introduction to Entrepreneurship (3). A historical overview of the role and importance of entrepreneurship in the economy and society, and a survey of the critical competencies all entrepreneurs (social, commercial, or artistic) must possess.

PLCY 340 Justice in Public Policy (3). This seminar explores arguments about moral issues in public policy. Students examine both the means used to implement policies and policy ends through discussions of case studies of policy choice.
PLCY 349 Immigration Policy in the 21st Century (3). The objective of this course is to enhance students' understanding of the causes and consequences of United States immigration within a social, historical, political, and economic context.

PLCY 352H Burch Field Research Seminar in Domestic and International Affairs (3). This is a graded seminar course that focuses on a study of domestic and international affairs within the United States policy-making process. This course is a "study abroad" course taught in Washington, DC. Students must apply for this program.

PLCY 360 State and Local Politics (3). A range of public policy topics at the state and local level.

PLCY 361 Health Policy and Politics (3). An analysis of the evolution of American medical care with special emphasis on current health care policy issues and debates about future directions. Compares other national models to those of the United States.

PLCY 364 Ethics and Economics (PHIL 364) (3). See PHIL 364 for description.
PLCY 371 Energy Policy (3). This course will provide an overview of some of the most challenging energy issues of the 21st century and will cover the tools and perspectives necessary to analyze those problems.

PLCY 372 Global Environment: Policy Analysis and Solutions (ENEC 372) (3). Explores linkages among actors, institutions, and the environmental problems they cause and seek to rectify. Introduces pressing challenges of the global environment and perspectives of actors involved in crafting policy solutions.
PLCY 390 Special Topics in Public Policy (Undergraduate) (3). Special topics in public policy for undergraduate students.

PLCY 393 Public Policy Clinic (3). Permission of the instructor. The clinic provides an opportunity for students to solve a public policy problem for local nonprofits and governmental agencies. Working in small consulting teams with faculty assistance, students will learn how to use their knowledge and skills to propose solutions to complex problems.
PLCY 395 Research in Public Policy (1-6). Permission of the instructor. Research in public policy for undergraduates.

PLCY 396 Independent Study/Reading in Public Policy (1-6). By special arrangement and permission of the instructor. Independent reading in public policy.
PLCY 410 Microeconomic Foundations of Public Policy (3). Prerequisite, ECON 101. This course allows students to enhance their working knowledge of microeconomic theory, explore microeconomic theory as a methodology to solve policy problems, understand market failures and the role of collective action in markets, apply economic models to a variety of policy situations, and evaluate and critique economic analyses.

PLCY 420 Taxation and Public Policy (3). This course examines United States tax policy in terms of the historical and institutional
development of tax systems; theories of consent; the use of taxbased instruments such as tax credits and subsidies for social policy; and outcomes associated with taxation, particularly from racial and gendered perspectives.
PLCY 425 Risks, Shocks, and the Safety Net (3). Many risks and shocks can make individuals and families vulnerable to economic hardship. This course examines America's social policy regime through a wide-ranging investigation of the origins, development, and future of critical features of our social safety net. We pay particular attention to challenges emerging in the era of globalization.
PLCY 430 Analysis of National Security Policy (3). Course explores contemporary threats to national security, approaches to national security strategy, policy instruments, the role of military force, and the policymaking process.
PLCY 440 Justice and Inequality (3). Growing economic inequality has been identified as a pressing public policy problem in a number of countries. In this course, we explore the justice of economic inequality. Is economic inequality ever morally permissible? If so, for what reasons?

PLCY $4559 / 11$ and Its Aftermath (PWAD 455) (3). Examines the nature of Islamic fundamentalist terrorism and strategies for addressing it, including analysis of post-9/11 changes to United States national security strategy, law enforcement and intelligence, and homeland security.
PLCY 460 Quantitative Analysis for Public Policy (4). Application of statistical techniques, including regression analysis, in public policy program evaluation, research design, and data collection and management.

PLCY 470 Business, Competition, and Public Policy (3). This course focuses on competition policy in the United States using relevant Supreme Court decisions as well as economic and policyrelated motivation for specific business behavior.
PLCY 475 Political Economy of Food (3). This course examines the political and economic dimensions of the food we eat, how it's produced, who eats what, and the related social and environmental issues, both domestic and international, affecting the production, pricing, trade, distribution, and consumption of food.

PLCY 480 Environmental Decision Making (ENEC 480)
(3). Introduces factors shaping environmental decision making by individuals, businesses, governments, advocacy groups, and international institutions. Explores public policy incentives and action strategies for influencing them.

## PLCY 485 Poverty, Health, and Human Development in

 Low Income Countries (3). Prerequisite, ECON 101. This course provides an understanding of how poverty is defined, the consequences of poverty, and policies to reduce poverty. It explores the determinants of human development outcomes from an interdisciplinary perspective (with a heavy economics focus).PLCY 487 International Trade: Theory and Policy (3).
Prerequisite, ECON 310 or 410 . The objective of this course is to provide students with knowledge of international trade theory and to help them apply this knowledge to thinking critically about current important topics in international trade.

PLCY 490 Special Topics in Public Policy (3). Special topics in public policy for undergraduate and graduate students.

PLCY 493 Internship in Entrepreneurship (3). Prerequisite, ECON 325. An approved internship or the consent of the instructor is required. Open only to PLCY majors in the entrepreneurship minor. Students spend a minimum of eight weeks in an entrepreneurial environment taking on significant responsibilities and working on a specific project that result in a rigorous agreed-upon deliverable.

PLCY 496 Independent Study/Reading in Public Policy (1-6). Permission of the instructor. Independent reading in public policy.

PLCY 520 Environment and Development (ENEC 520) (3).
Reviews environmental problems in developing countries. Analyzes proposed solutions, such as legal remedies, market instruments, corporate voluntary approaches, international agreements, and development policies. Discusses the link between trade and environment, environmental cases from the World Trade Organization, and sustainable development.
PLCY 527 Applied Public Finance (3). Prerequisite, ECON 310 or 410 , or PLCY 410 or 788 . This course provides a foundation in public finance theory and applications. Students learn to analyze taxation policies and expenditures on income redistribution, programs for the poor (e.g., TANF), and social insurance programs (e.g., Social Security).

PLCY 530 Educational Problems and Policy Solutions (3). Reviews current debates and policy solutions in education. Topics analyzed through three of the most commonly used evaluative criteria: equity, efficiency, and effectiveness. Topics: equality of educational opportunity, racial segregation, the black-white test score gap, school choice, and the use of incentives to promote increased performance. Lecture, case studies, discussion.

PLCY 565 Global Health Policy (HPM 565) (3). Coursework will focus on public policy approaches to global health, employing interdisciplinary methodologies to understand selected public health policies, programs, and interventions. For students who have a basic understanding of public health.
PLCY 570 Health and Human Rights (HPM 571) (3). Course focuses on rights-based approaches to health, applying a human rights perspective to selected public health policies, programs, and interventions. Students will apply a formalistic human rights framework to critical public health issues, exploring human rights as both a safeguard against harm and a catalyst for health promotion.

PLCY 575 Science and Public Policy: The Social, Economic, and Political Context of Science (3). Introduction to analysis of science policy. Course explores how events transformed science's role in American life and how science relates to industry and economic development. Topics include the mechanisms of allocating scientific resources, the commercialization of academic discoveries, regulating emerging technology, and achieving consensus on controversial scientific issues.

PLCY 580 Implementing Change: Barriers and Opportunities in Policy, Government, and the Nonprofit Sector (3). An introduction to some of the sectors within which social change work occurs: education, healthcare, local policy, philanthropy
and nonprofit direct-service. Students will learn the fundamental systems of governance and accountability that guide them, and the opportunities or barriers that motivate and de-motivate people working within them.
PLCY 581 Research Design for Public Policy (3). Pre- or corequisite, PLCY 460. Students will explore the scientific method as applied to policy research. They will formulate testable policy research questions, become familiar with methods for conducting policy research, and learn to think critically about causal inference.

PLCY 585 American Environmental Policy (ENEC 585, ENVR 585, PLAN 585) (3). See ENVR 585 for description.

PLCY 590 Special Topics in Public Policy (3). Special topics for undergraduate and graduate students.
PLCY 596 Independent Study/Reading in Public Policy (1-6). Permission of the instructor. Independent reading in public policy.

PLCY 686 Policy Instruments for Environmental Management (ENEC 686, ENVR 686, PLAN 686) (3). Prerequisite, ECON 410 or PLAN 710 . Design of public policy instruments as incentives for sustainable management of environmental resources and ecosystems, and comparison of the effects and effectiveness of alternative policies.
PLCY 690 Special Topics in Public Policy (3). Special topics for graduate or undergraduate students.
PLCY 691H Honors in Public Policy (3). Prerequisites, PLCY 460 and 581. Permission of the instructor. In preparing their honors theses, students will formulate a testable policy research question, design a study to answer this research question, and learn to think critically about causal inference.
PLCY 692H Honors in Public Policy (3). Prerequisite, PLCY 691H. Permission of the instructor. For senior public policy majors. Directed research for the honors thesis. Students may only receive credit for one semester of this course. An application for enrollment must be completed by the student and approved by the director of the public policy honors program.

PLCY 696 Independent Study/Reading in Public Policy (1-6). Permission of the instructor. Independent reading in public policy.
PLCY 697 Robertson Scholars Capstone (1). The central focus of the capstone course will be that the scholars will learn from and about each other.

PLCY 698 Senior Capstone in Public Policy (3). Prerequisites, PLCY 460; pre- or corequisite, PLCY 581. Students apply knowledge and skills gained in the major to a real-world policy problem. Students work in small teams to conduct research on an important policy issue and identify policy opportunities on behalf of their client. The capstone allows majors to polish their skills while producing actionable public policy analysis.

## Department of Religious Studies

religion.unc.edu
125 Saunders Hall, CB\# 3225; (919) 962-1567
RANDALL STYERS, Chair

## Introduction

The Department of Religious Studies is dedicated to the study of the world's religions as historical and cultural phenomena. It examines the history, texts, artifacts, beliefs, values, and rituals of a variety of religious traditions, including Buddhism, Christianity, Islam, and Judaism. Inherently interdisciplinary in its approach, religious studies explores these traditions in light of related fields in the humanities and social sciences such as anthropology, classics, archaeology, sociology, philosophy, and history. The department offers a variety of courses ranging from large lecture classes to advanced seminars, as well as independent studies, an honors thesis program, and a capstone course for all majors (RELI 697). Introductory courses, which are numbered below 200, orient students to the field of religious studies or to major approaches, topics, or issues within that broader field. Intermediate courses are numbered between 200 and 399, and they provide more in-depth analysis. Advanced courses, which are numbered 400 and above, often build on knowledge or skills derived from lower-level courses, and they provide opportunities for research-intensive study in particular areas of concentration in the study of religion.

## Religious Studies Major, B.A.

## Core Requirements

- RELI 697
- Two RELI courses numbered 400 or above, including courses cross-listed with other units
- Six RELI courses, including courses cross-listed with other units

Of the nine courses required in the major, students must take at least one course in each of three of the department's subfields.
Ancient Mediterranean Religions: CLAR/JWST/RELI 110, 512; CLAR/RELI 375; FOLK/RELI 502; JWST/RELI 103, 106, 206, 503; RELI 63, 65, 70, 104, 105, 109, 117, 201, 207, 208, 209, 211, 212, 217, 302, 390 (based on topic), 411, 412, 413, 590 (based on topic), 602, 603, 605, 607, 608, 617

Asian Religions-Islamic Studies: ANTH/ASIA/RELI 574; ARAB/ ASIA/RELI 681; ASIA/RELI 180, 181, 183, 248, 284, 285, 487, 488, 489, 581, 582, 583, 584; ASIA 300/RELI 283, ASIA 301/ RELI 286, ASIA 302/RELI 287, ASIA 303/RELI 288; HNUR/ RELI 592; PWAD/RELI 481; RELI 64, 73, 165, 184, 185, 248, 289, 381, 385, 390 (based on topic), 480, 485, 524, 580, 585, 586, 590 (based on topic)

[^0]Religion and Culture: ANTH/FOLK/RELI 428, 688; CMPL 270/ GERM 270/JWST 239/RELI 239; JWST 100/RELI 123, JWST/ RELI 343; PHIL 134/RELI 126; RELI 61, 67, 68, 71, 74, 75, 76, $85,101,102,121,122,125,127,134,135,138,222,225,232$, $235,236,246,322,323,325,338,390$ (based on topic), 421, 425, 438, 522, 524, 525, 528, 530, 534, 590 (based on topic); RELI 234/SOCI 140, RELI/SOCI 429; RELI/WMST 244, 424

Religion in the Americas: ANTH/FOLK/RELI 342; ASIA/RELI 445; JWST/RELI 107, 143, 243, 444; RELI 60, 66, 69, 72, 140, $141,142,151,235,240,241,242,245,246,248,332,338,340$, 345,390 (based on topic), 423, 441, 442, 443, 446, 540, 541, 542, 580, 590 (based on topic)

Introductory and intermediate language courses (RELI 401, 402, $403,404,409,410$ ) are recommended for their usefulness but do not count toward the major in religious studies.

## Religious Studies Major, B.A.Jewish Studies Concentration

## Core Requirements

-JWST 100/RELI 123

- JWST 697
- One course on the ancient period chosen from CLAR/JWST/RELI 110, 512; JWST/RELI 103, 106, 206, 503, 602; RELI 109, 211, 212, 608
- One course on the medieval or early modern period chosen from GERM 225; HIST/JWST 153, 308, 451; RELI 108, 450, 565, 566
- One course on the period from 1750 to the present chosen from AMST 360; AMST/JWST 486; AMST/JWST/WMST 253; ASIA 60, 235, 357; ASIA/HIST/PWAD 277; CMPL 270/GERM 270/JWST 239/RELI 239; ENGL/JWST 289; HEBR 142, 436; HEBR/JWST 305, 306; HIST/JWST 485; HIST/JWST/PWAD 262; JWST/PLSH 412; JWST/PWAD/SLAV 465; JWST/RELI 107, 143, 243, 343, 444; JWST/SLAV 464, 469; RELI 446; SPAN 252, 253
- At least three courses taught outside the Department of Religious Studies and chosen from AMST 360; AMST/JWST 486; AMST/ JWST/WMST 253; ASIA 60, 235, 357; ASIA/HIST/PWAD 277; CMPL 270/GERM 270/JWST 239/RELI 239; ENGL/ JWST 289; GERM 225; HEBR 142, 436; HEBR/JWST 305, 306; HIST/JWST 153, 308, 451, 485; HIST/JWST/PWAD 262; JWST/PLSH 412; JWST/PWAD/SLAV 465; JWST/SLAV 464, 469; SPAN 252, 253

Courses listed more than once can be counted for only one category.

## Additional Requirements

- Students must take two courses at or above the 400 level, exclusive of the capstone seminar (JWST 697).
- HEBR/JWST 101, 102, 203, and 204; or RELI 401, 402, 403, and 404
Although this concentration of the religious studies major is housed in the Department of Religious Studies, the director of Jewish studies is responsible for advising all students who chose the concentration in Jewish studies.


## Islamic and Middle Eastern Studies Minor

The undergraduate minor in Islamic and Middle Eastern studies (ISME) is intended to offer students access to two complementary perspectives, the transregional study of Islam and Muslim societies in interaction with surrounding cultures, and the Middle East as a complex region seen through multiple disciplinary perspectives.

The minor consists of five courses, which must be taken in at least two different departments; at least one course must be from the Department of Religious Studies, and at least one course must be at an advanced level ( 400 and above). The two required core courses for the minor are the following:

- Introduction to Islamic civilization: HIST 138 or RELI 180, both of which cover material from the seventh century to 1500
- One of the following three courses: HIST 139, 276, or RELI 181

Three of the five required courses in the minor (including the core courses) must be selected from one of two subject categorieseither Islamic studies or Middle Eastern studies—as indicated by the two lists of approved courses below. The other two courses must come from the other category.

## Islamic Studies

- ARAB/ASIA/RELI 681; ARTH 562; ARTH/ASIA 154, 251, 273, 458, 561; ASIA 59, 331; ASIA/HIST 135, 136, 138, 139; ASIA/RELI 180, 181, 582, 584; GEOG 448; GERM/RELI 218; PWAD/RELI 481; RELI 64, 185, 248, 289, 385, 480, 485, 580; SOCI 419


## Middle Eastern Studies

- ARAB 150, 151, 350, 434, 443, 452, 453, 468; ASIA 60, 64 , 235, 357, 435; ASIA/GEOG 447; ASIA/HIST 276, 277, 536, 538; ASIA/HIST/PWAD 275; ASIA/HIST/WMST 537; ASIA/ RELI 583; GEOG 59; HEBR 142, 436; JWST/RELI 343; PWAD 670

One language course at level 5 or higher in Arabic, Hebrew, HindiUrdu, Persian, or Turkish can count as a course toward the minor. Up to two courses in Islamic and Middle East studies at Duke University may count toward the minor if approved by the director of the Carolina Center for the Study of the Middle East and Muslim Civilizations.

Although this minor is housed in the Department of Religious Studies, the director of the Carolina Center for the Study of the Middle East and Muslim Civilizations is responsible for advising all students who minor in Islamic and Middle Eastern studies.

## Jewish Studies Minor

The undergraduate minor in Jewish studies is an interdisciplinary curriculum that explores the history, literature, culture, and religious life of Jews in their interaction with other peoples from ancient times to the present. It also offers students an opportunity to become more knowledgeable about selected areas of the Jewish experience.

The minor consists of five courses, which must be taken in at least two different departments: a core course (JWST 100/RELI 123) and four other courses selected from the list below. Of these four courses, one must be a course numbered 400 or higher, and at least one must fulfill the world before 1750 (WB) General Education requirement.

AMST 360; AMST/JWST 486; AMST/JWST/WMST 253; ASIA 60, 235, 357; ASIA/HIST/PWAD 277; CLAR/JWST/RELI 110, 512; CMPL 270/GERM 270/JWST 239/RELI 239; ENGL/ JWST 289; GERM 56, 225; HEBR 142, 436; HEBR/JWST 305, 306; HIST/JWST 153, 308, 451, 485; HIST/JWST/PWAD 262; JWST 697; JWST/PLSH 412; JWST/PWAD/SLAV 465; JWST/ RELI 103, 106, 107, 143, 206, 243, 343, 444, 503, 602; JWST/ SLAV 464, 469; RELI 108, 109, 211, 212, 446, 450, 565, 566, 608; SPAN 252, 253

Additions to this list must be approved by the director of the Carolina Center for Jewish Studies. Only courses in Modern Hebrew at the fifth-semester level or higher can count toward the minor. For students minoring in both Jewish studies and religious studies, only two courses can overlap between the two minors.

Although this minor is housed in the Department of Religious Studies, the director of Jewish studies is responsible for advising all students who minor in Jewish studies.

## Religious Studies Minor

Minimum requirements for the minor in religious studies consist of five courses, four of which must be completed with a grade of C or better and two of which must be numbered above 400 . Minors must take at least one course in two of the department's subfields (see lists under departmental requirements for the major): religion in the Americas, religion and culture, Asian religions-Islamic studies, ancient Mediterranean religions, and medieval and early modern/ historical studies. Introductory and intermediate language courses (RELI 401, 402, 403, 404, 409, 410) are recommended for their usefulness but do not count towards the minor in religious studies. Courses listed more than once can be counted for only one subfield.

## Study of Christianity and Culture Minor

The undergraduate minor in the study of Christianity and culture is an interdisciplinary curriculum in the humanities, arts, and social sciences that aims to refine students' understanding of the cultural, social, and political influence of Christianity.

The minor requires the completion of five courses, including at least one course from each of the following categories:

- Core: RELI 161, 209, or 225
- Ancient, medieval, or early modern Christianity: ARTH 264, 290, 351, 362, 365; CLAR 246, 445, 448, 449; CLAR/JWST/RELI 110; CLAS 259, 418; CLAS/WMST 245; ENGL 227, 228, 319, 320; GERM 218; HIST 106, 107, 177H, 428, 431, 436, 452, 460; HIST/RELI 454; ITAL 240, 357; PHIL 215; RELI 62, 70, 104, 163, 164, 201, 207, 208, 209, 217, 244, 362, 366, 367, 413, 603, 607, 608, 665, 668; RELI 234/SOCI 140; RELI/WMST 362
- Christianity in the modern world: AAAD 159, 210, 286, 431; ANTH/FOLK/RELI 342; ARTH 352; HIST 621; PHIL 134/ RELI 126; RELI 72, $125,138,140,141,142,151,161,162$, $225,241,245,332,338,340,365,424,443,446,540,541,662$; RELI/SOCI 429; RELI/WMST 244, 371; SOCI 290

Courses fulfilling the minor in the study of Christianity and culture also must be taken from at least two different departments, and at least one must be numbered 200 or above. Students may also petition the Minor Faculty Advisory Committee for permission to count toward their minor requirements other potentially appropriate

UNC-Chapel Hill courses, independent study courses, transfer courses, or study abroad courses.

Students also are encouraged to take language courses that relate to the minor in the study of Christianity and culture-such as Latin, Greek, or Hebrew-but language courses do not fulfill minor course requirements.

Although this minor is housed in the Department of Religious Studies, the director of Christianity and culture is responsible for advising all students who minor in the study of Christianity and culture.

## Advising

The director of undergraduate studies advises majors and minors in religious studies. Please contact the Department of Religious Studies for updated contact information.

The director of Jewish studies advises majors and minors in Jewish studies. Please contact the Carolina Center for Jewish Studies for updated contact information.

The director of Christianity and culture advises minors in the study of Christianity and culture. Please contact the Department of Religious Studies for updated contact information.

The director of the Carolina Center for the Study of the Middle East and Muslim Civilizations advises minors in Islamic and Middle Eastern studies. Please contact the Carolina Center for the Study of the Middle East and Muslim Civilizations for updated contact information.

## Special Opportunities in Religious Studies

## Honors in Religious Studies

Students majoring in religious studies (including double majors) with a grade point average of 3.5 or above in department courses and 3.3 grade point average overall and who will have successfully completed at least one course numbered 400 or above on a topic in religious studies that is related to the proposed thesis may choose to write an honors thesis. Candidates for graduation with honors in religious studies are to be enrolled in RELI 691H in the fall and 692 H in the spring semester of their senior year. RELI 691 H and 692 H count toward the major as courses fulfilling subfield requirements. Students should submit applications for the honors program to the department's director of undergraduate studies by the end of February during their junior year. Consult the department's director of undergraduate studies for details.

## Study Abroad

Professor Jodi Magness directs archaeological excavations in Israel during the summer. Students are welcome to participate. Other courses through the Study Abroad Office can count towards the major and minor in religious studies as well.

## Undergraduate Awards

The department presents two awards at the end of each academic year: the Bernard Boyd Fellowship and the Bernard Boyd Memorial Prize.

## Graduate School and Career Opportunities

Those wishing to proceed to graduate study in religion can consult the director of undergraduate studies. We encourage students to pursue the study of two or more languages in which the sacred literatures of the world have been written, as well as the modern languages of scholarship. In addition to the language courses offered by this department, UNC-Chapel Hill offers courses in Greek, Modern Hebrew, Chinese, Japanese, Hindi-Urdu, Latin, Arabic, Sanskrit, Persian, Bengali, and Tamil.

Students majoring in religious studies often choose to pursue an M.A. or Ph.D. in religious studies or other related fields in the humanities and social sciences. Some of the graduates of the program go on to professional schools in law, medicine, divinity, or journalism. Each year the department awards a fellowship, the Bernard Boyd Fellowship, to a graduating religious studies major who is planning to pursue graduate study in religion at another institution.

## Faculty

## Professors

Yaakov Ariel, Bart D. Ehrman, Carl W. Ernst, Jodi Magness.

## Associate Professors

Barbara Ambros, Juliane Hammer, Lauren Leve, Evyatar Marienberg, Todd Ramon Ochoa, Zlatko Plese, Randall Styers.

## Assistant Professors

Brandon Bayne, Jessica Boon, Andrea Cooper, Joseph Lam, David Lambert, Brendan Thornton.

## Adjunct Professors

Jason Bivins (NCSU), Philip F. Gura, Jonathan M. Hess, Charles Kurzman, Bruce B. Lawrence (Duke University), Fred Naiden, Albert Rabil Jr., James B. Rives, Omid Safi (Duke University).

## Adjunct Associate Professors

Anna Bigelow (NCSU), Christian Lundberg, Barry Saunders, Margaret J. Wiener.

## Adjunct Assistant Professors

Maria Doerfler (Duke University), Levi McLaughlin (NCSU).

## Professors Emeriti

David J. Halperin, Peter I. Kaufman, Laurie Maffly-Kipp, William J. Peck, Jack Sasson, John H. Schutz, Ruel W. Tyson Jr., John Van Seters.

## Contact Information

Undergraduate Studies Program Assistant, Department of Religious
Studies, CB\# 3225, 125 Saunders Hall, (919) 962-5666.
Follow the department on Facebook: www.facebook.com/unc.reli.

## Courses

## RELI-Religious Studies

RELI 60 First-Year Seminar: Religion and Racism (3). How does religion become a source of ethnic or racial prejudice among religious practitioners? When does prejudice against religious persons constitute a form of racism? This class explores answers to these questions by examining the connections between religion and racism in modern societies like the United States and South Africa.

RELI 61 First-Year Seminar: Religion, Magic, and Science (3). This course explores the ways in which religion, magic, and science are defined in the modern world and the different forms in which supernaturalism circulates within contemporary culture.

RELI 62 First-Year Seminar: A History of Heresy: Christian Dissent from the Gnostics to the Pentecostals (3). Christian orthodox beliefs or practices often get formulated expressly to marginalize a viewpoint or community considered too radical. This course examines a variety of Western Christian dissenters and the authorities that opposed them: Gnostics; medieval, Spanish, and Latin American inquisitions; Protestant Anabaptists; witches; Galileo; Mormons; and Pentecostals.

RELI 63 First-Year Seminar: The Archaeology of Qumran and the Dead Sea Scrolls (3). In this seminar students learn about the Dead Sea Scrolls, ancient manuscripts dating to the time of Jesus from caves around the site of Qumran by the Dead Sea. They include early copies of the Hebrew Bible (Old Testament) and sectarian works of the Jewish community that lived in Qumran.

RELI 64 First-Year Seminar: Reintroducing Islam (3). An introduction to the Islamic religious tradition, focusing on major themes of Islamic religious thought and bringing out both traditional spirituality and the critical issues confronting Muslims today.
RELI 65 First-Year Seminar: Myth, Philosophy, and Science in the Ancient World (3). This course examines the conflicting ways in which ancient myth, science, and philosophy explained creation of the universe, origins of mankind, nature of dreams, and foundations of culture.

RELI 66 First-Year Seminar: Buddhism in America: From the Buddha to the Beastie Boys (3). Introduces students to Buddhism and traces its history in the United States, highlighting the period since 1965. It focuses on immigrants, converts, and the cultural influence of Buddhism in America.

RELI 67 First-Year Seminar: Nature, Culture, and Self-Identity: Religion in the Construction of Social Life (3). This course explores how different religious traditions conceive of human nature and cultural personhood, and the ways that these understandings are reflected in diverse forms of personal identity and public life.
RELI 68 First-Year Seminar: Charisma in Religion, Science, Poetry: Studies in the Entrepreneurial Imagination (3). A comparative examination of prophet, scientist, and poet as critics and creators of the entrepreneurial outlook and sensibility in individuals and organizations with special attention to innovators' dilemmas.

RELI 69 First-Year Seminar: Gender and Sexuality in
Contemporary Judaism (3). Taking a global perspective, the course compares the manners in which Jewish communities in America, Israel, Europe, Asia, and Africa have accommodated themselves to the changing norms in gender and sexuality in the last generation.
RELI 70 First-Year Seminar: Jesus in Scholarship and Film (3). This seminar explores the ways the historical Jesus has been portrayed in the writings of modern scholars and films of the 20th and 21 st centuries.

RELI 71 First-Year Seminar: Ethics and the Spirit of the New Capitalism (3). What does it mean to be ethically literate in the age of information technology? Philosophical and historical inquiries into organizational practices and styles of life.
RELI 72 First-Year Seminar: Apocalypse Now? Messianic Movements in America (3). This course explores the messianic idea in America as well as the messianic movements that have been active in the nation's history and their interaction with American society and culture.

RELI 73 First-Year Seminar: From Dragons to Pokemon: Animals in Japanese Myth, Folklore, and Religion (3). This course examines the cultural construction of animals in Japanese myth, folklore, and religion.
RELI 74 First-Year Seminar: Person, Time, and Religious Conduct (3). Within the vast field of activity called "religion," this course examines how people and societies give meaning to the relation between human organisms and the universe in time and space.
RELI 75 First-Year Seminar: Sacrifice and Surrender (3). This course will consider the questions of debt, loss, and surrender as we explore the problem of sacrifice. Readings will address the associated problems of violence, transgression, and animality.
RELI 76 First-Year Seminar: Money and Morality: Divining Value in Social Life (3). This seminar explores the many ways that different religions and cultures have imagined spiritual wealth, secular riches, and the appropriate modes of interaction between them in different places and times.

RELI 77 First-Year Seminar: Martyrs and Warriors: Religion and the Problem of Violence (3). This seminar asks why some people choose to take life (their own or another's) for religious purposes and how texts, practices, and communities shape these motives. Focuses on martyrological traditions in Western religions, but also tracks idioms of war, sacrifice, and ritualized suffering in other religious contexts and secular discourses.
RELI 78 First-Year Seminar: Reading the Bible: Now and Then
(3). An introduction to the interpretation of the Hebrew Bible/Old Testament. We will look at the biblical text as modern interpreters and through the eyes of the Bible's earliest Jewish and Christian interpreters with special attention to changing assumptions about how to read the Bible and the nature of Scripture itself.

RELI 79 First-Year Seminar: Human Animals in Religion and Ethics (3). This course investigates the figure of the human animal in religion and philosophy. What kind of animal is the
human, and what separates humans from animals? We will consider how attending to distinctions between humans and animals can highlight varying ideological and religious viewpoints.

## RELI 85 First-Year Seminar: Sex, Marriage, and Family in

 Religion (3). This course approaches the central role of discourses about sexual norms, marriage, and family in select religious traditions. It asks how religious traditions have defined and negotiated normative models for marriage and family in their connection to larger theological frameworks and religious source texts.RELI 88 First-Year Seminar: Religion and Society in Historical Novels (3). In this seminar we will read several books. Most of them are best-sellers and can be described as "historical novels." Having these books as a starting point, we will explore religion and society in Europe and the Middle East in the medieval and early modern period.
RELI 89 First-Year Seminar: Special Topics (3). Special topics course. Content will vary each semester.

RELI 101 Introduction to Religious Studies (3). An introduction to the academic study of religion that considers approaches to the interpretation of religion and includes study of several religious traditions.

RELI 102 World Religions (3). This course examines forms of religious expression as embodied in several important religious traditions. It investigates religious experience; myth and ritual; teachings and scripture; historical, social, and artistic aspects of religion; and the nature and function of religion in society, with a special focus on ethics and values.

## RELI 103 Introduction to the Hebrew Bible/Old Testament

 Literature (JWST 103) (3). This course introduces students to the various books of the Hebrew Bible and to the history and culture of ancient Israel, focusing on the formation of national identity, ancient conceptualizations of divinity, ritual practice, and modes of social regulation, all of which are set against the background of the ancient Near East.RELI 104 Introduction to New Testament Literature (3). This course introduces students to New Testament literature and to the faith of the early Christian communities, focusing on Jewish and Greco-Roman background, the development of the gospel traditions, the life and ministry of Jesus, the ministry of Paul, the post-Pauline era, and the literature of the Johannine circle.

RELI 105 Religions of the Greco-Roman World (3). An introduction to religions and the religious life of the ancient world ( $1000 \mathrm{BCE}-300 \mathrm{CE}$ ) in various cultural settings: Greek cities, cosmopolitan Hellenistic kingdoms in Egypt and Syria, and the Roman Empire.
RELI 106 Introduction to Early Judaism (JWST 106) (3). This course surveys Jewish history and religion during the Second Temple and Rabbinic periods, from the destruction of the First Jewish Temple (Solomon's Temple) in 586 BCE to the Muslim conquest of Palestine ( 640 CE ).

RELI 107 Introduction to Modern Judaism (JWST 107) (3). The course offers a comprehensive understanding of the development of Judaism from the late Middle Ages to contemporary times.

RELI 108 Classic Jewish Texts: From Bible and Dead Sea
Scrolls to Kabbalah and Hassidism (3). This course will explore Jewish literary works that are considered "fundamental," "classic," "traditional" (often, all of the above), including the Hebrew Bible, the Mishnah, the Babylonian Talmud, midrashic collections, works by Maimonides, major codes of Jewish law, major kabbalistic, philosophic, poetic, and ethical works, hassidic compositions, and more.

RELI 109 History and Culture of Ancient Israel (3). An examination extending from Hebrew origins to the Babylonian exile and including political history as well as social and religious institutions.

RELI 110 The Archaeology of Palestine in the New Testament Period (CLAR 110, JWST 110) (3). This course surveys the archaeology of Palestine (modern Israel and Jordan) from the Persian period (ca. 586 BCE ) to the Muslim conquest ( 640 CE ).
RELI 117 Culture of the Ancient Near East. (3). An overview of the history and culture of the ancient Near East, from the birth of writing through the first millennium BCE , covering the regions of Mesopotamia, Egypt, Anatolia, and Syria-Palestine.

RELI 121 Introduction to Religion and Culture (3). An introductory course that explores relations between religion and culture through the examination of social theory and the analysis of case studies. The case studies focus on such issues as visual culture, ritual, media, gender, and politics.

## RELI 122 Introduction to Philosophical Approaches to

Religion (3). An introduction to philosophical approaches to the study of religion, exploring such topics as religious language and experience, the problem of evil, the relation between religious belief and practice, and issues of religious diversity.

RELI 123 Introduction to Jewish Studies (JWST 100) (3). An introduction to the broad scope of Jewish history, culture, and identity, from biblical times to the 21st century and from the Middle East to the New World.

RELI 125 Heaven and Hell (3). This course will explore cultural development and significance of religious notions of an afterlife. Are they coherent? What alternative notions of life after death can we imagine?

RELI 126 Philosophy of Western Religion (PHIL 134) (3). See PHIL 134 for description.

RELI 127 The Claims of Science and Religion (3). The proposition that God exists is treated as a scientific hypothesis. Evidence for and against the hypothesis. The status of other minds and free will in science and religion. Conflicting views about creation, revelation, miracles, and prayers.

RELI 134 Introduction to Religious Ethics (3). A study of the nature, methods, and aims of ethics as seen in exemplary persons and actions with emphasis on religious and social context and contemporary problems.

RELI 135 Technology, the Self, and Ethical Problems (3). Problems in the study of ethics in the new worlds of information technology.

RELI 138 Religious Freedom (3). This course explores the development of religious liberty and freedom of conscience in Western culture by examining both the historical emergence of these concepts and important contemporary controversies.

RELI 140 Religion in America (3). An introduction to the history, themes, and issues in American religion from the precolonial period to the present.
RELI 141 African American Religions (3). Survey of the historical development of various African American religious traditions, with emphasis on folk spirituality, gender issues, black nationalism, and the role of the church in the black community.

RELI 142 Catholicism in America (3). An introduction to Roman Catholicism in the United States.

RELI 143 Judaism in Our Time (JWST 143) (3). An examination of Judaism in its two major centers, demonstrating how different social and cultural environments shape very different interpretations and practices of the Jewish tradition.

RELI 151 Religion in Latin America (3). This course surveys the history of Latin American religious traditions from precontact to the present. It explores the contributions of African, indigenous, and European traditions as well as the extraordinary combinations that resulted from their interaction.

## RELI 161 Introduction to the History of Christian Traditions

(3). Analysis of continuities and innovations in the history of Western Christian traditions in the West and globally.

RELI 162 Introduction to Catholicism (3). This course provides students with a first glimpse and insight into the Catholic tradition, past, present, and future: its beliefs, structure, aims, successes, and failures.

RELI 163 Critical Issues in Western Religious Thought (3). A consideration of major questions within and about religious thought.

## RELI 164 Heresy and Inquisition: Religion, Ethics,

Marginalization (3). During the Middle Ages and the early modern era, various inquisitions used legal inquiry and torture to determine the boundaries of heresy. This course surveys the influence of these regimes on the doctrine, practices, and morality of heretics, mystics, witches, Jews, and Muslims, in the interest of delimiting "orthodox" Catholicism.

RELI 165 Mysticism (3). Comparative study of mysticism in several religious traditions, Eastern and Western.

RELI 166 Ideals, Cultures, and Rituals of the University (3). Permission of the instructor. A religious studies approach to the rituals, cultures, and disciplines of the university, assessing the ways in which explanatory ideals are embedded, changed, and promoted.

RELI 180 Introduction to Islamic Civilization (ASIA 180) (3). A broad, comprehensive, and interdisciplinary introduction to the traditional civilization of the Muslim world.

RELI 181 Modern Muslim Societies (ASIA 181) (3). This course surveys important developments in modern Muslim societies since the 16th century and up to the present. Topics covered include Muslim experiences with colonialism and nationalism, modernist reform movements, fundamentalism, women's activism and changes in Qur'an interpretation, Islamic law, and religious practice.

RELI 183 Asian Religions (ASIA 183) (3). An introduction to major religions of South Asia and East Asia, such as Hinduism, Buddhism, Confucianism, Taoism, and Shintoism.

RELI 184 East Asian Religions: The Religions of East Asia and the Environment (3). This course surveys East Asian religions and their relationship with the natural world. It provides an East Asian religious perspective on environmental thought and an environmental perspective on East Asian religions. We will explore parallels and divergences, and how each can enrich and critique the other.

RELI 185 Women/Gender/Islam (3). A survey of gender roles in Muslim societies from the advent of Islam to the present. It explores how Muslims have interpreted the Qur'an to determine discourses on gender and sexuality and emphasizes the role of religious authority as well as historical/geographical contexts for Muslim women's lives.

RELI 196 Independent Study (3). Permission of the instructor. Subject matter will vary with instructor but will always be focused on a particular problem or issue.

RELI 201 Ancient Biblical Interpretation (3). The course looks at the origins of biblical interpretation, how the Hebrew Bible was interpreted around the turn of the Common Era, the key formative period for early Christianity and rabbinic Judaism. We consider the nature of interpretation as an endeavor, as well as how the Bible came to be viewed as Scripture.
RELI 205 Sacrifice in the Ancient World (3). This course examines the religious phenomenon of sacrifice with a focus on examples from the ancient Mediterranean world (including Greece, ancient Israel, and the Near East).

RELI 206 Prophecy and Divination in Ancient Israel and Judah (JWST 206) (3). An examination of prophecy and divination in the Israelite-Jewish traditions and in their environments, including an analysis of the major biblical prophets.
RELI 207 Jesus in Myth, Tradition, and History, 30-200 CE (3). An analysis of the variety of traditions used in the first two centuries to portray Jesus, focusing on the reasons for this variety and the historical and literary problems it presents.

RELI 208 The Birth of Christianity (3). An analysis of the origin of the Christian church and its early expansion, with particular emphasis on the problems evident in the shift from a Jewish to a Gentile framework. Paul's role in defining and resolving the issues is considered in detail and evaluated in the light of subsequent events.
RELI 209 Varieties of Early Christianity (3). A study of various forms of Christianity in the second and third centuries (e.g., Gnosticism, Marcionism, Montanism), focusing on their polemical relationship to orthodox Christianity.

RELI 211 Classical Hebrew I: A Linguistic Introduction to the Hebrew Bible (3). An introduction to the culture and history of ancient Israel through an exploration of the language of the Hebrew Bible. Students will learn the essentials for basic engagement with biblical Hebrew, then consider what this linguistic evidence reveals about the historical and cultural background of the Hebrew Bible.

RELI 212 Classical Hebrew II: A Linguistic Introduction to the Hebrew Bible (3). Prerequisite, RELI 211. This course explores the linguistic background of the Hebrew Bible, giving special attention to the literary aspect of biblical interpretation. Specific topics include the forms of the Hebrew verb, prose and poetic genres in the Hebrew Bible, wordplay and repetition, narration and dialogue.

RELI 217 Gnosticism (3). A comprehensive survey of ancient Christian Gnosticism, one of the earliest and most long-lived branches of early Christianity, with principal readings drawn from the famous "Nag Hammadi Library."

RELI 218 Christianity and Islam in the Middle Ages (GERM 218) (3). See GERM 218 for description.

RELI 222 Modern Western Religious Thought (3). Prerequisite, PHIL 134 or RELI 122, 126, 140, 161, or 163. Representative themes and approaches in the work of modern Western religious thinkers.

RELI 224 Modern Jewish Thought (3). This course examines how contemporary thinkers have considered philosophy, ethics, and theology from a Jewish perspective. Methodological points of inquiry include the role of interpretation in Judaism, revelation and redemption, authority and tradition, pluralism and inclusion, suffering and evil, gender and Jewish philosophy, and 20th-century approaches to God.

RELI 225 Christian Cultures (3). This course explores the range of cultural manifestation of Christianity in the modern world, focusing particularly on differences of race, ethnicity, gender, geography, and class.

RELI 232 Shrines and Pilgrimages (3). An introduction to the study of shrines and pilgrimage in multiple cultural contexts.

RELI 234 Historical Sociology of Christianity (SOCI 140) (3). See SOCI 140 for description.
RELI 235 Place, Space, and Religion (3). A consideration of the attitudes toward place and space as they are expressed in religious ritual and artifact.

RELI 236 Religious Things (3). An introduction to religion and visual culture in the United States. The course focuses on painting, ritual objects, and architecture.

RELI 239 German Culture and the Jewish Question (CMPL 270, GERM 270, JWST 239) (3). See GERM 270 for description.

RELI 240 Religion, Literature, and the Arts in America (3). Engages literary, performing, and visual arts to explore religion in American culture.

RELI 241 Messianic Movements in American History (3). The course examines messianic movements in American history raising the questions, What has been the impact of such movements on the nation? What makes America particularly conducive to such movements?

RELI 242 New Religious Movements in America (3). An introduction to new religious movements in the United States, with emphasis on the nature of conversion and the role of founders.

RELI 243 Introduction to American Judaism (JWST 243) (3). Course provides a comprehensive introduction to American Judaism, its various movements, institutions, theological, and liturgical characteristics, as well as its standing within the larger framework of religious life in America.

RELI 244 Gender and Sexuality in Western Christianity (WMST 244) (3). An examination of the development of teachings on issues of gender and sexuality through the history of Western Christianity, with particular focus on contemporary controversies.

RELI 245 Creolization and Latina/o Religious Transformation in the United States (3). The goal of this course is to orient students to the great diversity of Latina and Latino religious formations in the United States today. Focusing on Indigenous, African, and Catholic Creole "inspirations," this course will focus students on the emergence of a distinctly United States Latina/o religious experience.

RELI 246 Supernatural Encounters: Zombies, Vampires, Demons, and the Occult in the Americas (3). This course examines accounts of supernatural beings such as zombies and vampires and aims to understand them as popular ways of making sense of the world in the context of uneven and frequently unsettling processes of modernization, neoliberalism, and globalization.

RELI 248 Introduction to American Islam (3). This course surveys Muslim communities in North America in their religious, historical, political, social, and cultural dimensions. Discussion frames include methods for the study of American Muslims, the role of public and media representations of Islam and Muslims, and the place of American Muslims within the larger American religious landscape.
RELI 266 Medieval and Renaissance Christian Cultures (3). This course explores the cultural manifestations of Christianity in the medieval and Renaissance worlds, focusing particularly on interactions with other religions and on differences of gender, geography, and class.

RELI 283 The Buddhist Tradition: India, Nepal, and Tibet (ASIA 300) (3). Examines the diverse beliefs, practices, and cultures associated with Buddhism in the Himalayan regions of India, Nepal, and Tibet. Topics include Buddhism's development and spread, the cultural dynamics of Himalayan societies, monasticism, folk religion, revivalism, tourism, gender, globalization, and the role of the state in shaping Buddhist life and culture.

RELI 284 The Buddhist Tradition: East Asia (ASIA 284) (3). An examination of the development of Buddhism after its importation to East Asia.

RELI 285 The Buddhist Tradition: Southeast Asia and Sri Lanka (ASIA 285) (3). This course explores the Theravada school of Buddhism and themes in the social, cultural, and political lives of the Theravada Buddhist countries of Southeast Asia and Sri Lanka.

RELI 286 Premodern Japanese Religions (ASIA 301) (3).
Historical survey of the major premodern religious traditions in

Japan: Shinto, Buddhism, Shugendo, and Christianity.
RELI 287 Modern Japanese Religions (ASIA 302) (3). Survey of the major religious traditions in modern and contemporary Japan: Shinto, Buddhism, and the New Religions.
RELI 288 Chinese Religions (ASIA 303) (3). Historical introduction to Chinese religions: Confucianism, Daoism, Buddhism, and folk religion.

RELI 289 Muhammad and the Qur'an (3). An introduction the life and significance of the Prophet Muhammad and the sacred scripture of Islam, the Qur'an. It offers discussion of textual sources for Muhammad's biography; his emulation and veneration in Muslim societies, and the nature, compilation, reception history, and range of interpretations of the Qur'an.
RELI 322 Theories of Religion (3). This course addresses terms such as "the sacred," "the dead," "divinity," and "possession" to explore the limitations and new potentials of religious studies for describing human experience.

RELI 323 Social Theory and Cultural Diversity (3). Introduction to basic thinking about cultural difference (race, gender, nationality, religion, etc.). The course encourages students to examine the ways paradigms shape how we act, think, and imagine as members of diverse cultures in the United States.
RELI 325 Religion, Magic, and Science (3). Critical exploration of the ways in which religion, magic, and science have been constructed as distinct domains of knowledge in the West since the late 19th century.

RELI 332 The Protestant Tradition (3). The course comes to provide students with historical and theological knowledge and conceptual tools that will enable them to understand the very rich and diverse Protestant tradition.

RELI 338 Religion in American Law (3). An exploration of the position of religion in American legal and social theory, with particular focus on jurisprudence under the First Amendment.

RELI 340 Liberal Tradition in American Religion (3). An examination of the growth of liberal theological expressions, such as rationalism, romanticism, and modernism, from the early 18th century to the present.
RELI 342 African American Religious Experience (ANTH 342, FOLK 342) (3). Permission of the instructor. An introduction to the diversity of African American beliefs, experiences, and expressions from the colonial era to the present. Exploration will be both historical and thematic.

RELI 343 Religion in Modern Israel (JWST 343) (3). Examines the major religious groups that operate in the state of Israel and influence its social and cultural development; analyzes the relationship among religion, state, and society in Israel.

RELI 345 Black Atlantic Religions (3). This course is an introduction to Black Atlantic discourses from ethnographic and religious studies perspectives. Readings will privilege Africaninspired performance and aesthetic forms as these are produced in religious practice.

RELI 352 Anthropology of Christianity (3). This course introduces students to the anthropology of Christianity. Students
will explore major themes of interest in the field. This course aims to familiarize students with the diversity of Christian religious experience and expression globally and to explore the mechanisms through which that diversity takes shape in various cultural contexts.
RELI 362 Mary in the Christian Tradition (WMST 362) (3). In certain eras, Mary has been more central to Catholic devotion than Christ. This course explores doctrine, liturgy, and popular devotion centering on the Virgin in medieval European Christianity, her impact on colonial religion in the New World, and her roles in Protestantism, Eastern Orthodoxy, and Islam.

## RELI 365 Studies in Christian Theologies and Theologians

 (3). Permission of the instructor. An investigation of one writer or school in the history of Christian theology as an example of typical methods, positions, and problems within the tradition.RELI 366 Medieval Religious Texts (3). Permission of the instructor. Restricted to students with a reading knowledge of Latin. Readings in one or two major texts in Latin that permit close study of several issues in the development of Christian life and thought during the Middle Ages.

RELI 367 The Art of Devotion in Medieval and Early Modern Europe (3). Prerequisites, RELI 161 and 163. Permission of the instructor for students lacking the prerequisites. This course examines creative expression at the service of religious belief from 1000 to 1700 . Poetry, drama, art, architecture, and music will be the texts to understand the religious culture of this rich period.
RELI 371 Women Mystics (WMST 371) (3). An investigation of the forms, characteristics, and variety of the mystical experiences of women.

RELI 375 Archaeology of Cult (CLAR 375) (3). See CLAR 375 for description.

RELI 381 Religions of South Asia (3). Exploration of the major religious traditions of South Asia. Focuses on the beliefs and practices associated with different traditions, and the ways that these relate to one another and to broader political, historical, and cultural formations. Also addresses questions of modernization, reform, communal violence, and other transformations of religious life.

RELI 382 The Story of Rama in Indian Culture-Experiential (ASIA 382) (3). See ASIA 382 for description.

RELI 383 The Mababharata: Remembered and ReimaginedExperiential (ASIA 383) (3). See ASIA 383 for description.
RELI 385 Modern Muslims and the Qur'an (3). This course introduces students to the multifaceted ways in which Muslims in the modern and contemporary periods have approached, experienced, and interpreted the Qur'an, including discussions of accessibility, hermeneutical methods, and exegetical themes.

RELI 390 Topics in the Study of Religion (3). Permission of the instructor. Subject matter will vary with instructor but will always be focused on a particular problem or issue.
RELI 401 Introductory Biblical Hebrew I (3). The first part of a two-semester introduction to the grammar of biblical Hebrew.

RELI 402 Introductory Biblical Hebrew II (3). Prerequisite, RELI 401. Permission of the instructor for students lacking the
prerequisite. The second part of a two-semester introduction to the grammar of biblical Hebrew.

RELI 403 Intermediate Classical Hebrew I (3). Prerequisite, RELI 402. Permission of the instructor for students lacking the prerequisite. A consolidation of the fundamentals of classical Hebrew grammar via readings of biblical texts of various genres (including both prose and poetry).

RELI 404 Intermediate Classical Hebrew II (3). Prerequisite, RELI 403. Permission of the instructor for students lacking the prerequisite. Further readings of classical Hebrew texts, focusing on biblical poetry as well as early postbiblical material (e.g., nonbiblical texts from Qumran, Mishnah/Tosefta).

RELI 409 Greek New Testament (GREK 409) (3). Prerequisite, GREK 222. Permission of the instructor for students lacking the prerequisite.
RELI 410 Aramaic/Rabbinic Hebrew (3). Prerequisites, RELI 403 and 404. Permission of the instructor for students lacking the prerequisites. Reading texts in rabbinic Hebrew or in biblical and/or talmudic Aramaic, with appropriate grammatical instruction.

RELI 411 Advanced Akkadian (3). Prerequisites, RELI 403 and 404. Readings in literary, epistolary, and juridical texts.

RELI 412 Ugaritic (3). Prerequisites, RELI 403 and 404. Readings in the alphabetic texts of Ras Shamra and a study of the elements of Ugaritic grammar.

RELI 413 Biblical Coptic and Early Egyptian Monasticism (3). Coptic, the last stage of Egyptian, a living language in the Roman and Byzantine period. Thorough grounding in the grammar of the Sahidic dialect as a basis for reading biblical monastic and Gnostic texts.

RELI 414 Syriac (3). An introduction to the grammar of Classical Syriac for the purpose of reading Syriac Christian texts from late antiquity. Knowledge of another Semitic language (e.g., Hebrew, Arabic) would be an asset but is not required.

RELI 420 Post-Holocaust Ethics and Theology (3). This course examines the challenges posed to ethics and theology by the Holocaust. We will address philosophical and moral issues such as the problem of evil, divine omniscience, omnipotence, suffering, theodicy, representation, testimony, and an ethics of memory.
RELI 421 Religion and Science (3). This course explores the complex relation between religion and science in the modern world. Public disputes over teaching evolution in American schools serve as a central case study of this.

RELI 423 Ethnicity, Race, and Religion in America (3). Prerequisite, RELI 140. Permission of the instructor for students lacking the prerequisite. A theoretical inquiry into ethnicity, race, and religion as constituents of personal and communal identity. Emphasis on global migrations, colonial and postcolonial relations, diasporic communities, and issues of religious pluralism.
RELI 424 Gender Theory and the Study of Religion (WMST 424) (3). An examination of contemporary gender theory, with particular focus on its application to the study of religion.

RELI 425 Psychology of Religion (3). A critical exploration of
the concept of religious experience as defined by such authors as William James and Sigmund Freud.

RELI 426 The Sacrifice of Abraham (3). This course examines philosophical interpretations of the attempted sacrifice by Abraham of his beloved son, offering a comparative approach. The incident in Genesis is remarkably succinct for its controversial subject matter. We will compare this event with representations in Greek drama, the New Testament, and the Qur'an.
RELI 427 Spirit Possession (3). This course explores the phenomenon of spirit possession and introduces students to various theoretical and methodological approaches to its academic study. In addition to critically engaging with accounts of spirit possession from around the world, students will explore various related themes of gender, power, and religious and cultural change.
RELI 428 Religion and Anthropology (ANTH 428, FOLK 428) (3). See ANTH 428 for description.

RELI 429 Religion and Society (SOCI 429) (3). See SOCI 429 for description.

RELI 438 Religion, Nature, and Environment (3). A seminar on concepts of nature within religions and a variety of world-wide spiritual traditions. Emphasis on sacred space, place, and pilgrimage as a vital intersection of religion and nature.
RELI 441 History of Religion in America to 1865 (3). An examination of primary sources in the history of American religion from the precolonial era to the Civil War.

RELI 442 History of Religion in America since 1865 (3). An examination of primary sources in the history of American religion since the Civil War.

RELI 443 Evangelicalism in Contemporary America (3). Juniors or seniors only. Examination of evangelicalism and its role in American society, politics, and culture. Exploration of its various subdivisions and its relation to such movements as fundamentalism, pentecostalism, revivalism, and premillennialism.

RELI 444 Gender and Sexuality in Contemporary Judaism (JWST 444) (3). The seminar examines the developments in gender roles and in sexuality in contemporary Judaism.
RELI 445 Asian Religions in America (ASIA 445) (3). A study of intercultural interaction and interreligious encounter focusing on Asian religions in America, 1784 to the present.

RELI 446 Christian-Jewish Relations throughout the Ages (3). An exploration of the varied and complex relationships which have developed between Christianity and Judaism, from the first century to the 21 st century.

RELI 450 Sexuality in Jewish Tradition and History (3). This course deals with various topics related to sexuality and marriage in Jewish tradition and history: sex outside of marriage, wedding ceremonies, regulation of marital sex, menstruation, homosexuality, and more.

RELI 454 The Reformation (HIST 454) (3). See HIST 454 for description.

RELI 463 Medieval Slavic Culture (SLAV 463) (3). See SLAV 463 for description.

RELI 465 Monotheistic Mysticism (3). In medieval Jewish Kabbalah, Christian mysticism, and Islamic Sufism, devotees attempt to express direct experiences of an infinite God. This course examines theories of mystical language, particularly the negation of language, the turn to the visual and the body, and the tension between communal and individual expressions of the divine.
RELI 480 Modern Muslim Literatures (3). Stresses the diversity of modern Islamic experience by examining the works of various Muslim authors. Genres may include travelogues, memoirs, novels, sermons, and treatises, among others.

RELI 481 Religion, Fundamentalism, and Nationalism (PWAD 481) (3). An exploration of explosive combinations of religion and politics in the Iranian revolution, the Palestinian movement, Hindu nationalism in India, and Christian fundamentalism in America.

RELI 485 Gender and Sexuality in Islam (3). This course approaches constructions of gender and sexuality in Muslim societies in diverse historical and geographical contexts. It focuses on changing interpretations of gender roles and sexual norms. Themes include gender in Islamic law, sexual ethics, masculinity, homosexuality, marriage, and dress.

RELI 487 Mountains, Pilgrimage, and Sacred Places in Japan (ASIA 487) (3). This course explores the role that mountains and pilgrimage have played in Japanese cosmology and how they relate to methodology of studying place and space.
RELI 488 Shinto in Japanese History (ASIA 488) (3). This course discusses the development of Shinto in Japanese history and covers themes such as myths, syncretism, sacred sites, iconography, nativism, religion and the state, and historiography.

RELI 489 Animals in Japanese Religion (ASIA 489) (3). Permission of the instructor. This course examines the cultural construction of animals in Japanese myth, folklore, and religion.
RELI 501 The History of the Bible in Modern Study (3). This course will examine how the modern historical-critical enterprise of biblical scholarship arose, out of what historical circumstances, for what purposes, and to what effect. What are its major aspects? How does it relate to other forms of academic and theological inquiry? How has this enterprise fared in recent times?

## RELI 502 Myths and Epics of the Ancient Near East (FOLK

502) (3). Permission of the instructor. An examination of Babylonian, Canaanite, Egyptian, Hittite, and Sumerian texts from the prebiblical era, focusing on representative myths, epics, sagas, songs, proverbs, prophecies, and hymns.
RELI 503 Exploring the Dead Sea Scrolls (JWST 503) (3). A comprehensive introduction to the Dead Sea Scrolls and the different Jewish groups connected with them.
RELI 504 Readings in Hebrew Bible (3). This course will examine a major corpus of the Hebrew Bible with attention to the full range of historical-critical issues. Attention will be paid as well to early forms of biblical interpretation and their use in the religious life of subsequent communities.

RELI 512 Ancient Synagogues (CLAR 512, JWST 512) (3). Prerequisite, RELI 110. Permission of the instructor for students lacking the prerequisite. This is a course on ancient synagogues in

Palestine and the Diaspora from the Second Temple period to the seventh century CE.

RELI 522 19th-Century Critiques of Religion (3). Permission of the instructor. An exploration of influential 19th-century critiques of religion, including texts by such thinkers as Feuerbach, Marx, Kierkegaard, Nietzsche, Stanton, Douglass, and Freud.

## RELI 524 Ethnographic Approaches to Contemporary Religion

 (3). Critical exploration of exemplary contemporary ethnographies of religion focusing on the ways that ethnographic methods and writing styles shape knowledge of religious and cultural life in various traditions and parts of the world. Topics considered include field work, culture, ethics, and the challenges of interpreting and representing religious experience.RELI 525 Seminar in Religion and Literature (3). Seminar topic varies.

RELI 527 Religious Metaphor and Symbol (3). This course explores the myriad and complex issues related to the function of metaphor and symbol in religious language.

RELI 528 Rituals and Rhetorics of Religion (3). An examination of ritual, allegory, and symbol as modes of religious expression in cultic and literary contexts.
RELI 530 Genealogies of Religion (3). This seminar explores the historical development of "religion" as a concept and object of academic scholarship through the critical study of key texts and foundational debates about religion in Western thought.

## RELI 534 Religious Ethics and Issues in Contemporary

Medicine (3). Seniors or graduate students only. Examination of religious-ethical dimensions of such issues as the dying patient, organ transplants, abortion, prolongation of life, and experimentation on human beings, drawing on theory from the traditional Western religions and the social sciences.
RELI 540 Mormonism and the American Experience (3). Prerequisite, RELI 140. Permission of the instructor for students lacking the prerequisite. Exploration of the history, beliefs, and practices of Mormons. Will include visits to Latter-Day Saints services, guest speakers, and discussion of race and gender in the contemporary church.

RELI 541 Global Evangelicalism (3). The course will examine the evangelical tradition from a global perspective, exploring the tradition from its early rise in Europe to its impact on the Americas, Africa, and Asia.
RELI 542 Religion and the Counterculture (3). The course examines the interaction between the values and messages of the counterculture and religious groups, ideas, and practices during the Vietnam War era. It also investigates the impact of countercultural norms and styles on the current American religious scene.

RELI 565 Medieval Jews and the Bible (3). This course explores the Jewish interpretation of the Bible, focusing on important commentaries from influential medieval Ashkenazi and Sephardic thinkers.

RELI 566 Jewish Legal Literature (3). This course explores many aspects of the Halakhah, the Jewish traditional legal system,
focusing on issues such as rituals, holidays, religious obligations and prohibitions, and laws regulating sexual activity.

## RELI 569 Interfaith Marriages and Intimacy in World

Religions (3). This seminar explores the topic of intimate relations between people who consider themselves, or are considered by others, to be part of different religious groups. We will explore cases in which such relations achieve the social sanction of marriage and cases in which the relations are of a more temporary nature.

RELI 574 Chinese World Views (ANTH 574, ASIA 574) (3). See ANTH 574 for description.

RELI 580 African American Islam (3). An historical examination of African American Islam in the United States. Explores the intellectual, cultural, social, and political roots of black Islam in addition to its diverse doctrinal, ritual, and institutional manifestations.

RELI 581 Sufism (ASIA 581) (3). Permission of the instructor. A survey of Islamic mysticism, its sources in the Qur'an and the Prophet Muhammad, and its literary, cultural, and social deployment in Arab, Persian, Indic, and Turkish regions.

RELI 582 Islam and Islamic Art in South Asia (ASIA 582) (3). A survey of the formation of Islamic traditions in the subcontinent from the eighth century to the present, with emphasis on religion and politics, the role of Sufism, types of popular religion, and questions of Islamic identity.
RELI 583 Religion and Culture in Iran, 1500-Present (ASIA 583) (3). Iran from the rise of the Safavid empire to the Islamic Republic. Topics include Shi'ism, politics, intellectual and sectarian movements, encounters with colonialism, art and architecture, music, literature.

RELI 584 The Qur'an as Literature (ASIA 584) (3). A nontheological approach to the Qur'an as a literary text, emphasizing its history, form, style, and interpretation.
RELI 585 Religion and Culture of Turkey (3). This course will cover the history of Turkey from the Byzantine period until contemporary times. Key aspects of Turkish culture (architecture, music, poetry to arts) will be covered.

RELI 586 Women and Gender in Japanese Religions (3). This seminar explores the roles of women in the religions of Japan (including Buddhism, Shinto, folk religions, pilgrimage, new religions movements, and new spirituality culture) from goddesses, shamans, nuns, and pilgrims to demons, temptresses, and lesser human beings. The course traces these themes across Japanese socioeconomic and religious history.

RELI 590 Topics in the Study of Religion (3). Permission of the instructor. Subject matter will vary with instructor but will always be focused on a particular problem or issue.

RELI 592 Religious Conflict and Narrative in India (HNUR 592) (3). See HNUR 592 for description.

RELI 602 What Is Scripture? Formations of the Hebrew Bible/ Old Testament Canon (JWST 602) (3). The course traces the past and continued canonical processes that define what the Hebrew Bible/Old Testament has been and is today, with a focus on the history of biblical interpretation.

RELI 603 The Bible and Its Translation (3). This course explores the translation of the Hebrew Bible in the West, with a view toward identifying religious and ideological trends.

RELI 607 Problems in Early Christian Literature and History (3). Prerequisite, RELI 104, 207, or 208. Permission of the instructor for students lacking the prerequisite.

RELI 608 The Messiah and the Apocalypse (3). Ideas concerning the Messiah and the end of the world held by Jews, Christians, and Muslims. Emphasis on the beginning of the Christian era.

RELI 610 Readings in the Apostolic Fathers (3). Reading of the Apostolic Fathers. Students must have completed two courses in New Testament/Early Christianity and two years of Greek.
RELI 617 Death and Afterlife in the Ancient World (3). Examinations of practices and discourses pertaining to death and the afterlife in the ancient civilizations of Near East, Greece, and Rome.

RELI 662 Advanced Seminar in Contemporary Catholicism (3). This advanced seminar is for undergraduate and graduate students who have at least a basic knowledge about Catholicism. The range of topics to be discussed is open and will depend on students' interests and suggestions.
RELI 665 Body and Suffering in Christian Mysticism (3). Permission of the instructor for nonmajors. Medieval Christians consistently focused on the suffering body as a means of reflecting on Christ's sacrifice. This course considers how medical theories of cognition, gender, and pain influenced the potential role of the body in medieval mystical experience.

## RELI 668 Spanish Religions: Peninsular Convivencia and

 Colonial Encounter (3). Strong background in medieval and early modern studies and permission of the instructor required for undergraduates. This course studies Muslims, Christians, and Jews in the medieval Iberian kingdoms, then interreligious discourse in the colonial expansion to Mexico, Peru, and the Philippines, by deploying theories concerning race, gender, sexuality, and postcoloniality.RELI 681 Readings in Islamicate Literatures (ARAB 681, ASIA 681) (3). Permission of the instructor. Study of selected religious, literary, and historical texts in Arabic, Persian, or Urdu.

RELI 688 Observation and Interpretation of Religious Action (ANTH 688, FOLK 688) (3). See ANTH 688 for description.
RELI 691H Honors in Religious Studies (3). Permission of the director of undergraduate studies. Required of all students reading for honors in religious studies.

RELI 692H Honors in Religious Studies (3). Permission of the director of undergraduate studies. Required of all students reading for honors in religious studies.

RELI 696 Independent Study (3). Advanced undergraduate or graduate standing and permission of the instructor. Subject matter should be arranged with a specific instructor.

RELI 697 Capstone: Undergraduate Seminar (3). Majors only. Concentrating on a different theme each year, this departmental seminar introduces the different areas and approaches in religious studies.

## JWST-Jewish Studies

JWST 100 Introduction to Jewish Studies (RELI 123) (4). See RELI 123 for description.

JWST 101 Elementary Modern Hebrew I (HEBR 101) (4). See HEBR 101 for description.

JWST 102 Elementary Modern Hebrew II (HEBR 102) (4). See HEBR 102 for description.

JWST 103 Introduction to the Hebrew Bible/Old Testament Literature (RELI 103) (3). See RELI 103 for description.

JWST 106 Introduction to Early Judaism (RELI 106) (3). See RELI 106 for description.

JWST 107 Introduction to Modern Judaism (RELI 107) (3). See RELI 107 for description.

JWST 110 The Archaeology of Palestine in the New Testament Period (CLAR 110, RELI 110) (3). See RELI 110 for description.

JWST 143 Judaism in Our Time (RELI 143) (3). See RELI 143 for description.

JWST 153 Jewish History: From Medieval to Modern Times (HIST 153) (3). See HIST 153 for description.
JWST 203 Intermediate Modern Hebrew I (HEBR 203) (4). See HEBR 203 for description.

JWST 204 Intermediate Modern Hebrew II (HEBR 204) (4).
See HEBR 204 for description.
JWST 206 Prophecy and Divination in Ancient Israel and Judah (RELI 206) (3). See RELI 206 for description.
JWST 239 German Culture and the Jewish Question (CMPL 270, GERM 270, RELI 239) (3). See GERM 239 for description.

JWST 243 Introduction to American Judaism (RELI 243) (3). See RELI 243 for description.
JWST 253 A Social History of Jewish Women in America (AMST 253, WMST 253) (3). See AMST 253 for description.
JWST 262 History of the Holocaust: The Destruction of the European Jews (HIST 262, PWAD 262) (3). See HIST 262 for description.

JWST 289 Jewish American Literature and Culture of the 20th Century (ENGL 289) (3). See ENGL 289 for description.
JWST 305 Advanced Modern Hebrew I (HEBR 305) (3). See HEBR 305 for description.

JWST 306 Advanced Hebrew II (HEBR 306) (3). See HEBR 306 for description.

JWST 308 The Renaissance and the Jews (HIST 308) (3). See HIST 308 for description.
JWST 311 Ghettos and Shtetls? Urban Life in East European Jewish History (HIST 311) (3). See HIST 311 for description.

JWST 330 Jesus and the Jews: From the Bible to the Big Screen (HIST 330) (3). See HIST 330 for description.

JWST 343 Religion in Modern Israel (RELI 343) (3). See RELI 343 for description.

JWST 360 The Jewish Writer in American Life (3). This course will investigate, through literature, film, and song, the encounter of Eastern European Jews and their descendants with Anglo-Protestant America over four generations.
JWST 412 20th-Century Polish Literature and Culture (PLSH 412) (3). See PLSH 412 for description.

JWST 444 Gender and Sexuality in Contemporary Judaism (RELI 444) (3). See RELI 444 for description.

JWST 451 1492: The Expulsion of the Jews from Spain (HIST 451) (3). See HIST 451 for description.

JWST 464 Imagined Jews: Jewish Themes in Polish and Russian Literature (SLAV 464) (3). See SLAV 464 for description.
JWST 465 Literature of Atrocity: The Gulag and the Holocaust in Russia and Eastern Europe (PWAD 465, SLAV 465) (3). See SLAV 465 for description.

JWST 469 Coming to America: The Slavic Immigrant Experience in Literature (SLAV 469) (3). See SLAV 469 for description.
JWST 476 Borderlands: Religion and Ethnicity in Modern East Central Europe (HIST 476) (3). See HIST 476 for description.

JWST 485 Modern East European Jewish History (HIST 485) (3). See HIST 485 for description.

JWST 486 Shalom Y'all: The Jewish Experience in the American South (AMST 486) (3). See AMST 486 for description.
JWST 503 Exploring the Dead Sea Scrolls (RELI 503) (3). See RELI 503 for description.

JWST 512 Ancient Synagogues (CLAR 512, RELI 512) (3). See RELI 512 for description.
JWST 602 What Is Scripture? Formations of the Hebrew Bible/Old Testament Canon (RELI 602) (3). See RELI 602 for description.

JWST 697 Capstone Course: Themes and Methodologies in Jewish Studies (3). Required of majors in religious studies with a concentration in Jewish studies; graduate students may enroll. Concentrating on a different theme each year, the course offers intensive grounding in key areas of and approaches to Jewish studies. Combines exploration of broad topics with scholarly rigor and specificity.

## Department of Romance Studies

roml.unc.edu
238 Dey Hall, CB\# 3170; (919) 962-2062
FEDERICO LUISETTI, Chair

## Introduction

The Department of Romance Studies is a diverse, multicultural, and plurilingual academic unit that engages in research and instruction in French, Italian, Portuguese, Spanish, and the historical minority languages of Europe and the Americas. The principal aims of the department are to preserve, increase, and transmit knowledge and understanding of the Romance languages, literatures, and cultures within the global and regional contexts in which they have developed. Our course offerings present diverse approaches to the study, production, and appreciation of literary and nonliterary texts. The program offers a wide historical, literary, linguistic, social, and cultural emphasis that considers, among other topics, East-West, trans-Atlantic, and transcontinental discourses that have taken place among Europe, the Americas, Africa, and Asia; as well as NorthSouth literary and cultural dialogues between Europe and Africa, and within the Americas. For this reason, each of the five major programs and five minors offered in the Department of Romance Studies complements many other majors and minors at UNC-Chapel Hill.

In our undergraduate programs, students acquire competence in the practice and analysis of the language together with a critical knowledge of the civilization, cultures, and literatures of the peoples who speak these languages today. Our faculty promotes interdisciplinary connections and incorporates the study of culture, theory, linguistics, and history across the curriculum. Through coursework that emphasizes rhetoric, composition, and written and oral expression, our majors receive sustained personalized training in critical thinking, rigorous analysis, and close reading.

## Romance Languages Major, B.A.French and Francophone Studies

## Core Requirements

- FREN 260 or 312 (gateway)
- FREN 300
- Three survey courses: FREN 370, 371, and 372
- Four additional courses, chosen from FREN 280, 285, or any courses 310 or above (excluding FREN 401, 402, and 692H)

We offer a strong emphasis on European and francophone studies as well as the Languages across the Curriculum Program (LAC), which allows students to participate in one-hour, one-credit discussion sections in French on an array of courses across the College of Arts and Sciences.

## Romance Languages Major, B.A.-Italian

Core Requirements

- ITAL 300
- Seven courses chosen from among the following: ITAL 310, 330, $331,333,335,340,343,345,370,371,382,390,398,511,512$, or 526

A prerequisite for entering the program is knowledge of the Italian language, demonstrated by successfully completing ITAL 204 or ITAL 402 or the equivalent. With the approval of the undergraduate advisor for Italian, students majoring in Romance languages with an emphasis in Italian may count up to nine hours in related areas in such departments, programs, and curricula as classics, art, music, cultural studies, and women's and gender studies.

## Romance Languages Major, B.A.-Portuguese

## Core Requirements

- Eight courses chosen from among the following: PORT 310, 323, $382,385,388,390,398,501,502,503,504,526,535$

With the approval of the undergraduate advisor for Portuguese, students majoring in Romance languages with an emphasis in Portuguese may count up to nine hours in related areas in such departments, programs, and curricula as history, art, music, cultural studies, and women's and gender studies.

The program in Portuguese combines the study of the language, culture, and literatures of Brazil and Portugal. Emphasis is placed on the language as it is currently spoken and its historical development. Students study the literatures of Brazil and Portugal in terms of their historical development and analyze specific texts from different genres and literary periods. Students interested in Portuguese should consult the Portuguese language advisor.

Because few entering students have completed coursework in Portuguese prior to enrollment in the University, it is essential that interested students start the language as early as the first year. Completion of PORT 204 is considered a prerequisite for the major.

## Romance Languages Major, B.A.Hispanic Literatures and Cultures

## Core Requirements

- SPAN 260 (gateway) or 262 (for heritage speakers)
- SPAN 300 or 326 (for heritage speakers)
- SPAN 330, 331, 335, 340, 344, or 345
- SPAN 350, 369, 375, 376, 377, 378, 403, 678, or 682
- Two courses chosen from SPAN 371, 372, and 373
- One additional literature course, which can be either the survey course not chosen from among SPAN 371, 372, and 373 or any literature course from the list below (preferably but not necessarily in the area of the survey courses not chosen)
- Two courses chosen from any of the previous lists or from the following courses: SPAN 333, 348, 361, 362, 379, 380, 381, 382, 383, 384, 385, 386, 387, 389, 394, 395, 397, 398, 414, 415, 613, 614, 617, 620, 625, 650
Note: SPAN 401, 402, 404, 405, 601, and 602 do not count toward the major.


## Romance Languages Major, B.A.Hispanic Linguistics

## Core Requirements

- SPAN 260 (gateway) or 262 (for heritage speakers)
- One advanced grammar and composition course: SPAN 300 or 326 (for heritage speakers)
- Two introductory Hispanic linguistics courses: SPAN 376 and 377
- Two specialized Hispanic linguistics courses chosen from SPAN $375,378,397,677,678,679,680,682$, one of which must be from the 600 -level courses
- One course in a language relevant to Spanish chosen from SPAN 414, 416; PORT 401
- Two additional courses chosen from the following:
o Specialized linguistics courses: SPAN 375, 378, 397, 677, 678, 680, 682
${ }^{\circ}$ A second course in a relevant language: SPAN 415, 417; PORT 402
o Advanced language courses: SPAN 333, 350, 369
- Introductory courses in culture, literature, or film: SPAN 330, $331,335,340,344,345,361,362,371,372,373$
The major in Romance languages with an emphasis in Hispanic literatures and cultures and in Hispanic linguistics provides opportunities to study the languages, literatures, and cultures of Spain and Spanish America. Prospective majors should complete the foreign language requirement by the end of their sophomore year. LING 101 is highly recommended preparation for the emphasis in Hispanic linguistics.


## French Minor

- FREN 300
- Four additional FREN courses numbered above 275, excluding 308, 401, 402, 601, 602

Students unable to undertake a full eight-course French program may register for the French minor. This option also is available to students in some professional schools.

## Italian Minor

- ITAL 300
- Four additional ITAL courses numbered between 300 and 699, excluding $401,402,691 \mathrm{H}$, and 692 H

With the approval of the undergraduate advisor in Italian, one of the four elective courses may be substituted with a course at the 200-level or a course in such allied fields as classics, history, art, music, and women's and gender studies.

Completion of ITAL 204 or 402 is considered a prerequisite for the minor.

## Portuguese Minor

## - PORT 310

- Four additional PORT courses numbered between 300 and 699, excluding $401,402,691 \mathrm{H}$, and 692 H


## Hispanic Studies Minor

The minor in Hispanic studies is designed for those who wish to continue their study of the Spanish language and acquire a more in-depth knowledge of Spanish and/or Spanish American literature, culture, or linguistics. Through the selection of courses students may choose to concentrate on a single region of the Hispanic world (Spain or Spanish America), a specific content area (literature, culture, or linguistics), or a combination of regions and/or content areas.

## Core Requirements

- SPAN 300 or 326 (for heritage speakers)
- Three courses numbered SPAN 330 or above, excluding SPAN 401, 402, 404, 405, and 601
- One allied course on the Hispanic world (see section below)


## Additional Requirements

- SPAN 250, 255, or 260

Note: SPAN 260 is required for the major, so it is recommended if there is a possibility of changing to the major.

## Spanish for the Professions Minor (approval required)

The minor in Spanish for the professions is designed for students who anticipate careers in which they will need to interact with Hispanic communities in the United States or abroad and who wish to continue the study of Spanish language and culture for specific professional purposes: business, medical and other health professions, media and journalism, or law and other legal professions. The profession-specific course for this option for the minor includes experiential learning through field work and/or public service.

- SPAN 265
- One profession-specific course from SPAN 320, 321, 322, 323, or 327
- SPAN 329
- One allied course on the Hispanic world (see section below)


## Allied Courses on the Hispanic World

Students will complement their courses in Spanish with one Hispanic-world course from the list of allied courses for the minors in Hispanic studies and Spanish for the professions. The allied course should be taken in a department other than Romance Studies, although a Spanish course cross-listed with another department would be acceptable. It could also be a course offered for the Languages across the Curriculum (LAC) Program or a course taken abroad in a university department other than Spanish language and literature. For the minor in Spanish for the professions students who plan to use Spanish professionally in the United States are strongly encouraged to choose a course related to the Hispanic community in the United States.

AAAD 260, 278, 284; ANTH 142 (LAC recitation in Spanish will carry one additional credit for SPAN 308), 232, 360; ANTH/ FOLK 130; ARTH 157, 277; DRAM 486, 488; ENGL 265, 364, 666; GEOG 259, 457, 458; HIST 142, 143 (LAC recitation in

Spanish will carry one additional credit for SPAN 308), 241, 242, 278, 292, 528, 532; HIST/WMST 280; JOMC 443; LTAM 101, 396 (with approval of the undergraduate Spanish advisor); MUSC 147; PLCY 349; POLI 231, 238 (LAC recitation in Spanish will carry one additional credit for SPAN 308), 434, 435; RELI 245; SOCI 453

Other courses with Hispanic content may also count with the approval of the undergraduate advisor for Spanish.

## Advising

All majors and minors can find their primary academic advisor in Dey Hall. Students are strongly encouraged to meet regularly with their advisor and review their Tar Heel Tracker each semester. Each of the department's language advisors will meet with current and prospective majors by appointment (see contact information below). Departmental academic advising is particularly important for those majors who are considering going on to graduate school. Further information on courses, undergraduate research opportunities, the honors program, careers, and graduate schools may be obtained from the department's Web site: roml.unc.edu.

## French

Dr. Hannelore Jarausch, Undergraduate Advisor and Director of French Language Instruction, CB\# 3170, 223 Dey Hall, (919) 9620111, hljaraus@email.unc.edu.

Inquiries relating to study abroad at Montpellier and other programs in France should be directed to Dr. Dorothea Heitsch (dheitsch@unc.edu) or the Study Abroad Office.

## Italian

Dr. Amy Chambless, Undergraduate Advisor, CB\# 3170, 140 Dey Hall, (919) 843-2042, achamble@email.unc.edu.

## Portuguese

Dr. Monica Rector, Undergraduate Advisor, CB\# 3170, 236 Dey Hall, rector@email.unc.edu.

Dr. Richard Vernon, Undergraduate Advisor, CB\# 3170, 337 Dey Hall, (919) 843-2058, rmvernon@email.unc.edu.

## Spanish

Dr. Gosia Lee, Undergraduate Advisor for Hispanic Literatures and Cultures, CB\# 3170, 337 Dey Hall, (919) 843-2058, gosialee@ email.unc.edu.

Dr. Martha Ruiz-García, Undergraduate Advisor for Hispanic Linguistics, CB\# 3170, 124 Dey Hall, ruizgar@email.unc.edu.

Dr. Glynis Cowell, Director of Spanish Language Instruction, CB\# 3170, 220 Dey Hall, (919) 962-0156, gscowell@email.unc.edu.

## Special Opportunities in Romance Studies

## Honors

The departmental honors program is open to any qualified major with a cumulative grade point average of 3.3 or higher and 3.5 or higher in their major courses. Eligible honors candidates will formulate a topic and select an appropriate faculty member to supervise the writing of an honors thesis. Specific coursework for
the major with honors consists of enrollment in a special topics course in the language of the major emphasis (FREN, ITAL, PORT, or SPAN 691H Research for Advanced Students) in the fall semester of the senior year, and 692H Honors Thesis in the spring semester. FREN, ITAL, PORT, SPAN 398 Undergraduate Seminar may be substituted for the research course if the subject of the seminar is central to the research project chosen. In the 692 H course the thesis will be completed and the student examined by the supervisor and two additional faculty members, to be agreed upon by the student and supervisor. The director of honors, in consultation with the examiners, will recommend that the student who has defended the thesis graduate with honors, highest honors, or with course credit. Courses numbered 691 H or 398 may count toward the eight courses for the major, but 692H may not. Students who intend to graduate in December should adjust the scheduling of these courses in order to allow for completion of the honors project in December. Students meeting the required grade point averages should contact the undergraduate advisor for their language (see "Advising," above). For detailed information on the B.A. with honors, see roml.unc.edu/undergraduate-programs/ba-with-honors.

## Out-of-Class Language Experience

Students may enrich their cultural and language experience by applying to the Spanish House, a section of Craige North residence hall. Equipped with a lounge and a kitchen, the house has space for eight male and 16 female students. Students make an effort to speak only Spanish while in residence.

## Departmental Involvement

Students also find opportunities to speak Spanish and meet native Spanish speakers in an informal weekly Tertulia. Additional activities such as lectures, receptions, and films are organized by the department and student organizations such as CHispA (Carolina Hispanic Association). Numerous volunteer opportunities using Spanish are available in the local community through CHispA, Campus Y, UNC Hospitals, and other organizations.

For further opportunities to speak French, students are encouraged to participate in the weekly meeting of the Table Française and become members of the French club, les Francophiles. Departmental lectures and film series are also offered.

Students wishing to speak Italian may participate in a weekly conversation table, La Tavola Italiana. They may also attend departmental lectures and film series and participate in the Italian Literary Contest.

Students who wish to practice Portuguese can meet weekly for the "bate-papo" (chat).

## Study Abroad

The Study Abroad Office sponsors several yearlong, semester-long, and summer programs appropriate for students of the Romance languages and has special arrangements with the Department of Romance Studies for the UNC in Montpellier, UNC in Seville, and Florence programs. Students from UNC-Chapel Hill and from other institutions may earn up to 30 semester hours of undergraduate credit in these programs, which are open to qualified undergraduates regardless of academic major. Students may satisfy up to 50 percent of their major coursework abroad.

Inquiries concerning any of these programs should be addressed to the Study Abroad Office, CB\# 3130, FedEx Global Education Center, (919) 962-7002.

## Undergraduate Awards

French: Students have the opportunity to be inducted into Pi Delta Phi, the national French honor society. Those with outstanding records in French are recommended as candidates for the Jacques Hardré Award, which is given to the best graduating senior in French; it includes a cash award.

Italian: Students are nominated for membership in Gamma Kappa Alpha, the Italian honor society, by undergraduate instructors. The society recognizes "outstanding scholastic performance in the fields of Italian language and literature" and encourages students "to acquire a greater interest in, and a deeper understanding of, Italian culture." The Kimberly Kyser Award for Excellence in Italian is awarded to the most outstanding student in Italian and includes a cash prize.

Portuguese: Each year the department awards the Camões Prize to the outstanding student in Portuguese during that year. The prize carries a monetary award made possible by a donation from the Gulbenkian Foundation.

Spanish: Students have the opportunity to be inducted into Sigma Delta Pi, the national Spanish honor society. Those with outstanding records in Spanish are recommended as candidates for the Stoudemire Award, which is given to the best graduating senior in Spanish and includes a cash prize.

## Facilities

Students taking courses in the Department of Romance Studies have outstanding support for their work through the Language Resource Center (LRC), housed on the ground floor of Dey Hall. The LRC provides resources and services for language teaching and learning, including audio and video materials; smart classrooms with PCs and projection equipment; listening, viewing, and recording facilities; and online databases for language learning.

## Graduate School and Career Opportunities

The master of arts in teaching (M.A.T.) degree is intended for students who wish to teach at the secondary level. M.A. and Ph.D. programs in Romance languages are almost exclusively oriented toward literary studies, and the undergraduate student should prepare accordingly. A reading knowledge of Latin is sometimes required, as is at least one other Romance language (generally Italian or Spanish). Useful allied disciplines are English, history, classics, philosophy, linguistics, and art history. A double major with one of these fields is often desirable. Faculty members can advise students on choices of graduate schools. Ratings of programs are published from time to time and are available through the department.

For students seeking careers in international business and law, journalism, publishing, social work, and the health professions, a second major or minor in a language is an asset. This also applies to students who wish to work in a field that makes knowledge of French, Italian, Portuguese, or Spanish desirable, such as history, art, Latin American studies, or global studies.

## Faculty

## Professors

Lucia Binotti, Dino S. Cervigni, Frank A. Domínguez, Dominique D. Fisher, Larry D. King, Federico Luisetti, Hassan Melehy, Rosa Perelmuter, Ennio Rao, Monica P. Rector.

## Associate Professors

Samuel Amago, Emilio del Valle Escalante, Oswaldo Estrada, Irene Gómez-Castellano, Juan Carlos González-Espitia, Carmen Hsu, Alicia Rivero, Ellen Welch.

## Assistant Professors

Marisa Escolar, Bruno Estigarribia, Jessica Tanner.

## Teaching Professors

Glynis S. Cowell, Hannelore L. Jarausch.

## Senior Lecturers

N. Grace Aaron, Iluminada Amat, Elizabeth Bruno, Amy Chambless, Hélène M. de Fays, Nina M. Furry, Luis M. Gómez, Dorothea Heitsch, Hosun Kim, Malgorzata Lee, Josefa Lindquist, Julia C. Mack, William C. Maisch, Valérie Pruvost, Richard Vernon.

## Lecturers

Martha Alexander, Michael Brown, Ruy Burgos-Lovèce, Cristina Carrasco, Frederico Castelloes, Corina Dueñas, Patricia Fuentes Lima, Michelle Gravatt, Kyung Huer, Pedro Huesa, Sangsuk Kim, Heather Knorr, Anastacia Kohl, Beatriz Lomas-Lozano, Victoria Martin, Abel Muñoz-Hermoso, Loida Pereira Peterson, Alan Redick, Martha Ruiz-Garcia, Alicia Shade, Martín Sueldo, Kristine Taylor, Elizabeth Tolman, Jennifer Wooten.

## Professors Emeriti

Martine Antle, Cesáreo Bandera, Pablo Gil Casado, Angel L. Cilveti, Yves de la Quérière, I.R. Stirling Haig, Antonio Illiano, Catherine A. Maley, Edward D. Montgomery, James S. Noblitt, José Manuel Polo de Bernabé, Maria A. Salgado, Carol L. Sherman.

## Contact Information

The undergraduate advisors for French, Italian, Portuguese, and Spanish may be contacted at CB\# 3170, Dey 238, (919) 962-2062.

## Courses

## CATA-Catalan

CATA 401 Elementary Catalan (3). Introduction to Catalan language and culture. Designed for students who already have proficiency in another foreign language.

CATA 402 Intermediate Catalan (3). Continuation of CATA 401 with more emphasis on reading authentic texts.

## FREN-French

FREN 101 Elementary French I (3). Introduces the essential elements of French structure and vocabulary and aspects of French and francophone culture. Aural comprehension, speaking, reading, and writing.

FREN 102 Elementary French II (3). Prerequisite, FREN 101. Continues the study of essential elements of French structure, vocabulary, and aspects of French and francophone culture. Aural comprehension, speaking, reading, and writing.

FREN 105 French for High Beginners (4). Accelerated course that covers FREN 101 and 102 for students with previous study of French. Aural comprehension, speaking, reading, and writing.

FREN 111 Intensive Elementary French (6). Permission of the instructor. Covers the material of the FREN 101 and 102 sequence in a single semester.

FREN 203 Intermediate French I (3). Prerequisite, FREN 102, 105,111 , or 401. Develops language skills for communication. Review of elementary French with increasing emphasis on reading and writing in the context of contemporary French and francophone culture.
FREN 204 Intermediate French II (3). Prerequisite, FREN 203. Continued development of language skills for communication through reading and discussion of literary and cultural texts. Emphasis on accurate grammar in written and oral expression.

FREN 212 Intensive Intermediate French (6). Prerequisite, FREN 102, 105, or 401. A continuation of FREN 111; covers the material of FREN 203 and 204 in one semester.

FREN 250 Language through Culture and Literature (3). Prerequisite, FREN 204, 212, or 402 . Emphasis on further development and refinement of speaking, listening, reading, and writing, including a review of grammar. Study of literary and cultural texts.

FREN 255 Conversation I (3). Prerequisite, FREN 204, 212, or 402. Introductory conversation for building oral proficiency while increasing awareness of French culture. Emphasis on vocabulary and grammatical accuracy; writing activities support speaking.

## FREN 260 Literature and the French-Speaking World (3).

 Prerequisite, FREN 204, 212, or 402 . Skills for further literary studies through French poetry, theater, and prose from Renaissance to the present. Lectures, discussions, and written assignments.FREN 280 French "Discoveries" of the Americas in Translation (3). Texts in translation and subtitled films from the Renaissance through the present day that involve representations of the Americas from French and francophone perspectives.
FREN 285 Sex, Philosophy, and Politics: Revolutionary Literature in Translation (3). Exploration of questions related to sex and gender during the French Revolution and their reflection in literature, philosophy, and art.

FREN 286 Food for Thought: The Culture of Cuisine in Modern France (3). Exploration of French food culture in film, literature, and historical texts, examining gastronomy in relation to national and individual identity, immigration, cultural specificity, tradition and innovation, markets, sociability, and excess and lack. Conducted in English; students may do written work in French for major or minor credit.
FREN 300 French Composition and Grammar Review (3). Prerequisite, FREN 204, 212, or 402. Recommended preparation,

FREN 250, 255, or 260. Intensive grammar review and composition to improve accuracy and develop writing skills, using process and task-oriented approaches.

FREN 308 LAC Recitation (1). Prerequisite, FREN 204 or 402. Coregistration in a specified LAC course required. Permission of the instructor for students lacking the prerequisite. Promotes foreign language proficiency across the curriculum. May not count toward the major or minor in French.

FREN 310 Conversation and Composition II (3). Prerequisite, FREN 250, 255, 260, or 300. Intermediate conversation to expand speaking skills through vocabulary building, discussion of selected texts, and activities that produce conversation. Ongoing development of writing skills.
FREN 311 Conversation and Composition II (3). Prerequisite, FREN 255, 260, or 312. This course is designed to help students improve the quality of their French oral and written expression as an integral part of their immersion experience in France. The expansion of active vocabulary is a primary objective of the course. Open only to students in Montpellier, France.

FREN 312 French University Methodology through Literature (3). Prerequisite, FREN 204, 212, or 402 . Open only to students in Montpellier, France. Introduction to French literature through the study of a selection of representative texts. Prepares students for the academics required at a French university. Students will also gain knowledge and experience of the intellectual culture and educational organization of France.
FREN 315 Imposteur!: Faking and False Identities in French and Francophone Drama and Film (3). Prerequisite, FREN 255 or 260; pre- or corequisite, FREN 300. Permission of the instructor for students lacking the requisite. Examines how French-language plays and films explore questions of identity through stories of imposture, disguise, cross-dressing, and mistaken identity. Authors studied include Molière, Marivaux, De la Chenelière, and others. In French.

FREN 320 Business French (3). Prerequisite, FREN 250, 255, or 260. Practice of vocabulary and discourse strategies pertinent to business-related activity in French. Readings and discussions emphasize cultural awareness for interaction in cross-cultural settings.
FREN 325 Crime and Literature in French and Francophone Contexts (3). Recommended preparation, FREN 260 and 300. This course explores the depiction of crime in literature: from medieval tricksters and classical tyrants to romantic crimes of passion; from the destruction of social and ethical codes to the global victims of (civil) war. In French.
FREN 330 French Civilization I (3). Prerequisite, FREN 300. A study of important aspects of French civilization (descriptive geography and cultural, social, political, and art history highlights) from its beginning to Louis XIV.
FREN 331 French Civilization II (3). Prerequisite, FREN 300. A study of important aspects of French civilization (cultural, social, political, and art history highlights) from the eve of the French Revolution to the present time.

FREN 332H Cultural Diversity in Francophone Cinema (CMPL 332H, EURO 332H) (3). Prerequisite, FREN 260 or 312. Focuses on the construction of cultural identities in French films within a European context from the 1980s until today.

FREN 350 Advanced Oral and Written French (3). Prerequisite, FREN 300. Oral communication and composition on contemporary topics in French and francophone cultures. Study of cultural texts, articles from the French press, and video documents.
FREN 370 Survey of French Literature I (3). Prerequisites, FREN 260 or 312, and 300. A survey of major authors and the genres they represent in French literature of the Middle Ages and Renaissance.

FREN 371 Survey of French Literature II (3). Prerequisites, FREN 260 or 312, and 300. A survey of major authors and the genres they represent in French literature of the 17th and 18th centuries.

FREN 372 Survey of French Literature III (3). Prerequisites, FREN 260 or 312, and 300. A survey of major authors and the genres they represent in French literature of the 19th and 20th centuries.

FREN 373 French New Wave Cinema (3). Critical viewing of films of the major directors of the French New Wave of the 1950s through the 1970s, including Jean-Luc Godard, François Truffaut, and Eric Rohmer. Examination of earlier films that inform these directors. The impact of the New Wave on global cinema.

FREN 375 Francophone Literature and Film (3). Prerequisites, FREN 260 or 312, and 300. Readings in francophone literatures from literary and cultural perspectives. Areas of study may vary (African, Canadian, European, etc.).

FREN 376 Identity and Nationhood in Québécois Literature
(3). The evolution of identity and nationhood in Québécois literature from the 1960s to the present. Includes the study of francophone literature of immigration in Québec.
FREN 377 The Evolution of Frenchness since WWII (3). Prerequisite, FREN 300. How wars, women's movements, immigration, and globalization have influenced the notion of Frenchness.

## FREN 378 French and European Transmigrations: Global

 Contexts (3). Prerequisite, FREN 300. Interdisciplinary studies of France's role in the construction of European identity.FREN 379 Special Topics in French and Francophone Studies (3). Possible topics include cinema, transnational francophone literatures, gender studies. In English.

FREN 380 Francophone Drama and Multimedia Productions (3). Prerequisites, FREN 300, and 370, 371, or 372. Frenchlanguage theater. Specific topics to be announced in advance by the instructor.

FREN 381 Francophone Poetry and Slam (3). Prerequisites, FREN 300, and 370, 371, or 372 . Specific topics to be announced in advance by the instructor.

FREN 382 Visual Francophone Studies (3). Prerequisites, FREN 300 , and 370, 371, or 372 . Specific selections announced in advance by the instructor.

FREN 383 Franco-Asian Encounters (3). Examines the cultural encounters between France and Vietnam and China, the sociohistorical context of French colonialism in Vietnam, and the literary and cultural production to which it gave rise.

FREN 387 Paris/Versailles: The Court and the City in the 17th Century (3). Prerequisites, FREN 300, and 370, 371, or 372. Seventeenth-century Paris and Versailles serve as the basis for considering the construction of cultural centers and peripheries; the role of style, taste, and etiquette in the fabrication of social identities; the theatricality of life at court and in the city; and the relationship between political power and aesthetics.

FREN 388 History of French Cinema I: 1895-1950 (3).
Recommended preparation, CMPL143. Study of French cinema from 1895 through 1950, including early French film, silent cinema, surrealism, poetic realism, and postwar cinema. Concepts and vocabulary for film criticism.
FREN 389 History of French Cinema II: 1950 to the Present (3). Recommended preparation, CMPL143. Study of French cinema from 1950 to the present, including postwar cinema, the New Wave, and the French film industry in the age of globalization. Concepts and vocabulary for film criticism.

FREN 390 Special Topics in French and Francophone Studies (3). Examines selected topics in French and francophone studies. Content varies by semester and instructor.
FREN 395 Research for Advanced French Students (1-3). Prerequisite, FREN 300. Required preparation, two major-level courses or permission of the instructor. Research project on topic agreed upon by the student and faculty member. Includes bibliographic work and research approaches.

FREN 401 Beginning Accelerated French (3). For students with proven competence in another foreign language. Covers first-year material in one semester; emphasis on speaking and grammar. May not be used to satisfy the Foundations foreign language requirement.
FREN 402 Intermediate Accelerated French (3). Prerequisite, FREN 102, 105, 111, or 401 . Covers second-year material in one semester. Develops skills, with increasing emphasis on reading and writing. Prepares for more advanced courses. May not be used to satisfy the Foundations foreign language requirement.

FREN 403 Advanced Composition (3). Prerequisite, FREN 300. Review of advanced grammar. Exercises in translation from English into French of literary and critical materials. Free composition and training in the use of stylistic devices.
FREN 452 Muslim Women in France and the United States (3). This class will follow Muslim women's experiences and changing roles in France and the United States from the 1970s through today.

FREN 490 Special Topics in French and Francophone Studies (3). Prerequisites, FREN 300, and 370, 371, or 372. Examines selected topics in French and francophone studies. Content varies by semester and instructor.

FREN 500 Research Methods in French and European Studies (3). Provides training in research methodology either for a B.A. honors or M.A. thesis topic related to contemporary European
studies. Students will learn to conceptualize an original research project and to identify and assess the current intellectual debates in their chosen areas of research.

FREN 504 Cultural Wars: French/United States Perspectives (3). Prerequisites, FREN 300, and 370, 371, or 372. This course examines the limits of universalism in today's "multicultural" France and how the European Union will affect French universalism and French resistance to identity politics.

FREN 505 African Francophone Cinema (3). Prerequisites, FREN 300, and 370, 371, or 372. Study of the production of films from francophone sub-Saharan and North African communities.

FREN 513 20th- and 21st-Century French Literature and Culture (3). Prerequisites, FREN 300, and 370, 371, or 372. Studies of a single author, a literary movement, or an aesthetic movement from the avant-garde to postmodernism.
FREN 515 Social Networks: Technology and Community in Modern France (3). Required preparation, FREN 300 and one additional course above FREN 300, or permission of the instructor. Exploration of the interaction between technology and sociability in 19th- through 21st-century French literature, with an emphasis on questions of modernization, industrialization, colonization, globalization, subjectivity, and ethics. Taught in French.

FREN 522 French Middle Ages (3). Prerequisites, FREN 300, and 370, 371, or 372. Readings in a variety of medieval texts in light of contemporary literary theory.

FREN 530 Postmodernisms (3). Prerequisites, FREN 300, and 370,371 , and 372 . Theory, literary texts, films, and cultural phenomena associated with postmodernism and the interaction of art, philosophy, film, literature, and popular culture.

FREN 554 Writing the Mediterranean (3). Explores early modern literary representations of the Mediterranean as a space of crosscultural encounter, exchange, rivalry, and negotiation.

FREN 555 Crossing Gazes: Multidirectional and Conflicting Memories of Algeria (3). Prerequisites, FREN 300, and 370, 371, or 372. Permission of the instructor for students lacking the prerequisites. Focus on contemporary fictions and films, and the writing of history from both the French (French-Algerian or "Pieds noirs," French draftees) and the Algerian sides.

FREN 561 French Renaissance Literature and Culture (3). Prerequisites, FREN 300, and 370, 371, or 372. Interdisciplinary seminar on a cultural topic or a theme through readings in literary and nonliterary texts.

FREN 564 History of the French Language (LING 564) (3). Prerequisites, FREN 300, and 370, 371, or 372. Permission of the instructor for students lacking the prerequisites. The phonology, morphology, and syntax of French are traced from the Latin foundation to the present. Lectures, readings, discussions, and textual analysis.

FREN 565 French Phonetics and Phonology (LING 565) (3). Prerequisite, FREN 300. Permission of the instructor for students lacking the prerequisite. The study of sounds as system in modern standard French. Lecture, discussion, laboratory practice in practical phonetics according to individual needs.

FREN 566 Structure of Modern French (LING 566) (3).
Prerequisites, FREN 300, and 370, 371, or 372. Permission of the instructor for students lacking the prerequisites. Introduction to phonology, morphology, and syntax of modern standard French. Application of modern linguistic theory to the teaching of French.
FREN 575 20th- and 21st-Century Francophone Literature and the Visual Arts (3). Prerequisites, FREN 300, and 370, 371, or 372. Evolution of francophone literature from a literary and cultural perspective (Maghreb, Africa, Caribbean Islands, and Canada).

FREN 576 Francophone Cultural Studies (3). Prerequisites, FREN 300, and 370, 371, or 372. An examination of national and transnational identity within European culture and recent economic and ethnologic changes in Western Europe and France.
FREN 583 18th-Century French Literature and Culture (3). Prerequisites, FREN 300, and 370, 371, or 372. Intensive study of a major 18th-century writer.

FREN 585 Libertinism and Sexuality (3). Prerequisites, FREN 300 , and 370,371 , or 372 . In-depth study of the genealogy of the concept of libertinage as a philosophical discourse and aesthetic manifestation.

FREN 590 Special Topics in French and Francophone Studies (3). Prerequisites, FREN 300, and 370, 371, or 372. Examines selected topics in French and francophone studies. Content varies by semester and instructor.

FREN 601 French for Reading (3). French language for reading. For students with no background in French or those needing a review of grammatical structures and vocabulary in preparation for the reading knowledge exam for graduate degrees (FLPA).

FREN 611 French Novelists of the 20th Century (3). Evolution of the novel in France up to the nineties.

## FREN 617 Framing Identities: Franco-Arab Transvisual

 Transcultural Contexts (3). Prerequisite, FREN 300, 372, or 375. This course focuses on the representation of identities in Franco-Arab contexts and in various artistic productions (fiction, photography, paintings, comics, films, etc.), with a special focus on Algeria, Tunisia, France, Lebanon, and Québec.FREN 662 Poetry of the French Renaissance (3). Major currents in French Renaissance poetry: the Rhétoriqueurs, the break with the Middle Ages, Italian influences, the formation of the French Renaissance sonnet, poetry and gender, poetry and politics, the Pléiade. Clément Marot, Maurice Scève, Louise Labé, Olivier de Magny, Pierre de Ronsard, Joachim Du Bellay. Taught in French.
FREN 670 17th-Century French Literature and Culture (3). Prerequisites, FREN 300, and 371, 372, or 373. Permission of the instructor for students lacking the prerequisites. In-depth study of a particular aspect of 17th-century literature and culture. Possible topics are the court and its elsewhere, Frenchness and foreignness in the 17th century, theater and theatricality, enchantment and disenchantment.

FREN 675 Literature and Enlightenment, 17th-18th centuries (3). This seminar examines 17th- and 18th-century French literature in relation to the intellectual, social, and political
movements of the Enlightenment. See department announcements for current topic and reading list. In French. Primarily for graduate students; advanced undergraduates may enroll with permission of the instructor.

## FREN 687 Diaspora and Transculturalism in Québécois

Literature (3). Evolution of identity and nationhood in Québécois literature from the 1960s to the present, including the study of the literature of immigration (diasporic or littrature migrante).

FREN 690 Special Topics in French and Francophone Studies (3). Prerequisites, FREN 300, and 370, 371, or 372. Examines selected topics in French and francophone studies. Content varies by semester and instructor.

FREN 691H Honors Thesis in French (3). Required of students reading for honors. Preparation of an essay under the direction of a member of the faculty. Topic to be approved by thesis director in consultation with honors advisor.

FREN 692H Honors Thesis in French (3). Restricted to senior honors candidates. Second semester of senior honors thesis. Thesis preparation under the direction of a departmental faculty member.

## ITAL-Italian

ITAL 101 Elementary Italian I (3). Introduces the essential elements of Italian structure and vocabulary and aspects of Italian culture. Aural comprehension, speaking, reading, and writing are stressed in that order.

ITAL 102 Elementary Italian II (3). Prerequisite, ITAL 101. Continues study of essential elements of Italian structures, vocabulary, and aspects of Italian culture. Aural comprehension, speaking, reading, and writing are stressed in that order.
ITAL 203 Intermediate Italian I (3). Prerequisite, ITAL 102 or 401. Develops language skills for communication. Reviews and expands grammar of elementary Italian with increasing emphasis on reading and writing in the context of Italian culture.

ITAL 204 Intermediate Italian II (3). Prerequisite, ITAL 203. Continued development of language skills for oral and written communication through reading and discussion of literature and expository texts. Further study of grammar.
ITAL 240 Dante in English Translation (3). A reading of Dante's Divine Comedy.

ITAL 241 Italian Renaissance Literature in Translation (3). A study of the major authors of the Italian Renaissance, with special attention to Petrarch, Boccaccio, Machiavelli, Castiglione, Ariosto, and Tasso.

ITAL 242 Modern Italian Literature in Translation (3). A study of the major prose writers of modern Italian literature, with special attention given to Manzoni, Verga, Pirandello, Svevo, Moravia, Lampedusa, and other contemporary novelists.
ITAL 250 Italian Fascism: Between History, Fiction, and Film (3). An introduction to Italian fascism through history, literature, and film. A look at different forms of culture under fascism and how fascist culture has been remembered after its fall.

ITAL 300 Communicating in Italian: Media, Culture, and Society (3). Prerequisite, ITAL 204 or 402 . Intensive grammar
review and composition designed to improve accuracy and develop writing skills, using process and task-oriented approaches.

ITAL 308 LAC Recitation (1). Prerequisite, ITAL 203.
Coregistration in a specified LAC course required. Permission of the instructor for students lacking the prerequisite. A recitation section for selected courses that promote the use of foreign language proficiency across the curriculum (LAC). May not count toward the major or minor in Italian.

ITAL 310 Italian Conversation (3). Prerequisite, ITAL 204 or 402 . Designed to expand speaking skills through vocabulary building, discussion of selected texts, and activities that produce conversation. Ongoing development of writing skills.

ITAL 330 Italian Civilization I (3). Prerequisite, ITAL 204 or 402. Permission of the instructor for students lacking the prerequisite. Study of the importance of Italian civilization from its beginnings to the present. Areas examined include history, art history, music, and literature.

ITAL 331 Italian Civilization II (3). Prerequisite, ITAL 204 or 402. A multidisciplinary examination of postunification Italian culture conducted in Italian. The course will trace out recurrent themes by examining texts from various media: film, literature, music, television, journalism, and architecture.
ITAL 333 Italian Film and Culture (3). Analysis of films from World War II to the present. Lectures and discussion in English. Films in Italian with English subtitles. Readings in Italian for majors, in translation for nonmajors.
ITAL 335 Themes in Italian Film (3). Themes in Italian cinema: literary adaptation, neorealism, a single auteur or period, representations of fascism, the city, the country, industrialization, social space, north/south difference, regionalism, gender, and sexuality.
ITAL 337 Cinema for Italian Conversation (3). Prerequisite, ITAL 300. Expansion of speaking, writing, vocabulary, and grammar in Italian through the study of a variety of films. Topics relating to global issues, transnational connections between different countries, and diversity in Italy will be explored.

ITAL 340 Italian America in Literature and Film (3). Explores the images of Italian Americans in literature and film, from representations of Italian immigrant otherness to attempts at identity construction, differentiation, and assimilation by Italian American authors and filmmakers.

ITAL 343 Italian Culture Today: Modern Italy as a Nation 1860 to Present (3). This course offers a cultural approach to the study of Italian culture in the 20th century, examining material across disciplines: literature, visual arts, music, history, architecture.
ITAL 345 Italian Women Writers (3). Introduces students to Italian women writers whose works explore how historical realities such as fascism, resistance, migration, immigration, and changing institutions of work and family have affected women.
ITAL 357 Dante, Petrarch, and Boccaccio in English (3). Introduces students to the world of Dante, Petrarch, and Boccaccio, situated within the context of medieval and early modern Europe.

ITAL 365 Italian Food and Culture (3). Prerequisite, ITAL 204 or 402 . Permission of the instructor for students lacking the prerequisite. Examines the historical relationships between food and culture in Italian society.

ITAL 370 Survey of Italian Literature I (3). Prerequisite, ITAL 204 or 402. Permission of the instructor for students lacking the prerequisite. A survey of Italian literature from its origins through the 16th century.

ITAL 371 Survey of Italian Literature II (3). Prerequisite, ITAL 204 or 402. Permission of the instructor for students lacking the prerequisite. A survey of Italian literature from the 17 th century to the present.

ITAL 382 The Modern Italian Novel (3). Prerequisite, ITAL 204 or 402. Permission of the instructor for students lacking the prerequisite. A representative sampling of the genre from Pirandello to the present.

ITAL 390 Special Topics or Readings in Italian Literature (3). Independent study on a selected topic in Italian literature and culture agreed upon by the student and a member of the faculty.

ITAL 395 Research for Advanced Students (1-3). Prerequisite, ITAL 300. Required preparation, two major-level courses or permission of the instructor. A tutorial for advanced students in Italian on a topic agreed upon by the student and a member of the faculty.

ITAL 398 Undergraduate Seminar in Italian (3). A seminar on a previously announced subject.

ITAL 401 Beginning Accelerated Italian (3). For students with special aptitude and interest in developing Italian language skills. Covers first-year material in one semester. Emphasis in the first semester is on grammar. May not be used to satisfy the Foundations foreign language requirement.
ITAL 402 Intermediate Accelerated Italian (3). Prerequisite, ITAL 102 or 401 . Covers second-year material in one semester. Develops skills, with increasing emphasis on reading and writing. Prepares students for more advanced courses. May not be used to satisfy the Foundations foreign language requirement.

ITAL 503 Advanced Composition for Graduate Students (3). Review of advanced grammar. Composition on a variety of topics designed to enhance writing proficiency in Italian. Training in the use of stylistic devices.
ITAL 511 Survey of Italian Literature and Culture I (to 1600) (3). Permission of the instructor for undergraduates. The survey is based on anthologies, with particular attention to authors and texts included in the current departmental reading lists.

ITAL 512 Survey of Italian Literature and Culture II (1600 to present) (3). Permission of the instructor for undergraduates. See ITAL 511 for description.

ITAL 526 History of the Italian Language (3). Prerequisite, ITAL 204 or 402 . Permission of the instructor for students lacking the prerequisite. The evolution of the Italian language from vulgar Latin. Substratum theory and the development of the various dialects. Codification of the literary standard during the Renaissance. "Questione della lingua."

ITAL 691H Honors Thesis (3). Required of students reading for honors. Preparation of an essay under direction of a member of the faculty. Topics to be approved by thesis director in consultation with honors advisor.

ITAL 692H Honors Thesis in Italian (3). Restricted to senior honors candidates. Second semester of senior honors thesis. Thesis preparation under the direction of a departmental faculty member.

## PORT-Portuguese

PORT 101 Elementary Portuguese I (3). Introduces the essential elements of Portuguese structure and vocabulary and aspects of Brazilian and Portuguese culture. Aural comprehension, speaking, reading, and writing are stressed in that order.
PORT 102 Elementary Portuguese II (3). Prerequisite, PORT 101. Continues study of essential elements of Portuguese structure, vocabulary, and aspects of Brazilian and Portuguese culture. Aural comprehension, speaking, reading, and writing are stressed in that order.

PORT 111 Intensive Elementary Portuguese (6). Covers the material of the PORT 101 and 102 sequence in a single semester.

PORT 203 Intermediate Portuguese I (3). Prerequisite, PORT 102, 111, or 401 . Further development of language with emphasis on speaking, writing, and a review of grammar. Includes advanced Portuguese structures, cultural and literary texts.

PORT 204 Intermediate Portuguese II (3). Prerequisite, PORT 203. Continued development of language skills for communication. Further study of grammar.

PORT 212 Intensive Intermediate Portuguese (6). Prerequisite, PORT 102, 111, or 401. A continuation of PORT 111; covers the material of PORT 203 and 204 in one semester.

PORT 270 Modern Brazilian Literature in English Translation (3). This course is devoted to the study of Brazilian culture through representative works of 19th- and 20th-century literature.

PORT 275 Portuguese and Brazilian Fiction in Translation (3). The study of selected literary works by major writers from Portugal, Brazil, and the former Portuguese colonies in Africa.
PORT 310 Intensive Oral Communication in Portuguese (3). Prerequisite, PORT 204 or 402 . Development of speaking skills through discussion of media, popular music, and selected texts.

PORT 323 Cultures of Brazil, Portugal, and Portuguese Africa (3). Prerequisite, PORT 204 or 402 . Emphasizes the learning of Portuguese through cultural context. Language, society, and miscegenation will be approached through texts and films. Focus on important aspects of religion, festivities, and popular music from the Portuguese-speaking countries of three continents.
PORT 351 Portuguese Interpretation I (3). Prerequisite, PORT 310 or 388. Introduces the profession of interpreter: main interpretation models, history and theory, use of cognitive processes in developing skills, ethical standards, and best practices. Emphasis on expanding communicative and cultural competency while applying strategies in business, conference interpretation, education, health care, and law enforcement.

PORT 352 Portuguese Interpretation II (3). Prerequisite, PORT 351. Refines interpretation skills through continued study of theory and best practices in varied professional contexts. Focuses on enhancing linguistic competence, sight-translation, and mnemonic strategies. Increases cultural sensitivity to issues interpreters face in business, conference interpretation, education, health care, the hospitality industry, law, and social services.
PORT 382 Women Writers: Brazil and Beyond (3). Trajectory of women writers of the Portuguese-speaking world, with main focus on texts of the 20th and 21st century. Analysis of works within a social-historical and literary context.

## PORT 385 Lusophone Africa in Literature: Discovery to

 the Present (3). History of Luso-African literature with special attention to writers such as Mia Couto, Guilherme de Melo, Paula de Chiziane, and José Eduardo. Taught in English; available for credit for major/minor in Portuguese if readings and written work are done in Portuguese.
## PORT 387 Brazilian Religious Movements through Film

 and Literature (3). Literary and cinematic representations of Candomblé, Sebastianism, Positivism, and Spiritism from late-19th through the 20th century. Focus on the penetration these forms of religiosity into mainstream Brazilian culture. Taught in English; credit for Portuguese major/minor if readings and work done in Portuguese.PORT 388 Portuguese, Brazilian, and African Identity in Film (3). Study of the literary and cultural film production of the Portuguese-speaking world on three continents. Films in Portuguese with English subtitles.
PORT 390 Special Topics or Readings in Portuguese (3). Independent study on a selected topic in Luso-Brazilian literature and culture agreed upon by the student and a member of the faculty.

PORT 395 Research for Advanced Students (1-3). Prerequisite, PORT 300. Required preparation, two major-level courses or permission of the instructor. A tutorial for advanced students in Portuguese on a topic agreed upon by the student and a member of the faculty.
PORT 398 Undergraduate Seminar in Portuguese (3). A seminar on a previously announced subject.

PORT 401 Accelerated Brazilian Portuguese I (3). For students who have fulfilled their foreign language requirement with another language. Covers first-year material in one semester. Introduction to spoken Portuguese with literary and cultural readings. May not be used to satisfy the Foundations foreign language requirement.
PORT 402 Accelerated Brazilian Portuguese II (3). Prerequisite, PORT 102, 111, or 401. Covers second-year material in one semester. Further study of spoken Portuguese with literary and cultural readings. May not be used to satisfy the Foundations foreign language requirement.

PORT 501 Survey of Portuguese Literature I (3). Prerequisite, PORT 204 or 402. An introduction to Portuguese literature from its origins through the 18th century.

PORT 502 Survey of Portuguese Literature II (3). Prerequisite, PORT 204 or 402 . A survey of Portuguese literature of the 19th and 20th centuries.

PORT 503 Survey of Brazilian Literature I (3). Prerequisite, PORT 204 or 402. A survey of Brazilian literature of the colonial period and 19th century.
PORT 504 Survey of Brazilian Literature II (3). Prerequisite, PORT 204 or 402. Study of major writers of 20th-century Brazilian literature.

PORT 526 History of the Portuguese Language (3). Prerequisite, PORT 402. Permission of the instructor for students lacking the prerequisite. Survey of the history of Portuguese with stress on the characteristics of Brazilian Portuguese and the factors underlying them.

PORT 530 Varieties of Portuguese (3). Introduction to the linguistic analysis of Portuguese. Basic linguistic comparison of Portuguese dialects at different levels of linguistic structure. Emphasis on theoretical background in understanding language variation as a property of natural languages.

PORT 535 Brazilian Drama (3). Prerequisite, PORT 402. Permission of the instructor for students lacking the prerequisite. A study of representative Brazilian plays of the 20th century with a review of the development of the theater in Brazil.
PORT 691H Honors Thesis (3). Required of all students reading for honors. Preparation of an essay under the direction of a faculty member. Topic to be approved by thesis director in consultation with honors advisor.

PORT 692H Honors Thesis in Portuguese (3). Restricted to senior honors candidates. Second semester of senior honors thesis. Thesis preparation under the direction of a departmental faculty member.

## ROML-Romance Languages

ROML 50 First-Year Seminar: The Art and Science of Language: Orality and Literacy in the Information Age (3). Students examine the expressive use of language in oral and written texts. Particular emphasis is placed on the contribution of the cognitive sciences to an understanding of how humans communicate.

ROML 51 First-Year Seminar: National and Cultural Identities in the Romance Areas (3). Explores the development of national identities in the Romance world, focusing on conscious and unconscious attitudes toward language that helped fashion the four major Romance languages.

ROML 52 First-Year Seminar: The Value of Language in Identity: Hispanics in the United States (3). This course explores the cultural challenges for Spanish-speaking immigrants in the United States, particularly the importance of language in culture and identity.
ROML 53 First-Year Seminar: Oral Histories of Our Local Hispanic Community (3). Introduces students to procedures for gathering, transcribing, and analyzing oral histories and to issues related to the growing Hispanic population at both the national and local levels.

ROML 54 First-Year Seminar: Issues in Francophone Literature (3). Studies such issues as national identities and national memory; the impact of colonization, postcolonialism, and globalization; conflicts between tradition and modernity; and the place of women in history.

ROML 55 First-Year Seminar: Writing with an Accent: Latino Literature and Culture (3). A study of the literary production of Hispanics living in the United States. Examines works by Chicano, Puerto Rican, Nuyorican, Dominican, and Cuban American writers.

ROML 56 First-Year Seminar: Italians in Search of Harmony (3). This course explores the concept of harmony in selected Italian writers from Dante to contemporary film directors.

ROML 58 First-Year Seminar: Mexican Women across Borders and Genres (3). Participants read poems, letters, stories, and short novels by Mexican women of the 20th century. Focus on gender and transgression, feminism, identity formation, and marginality. Selections from Elena Poniatowska, Sandra Cisneros, Cristina Rivera Garza, Ana Clavel, and Ángeles Mastretta, among others.

ROML 60 First-Year Seminar: Spanish and Entrepreneurship: Language, Culture, and North Carolina Communities (3). Students study Spanish language and Latino cultures through the lens of social entrepreneurship, a process of opportunity recognition, resource gathering, and value creation that brings sustainability to a social mission.

## ROML 61 First-Year Seminar: Language in Autism and

 Developmental Disorders (3). In the United States, 17 percent of children have a developmental disability. How do they learn and use language to communicate, socialize, and achieve goals? How do we improve their language skills? This course examines these and other questions and helps students understand and carry out research with special populations.ROML 62 First-Year Seminar: What Happened to Latin? (3). Analysis of how Latin transformed the linguistic configuration of the world and its lasting impact on culture and science. No previous knowledge of Latin or of any Romance language necessary to enroll.

ROML 89 First-Year Seminar: Special Topics (3). Special topics course. Content will vary by each semester.

ROML 229 Literature in the Romance Languages (3). An introduction to literature in the Romance languages. All readings in English translation. Focus and readings will vary.
ROML 280 Social Theory and Cultural Diversity (3). Introduction to basic paradigms of thinking about cultural difference (race, gender, nationality, religion, etc.), shaping how we act, think, and imagine as members of diverse cultures.

ROML 500 Research Methods in Romance Languages and European Studies (3). Provides training in research methodology either for a B.A. with honors or M.A. thesis. Students will learn to conceptualize an original research project and to identify and assess the current intellectual debates in their chosen areas of research.

ROML 600 Master's Workshop on Theory (3). This graduate seminar consists of a series of in-depth studies of several major contemporary approaches to literary theory. Designed primarily as
an elective for master's candidates in Romance languages, this course aims to prepare students for advanced literature and literary theory courses.

ROML 650 The Politics of Remembering: Memory, History, and Power in 20th-Century Europe (3). Interdisciplinary, comparative, and multimedia approach to the question of memory and history in 20th-century Europe. Explores individual memory, collective memory, and commemoration. Survey of interdisciplinary approaches to the field and an examination of historical sites through the narratives of mental illness, fiction, memoir, testimonial literature, photography, and film.

ROML 660 Film and Culture in Brazil and Spanish America (3). Critical examination of 20th-century Latin American cultural history in Brazil and Spanish-speaking countries, including Mexico, Cuba, El Salvador, Peru, Colombia, and Argentina. Course is framed between late 19th-century modernization and the contemporary discussion on globalization.
ROML 698 Seminar in Romance Languages: Capstone Course (3).

## SPAN-Spanish

SPAN 100 Elementary Spanish Review (3). Online course that includes essentials of elementary Spanish. Designed for students with previous study who place into first-semester Spanish. Upon successful completion students will enroll in SPAN 102.
SPAN 101 Elementary Spanish I (3). Introduces the essential elements of Spanish structure and vocabulary and cultural aspects of the Spanish-speaking world. Aural comprehension, speaking, reading, and writing are stressed.

SPAN 102 Elementary Spanish II (3). Prerequisite, SPAN 100 or 101. Continues the study of the essential elements of Spanish structure, vocabulary, and the cultural aspects of the Spanish-speaking world. Aural comprehension, speaking, reading, and writing.
SPAN 105 Spanish for High Beginners (4). Accelerated course that covers SPAN 101 and 102 for students with previous study of Spanish. Aural comprehension, speaking, reading, and writing.

SPAN 111 Intensive Elementary Spanish (6). Permission of the instructor. Covers the material of the SPAN 101 and 102 sequence in a single semester.

SPAN 203 Intermediate Spanish I (3). Prerequisite, SPAN 102, 104, 105, 111, or 401. Develops language skills for communication. Review of elementary Spanish. Expands awareness of the Spanishspeaking world through readings and discussion of representative texts.

SPAN 204 Intermediate Spanish II (3). Prerequisite, SPAN 203. Continued development of language skills for communication. Considers finer points of linguistic structure. Expands awareness of Spanish culture through reading, inquiry, and class discussion.

SPAN 212 Intensive Intermediate Spanish (6). Prerequisite, SPAN 102, 104, 105, or 401. A continuation of SPAN 111; covers the material of SPAN 203-204 in one semester.

SPAN 250 Language through Culture and Literature (3). Prerequisite, SPAN 204, 212, or 402 . Emphasis on further development and refinement of speaking, listening, reading, and
writing skills, including review of grammar. Study of cultural and literary texts.

SPAN 252 Argentine Jewish Culture (3). An introduction to the study of Jewish culture in Argentina, using different cultural products as an approach to understanding the process whereby Jews in Argentina moved from being poor immigrants to having prominent roles in the society. Restricted to students in the Buenos Aires summer study abroad program.

SPAN 253 Argentine Jewish Film (3). Students experience Buenos Aires through films. Studying the historical and social background through readings, films, and visits to the sites where Jewish life in Buenos Aires is taking place helps students make authentic connections between fiction and reality. Restricted to students in the Buenos Aires summer study abroad program.

SPAN 255 Conversation I (3). Prerequisite, SPAN 204, 212, or 402. Introductory conversation. Builds oral proficiency and awareness of Hispanic culture. Emphasizes vocabulary and grammatical accuracy; writing activities support speaking. Not open to native speakers.

SPAN 260 Introduction to Spanish and Spanish American Literature (3). Prerequisite, SPAN 204, 212, or 402 . Develops skills for further literary studies while increasing Spanish language proficiency and providing different world views through literature. Native speakers need permission of the instructor.

## SPAN 262 Introduction to Spanish and Spanish American

 Literature for Heritage Learners (3). Prerequisite, SPAN 204. Permission of the instructor for students lacking the prerequisite. Develops skills for further literary studies. Open only to heritage learners.SPAN 265 Spanish Language and Culture for the Professions (3). Prerequisite, SPAN 204. All-skills course geared toward the language of various professions including business, journalism/mass communications, medicine, law. Emphasizes cultural knowledge to enhance professional work in the United States Hispanic community. Open only to students in the minor in Spanish for the professions.
SPAN 266 Spanish Conversation for Heritage Learners (3). Prerequisite, SPAN 204. Spanish conversation for native speakers. Develops vocabulary and standard grammar skills, supports research in the history and lives of Hispanics in the United States. First in two-course sequence with SPAN 326.

SPAN 270 Contemporary Spanish American Prose Fiction in Translation (3). Narrative works of Borges, Cortázar, García Márquez, and other contemporary Spanish American writers.
SPAN 275 Masterpieces of Spanish Literature in Translation
(3). Representative Spanish authors from the Middle Ages to the present.

SPAN 280 Cervantes in English Translation (3). Study and discussion of Don Quijote with consideration of the Exemplary Novels and the background of Renaissance prose.

SPAN 292 Spanish Peer Tutoring (3). Permission of the program director based on oral proficiency interview. Students must have advanced proficiency in Spanish. Students learn and implement
fundamentals of foreign language instruction as peer tutors for elementary Spanish courses. Students may take course twice for credit. May not count toward the major or minor in Spanish.
SPAN 293 Spanish Service Learning (1). Permission of the instructor. Service-learning component for students enrolled in Spanish language courses. May not count toward the major or minor in Spanish.

SPAN 294 Online Grammar Review (1). This Pass/Fail onecredit hour course is designed for students who have successfully completed SPAN 204 (or its equivalent) and have been informed by their instructor that they would benefit from additional review of grammar. SPAN 294 can be taken in conjunction with other fifth-semester courses.

SPAN 300 Spanish Composition and Grammar Review (3). Prerequisite, SPAN 250, 255, or 260. Intensive grammar review and composition designed to improve accuracy and develop writing skills, using process and task-oriented approaches.

SPAN 308 LAC Recitation (1). Prerequisite, SPAN 204. Coregistration in a specified LAC course required. Permission of the instructor for students lacking the prerequisite. A recitation section for LAC courses. May not count toward the major or minor in Spanish.

SPAN 310 Conversation II (3). Prerequisite, SPAN 250, 255, or 260 . Expands speaking skills through vocabulary building, discussion of texts, and conversation. Ongoing development of writing skills. Not open to native speakers.
SPAN 320 Spanish for Business (3). Prerequisite, SPAN 265. All-skills course with review of grammar and extensive writing and speaking practice. Vocabulary, readings, and activities geared toward the language of business professions in the context of the United States Hispanic community.
SPAN 321 Spanish for the Medical Professions (3). Prerequisite, SPAN 265. All-skills course with review of grammar, extensive writing and speaking practice. Vocabulary, readings, and activities geared toward the language of health care professions in the context of the United States Hispanic community. Open only to students in the minor in Spanish for the professions.

SPAN 322 Spanish for Journalism and Mass Communications (3). Prerequisite, SPAN 265. All-skills course with review of grammar and extensive writing and speaking. Vocabulary, readings, activities geared toward the language of journalism and mass communications within the context of the Hispanic community. Open only to students in the minor in Spanish for the professions.
SPAN 323 Spanish for the Legal Professions (3). Prerequisite, SPAN 265. All-skills course with review of grammar and extensive writing and speaking. Vocabulary, readings, and activities geared toward the language of legal professions within the context of the Hispanic community. Open only to students in the minor in Spanish for the professions.

## SPAN 326 Spanish Grammar and Composition for Heritage

 Speakers (3). Prerequisite, SPAN 255 or 266. Study of language and society from the perspective of Spanish speakers in the United States, focusing on vocabulary building through situational practice, review of basic grammar, and practice in reading and writing.SPAN 327 Venture Creation in the Spanish-Speaking World (3). Prerequisite, ECON 325 or SPAN 265. All-skills course with a review of grammar and extensive writing and speaking practice. Vocabulary, readings, and activities geared toward the language of business, business planning, and entrepreneurship in the context of the United States Hispanic community.
SPAN 329 Spanish for Professional and Community
Engagement (3). Prerequisite, SPAN 320, 321, 322, 323, or 327. Seventh-semester capstone course applying skills in Spanish language and cultures to professional and community contexts. Assignments include professional documents, community service work and projects, and a research project. Open only to students in the minor in Spanish for the professions.

SPAN 330 Cultural History of the Hispanic World (3). Prerequisite, SPAN 300 or 326 . History and cultures of the Hispanic world from the beginnings to the mid-16th century. Explores the peculiarities that give each of the regions of Spain and Spanish America its distinctive character, as well as the elements that have shaped their societies and cultural traditions during the periods studied.

## SPAN 331 Cultural History of the Hispanic World II (3).

 Prerequisite, SPAN 300 or 326 . History and cultures of Spain and Spanish America from the 16th century to the beginnings of the 20th century. Explores the distinctive character of regions of Spain and Spanish America, as well as the elements that have shaped their societies and cultural traditions during the periods studied.SPAN 333 Cinema for Spanish Conversation (3). Prerequisite, SPAN 250, 255, or 260. Students expand their speaking, writing, vocabulary, and grammar through analysis of Hispanic film. Discussion of global issues (drugs, immigration, cultural adaptations) and diversity (gender issues, class, regional and religious differences) in Spanish-speaking countries. Students may enroll in SPAN 293 for additional EE credit.

SPAN 335 United States Hispanic Community (3). The immigration experience of the United States Hispanic community. Increases students' cultural sensitivity through cultural simulations and other activities. Open only to students in the minor in Spanish for the professions.

SPAN 340 Cultures of Contemporary Spain (3). Prerequisite, SPAN 300 or 326. Recent trends in thought, art, film, music, and social practices. Highlights regions such as Galicia, the Basque country, Catalonia, and Andalusia. Topics include nationalism, ethnicity, gender, migration, and popular culture.

SPAN 344 Contemporary Latin America: Mexico, Central America, and the Andean Region (3). Prerequisite, SPAN 300, 320, 321, 322, 323, or 326. Recent trends in thought, art, film, music, social practices, etc. Topics may include colonialism, race, ethnicity, modernization, ecology, religion, gender, and popular culture.

SPAN 345 Contemporary Latin America: The Caribbean and the Southern Cone (3). Prerequisite, SPAN 300 or 326. Recent trends in thought, art, film, music, social practices, etc. Topics include colonialism, race, ethnicity, modernization, ecology, religion, gender, and popular culture.

SPAN 348 Mesoamerica through Its Literature (3). Literature of the Mayas, Aztecs, and their neighbors from the pre-Columbian period to the present. Historical, cultural, and religious information with discussions of the complexity and variation of intercultural ways of life. A comparative approach includes the aesthetic similarities, differences, and rhetorical strategies employed by indigenous writers.

SPAN 350 Advanced Conversation and Composition (3). Prerequisite, SPAN 300 or 326. Refines speaking skills through discussion of contemporary topics of the Spanish-speaking world using current periodicals, literature, etc. Includes significant writing component, review of grammar.

SPAN 351 Spanish Interpretation I (3). Prerequisite, SPAN 300. Introduces the profession of interpreter: main interpretation models, history and theory, use of cognitive processes in developing skills, ethical standards, and best practices. Emphasis on expanding communicative and cultural competency while applying strategies in business, conference interpretation, education, health care, law, and law enforcement.

SPAN 352 Spanish Interpretation II (3). Prerequisite, SPAN 351. Refines interpretation skills through continued study of theory and best practices in varied professional contexts. Focuses on enhancing linguistic competence, sight-translation, and mnemonic strategies. Increases cultural sensitivity to issues interpreters face in business, conference interpretation, education, health care, the hospitality industry, law, and social services.

SPAN 361 Hispanic Film and Culture (3). Prerequisite, SPAN 300, 326, 340, 344, or 345 . Study of contemporary cultural, historical, and aesthetic issues through narrative film, documentary, and other media from Latin America and Spain.

## SPAN 362 The Quest for Identity in Contemporary Spain

 (EURO 362) (3). Prerequisite, SPAN 330 or 340 . This course studies the multifaceted identity of contemporary Spain through the analysis of representative films and literary worksSPAN 369 Introduction to Translation (3). Prerequisite, SPAN 300 or 326 . Theory and practice of translation through a dual approach of conceptual readings and classroom discussion and workshops in interdisciplinary fields. Emphasizes cultural role of the translator as mediator.

## SPAN 371 Survey of Spanish Literature to 1700 (3).

Prerequisites, SPAN 260, and 300 or 326. The literature of Spain through 1700. Representative authors of Spanish literature from the medieval, Renaissance, and Golden Age.

SPAN 372 Survey of Spanish Literature since 1700 (3). Prerequisites, SPAN 260, and 300 or 326. Main trends and movements in modern Spanish literature. Designed to familiarize students with methods of literary analysis and literary history. Readings and classes are in Spanish.
SPAN 373 Survey of Spanish American Literature (3). Prerequisites, SPAN 260, and 300 or 326 . The literature of Spanish America from pre-Colombian times to the present. Representative authors and texts from various literary movements will be studied in their sociohistorical contexts.

SPAN 375 Spanish of the United States (3). Prerequisite, SPAN 300 or 326. Study of the Spanish found today in the United States, its history and characteristics, and the socioeconomic repercussions of its presence in contact with English.

SPAN 376 Phonetics and Phonology (LING 376) (3). Prerequisite, SPAN 300 or 326. Introduction to the description of sound systems with a focus on Spanish. Includes the study of the historical development of Spanish and its areal and social variation in Spain, Latin America, and the United States.

SPAN 377 Grammatical Structure of Spanish (LING 377) (3). Prerequisites, SPAN 300 or 326, and 376. Introduction to the linguistic study of meaning, grammatical form, and dialectal and sociolinguistic variation, with a particular focus on modern Spanish and the languages of Spain and Latin America.

SPAN 378 Afro-Hispanic Language Contacts (3). Prerequisite, SPAN 376 or 377. Introduction to the study of Spanish in contact with African languages in the Iberian Peninsula and Latin America since the beginning of the slave trade. Linguistic analysis of literary texts from a variety of eras will assess how contact with the African diaspora has had a permanent impact on contemporary Spanish.

## SPAN 379 The Aesthetics of Violence in Latina/o American

Fiction of the 21st Century (3). Prerequisites, SPAN 260 and 373. The course explores the aesthetics of violence in contemporary Latina/o American fiction, paying attention to historical memory, rewritings of history, and the formation of otherness and marginality. Selections from Junot Díaz, Graciela Limón, Daniel Alarcón, Santiago Roncagliolo, Horacio Castellanos Moya, Roberto Bolaño, and Orfa Alarcón, among others.
SPAN 380 Masterpieces of Spanish Drama (3). Prerequisite, SPAN 371, 372, or 373. Spanish-language theater. Specific topics to be announced in advance by the instructor.

SPAN 381 Masterpieces of Spanish and Spanish American
Poetry (3). Prerequisite, SPAN 371, 372, or 373. Specific topics to be announced in advance by the instructor.
SPAN 382 Masterpieces of Spanish Prose (3). Prerequisite, SPAN 371, 372, or 373. Selected works of prose from the Spanish canon organized by topic or theme.

SPAN 383 Medieval Spanish Literature (3). Prerequisite, SPAN 371. A survey of lyric poetry, drama, prose, and genres peculiar to the literature before 1500 .

SPAN 384 Spanish Literature of the Renaissance (3). Prerequisite, SPAN 371. A survey of poetry, drama, and prose of the 16th century.

## SPAN 385 Contemporary Spanish American Prose Fiction

(3). Prerequisite, SPAN 371, 372, or 373. A study of the cultural, political, and aesthetic dimensions of the novels and short stories of selected contemporary Spanish American writers such as Borges, Cortázar, García Márquez, Puig, etc.

SPAN 386 Contemporary Central American Literatures and Cultures (3). Prerequisite, SPAN 371, 372, or 373. The course will explore the most prominent authors of Central America (Guatemala, Honduras, El Salvador, Nicaragua, Costa Rica, and the United States) since the 1950s. Critical analysis of their poetry,
short stories, novels, testimonial narratives, and films.
SPAN 387 Eroticism and Its Metaphors in Contemporary
Latin American Literature (3). Prerequisite, SPAN 373. Literary manifestations of love, sexuality, and eroticism as social and political metaphors of contemporary Latin America. Selections from Sor Juana, Agustini, Darío, López Velarde, and Neruda with more emphasis on 20th-century works by writers like Donoso, Vargas Llosa, García Márquez, Poniatowska, Rivera Garza, and Montero.
SPAN 388 Narratives of the Mexican Revolution (3).
Prerequisites, SPAN 260 and 373. Analysis of historical and literary writing, cinematic productions, and popular corridos produced in response to the Mexican Revolution. In addition to exposure to significant milestones in the development of Mexican literature, students will strengthen their Spanish reading ability and sharpen critical skills.

SPAN 389 Outside Cuba: Diasporic Literature and Culture (3). Prerequisite, SPAN 373. An overview of the literary and cultural production (essays, novels, short stories, plays, music, film) of Cubans living in the diaspora after the Cuban revolution.

SPAN 394 Creative Writing in Spanish (3). Prerequisites, SPAN 300 or 326, and 371, 372, or 373. Workshop designed to develop critical communication skills through student short-story writing in Spanish, with an introduction to influential texts on the craft of writing by authors such as Horacio Quiroga, Julio Garmendia, Felisberto Hernández, Augusto Roa Bastos, Juan Bosch, Jorge Luis Borges, and Julio Cortázar.
SPAN 395 Research for Advanced Students (1-3). Prerequisite, SPAN 300. Required preparation, two major-level courses or permission of the instructor. Research project for advanced students on a topic agreed upon by the student and faculty member.

SPAN 397 Undergraduate Seminar in Language and Linguistics (3). Prerequisite, SPAN 376 or 377. Seminar on a previously announced topic.
SPAN 398 Undergraduate Seminar in Literature and Culture (3). Prerequisites, SPAN 371, 372, or 373. Two of the prerequisite courses, or equivalent, are required. A seminar on a previously announced subject.
SPAN 401 Beginning Accelerated Spanish (3). Required preparation, proven competence in another foreign language. Covers first-year material in one semester. Emphasis on speaking and grammar. May not be used to satisfy the Foundations foreign language requirement.
SPAN 402 Intermediate Accelerated Spanish (3). Prerequisite, SPAN 102, 105, 111, or 401 . Covers second-year material in one semester. Continued development of all skills. Spanish 402 prepares students for more advanced courses. May not be used to satisfy the Foundations foreign language requirement.

SPAN 403 Advanced Composition (3). Prerequisite, SPAN 300 or 326. Review of advanced grammar. Compositions on a variety of topics designed to enhance writing proficiency in Spanish. Training in the use of stylistic devices.

SPAN 404 Elementary Spanish for Health Professionals (3). Distance course requiring access to the Internet. Focuses on communication within the context of Latino/a immigrant culture in health care settings.

SPAN 405 Intermediate Spanish for Health Care Professionals (3). Prerequisite, SPAN 102 or 404 . Distance course requiring access to the Internet. Focuses on improving communication within the context of Latino/a immigrant culture in health care settings. This course is equivalent to SPAN 203 (Intermediate Spanish I) and therefore fulfills the foreign language requirement.

SPAN 414 Languages of Spain I (3). Study of the language and culture of one of the languages of Spain other than Spanish. Selection will vary according to term: Catalan, Euskera (Basque), Galician.

SPAN 415 Languages of Spain II (3). Prerequisite, SPAN 414. Continuation of the study of the language and culture of one of the languages of Spain other than Spanish. Selection will vary according to term: Catalan, Euskera, Galician.

SPAN 416 Languages of the Americas I (3). Study of the language and culture of one of the languages of Spanish America other than Spanish. Selection will vary according to term: Mayan, Nahuatl, Quechua, Guarani.

SPAN 417 Languages of the Americas II (3). Prerequisite, SPAN 416. Continuation of the study of the language and culture of one of the languages of Spanish America other than Spanish. Selection will vary according to term: Mayan, Nahuatl, Quechua, Guarani.

SPAN 601 Spanish for Reading (3). For students with no background in Spanish or those needing a review of grammatical structures and vocabulary in preparation for the reading knowledge exam for graduate students (FLPA).

SPAN 613 Colonial and 19th-Century Spanish American Literature (3). Prerequisites, SPAN 371 or 372, and 373. Advanced survey of literary works from 16th- through 19th-century Spanish America, with emphasis on their rhetorical foundations and historical, political, and aesthetic connections.

SPAN 614 Modernist and Contemporary Spanish American Literature (3). Prerequisites, SPAN 371, and 372 or 373. Advanced survey of Spanish American works from the 1880s through the present, with emphasis on their rhetorical foundations and historical, cultural, political, and aesthetic connections.

SPAN 617 Cervantes and the Quijote (3). Prerequisites, SPAN 371, and 372 or 373. Close reading of Cervantes' Quijote and selected Novelas ejemplares, with consideration of the background of Renaissance prose (romance of chivalry, pastoral, and sentimental novel) in relation to 16 th-century historiography.

SPAN 620 Women in Hispanic Literature (WMST 620) (3). Prerequisites, SPAN 371 or 372, and 373. The image of woman in 16th- and 17 th-century Hispanic literature. A study of texts by Spanish and Spanish American authors. Readings in Spanish or in English translation. Lectures in English.
SPAN 625 Indigenous Literatures and Cultures of the Américas (3). Panoramic view of indigenous literatures in the Américas through a study of a variety of indigenous textual production
including chronicles, manifestos, novels, testimonial narratives, short stories, poetry, artistic production, and film.
SPAN 630 Literature and the Visual Arts in Spain (3). Study of the literature of the Iberian Peninsula and developments in the visual arts from the Middle Ages to the early 20th century.

## SPAN 650 The Spanish Comedia of the Golden Age (3).

 Prerequisites, SPAN 371, and 372 or 373 . A comprehensive study of the Golden Age Spanish theater from its Renaissance beginnings through the 17th century.SPAN 677 Spanish Syntax (3). Prerequisite, SPAN 377. Permission of the instructor for students lacking the prerequisite. Why do we say in Spanish "me gusta" ("to me pleases") for "I like it"? Syntax studies how words associate in larger structures. This class provides the tools to understand the forms of different varieties of Spanish.

## SPAN 678 Cultural and Linguistic History of the Spanish

 Language (LING 309) (3). Prerequisite, SPAN 300 or 326. The formation of the Spanish language and its cultures from Latin origins. Special attention to expansion of the Spanish Americas and the situation of Spanish today.SPAN 679 Spanish Pragmatics (3). Prerequisite, SPAN 377. This course is an introduction to the study of meaning and language use, with a focus on Spanish. Includes discussion of the classical texts in the field as well as analysis of a variety of data (corpora, fieldwork, and experimental materials).
SPAN 680 First- and Second-Language Acquisition of Spanish (3). Prerequisite, SPAN 377. Why and how do children learn language so easily, and why is it so difficult for adults to learn a second language? This course examines these and related questions in the light of current theories of first- and second-language acquisition, with a focus on Spanish.

SPAN 681 Spanish Semantics (3). Prerequisite, SPAN 377. This course is an upper undergraduate/graduate-level introduction to the study of the meaning of words and sentences, with a focus on Spanish. It covers the following topics: truth-conditional theories of meaning, modality, quantification, reference, tense and aspect, Aktionsart. The course also addresses cross-linguistic data collection, e.g., fieldwork and experimental methods.

SPAN 682 Spanish Sociolinguistics (3). Prerequisite, SPAN 376, 377, or 378. Interdisciplinary approach to studying the Spanish language as a social and cultural phenomenon. Explores the relationship between language and culture, communicative competence and pragmatics, social and linguistic factors in language variation and change, attitudes toward language and language choice, linguistic prejudice and language myths, and language and identity.
SPAN 683 Guaraní Linguistics (3). Prerequisite, SPAN 377. Permission of the instructor for students lacking the prerequisite. Guaraní, an official language of Paraguay, is the only indigenous language in the Americas (and possibly in the world) that is spoken natively by a nonindigenous majority. This seminar explores the linguistics of Guaraní: its typology, history, grammar, and sociolinguistics.

SPAN 691H Honors Thesis (3). Required of students reading for honors. Preparation of an essay under the direction of a faculty member. Topic to be approved by thesis director in consultation with honors advisor.

SPAN 692H Honors Thesis in Spanish (3). Restricted to senior honors candidates. Second semester of senior honors thesis. Thesis preparation under the direction of a departmental faculty member.

## Department of Sociology

www.unc.edu/depts/soc
155 Hamilton Hall, CB\# 3210; (919) 962-1007
KENNETH ANDREWS, Chair

## Introduction

The Department of Sociology is the primary home for two majors-sociology and management and society-and a minor in social and economic justice.

The major in sociology is designed to offer its students training in critical thinking, analytical problem solving, reasoned judgment, and effective communication as well as broad knowledge of human relations and social systems, providing many useful tools for the development of a variety of careers. Only a few majors go on to become professional sociologists with Ph.D.s in the field. The department's major in sociology is designed to train students in sociological fundamentals, yet it is receptive to diverse perspectives and interdisciplinary approaches. Departmental majors commonly combine their interests in sociology with courses in other disciplines and programs, such as psychology, history, African American studies, anthropology, political science, religious studies, and business. The department encourages its students to study issues from a variety of perspectives, and its curriculum and requirements are flexible enough to permit students to tailor their program to fit individual needs and interests. The undergraduate sociology program includes opportunities to put sociological ideas into practice through research by means of independent studies, theses, and internships.

Management and society is an interdisciplinary major that focuses on the institutional context and inner workings of organizations. It prepares students for a variety of positions in private or public-sector organizations. Additionally, many students find the curriculum to be excellent preparation for a variety of business-oriented graduate and professional degree programs.
The phrase "management and society" in its broadest sense encompasses not only direct dealings between management and organized labor but also matters such as governmental policy, industrial psychology, industrial sociology, personnel administration, and worker education. A broad knowledge and understanding of economics, history, sociology, psychology, communications, and political science are essential. Work in this field also requires knowledge of techniques such as statistics, administrative practices, testing and measurement, and guidance and counseling. Majors acquire an understanding of the conceptual
foundations and principles of interpersonal and institutional relations and of the ways these principles can be applied in the work place. General areas of study are employer-employee relations, development of human resources, and the institutional context of work.

Some students have combined management and society with concentrations in such academic disciplines as economics, sociology, psychology, public policy, history, and political science.

## Sociology Major, B.A.

## Core Requirements

- SOCI 101 (with a grade of C or better)
- SOCI 250 or 253 , and 251 and 252 (taken during the junior year, if possible)
- Three SOCI electives numbered above 400 (upper-level). With permission of the director of undergraduate studies, one of the following courses may count as a 400-level elective: SOCI 290, $396,691 \mathrm{H}, 692 \mathrm{H}$.
- Two additional three-hour SOCI courses (six hours)

If possible, SOCI 101 should be taken by the end of the sophomore year. This course can be used to satisfy a General Education social and behavioral sciences Approaches requirement.

University graduation credit will be given for only one in each of the following sets of courses: SOCI 130 and 425, SOCI 250 and 253, SOCI 273 and 274 , SOCI 411 and 413, SOCI 414 and 417 , SOCI 423 and 426.

First-year seminars in sociology can count toward the major but may be taken only by first-year students.

Other than SOCI 101, any sociology course taken to satisfy General Education Approaches requirements may not be used as one of the eight courses in the major (e.g., if SOCI 250 is used for the General Education PH requirement, another sociology course must be taken to complete the eight-course major). Students must earn grades of C or better in at least 18 hours in the major.

Students pursuing a degree in the School of Education may use SOCI 101 to fulfill the social and behavioral sciences Approaches requirement and should consult with the School of Education about the additional requirements.

## Courses in Career Areas

The Department of Sociology does not offer concentrations in specific fields. However, the department does offer courses especially relevant to the following career areas:

- Business and Industry: SOCI 131, 251, 252, 410, 415, 427
- International Affairs and Development: SOCI 420, 450, 453
- Education: SOCI 412, 423, 426
- Law: SOCI 122, 123, 133, 273, 274, 420, 424, 442
- Public Policy: SOCI 133, 251, 252, 273, 274, 412, 414, 415, 417, 420, 422, 424, 429, 431, 468
- Community Service, Organizing, and Advocacy: SOCI 133, 273, 274, 411, 412, 413, 427, 429, 468
- Medicine and Public Health: SOCI 251, 252, 422, 431, 468, 469


## Management and Society Major, B.A.

## Core Requirements

The major in management and society consists of 10 core courses grouped into the following four areas:

- Economics: Either ECON/MNGT 310 or ECON 410 by the end of the junior year
- Employer-employee relations: one course from three of the five clusters below:
- BUSI 405
- COMM 120; COMM/MNGT 223, COMM 325; PSYC 563
- MNGT/SOCI 131
o PSYC 260 or SOCI 112
- PSYC 531
- Human resources and labor markets: ECON/MNGT 380 and MNGT/SOCI 427 (both courses required)
- The social context of business: ECON/MNGT 345 and MNGT/ SOCI 410 (both courses are required)
- Two additional courses are required, one course from two of the four clusters below:
o ECON/MNGT 330 or HIST/MNGT 364
- HIST/MNGT 365
- MNGT/SOCI 412
- MNGT/SOCI 415


## Additional Requirements

- MATH 152 or 231 or STOR 112 or 113
- PSYC 101
- ECON 101, HIST 128, and SOCI 101
- One of the following applied statistics courses outside the major: ECON 400, PSYC 210, or SOCI 252
All General Education requirements must be met. Students must earn at least 21 hours of C or better grades in the major core. Some of the core courses are cross-listed. For descriptions of the courses, see the listings under the various departments' headings.


## Special Note for Economics Double Majors

Double majors in economics and management and society may take ECON 430 instead of ECON 330, ECON 445 instead of ECON 345, and ECON 480 instead of ECON 380

## Social and Economic Justice Minor

The minor in social and economic justice is designed for students who want to understand how to think analytically about issues of justice and how perspectives on justice can be joined with the pursuit of it. An overarching objective is fostering attitudes and knowledge about human rights; racial, ethnic, and gender equality; economic justice; democratic participation; sustainable development; diversity; and peace. It is especially appropriate for students who anticipate working in advocacy roles in nonprofit organizations, in local communities, or in governmental organizations. In these inquiries about justice, students engage scholarship in a variety of disciplines and traditions of practice.

Students are required to complete one service-learning experience, a requirement that can be met in one of three ways. First, a student may take a course that includes a service-learning (APPLES) component. Second, after seeking and receiving the
approval of the director of the minor, a student may take a one- to three-credit independent studies or special topics course (summer or academic term) with a faculty member. The third option is the two-credit spring break course, HBEH 610 Alternative Spring Break, which meets the service-learning requirement but not a course requirement. Note that core courses do not necessarily contain a service-learning component; check ConnectCarolina each semester to confirm that courses are listed as APPLES courses. Minors who wish to pursue other community and social action programs (without course credit) are encouraged to contact the Campus Y.

Four courses are required:

- One core course chosen from GEOG/PWAD 453, GEOG/WMST 225, PHIL 273, SOCI 273, or SOCI 274
- Three additional courses that cover at least two different areas (listed below)
Thus, the minor is fulfilled with 12 to 13 credits, depending on whether the service-learning requirement is part of a three-credit course or is fulfilled in another way.


## Understanding Justice

- AAAD 260; AAAD 232/WMST 266, AAAD/WMST 386; AMST 57; ANTH 248, 422, 444, 539; ASIA/GEOG 267; ECON 267*, 385; ENGL 271; GEOG 259, 430, 448; GEOG/PLAN 428; GLBL 487; HIST 142, 143; PHIL 170, 280, 476*, 480; PHIL/ WMST 275; POLI 206, 276, 411, 472; POLI/WMST 265; SOCI 64, 65, 122, 414, 417, 469; SOCI/WMST 444; SOWO 491; WMST 289, 388


## Justice in Action

- AAAD 396**, 403; AAAD/WMST 386*; AMST 398; ANTH 142; ANTH/GEOG/GLBL/HIST/POLI 210; COMM 53, 260, 625, 650; COMM/ENEC 375; DRAM 85, 288, 487; ECON 465*; GEOG 56, 458*; GLBL 290**; HIST/MNGT 365; JOMC 141, 340, 344, 448; PLCY 361, 393**, 580; POLI 414; SOCI $393^{* *}, 411,413,470$; SOWO 490, 492; WMST 281, 290**, 293*, 350, 365, 410


## The Context of Justice

- AMST 294; AMST/HIST 110; ANTH 103, 467; ANTH/PWAD 280; ASIA/GEOG 447; COMM 82, 140, 624; ECON 480*, 586*; ECON/EURO/PWAD 460*; ENEC/PLCY 520; ENGL 265, 269; ENGL/WMST 363; GEOG 123, 423, 452, 470; HIST 490**, 589; HIST/WMST 280; JOMC 441; JOMC 442/WMST 442; LING/SLAV 306; POLI/WMST 217, 218; RECR 470; SOCI 420, 423, 426, 468; SOCI/MNGT 412; SOCI/WMST 124 Courses marked with an asterisk $\left(^{*}\right)$ in the lists above have departmental requirements that may or may not be waived. Students should consult course descriptions and discuss requirements with the instructor. Courses marked with a double asterisk ( ${ }^{* *}$ ) in the lists above require permission of the director of the minor, given that the specific topics of study may vary by course.

A student may major in sociology and minor in social and economic justice; however, a student cannot count toward graduation more than 45 hours in one department. All college requirements about minors apply. In addition, only one course that a student is using to meet a General Education Approaches requirement may also be used to meet a minor requirement.

## Advising

All majors and minors have a primary academic advisor in Steele Building. Students are strongly encouraged to meet regularly with their advisor and review their Tar Heel Tracker each semester. The department's director of undergraduate studies and assistant directors meet with current, transfer, and prospective majors by appointment (see "Contact Information" below). Departmental academic advising is particularly important for those students who are double majors and those who may be considering going on to graduate school. Further information on courses, undergraduate research opportunities, writing an honors thesis, careers, and graduate schools is available on the department's Web site.

## Special Opportunities in Sociology and Management and Society

## Honors in Management and Society

A student may, as a result of distinguished work (3.3 grade point average or higher), be awarded a degree with honors or highest honors. This requires completion of a senior honors thesis. Interested students should contact the management and society office for more information. Honors students should enroll in MNGT 691H and 692 H . MNGT 692 H will fulfill one of the course requirements from the social context of business group listed above.

## Honors in Sociology

The department attempts to identify and invite all qualified students to participate in the senior honors program. Students who are not contacted, especially double majors, transfer students, and students who declare their major in sociology relatively late in their college careers, are encouraged to speak with their major advisor or the department's honors advisor no later than the preregistration period during the second semester of their junior year.

To graduate with honors in sociology, a major must meet the following requirements:

- At least a 3.3 cumulative grade point average in major courses and all courses taken at the University
- Completion of an honors thesis based on independent study, which may involve collection of data by the student, under the supervision of a faculty thesis advisor
- Participation in an honors seminar program during the fall and spring semesters of the senior year for May graduates and during the final fall semester for December graduates
Students may receive credit for one or both senior honors research and seminar courses (SOCI 691H and 692H) depending on the extent of their thesis work.

For more information on honors, contact Professor Howard Aldrich, CB\# 3210, 202 Hamilton Hall, (919) 962-5044, howard_ aldrich@unc.edu.

## Student Clubs

The Sociology Club is a student-run, student-driven organization that may provide relevant presentations, discussions, guidance, and/or service opportunities in sociology. The Society for Human Resources Management (SHRM) is a student-run, student-driven organization that may provide relevant presentations, discussions, guidance, and/or service and intern opportunities in management and society.

## Independent Study and Reading

SOCI 396 Independent Study and Reading may be taken for one to three hours of course credit depending on the amount of academic work planned by the student. It is usually taken by juniors and seniors who have completed at least two or three courses in sociology. Students may use independent study to

- Do reading and research in an area in which no course is offered
- Take advanced or more specialized coursework in a specific area of sociology
After an area of study has been selected, the student contacts a faculty member in the department whose interests are in or related to the topic area. If the faculty member agrees to direct the student's independent study, the student needs final approval by the department's director of undergraduate studies. It is the student's and faculty supervisor's responsibility to determine the amount of reading and/or outside work to be done, the frequency with which the student's progress will be assessed, and the papers or examinations that will constitute the course requirements. An approved learning contract is necessary, and some written work involving sociological analysis is required to receive credit for SOCI 396. Students must sign up for SOCI 396 before the end of the first week of classes.


## Independent Experiential Internship

Students may combine employment and study in the form of an internship program for which they receive one to three academic credits through SOCI 393 Independent Experiential Internship. The student must assume responsibility for employment arrangements. Students may not receive credit for paid employment. The student contacts a faculty member in the department whose interests are in or related to the area of the internship. If the faculty member agrees to direct the internship, the student needs final approval by the department's director of undergraduate studies. Credit is not provided for the internship alone; some written work involving sociological analysis is required to receive credit for SOCI 393. Because of our expectation that students doing an internship for academic credit will conduct substantive sociological analysis, it is very important that planning begin early. Students must secure all approvals for the contract before the first day of the internship.

## Undergraduate Award

The Undergraduate Howard W. Odum Award is presented yearly to a graduating senior who has displayed excellence in undergraduate sociological achievement.

## Undergraduate Research

Students interested in working with faculty on their research projects should contact the Office for Undergraduate Research for more information and also speak with the director of undergraduate studies.

## Graduate School and Career Opportunities

Sociologists are employed by research institutes, public health and welfare organizations, social work agencies, private businesses, law firms, international agencies, medical centers, educational institutions, advertising firms, survey and polling organizations, and
the criminal justice system. Others work in politics and government and in community and social justice organizing.

A major in sociology also prepares students for law, medical, or business school and for graduate degree programs in social work, education, public policy, religious ministry, mass communications, public health, nonprofit administration, and international affairs. Of course the sociology major prepares interested undergraduates for graduate studies in sociology, should they choose to continue in the field to become researchers or teachers in high schools, two- or four-year colleges, or research universities. Students interested in pursuing graduate studies in sociology after college may, with the instructor's permission, enroll in graduate-level courses at UNCChapel Hill.

A major in management and society prepares students for virtually any aspect of a business career that does not involve highly specialized training (such as finance and accounting). Employers are interested in students who can think on their feet, communicate effectively, write well, and make sense of the social and economic changes occurring in their industry. Management and society majors are educated in each of these skills.

Graduates with B.A. degrees with majors in management and society are especially suited for entry-level positions in any aspect of human resource management, industry, or public sector organizations. Among recent graduates who responded to a placement office survey, the largest number were employed in sales; management or management training positions with at least some supervisory or personnel-related responsibilities ranked second. Other graduates are working in customer service, purchasing, and marketing research, and several hold positions in the public sector.

## Faculty

## Professors

Howard E. Aldrich, Kenneth (Andy) Andrews, Kenneth A. Bollen, Guang Guo, Jacqueline Hagan, Kathleen M. Harris, Arne L. Kalleberg, Sherryl Kleinman, Charles Kurzman, François Nielsen, Andrew J. Perrin, Michael J. Shanahan, Karolyn Tyson.

## Associate Professors

Neal Caren, Ted Mouw, Lisa Pearce, Yang (Claire) Yang.

## Assistant Professors

Christopher A. Bail, Yong Cai, Mosi Ifatunji, Laura Lopez-Sanders, Anthony Perez, Liana Richardson.

## Affiliated Faculty

Barbara Entwisle (Vice Chancellor for Research), John D. Kasarda (Kenan-Flagler Business School).

## Adjunct Professors

Gail Henderson, James H. Johnson Jr., Robert F. Miles, John D. Stephens.

## Research Professors

Glen H. Elder, Ronald R. Rindfuss, Paul Voss.
Adjunct Associate Professors
Douglas L. Lauen, Catherine Zimmer.

## Adjunct Assistant Professor

Zeynep Tufecki.

## Senior Lecturer

Anne S. Hastings.

## Lecturer

Paul Biemer.

## Professors Emeriti

Judith R. Blau, Richard Cramer, Henry A. Landsberger, Gerhard Lenski, Victor W. Marshall, Anthony R. Oberschall, John Shelton Reed, Richard L. Simpson, Peter R. Uhlenberg.

## Contact Information

Howard Aldrich, Director of Undergraduate Studies (sociology major), CB\# 3210, 202 Hamilton Hall, (919) 962-5044, Howard_Aldrich@unc.edu.

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## Courses

## MNGT-Management and Society

MNGT 120 Introduction to Interpersonal and Organizational Communication (COMM 120) (3). See COMM 120 for description.

MNGT 131 Social Relations in the Workplace (SOCI 131) (3). See SOCI 131 for description.
MNGT 223 Small Group Communication (COMM 223) (3). See COMM 223 for description.
MNGT 310 Microeconomics: Theory and Applications (ECON 310) (3). See ECON 310 for description.

MNGT 325 Organizational Communication (COMM 325) (3). See COMM 325 for description.
MNGT 330 Economic History of the United States (ECON 330)
(3). See ECON 330 for description.

MNGT 345 Public Policy toward Business (ECON 345) (3).
See ECON 345 for description.
MNGT 364 History of American Business (HIST 364) (3).
See HIST 364 for description.
MNGT 365 The Worker and American Life (HIST 365) (3).
See HIST 365 for description.

## MNGT 380 The Economics of Labor Relations (ECON 380)

(3). See ECON 380 for description.

MNGT 410 Formal Organizations and Bureaucracy (SOCI 410) (3). See SOCI 410 for description.

MNGT 412 Social Stratification (SOCI 412) (3). See SOCI 412 for description.

MNGT 415 Economy and Society (SOCI 415) (3). See SOCI 415 for description.
MNGT 427 The Labor Force (SOCI 427) (3). See SOCI 427 for description.
MNGT 691H Honors Fall Course (3). Directed independent research under the supervision of a faculty advisor.

MNGT 692H Honors Spring Course (3). Prerequisite, MNGT 691 H . Preparation of an honors thesis and an oral examination on the thesis.

## SOCI-Sociology

SOCI 50 First-Year Seminar: Religion in American Public Life (3). This course will engage philosophical and sociological questions in order to explore the key issues involved in the contentious question of the actual and proper role of religion in American public life.
SOCI 51 First-Year Seminar: Emotion and Social Life (3). The course will examine the social aspects of emotional experience including current debates among sociologists and psychologists about the social functions of emotions.

SOCI 52 First-Year Seminar: Social Inequality across Space and Time (3). This course focuses on social inequality in human societies by looking at social inequalities in different historical periods and geographical locations.
SOCI 53 First-Year Seminar: The Consequences of Welfare Reform and Prospects for the Future (3). This first-year seminar is designed to 1) research and document the consequences of welfare reform and 2) participate in the political debate over reauthorization of the welfare law.

SOCI 54 First-Year Seminar: Good Jobs, Bad Jobs, No Jobs: Work and Workers in 21st-Century America (3). The course examines the nature and meaning of work in America at the beginning of the 21st century.
SOCI 55 First-Year Seminar: Self, Society, and the Making of Reality (3). What does it mean to say that reality is "socially constructed"? How do people in different social groups develop shared perspectives? In exploring answers to these questions (and others) the course will also examine the self from a sociological perspective.
SOCI 56 First-Year Seminar: Citizenship (3). Citizenship takes on new meaning in a global context. This course examines current debates, examples of human rights charters, and students apply what they learn to sociological topics.
SOCI 57 First-Year Seminar: Rationalization and the Changing Nature of Social Life in 21st-Century America (3). Fast food restaurants have become a model for everyday life. Some scholars
even talk about the "McDonaldization" of the world. By that scholars mean a drive toward greater efficiency, predictability, calculability, and control by technologies in modern organizations. Sociologists call this process "rationalization," which will be examined in this course.
SOCI 58 First-Year Seminar: Globalization, Work, and Inequality (3). This course will present a comparative and multidisciplinary perspective on how globalization affects labor markets and inequality.

SOCI 59 First-Year Seminar: The Advocacy Explosion: Social Movements in the Contemporary United States (3). This course investigates the origins, dynamics, and influence of social movements in American society. It examines why people join movements, how movements work, and the way that movements are able to affect broader changes in our society.
SOCI 60 First-Year Seminar: Sociology of the Islamic World (3). This course exposes students to the social, economic, political, and religious currents that have made the Islamic world one of the most important regions for global affairs, as well as one of the regions least understood in the United States.
SOCI 61 First-Year Seminar: Innovative, Information Technology, and the Sociology of Business (3). This course investigates how innovations in information technology are transforming the nature of business and society in the United States. It also examines the history of work relationships in the United States to discover how information technology will change the role and meaning of employees and customers.
SOCI 62 First-Year Seminar: Social Change and Changing
Lives (3). Society shapes our lives, and yet we seek to influence the direction of our biographies through personal effort (also called "agency"). This course examines the dynamic between society and agency, which becomes especially interesting in times of social change, when societies redefine the paths that lives can take.
SOCI 63 First-Year Seminar: Cooperation and Conflict (3). The course examines cooperation and conflict in settings where there is no state and legal system that enforces rules of conduct: early encounters of Europeans and non-Europeans; migrants and colonists in a wilderness, such as New England Puritans and Mormons in Utah; good Samaritans who rescue strangers despite risks.
SOCI 64 First-Year Seminar: Equality of Educational Opportunity Then and Now (3). Brown v. Board of Education centers on one of the most significant and controversial issues in American public education: equality of educational opportunity. This course examines race in America and its effect on public education before and after Brown. Topics include school segregation, curriculum tracking, and the black-white achievement gap.
SOCI 65 First-Year Seminar: Environment, Health, and Justice (3). This course will use the environmental justice movement as a window to explore the dynamics of social movements, health disparities, and social policy.

SOCI 66 First-Year Seminar: Citizenship and Society in the United States (3). Americans are taught that democracy and
citizenship go hand in hand: being a good citizen may mean voting, writing letters, and taking other actions to "make one's voice heard." This course examines what citizenship has meant during the course of American history.

SOCI 67 First-Year Seminar: America in the 1960s (3). This seminar examines the conflicts, wars, and social upheavals of the 1960s and how that decade transformed United States culture, from race and gender, through the expression of new identities and moral understandings in music, art, literature, and film, to the creation and practice of a new kind of politics.

SOCI 68 First-Year Seminar: Immigration in Contemporary
America (3). This seminar compares and contrasts historical and contemporary immigration to the United States and then explores the development of a migrant community in North Carolina. We will study why people migrate, how citizens respond to migration, how the federal government regulates migration, how local communities manage the settlement of its newcomers.
SOCI 69 First-Year Seminar: Human Societies and Genomics (3). Familiarity with basic genetics or a social science field is helpful. This course focuses on how advances in molecular genomics over the past decades benefit sociology and other social sciences.

SOCI 70 First-Year Seminar: Difficult Dialogues (3). Provides tools for comprehensive, frank, civil conversations on controversial topics.
SOCI 71 First-Year Seminar: The Pursuit of Happiness (3). Examines the nature, causes, and consequences of happiness from diverse social science perspectives. Addresses such questions as, What is happiness? Can we measure happiness? If so, how? Does money buy happiness? Does happiness vary among social groups, cultures, and nations? What is the role of happiness in formulating public policies?

SOCI 89 First-Year Seminar: Special Topics (3). Special topics course. Content will vary each semester.

SOCI 101 Sociological Perspectives (3). Introduction to sociology as a discipline that includes study of differences and equality, social structure and institutions, culture, social change, individuals and populations, and social psychology.

SOCI 111 Human Societies (3). Introduction to comparative sociology. The major types of society that have existed or now exist are analyzed, together with major patterns of social change.

SOCI 112 Social Interaction (3). The individual in society. An examination of how people conduct their interactions with others in different kinds of social relationships. Emphasis on the social psychological causes and consequences of such conduct.

SOCI 115 Regional Sociology of the South (3). Description and analysis of social aspects of the American South. Emphasis is on recent development and its effects on institutions and culture.

SOCI 121 Population Problems (3). Social and economic causes of population structure and change. Illustrations drawn from developing countries and the less developed regions and sections of the United States.

SOCI 122 Race and Ethnic Relations (3). Examination of domination and subordination in general and in specific
institutional areas (e.g., economy, polity) along racial and ethnic lines. Causes of changes in the levels of inequality and stratification are also studied.

SOCI 123 Crime and Delinquency (3). The nature and extent of crime and delinquency; emphasis upon contemporary theories of their causation; examination of correctional programs.

SOCI 124 Sex and Gender in Society (WMST 124) (3). Examination of the social differentiation between men and women. Attention to the extent, causes, and consequences of sexual inequality and to changes in sex roles and their impact on interpersonal relations.

SOCI 130 Family and Society (3). Comparative analysis of kinship systems and family relations. Courtship, marriage, and parent-child relations viewed within a life-cycle framework. Students may not receive credit for both this course and SOCI 425.

## SOCI 131 Social Relations in the Workplace (MNGT

131) (3). Meaning and content of work in modern industrial society. Preparation for work; autonomy and control; inequality; consequences for health, safety, and family life.

SOCI 133 Sociology of Politics (3). Patterns of participation in political institutions, public policy, conflict within and between communities and other interest groups, the nature of citizenship in modern society, politics and social change.

## SOCI 140 Historical Sociology of Christianity (RELI 234)

(3). Takes an historical sociology approach to the study of Christianity. Examines the social conditions that helped give rise to the early Christian movement, follows Christianity as it influences and is influenced by social forces at key points in its historical development, and considers important contemporary developments around the globe.

SOCI 165 Introduction to Aging (1). This course sensitizes students to the diversity of the aging population and the aging experience, recognizes the capacity of older adults for their contributions to society, and fosters intergenerational communication.

SOCI 250 Sociological Theory (3). Required of sociology majors. A study of theoretical perspectives in sociology, their relation to contemporary social issues, and their roots in classical social thought. Students may not receive credit for both SOCI 250 and SOCI 253.

SOCI 251 Measurement and Data Collection (3). Required of sociology majors. Methods of data collection, with attention to problem selection, sources of information, choice of methods, and research design. Operationalization and measurement; sampling, construction of questionnaires, and interviewing; observation techniques; experimentation.

SOCI 252 Data Analysis in Sociological Research (3). Required of sociology majors. Methods of data analysis: descriptive and inferential statistics and multivariate analysis to permit causal inference. Attention to problems of validity and reliability and to index construction.

SOCI 253 Sociological Theory-Experiential (3). Prerequisite, SOCI 101. Permission of the instructor for students lacking the
prerequisite. A study of theoretical perspectives in sociology, their relation to contemporary social issues, and their roots in classical social thought, taught through experiential examples. Students may not receive credit for both SOCI 250 and SOCI 253.

SOCI 257 Society and Culture in Postwar Germany (GERM 257, HIST 257, POLI 257) (3). See GERM 257 for description.

SOCI 260 Crisis and Change in Russia and East Europe (POLI 260, PWAD 260) (3). See POLI 260 for description.

SOCI 273 Social and Economic Justice, Experiential Education (3). Covers theory and practice of social and economic justice, including analyses of racial, gender, sexual, class, national, and other forms of justice, the history of influential movements for justice, and strategies of contemporary struggles. This course has a 30 -hour service-learning component. Students may not receive credit for both SOCI 273 and SOCI 274.

SOCI 274 Social and Economic Justice (3). Covers theory and practice of social and economic justice, including analyses of racial-gender-sexual-class-national and other forms of justice, the history of influential movements for justice, and strategies of contemporary struggles. Students may not receive credit for both SOCI 273 and SOCI 274.

SOCI 290 Special Topics in Sociology (3). Periodic offering of courses on developing topics in the field.
SOCI 301 American Colleges and Universities: Junior Transfer Seminar (3). This course examines American colleges and universities from several perspectives, ranging from the individual student's experience to the role of higher education in larger social systems. Students will compare the unique needs of these diverse institutions as well as the populations they serve. Does not count toward the sociology major.

SOCI 390 Sociological Analysis: Special Topics (3). Examines selected topics from a sociological perspective. Course description for a particular semester is available in the department office.

SOCI 393 Independent Experiential Internship (1-3).
Permission of the department. This course is an internship experience directly relevant to the student's academic progress in sociology and/or management and society. Pass/Fail only.

SOCI 396 Independent Study and Reading (1-6). Permission of the director of undergraduate studies. Special reading and research in a selected field under the direction of a member of the department faculty.

## SOCI 410 Formal Organizations and Bureaucracy (MNGT

 410) (3). Varieties of organizational forms, their structures and processes; creation, persistence, transformation, and demise; role of organizations in contemporary society.SOCI 411 Social Movements and Collective Behavior (3). Study of nonroutine collective actions such as demonstrations, strikes, riots, social movements, and revolutions, with an emphasis on recent and contemporary movements. Students may not receive credit for both SOCI 411 and SOCI 413.

SOCI 412 Social Stratification (MNGT 412) (3). Analysis of social structure and stratification in terms of class, status, prestige,
and rank. Attention to social roles of elites, professionals, the middle class, and the working class and to comparative topics.

SOCI 413 Social Movements and Collective Behavior-
Experiential (3). Study of nonroutine collective actions such as demonstrations, strikes, riots, social movements, and revolutions, with an emphasis on recent and contemporary movements. Substantial field work for experiential education. Students may not receive credit for both SOCI 411 and SOCI 413.

SOCI 414 The City and Urbanization (3). The city as a social, spatial, and political-economic phenomenon in the modern world. Analysis of urban demographic trends, spatial characteristics and economic functions. Substantive topics include segregation, social turmoil, unemployment, fiscal problems, suburbanization, and urban public policy. Students may not receive credit for both SOCI 414 and SOCI 417.

SOCI 415 Economy and Society (MNGT 415) (3). Examination of the structure and operation of institutions where economy and society intersect and interact, such as education, industrial organizations, on-the-job training, labor markets, and professional associations. Emphasis on the contemporary United States, with selected comparisons with Western Europe and Japan.

SOCI 416 Comparative Perspectives on Contemporary International Migration and Social Membership (3-4). This course provides a special focus on international migration and social membership/citizenship across a number of advanced industrial immigrant-receiving states.

## SOCI 417 The City and Urbanization, Experiential Education

(3). The city as a social, spatial, and political-economic phenomenon in the modern world. Analysis of urban demographic trends, spatial characteristics, and economic functions. Substantive topics include segregation, social turmoil, unemployment, fiscal problems, suburbanization, and urban public policy. Students may not receive credit for both SOCI 414 and SOCI 417.

SOCI 418 Contemporary Chinese Society (3). Designed to help students read complex pictures of contemporary China and to understand how China's rise affected people's lives, both inside and outside of China, from a sociological perspective. The course does not assume any background in Chinese studies.
SOCI 419 Sociology of the Islamic World (3). Investigates issues such as tradition and social change, religious authority and contestation, and state building and opposition in Muslim societies in the Middle East and around the world.

SOCI 420 Political Sociology (3). Analysis of the reciprocal influences of state and social organizations upon each other; the social bases of political authority and stability, of revolution and counterrevolution.

SOCI 422 Sociology of Health and Mental Illness (3). Course examines uniqueness of the sociological perspective in understanding mental health and illness. It draws upon various fields to explain mental illness in as broad a social context as possible. Attention focuses on how social factors influence definitions and perceptions of illness.

SOCI 423 Sociology of Education, Experiential Education (3). An overview of theory and research on education and schooling, with an emphasis on inequalities in educational opportunities, education as a social institution, and the changing context of schools and schooling. Substantial field work for experiential education. Students may not receive credit for both SOCI 423 and SOCI 426.

SOCI 424 Law and Society (3). A sociological analysis of comparative legal systems, the role of law in social change and in shaping social behavior. Topics may include the legal profession, property distribution, and the role of law in achieving racial and sexual justice.

SOCI 425 Family and Society, Junior/Senior Section (3). A special version of SOCI 130 for juniors, seniors, and beginning graduate students. Students may not receive credit for both this course and SOCI 130.

SOCI 426 Sociology of Education (3). An overview of theory and research on education and schooling, with an emphasis on inequalities in educational opportunities, education as a social institution, and the changing context of schools and schooling. Students may not receive credit for both SOCI 423 and SOCI 426.

SOCI 427 The Labor Force (MNGT 427) (3). Supply and characteristics of labor and of jobs, including industrial and occupation changes, education and mobility of labor, and changing demography of the workforce.
SOCI 428 Sociology of Art (3). Connections between artworks, art theory, and social theory are examined. Approaches in the fine arts and the social sciences are examined.

SOCI 429 Religion and Society (RELI 429) (3). Sociological analysis of group beliefs and practices, both traditionally religious and secular, through which fundamental life experiences are given coherence and meaning.

SOCI 431 Aging (3). The process of aging from birth to death, with a concentration on the later years of life, examined from a broad perspective. Topics include individual change over the lifecourse, the social context of aging, and the aging of American society.

SOCI 433 Immigration in Contemporary America (3). This course introduces students to reasons why people migrate, how citizens respond to that migration, how the federal government regulates migration, and how local communities manage the settlement of newcomers. By the end of the course students should have a solid understanding of major debates in the study of immigration.
SOCI 442 Conflict and Bargaining (PWAD 442) (3). Conflict and conflict-resolution behavior. Applications to labor-management relations, family, sports, community politics, international relations.

## SOCI 444 Race, Class, and Gender (WMST 444) (3).

Conceptualizations of gender, race, and class and how, separately and in combination, they are interpreted by the wider society. Emphasis on how black and working-class women make sense of their experiences at work and within the family.

SOCI 445 Sociology of Emotions (3). The course examines how emotions are organized within social groupings and institutions. Differences in socialization by gender, ethnicity, social class, and age will be explored.
SOCI 450 Theory and Problems of Developing Societies
(3). Theories concerning the development process (motivational vs. institutional economics vs. political and social development; similarity of sequential states and outcomes) will be related to policy problems facing the developing nations.

SOCI 453 Social Change in Latin America (3). Introduction to Latin American ideologies and values; economic and demographic changes; major pressure groups (old elites, entrepreneurs, peasants and working classes, military, and intellectuals); and relations with the United States.

SOCI 460 Contemporary Social Theory (3). Prerequisite, SOCI 250. Analysis of current problems in general social theory; action and structure, justice and equity, social change and reproduction. Contrast and evaluation of leading approaches to solutions.
SOCI 468 United States Poverty and Public Policy (3). This course examines issues of poverty and social policy, single-mother families, the welfare debate, and homelessness.

SOCI 469 Medicine and Society (3). This course explains why and how particular social arrangements affect the types and distribution of diseases and how the medical care system is organized and responds. The course focuses on three topics: social factors in disease and illness; health care practitioners and patients; and changes in the health care system.

SOCI 470 Human Rights (3). Human rights are inherent in the advance of peace, security, prosperity, and social equity. They are shared by the global community, yet require local embedding.
SOCI 481 Managing International Conflict (3). This course introduces the principles of international cooperation and conflict resolution; theories of how international agreements develop or break down; and the logic of mediation, arbitration, and negotiation.

## SOCI 620 Aging and Cohort Analysis in Social and

 Epidemiologic Research: Models, Methods, and Innovations (3). Required preparation, basic statistics courses. This seminar introduces guidelines for conducting aging and cohort analysis in social and epidemiologic research in which time and change are concerns. Uses three common research designs with an emphasis on new analytic models and methods.SOCI 688 Society, Human Behavior, and Genomics (3). The course focuses on how molecular genetics can enrich the social sciences. Topics include a brief overview of genetics and how genetic and social factors combine to predict behavior. We also consider the ethical, legal, and social issues that sometimes complicate the use of genetic data to study human behavior.

## SOCI 691H Senior Honors Research and Seminar (3).

Permission of the department. 691 H is required of senior honors candidates. Individual student research (under supervision of an advisor). Weekly seminar to discuss work on honors thesis, as well as special topics in sociology.

SOCI 692H Senior Honors Research and Seminar (3). Prerequisite, SOCI 691H. Permission of the department. Individual student research (under supervision of an advisor). Weekly seminar to discuss work on honors thesis, as well as special topics in sociology.
SOCI 696 Undergraduate/Graduate Study in Sociology (3-4). Permission of the instructor. Graduate study in sociology for undergraduate students. Undergraduate students taking a 700- or 800-level course in sociology register via this course and complete all requirements for the associated graduate course.

## Department of Statistics and Operations Research

www.stat-or.unc.edu
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## AMARJIT BUDHIRAJA, Chair

## Introduction

The major in mathematical decision sciences is an excellent program for students interested in actuarial science, operations research, probability, or statistics, as well as in fields such as business, economics, planning, psychology, and biomedicine where the decision and statistical sciences play an increasingly important role.
Particular areas in which graduates can obtain employment or continue with graduate study include
Statistics: Probability and statistics are two of the most frequently applied areas in the mathematical decision sciences. Students in this area study the mathematical theories of probability and statistics and their application to mathematical models that contain an element of uncertainty or randomness. Opportunities for employment are manifold in businesses and government agencies dealing with many branches of the natural and social sciences, including pharmacology, environmental sciences, and many others.
Operations Research: In this area, students study mathematical and statistical techniques related to decision making. This branch of the mathematical decision sciences is crucial in business, government, and other management areas where difficult problems that depend on large amounts of data are addressed (for example, complex airline route schedules). In addition to their major courses, students interested in this field are encouraged to take courses in business and economics.

Actuarial Science: Actuaries are mathematicians who work primarily in businesses that involve financial risk, including the insurance industry. Students interested in this field take advanced courses in statistics, stochastic processes, and the mathematical theory of risk.

## Mathematical Decision Sciences Major, B.S.

## Core Requirements

- MATH 547
- STOR 415, 435, 445, and 455
- Five courses from Group A and Group B, including at least three courses from Group A
${ }^{\circ}$ Group A: STOR 305, 465, 471, 472, 515, 555, 556, 565
${ }^{\circ}$ Group B: BIOL 526; BIOS 664; BUSI 408; COMP 401, 410; MATH 383, 521, 522, 523, 524, 548, 566; STOR 582


## Additional Requirements

- COMP 116 (110 may be substituted)
- MATH 231, 232, 233
- STOR 155, and STOR 215 or MATH 381

Mathematical decision sciences majors must complete 123 academic hours. They also must attain at least a grade of C (not C-) in 18 hours of the courses listed under Core Requirements.

## Course Sequencing

In the first two years, students are required to complete the standard calculus sequence as well as introductory courses in statistics, operations research, and computer science. At the beginning of their third year, students take advanced courses in statistics, probability, and operations research. They have a great deal of flexibility in tailoring their program to meet their individual interests.

## First and Second Years

- COMP 116 (110 may be substituted)
- MATH 231, 232, 233
- STOR 155*, and STOR 215* or MATH 381


## Third and Fourth Years

- MATH 547
- STOR 415, 435, 445, 455
- Five courses from the following two groups of courses, including at least three from Group A**
${ }^{\circ}$ Group A: STOR 305, 465, 471, 472, 515, 555, 556, 565
${ }^{\circ}$ Group B: BIOL 526; BIOS 664; BUSI 408; COMP 401, 410; MATH 383, 521, 522, 523, 524, 548, 566; STOR 582
It is recommended that all mathematical decision sciences majors take ECON 101 as a social and behavioral sciences Approaches course. Students interested in the actuarial profession also should take BUSI 101 as a general elective.
*Prospective mathematical decision sciences majors are encouraged to take STOR 155, and STOR 215 or MATH 381 as early as possible in their college careers. Each has a prerequisite of MATH 110 or its equivalent and may be taken before, or concurrently with, MATH 231.
**Students wishing to prepare for an actuarial career should include STOR 471, 472, 555, and 556 from Group A in their program and take ECON 410 and 420 and BUSI 408 and 588 as electives. Students who plan to attend graduate school in the mathematical decision sciences (e.g., in operations research or statistics) should include in their program COMP 401, STOR 555, 565, and MATH 521.


## Dual Bachelor's-Master's Degree Program

The Department of Statistics and Operations Research offers a dual bachelor's—master's degree program. Interested students should consult the program director.

## Mathematical Decision Sciences Minor

- STOR 155, and STOR 215 or MATH 381
- Three courses from among STOR 305, 415, 435, 445, 455, 465, $471,472,515,555,556$, and 565.


## Advising

All majors and minors have a primary academic advisor in Steele Building. Students are strongly encouraged to meet regularly with their advisor and review their Tar Heel Tracker each semester. After contacting the mathematical decision sciences office (see "Contact Information" below), all majors and minors are also assigned an undergraduate advisor in the department. The department's undergraduate advisors discuss course planning with current majors and, if needed, minors before registration each semester. The director of undergraduate studies works with prospective majors and minors by appointment. Further information on courses, undergraduate research opportunities, the honors program, careers, and graduate schools may be obtained from the department's Web site or by contacting the director of undergraduate studies.

## Courses for Students from Other Departments

The Department of Statistics and Operations Research offers a variety of courses of potential value to students majoring in other disciplines. Introductory courses include STOR 112, 113, and 215, which are foundation courses in decision models, and the basic statistical courses, STOR 151 and 155. At the intermediate level, STOR 305 provides an introduction to business decision models, while STOR 471 is an introductory course in actuarial science. Substantial coverage of applied statistical methods is provided in STOR 455 and 556. At more advanced mathematical levels, an introduction to probability theory is provided by STOR 435, and the basic theory of statistical inference is given by STOR 555. More advanced deterministic and stochastic models of operations research are provided in STOR 415 and 445.

## Special Opportunities in Mathematical Decision Sciences

## Honors in Mathematical Decision Sciences

Candidates for honors or highest honors must secure approval from the program director. They must take STOR 691 H and 692 H , and maintain an overall grade point average of 3.3 and a grade point average in mathematical decision sciences courses of at least 3.3 at the end of the semester preceding the semester in which they graduate.

## Departmental Involvement

The mathematical decision sciences program sponsors Carolina's Actuarial Student Organization (CASO), for students interested in a career in the actuarial sciences. CASO organizes study groups for the actuarial exams, sponsors talks by professional actuaries, keeps members aware of employment opportunities, and maintains contact with alumni and corporations in the field.

## Experiential Education

When arranged in advance with a supervising faculty member, STOR 493 can be used to earn credit for appropriate work experience in the summer or during the academic year. STOR 493 satisfies the experiential education requirement. STOR 496 can also be used to satisfy the experiential education requirement.

## Undergraduate Awards

Two undergraduate awards for graduating seniors are given each year by the mathematical decision sciences program. One is the Mathematical Decision Sciences Award, given to the outstanding graduating senior, and the second is the W. Robert Mann Award, given for excellence in actuarial science. Plaques bearing the names of winners are located in the undergraduate study room in Hanes Hall.

## Undergraduate Research

Undergraduate research under the direction of faculty members from the Department of Statistics and Operations Research is offered through the independent study and research course, STOR 496, and the senior honors thesis courses, STOR 691H and 692H.

## Graduate School and Career Opportunities

Regardless of the electives chosen, the mathematical decision sciences degree program provides excellent preparation for graduate study. Graduates with concentrations in operations research or statistics often continue work at the graduate level in those fields or related areas such as industrial engineering, biostatistics, and environmental science, or enter business school to pursue the master's in business administration (M.B.A.) degree.

A five-year B.S.-M.S. degree program in operations research is also an option. This program is under the direction of the Department of Statistics and Operations Research. Interested students should consult the program director.

Graduates in the mathematical decision sciences will find numerous opportunities for well-paid, challenging jobs.

## Faculty

## Professors

Amarjit Budhiraja, Edward Carlstein, Jason Fine, Jan Hannig, Joseph Ibrahim, Alan F. Karr, Douglas G. Kelly, Michael Kosorok, Vidyadhar G. Kulkarni, M. Ross Leadbetter, Yufeng Liu, J. Stephen Marron, Andrew Nobel, Vladas Pipiras, Pranab K. Sen, Haipeng Shen, Richard L. Smith, Jayashankar Swaminathan.

## Associate Professors

Nilay Argon, Chuanshu Ji, Gabor Pataki, Serhan Ziya.

## Assistant Professors

Shankar Bhamidi, Shu Lu, Yin Xia, Kai Zhang.

## Lecturers

Robin Cunningham, Charles Dunn.

## Professors Emeriti

Charles R. Baker, George S. Fishman, Gopinath Kallianpur, Scott Provan, David Rubin, Gordon D. Simons, Walter L. Smith, Shaler Stidham Jr., Jon W. Tolle.

## Contact Information

Vladas Pipiras, Director of Undergraduate Studies, pipiras@email.unc.edu.
Alison Kieber, Administrative Services Assistant, kieber@email.unc.edu, (919) 843-6024.

## Courses

## STOR-Statistics and Operations Research

STOR 52 First-Year Seminar: Decisions, Decisions, Decisions (3). In this course, we will investigate the structure of these decision problems, show how they can be solved (at least in principle), and solve some simple problems.

## STOR 53 First-Year Seminar: Networks: Degrees of Separation and Other Phenomena Relating to Connected Systems (3).

 Networks, mathematical structures that are composed of nodes and a set of lines joining the nodes, are used to model a wide variety of familiar systems.STOR 56 First-Year Seminar: The Art and Science of Decision Making in War and Peace (3). This seminar will use recently assembled historical material to tell the exciting story of the origins and development of operations research during and after World War II.

## STOR 60 First-Year Seminar: Statistical Decision-Making

Concepts (3). We will study some basic statistical decision-making procedures and the errors and losses they lead to. We will analyze the effects of randomness on decision making using computer experimentation and physical experiments with real random mechanisms like dice, cards, and so on.

## STOR 61 First-Year Seminar: Statistics for Environmental

Change (3). Studies the Environmental Protection Agency's Criteria Document, mandated by the Clean Air Act; this document reviews current scientific evidence concerning airborne particulate matter. Students learn some of the statistical methods used to assess the connections between air pollution and mortality, and prepare reports on studies covered in the Criteria Document.

STOR 62 First-Year Seminar: Probability and Paradoxes (3). The theory of probability, which can be used to model the uncertainty and chance that exist in the real world, often leads to surprising conclusions and seeming paradoxes. We survey and study these, along with other paradoxes and puzzling situations arising in logic, mathematics, and human behavior.

STOR 63 First-Year Seminar: Statistics, Biostatistics, and Bioinformatics: An Introduction to the Ongoing Evolution (3). This course is designed to emphasize the motivation, philosophy, and cultivation of statistical reasoning in the interdisciplinary areas of statistical science and bioinformatics.

STOR 64 First-Year Seminar: A Random Walk down Wall Street (3). Introduces basic concepts in finance and economics, useful tools for collecting and summarizing financial data, and simple probability models for quantification of market uncertainty.

STOR 66 First-Year Seminar: Visualizing Data (3). This seminar looks at a variety of ways in which modern computational tools allow easy and informative viewing of data. Students will also study the kinds of choices that have to be made in data presentation and viewing.

STOR 72 First-Year Seminar: Unlocking the Genetic Code (3). Introduces students to the world of genetics and DNA and to the use of computers to organize and understand the complex systems associated with the structure and dynamics of DNA and heredity.
STOR 89 First-Year Seminar: Special Topics (3). Special topics course. Content will vary each semester.

STOR 112 Decision Models for Business (3). Prerequisite, MATH 110. An introduction to the basic quantitative models of business with linear and nonlinear functions of single and multiple variables. Linear and nonlinear optimization models and decision models under uncertainty will be covered.

STOR 113 Decision Models for Economics (3). Prerequisite, MATH 110. An introduction to multivariable quantitative models in economics. Mathematical techniques for formulating and solving optimization and equilibrium problems will be developed, including elementary models under uncertainty.

STOR 151 Basic Concepts of Statistics and Data Analysis I (3). Prerequisite, MATH 110. Elementary introduction to statistical reasoning, including sampling, elementary probability, statistical inference, and data analysis. STOR 151 may not be taken for credit by students who have credit for ECON 400 or PSYC 210.

STOR 155 Introduction to Statistics (3). Prerequisite, MATH 110. Data analysis; correlation and regression; sampling and experimental design; basic probability (random variables, expected values, normal and binomial distributions); hypothesis testing and confidence intervals for means, proportions, and regression parameters; use of spreadsheet software.
STOR 215 Introduction to the Decision Sciences (3).
Prerequisite, MATH 110. Introduction to basic concepts and techniques of discrete mathematics with applications to business and social and physical sciences. Topics include logic, sets, functions, combinatorics, discrete probability, graphs, and networks.

STOR 305 Decision Making Using Spreadsheet Models (3). Prerequisite, MATH 152 or STOR 155. The use of mathematics to describe and analyze large-scale decision problems. Situations involving the allocation of resources, making decisions in a competitive environment, and dealing with uncertainty are modeled and solved using suitable software packages.

STOR 358 Sample Survey Methodology (BIOS 664) (4). See BIOS 664 for description.
STOR 415 Deterministic Models in Operations Research (3). Prerequisite, MATH 547. Linear, integer, nonlinear, and dynamic programming, classical optimization problems, network theory.

STOR 435 Introduction to Probability (MATH 535) (3). Prerequisite, MATH 233. Introduction to the mathematical theory of probability, covering random variables; moments; binomial, Poisson, normal and related distributions; generating functions; sums and sequences of random variables; and statistical applications.

STOR 445 Stochastic Models in Operations Research (3). Prerequisite, BIOS 660 or STOR 435. Introduction to Markov chains, Poisson processes, continuous-time Markov chains, renewal theory. Applications to queueing systems, inventory, and reliability, with emphasis on systems modeling, design, and control.

STOR 455 Statistical Methods I (3). Prerequisite, STOR 155. Review of basic inference; two-sample comparisons; correlation; introduction to matrices; simple and multiple regression (including significance tests, diagnostics, variable selection); analysis of variance; use of statistical software.

STOR 465 Simulation Analysis and Design (3). Prerequisite, STOR 445. Introduces concepts of random number generation, random variate generation, and discrete event simulation of stochastic systems. Students perform simulation experiments using standard simulation software.

STOR 471 Long-Term Actuarial Models (3). Prerequisite, STOR 435. Probability models for long-term insurance and pension systems that involve future contingent payments and failure-time random variables. Introduction to survival distributions and measures of interest and annuities-certain.

STOR 472 Short Term Actuarial Models (3). Prerequisite, STOR 435. Short-term probability models for potential losses and their applications to both traditional insurance systems and conventional business decisions. Introduction to stochastic process models of solvency requirements.

## STOR 493 Internship in Statistics and Operations Research

 (3). Requires permission of the department. Mathematical decision sciences majors only. An opportunity to obtain credit for an internship related to statistics, operations research, or actuarial science. Pass/Fail only. Does not count toward the mathematical decision sciences major or minor.STOR 496 Undergraduate Reading and Research in Statistics and Operations Research (1-3). Permission of the director of undergraduate studies. This course is intended mainly for students working on honors projects. May be repeated for credit.

STOR 515 Computational Mathematics for Decision Sciences (3). Permission of the instructor. Reviews basic mathematical and computational theory required for analyzing models that arise in operations research, management science, and other policy sciences. Solution techniques that integrate existing software into studentwritten computer programs will be emphasized.
STOR 555 Mathematical Statistics (3). Prerequisite, STOR 435. Functions of random samples and their probability distributions, introductory theory of point and interval estimation and hypothesis testing, elementary decision theory.

STOR 556 Statistical Methods II (3). Prerequisites, STOR 435 and 455 . Topics selected from design of experiments, sample surveys, nonparametrics, time series, multivariate analysis, contingency
tables, logistic regression, and simulation. Use of statistical software packages.
STOR 565 Introduction to Machine Learning (3). Prerequisites, STOR 215 or MATH 381, and STOR 435. Introduction to theory and methods of machine learning including classification; Bayes risk/rule, linear discriminant analysis, logistic regression, nearest neighbors, and support vector machines; clustering algorithms; overfitting, estimation error, cross validation.

STOR 582 Neural Network Models for the Decision and Cognitive Sciences (3). Prerequisite, MATH 231, PHIL 155, PSYC 210, or STOR 155 or 215 . The interactions between cognitive science and the decision sciences are explored via neural networks. The history of these networks in neuroscience is reviewed and their adaptation to other fields such as psychology, linguistics, and operations research is presented.
STOR 612 Models in Operations Research (3). Required preparation, calculus of several variables, linear or matrix algebra. Formulation, solution techniques, and sensitivity analysis for optimization problems which can be modeled as linear, integer, network flow, and dynamic programs. Use of software packages to solve linear, integer, and network problems.

STOR 614 Linear Programming (3). Required preparation, calculus of several variables, linear or matrix algebra. The theory of linear programming, computational methods for solving linear programs, and an introduction to nonlinear and integer programming. Basic optimality conditions, convexity, duality, sensitivity analysis, cutting planes, and Karush-Kuhn-Tucker conditions.

STOR 634 Measure and Integration (3). Required preparation, advanced calculus. Lebesgue and abstract measure and integration, convergence theorems, differentiation. Radon-Nikodym theorem, product measures. Fubini theorems. Lp spaces.

STOR 635 Probability (MATH 635) (3). Prerequisite, STOR 634. Permission of the instructor for students lacking the prerequisite. Foundations of probability. Basic classical theorems. Modes of probabilistic convergence. Central limit problem. Generating functions, characteristic functions. Conditional probability and expectation.
STOR 641 Stochastic Models in Operations Research I (3). Prerequisite, STOR 435. Review of probability, conditional probability, expectations, transforms, generating functions, special distributions, and functions of random variables. Introduction to stochastic processes. Discrete-time Markov chains. Transient and limiting behavior. First passage times.
STOR 642 Stochastic Models in Operations Research II (3). Prerequisite, STOR 641. Exponential distribution and Poisson process. Birth-death processes, continuous-time Markov chains. Transient and limiting behavior. Applications to elementary queueing theory. Renewal processes and regenerative processes.
STOR 654 Statistical Theory I (3). Required preparation, two semesters of advanced calculus. Probability spaces. Random variables, distributions, expectation. Conditioning. Generating functions. Limit theorems: LLN, CLT, Slutsky, delta-method, big-O in probability. Inequalities. Distribution theory: normal,
chi-squared, beta, gamma, Cauchy, other multivariate distributions. Distribution theory for linear models.

STOR 655 Statistical Theory II (3). Prerequisite, STOR 654. Point estimation. Hypothesis testing and confidence sets. Contingency tables, nonparametric goodness-of-fit. Linear model optimality theory: BLUE, MVU, MLE. Multivariate tests. Introduction to decision theory and Bayesian inference.

STOR 664 Applied Statistics I (3). Permission of the instructor. Basics of linear models: matrix formulation, least squares, tests. Computing environments: SAS, MATLAB, S+. Visualization: histograms, scatterplots, smoothing, QQ plots. Transformations: log, Box-Cox, etc. Diagnostics and model selection.

STOR 665 Applied Statistics II (3). Prerequisite, STOR 664. Permission of the instructor for students lacking the prerequisite. ANOVA (including nested and crossed models, multiple comparisons). GLM basics: exponential families, link functions, likelihood, quasi-likelihood, conditional likelihood. Numerical analysis: numerical linear algebra, optimization; GLM diagnostics. Simulation: transformation, rejection, Gibbs sampler.

STOR 691H Honors in Mathematical Decision Sciences (3). Permission of the department. Majors only. Individual reading, study, or project supervised by a faculty member.

STOR 692H Honors in Mathematical Decision Sciences (3). Permission of the department. Majors only. Individual reading, study, or project supervised by a faculty member.

## Department of Women's and Gender Studies

womensstudies.unc.edu
208 Smith Building, CB\# 3135; (919) 962-3908
SILVIA TOMÁŠKOVÁ, Chair

## Introduction

The Department of Women's and Gender Studies offers a feminist interdisciplinary course of study that expands the process of knowledge production to include considerations of gender, race, class, and sexuality in the United States and internationally. Students will be exposed to recent scholarship on feminist theory and the intellectual, economic, political, and artistic contributions of women and feminist movements in various historical and cultural contexts.
Approximately 30 departments offer over 120 courses that focus on the study of women and/or gender. Many of these courses have been cross-listed as women's and gender studies courses and are identified below; others are taught as special sections of an established course and are identified separately each semester.

## Women's and Gender Studies Major, B.A.

## Core Requirements

- Four intellectual and theoretical foundations courses: WMST 101, 202, 695 or 691 H (offered in the fall semester only), and one course on minority/Third World/non-Western women or gender chosen from the following: AAAD/WMST 200, 386; AAAD 232/WMST 266; ANTH/WMST 277; ASIA/GEOG/ WMST 447; ASIA/HIST/WMST 537; COMM/WMST 561; ENGL/WMST 665, 666; HIST/WMST 280, 569, 576; JAPN/ WMST 381, 384; PLAN/WMST 662; SPAN/WMST 620; WMST 64, 211, 233, 281, 285, 289, 337, 350, 352, 368, 388, 410, 465, 553, 583, 610
- Three interdisciplinary perspectives courses (nine hours) chosen from at least two of the following three categories:
o Historical studies: AAAD 201; AAAD/WMST 200; AMST/ JWST/WMST 253; ASIA/HIST/WMST 537; CLAS/WMST 240, 241, 242; COMM/FOLK/HIST/WMST 562; HIST 354/PWAD 354/WMST 353, HIST/PWAD/WMST 517; HIST/WMST 259, 264, 280, 375, 479, 500, 501, 568, 569, 576; WMST 289, 337, 560, 583
o Humanities and fine arts: ANTH/LING/WMST 302; ANTH 537/FOLK 537/WMST 438; ARTH/WMST 254, 451; ASIA/ CMPL/WMST 380; CMPL 374/WMST 373; COMM/ WMST 224, 345, 561; COMM 436/WMST 437; ENGL/ WMST 140, 263, 363, 374, 446, 665, 666; GERM/WMST 220, 250; JAPN/WMST 381, 384; MUSC/WMST 188, 248; PHIL/WMST 275, 475; RELI/WMST 362; RUSS/WMST 486; SPAN/WMST 620; WMST 64, 66, 68, 80, 202, 211, 230, 231, 232, 233, 243, 281, 285, 294, 297, 325, 336, 350, 352, 465, 555
o Social sciences: AAAD/WMST 386; AAAD 232/WMST 266; AMST/ECON/WMST 385; ANTH/WMST 277, 278, 441, 458, 660; ASIA/GEOG/WMST 447; EXSS/WMST 260; GEOG/WMST 225; JOMC/WMST 442; PLAN 52/WMST 51, PLAN/WMST 662; POLI/WMST 217, 218, 219, 265, 477; RECR/WMST 310; RELI/WMST 244, 371, 424; SOCI/ WMST 124, 444; WMST 111, 340, 355, 368, 388, 410, 550, 553, 563, 610
- One course in the theory and practice of women's and gender studies from the following options:
o WMST 393-This faculty-supervised internship must be arranged in the semester prior to the semester of the internship (see Internship Guidelines on the departmental Web site).
o A fourth course chosen from one of the three interdisciplinary perspectives categories above
- WMST 692H—For qualified students; this yearlong honors thesis must be arranged in the semester prior to the year of the thesis (requires approval of the department and the instructor; see Honors Thesis Guidelines on the departmental Web site).
The major requires 24 credit hours taken in women's and gender studies courses or departmental courses cross-listed with the Department of Women's and Gender Studies. Students must also fulfill all General Education requirements.


## Women's and Gender Studies Minor

The minor consists of 15 credits (five courses).

- WMST 101
- Four courses chosen from at least two of the following three categories:
o Historical studies: AAAD 201; AAAD/WMST 200; AMST/ JWST/WMST 253; ASIA/HIST/WMST 537; CLAS/WMST 240, 241, 242; COMM/FOLK/HIST/WMST 562; HIST 354/PWAD 354/WMST 353, HIST/PWAD/WMST 517; HIST/WMST 259, 264, 280, 375, 479, 500, 501, 568, 569, 576; WMST 289, 337, 560, 583
${ }^{\circ}$ Humanities and fine arts: ANTH/LING/WMST 302; ANTH 537/FOLK 537/WMST 438; ARTH/WMST 254, 451; ASIA/ CMPL/WMST 380; CMPL 374/WMST 373; COMM/ WMST 224, 345, 561; COMM 436/WMST 437; ENGL/ WMST 140, 263, 363, 374, 446, 665, 666; GERM/WMST 220, 250; JAPN/WMST 381, 384; MUSC/WMST 188, 248; PHIL/WMST 275, 475; RELI/WMST 362; RUSS/WMST 486; SPAN/WMST 620; WMST 64, 66, 68, 80, 202, 211, 230, 231, 232, 233, 243, 281, 285, 294, 297, 325, 336, 350, 352, 465, 555
o Social sciences: AAAD/WMST 386; AAAD 232/WMST 266; AMST/ECON/WMST 385; ANTH/WMST 277, 278, 441, 458, 660; ASIA/GEOG/WMST 447; EXSS/WMST 260; GEOG/WMST 225; JOMC/WMST 442; PLAN 52/WMST 51, PLAN/WMST 662; POLI/WMST 217, 218, 219, 265, 477; RECR/WMST 310; RELI/WMST 244, 371, 424; SOCI/ WMST 124, 444; WMST 111, 340, 355, 368, 388, 410, 550, 553, 563, 610, 695
WMST 202 and WMST 695 are strongly recommended for minors and will count towards the 12 credits taken after WMST 101. An internship in women's and gender studies (WMST 393) can also count towards the 12 credits.


## Sexuality Studies Minor

The minor in sexuality studies coordinates scholars and students from a range of disciplines to study, teach, and create knowledge about human sexuality in its myriad functions and forms. The minor consists of five courses. Where appropriate, courses taken at Duke University or with a study abroad program also may count toward the minor. The five courses required for the minor must include at least one core course and involve work in at least three different departments or curricula. As an example, a minor in sexuality studies could be constructed from WMST 111, AMST 269, HIST 358, HIST 467, and WMST 101, for a minimum of 15 hours from at least three departments or curricula.

- Core courses (at least one of the following): COMM 549, ENGL/ WMST 140, HIST 566, RELI/WMST 244, SOCI/WMST 124, WMST 111
- Additional courses: AAAD 232/WMST 266; AMST 269, 371; ANTH 442, 443; ANTH/FOLK 473; ANTH/LING/WMST 302; ANTH/WMST 277, 458; ARTH 53, 586; ASIA 235; ASIA/ECON 469; CLAS/WMST 242; CMPL 254, 453, 468, 478, 487; COMM 413, 548, 549, 652; ENGL 264, 287, 365, 384, 661, 664; ENGL/WMST 140, 363, 665, 666; FREN 285;

HIST 358, 398 (with approval, based on topic), 467, 535, 566; HIST 361/WMST 360, HIST 475/WMST 476, HIST/WMST 479; JAPN 161; JWST/RELI 444; PLAN 52/WMST 51; POLI/ WMST 218, 265; PUBH 423; RELI 450; RELI/WMST 244, 424; RUSS 273, 277; SOCI/WMST 124; WMST 101, 231, 285, 294, 388, 410, 550, 553, 610

## Advising

All majors and minors have a primary academic advisor in Steele Building. Students whose first major is women's and gender studies are also required to meet with a faculty member in the department before they can register. All other majors and minors are strongly encouraged to meet with a faculty member as well. The department's director of undergraduate studies also works with current and prospective majors and minors by appointment (see "Contact Information" below). Departmental academic advising is particularly important for those majors who are considering going on to graduate school. All students are encouraged to review their Tar Heel Tracker each semester. Further information on courses, undergraduate research opportunities, the honors program, careers, and graduate schools may be obtained from the department's Web site.

## Special Opportunities in Women's and Gender Studies

## Honors in Women's and Gender Studies

The honors program is designed to encourage independent thought and research among outstanding undergraduate majors in women's and gender studies. Students must take WMST 691H and 692H. Students must plan their project with a faculty advisor and secure permission from both the chair of the department and the faculty advisor. Guidelines and forms for the initial contract are available in the department's office and on our Web site. Students interested in the honors thesis must have a grade point average of 3.3 or greater.

## Faculty

## Professor

Silvia Tomášková.

## Associate Professors

Michele Tracy Berger, Karen M. Booth, Emily Burrill, Tanya L. Shields.

## Assistant Professors

Lilly Nguyen, Susan Harbage Page, Ariana Vigil.

## Adjunct Professor

Annegret Fauser.

## Professors Emerita

E. Jane Burns, Barbara J. Harris, Joanne Hershfield.

## Contact Information

Karen Thompson, CB\# 3135, 208 Smith Building,
(919) 962-3908, kthomps1@email.unc.edu.

Web site: womensstudies.unc.edu.
For information about the major in women's and gender studies, contact Professor Tanya Shields, Director of Undergraduate Studies, CB\# 3135, 203 Smith Building, tshields@unc.edu.
For information about the minor in sexuality studies, contact Professor Richard Cante, Director of Sexuality Studies, CB\# 3135, (919) 962-3908. Web site: sexualitystudies.unc.edu.

## Courses

## WMST-Women's and Gender Studies

WMST 51 First-Year Seminar: Race, Sex, and Place in America (PLAN 52) (3). See PLAN 52 for description.

## WMST 64 First-Year Seminar: Plantation Lullabies: Literature

 by and about African American Women (3). This course introduces students to different ways of understanding plantation culture and how that culture persists today, using close reading strategies and gender analysis. The class will examine film, literature, music, and poetry.WMST 66 First-Year Seminar: World Literature by Women (3). Course introduces students to literature by women from around the world, particularly stories of a girl's transition to womanhood. Close reading strategies are used to examine films, novels, and poetry.
WMST 68 First-Year Seminar: Assumed Identities: Performance in Photography (3). Uses photography and its aspects of role playing, performance, and documentation to understand the construction of identity. Looks at historical and contemporary photographers who use assumed identities to explore their changing identity roles and challenge society's stereotypes. Individual and group performance/photography projects working with still photography, video, and the Internet.

WMST 80 First-Year Seminar: The Actress: Celebrity and the Woman (3). Who is your favorite actress? What do you know about her? What makes you one of her fans? In this seminar students will reflect on the experience, significance, and influence of the stage and motion picture actress in the modern era.

WMST 89 First-Year Seminar: Special Topics (3). Special topics course. Content will vary each semester.

WMST 101 Introduction to Women's Studies (3). An interdisciplinary exploration of the intersections of gender, race, class, and sexuality in American society and internationally. Topics include work; sexuality; gender relations, and images of women in literature, art, and science; and the history of feminist movements. Course readings are drawn from the humanities and the social sciences.
WMST 111 Introduction to Sexuality Studies (3). This course introduces students to the broad range of disciplinary perspectives used by the field of sexuality studies to study, teach, and create knowledge about human sexuality in various functions and forms.

WMST 124 Sex and Gender in Society (SOCI 124) (3). See SOCI 124 for description.

WMST 140 Introduction to Gay/Lesbian Literature (ENGL 140) (3). See ENGL 140 for description.

WMST 144 Women in the United States from Settlement to Present (HIST 144) (3). See HIST 144 for description.
WMST 188 Introduction to Women and Music (MUSC 188) (3). See MUSC 188 for description.

WMST 200 African Women: Changing Ideals and Realities (AAAD 200) (3). See AAAD 200 for description.

WMST 202 Introduction to Feminist Thought (3). Prerequisite, WMST 101. Introduces students to feminist theorizing on debates over gender-based oppression. Gives students tools to pursue academic work in women's studies and to understand the relationships among concepts, activism, and change. Required for majors. Strongly recommended for minors.

WMST 211 Introduction to Latina Feminisms: Literature, Theory, and Activism (3). Through a variety of texts that span the 20th and 21st centuries, students will be introduced to key concepts, figures, and movements in Latina feminisms. Emphasis will be placed on a diversity of historical and ethno-national perspectives as well as academic interdisciplinarity.
WMST 217 Women and Politics (POLI 217) (3). See POLI 217 for description.

WMST 218 Politics of Sexuality (POLI 218) (3). See POLI 218 for description.

WMST 219 Violence against Women: The Legal Perspective (POLI 219) (3). See POLI 219 for description.
WMST 220 Women in the Middle Ages (GERM 220) (3). See GERM 220 for description.

WMST 224 Introduction to Gender and Communication (COMM 224) (3). See COMM 224 for description.

WMST 225 Space, Place, and Difference (GEOG 225) (3). See GEOG 225 for description.

## WMST 230 Women in Contemporary Art: A Field Study

 (3). This seminar will explore the lives and work of women in contemporary art through a combination of readings, films, interviews, studio visits with area artists, and visits to museums and galleries. We will engage questions of identity, gender, sexuality, politics, and cultural representation and how these affect the creativity, media, and final output of women artists.WMST 231 Gender and Popular Culture (3). This course examines the ways in which gender and sexual identities are represented and consumed in popular culture.

WMST 232 Identity in Transit: Performing the Self through Photography (3). This course asks how gendered identity is shaped over time in relation to different cultural, social, and historical circumstances. Examines the practices of photographers who present themselves and others in assumed identities to comment on shifting social roles and challenge stereotypes. Students use photography to document performance and create self-portraits.
WMST 233 Introduction to Latina Literature (3). This course will provide an introduction to Latina literature. We will read a variety of genres from a range of ethno-national perspectives and
examine such topics as immigration, identity, mother-daughter relationships, and sexuality.

WMST 240 Women in Greek Art and Literature (CLAS 240) (3). See CLAS 240 for description.

WMST 241 Women in Ancient Rome (CLAS 241) (3). See CLAS 241 for description.

WMST 242 Sex and Gender in Antiquity (CLAS 242) (3). See CLAS 242 for description.

WMST 243 French Women Writers (3). Works by French women authors read in translation along with pertinent theoretical texts. Course content will vary with each semester incorporating texts from different periods and genres.

WMST 244 Gender and Sexuality in the Western Christian Tradition (RELI 244) (3). See RELI 244 for description.

WMST 248 Women in Opera (MUSC 248) (3). See MUSC 248 for description.
WMST 250 Women in German Cinema (GERM 250) (3). See GERM 250 for description.

WMST 253 A Social History of Jewish Women in America (AMST 253, JWST 253) (3). See AMST 253 for description.

WMST 254 Women in the Visual Arts I (ARTH 254) (3). See ARTH 254 for description.
WMST 259 Women in Politics and Society of Modern Europe (HIST 259) (3). See HIST 259 for description.

WMST 260 American Women in Sports (EXSS 260) (3). See EXSS 260 for description.

WMST 262 War and Gender in Movies (HIST 263, PWAD 263) (3). See HIST 263 for description.

WMST 263 Literature and Gender (ENGL 263) (3). See ENGL 263 for description.

WMST 264 Gender in Russian History, 1860-Present (HIST 264) (3). See HIST 264 for description.

WMST 265 Feminism and Political Theory (POLI 265) (3). See POLI 265 for description.

WMST 266 Black Women in America (AAAD 232) (3). See AAAD 232 for description.

WMST 275 Philosophical Issues in Feminism (PHIL 275) (3). See PHIL 275 for description.
WMST 277 Gender and Culture (ANTH 277) (3). See ANTH 277 for description.

WMST 278 Women in Science (ANTH 278) (3). The role of women in scientific domains throughout history and a consideration of the status of women and men as scientists. The development of science as a cultural practice.

WMST 280 Women and Gender in Latin America (HIST 280) (3). See HIST 280 for description.

WMST 281 Gender and Global Change: Militarization and Transnational Latina/o Literature (3). Through a diverse set of contemporary Latina/o texts, students will examine the response to and representation of gender and militarization in the Américas,
examining in particular war, revolution, and the militarization of everyday life connected to spaces such as the United States-Mexico border and the United States prison industrial complex.

WMST 285 African American Women in the Media (3). This course will acquaint students with how African American women have been depicted (and depicted themselves) in 20th- and 21stcentury media. The course will examine representations of African American women in several aspects of culture including film, art, print, television, theater, and music.

WMST 289 Women and the Law in Africa and the Middle East (3). Course focuses on the history of women in African and Middle Eastern colonial and postcolonial legal systems. It examines "native" customary law, Islamic law, and human and women's rights.

WMST 290 Special Topics in Women's Studies (3). Topics are announced in advance and reflect the interest of the particular instructor. Each course will concern itself with a study in depth of some problem or issue in women's studies.
WMST 294 Courtship and Courtliness from King Arthur to Queen Victoria (3). Prerequisite, WMST 101. Permission of the instructor for students lacking the prerequisite. Interdisciplinary study of Western views concerning love between the sexes, focusing on courtly love in the Middle Ages and romantic love in the Victorian era. Literary, historical, and art historical materials.

WMST 297 Women's Spirituality across Cultures (3). How women's spirituality interacts with officially sanctioned religious institutions in a range of cultural contexts and how it forges alternatives to those traditions.

WMST 302 Language and Power (ANTH 302, LING 302) (3). See LING 302 for description.

WMST 310 Women, Work, and Leisure (RECR 310) (3). See RECR 310 for description.
WMST 325 Encountering Art in the Unexpected: Borderlands and Story in Contemporary American Visual Art (3). This course focuses on the contemporary art and social change movement. We will learn how to use site-specific and performative art interventions to make invisible borders, boundaries, and other issues visible and innovatively to create engaged and sustained dialogue.

WMST 336 Digitizing the Body (3). This class examines contemporary artistic production by international artists that engage, question, and challenge ideas of the body. Students will create work in relation to the body using digital technology.

WMST 337 African Gender History (3). Required preparation, at least one AAAD or WMST course. This course seeks to familiarize students with the scholarly debates on the importance of gender as a category of analysis, while gaining a greater sense of the African past.

## WMST 340 Leadership in Violence Prevention for Peer

 Educators (3). Examines interpersonal violence, the factors that enable it, and prevention strategies. The course examines violence on both individual and structural levels, considering perpetrators, victims/survivors, and bystanders and drawing upon the expertise of local organizers and service providers in the system of care.WMST 345 Women in Film (COMM 345) (3). This course examines the representations of women in contemporary American film and also considers women as producers of film.

WMST 350 Spitting in the Wind: "American" Women, Art, and Activism (3). This course uses films, novels, and essays to engage with various notions of activism (as represented in art and social justice organizations) at play in hemispheric America.

WMST 352 Rahtid Rebel Women: An Introduction to Caribbean Women (3). This course uses films, novels, and essays to move beyond sun, sand, and sex representations of Caribbean women to examine how they negotiate imperial and national definitions of their place.
WMST 353 War and Gender in Movies (HIST 354, PWAD 354) (3). See HIST 354 for description.

WMST 355 Youth, Sexuality, and the Law (3). Examines how lawyers, laws, and legal institutions shape an understanding of sexuality and gender in young people. Through legal briefs and judicial opinions, articles, news media, and guest speakers, this course promotes critical thinking about our assumptions about what is "normal" and "appropriate" in youth sexuality and gender.

WMST 360 Lesbian, Gay, Bisexual, and Transgender Histories in the United States (HIST 361) (3). See HIST 361 for description.
WMST 362 Mary in the Christian Tradition (RELI 362) (3). See RELI 362 for description.

WMST 363 Feminist Literary Theory (ENGL 363) (3). See ENGL 363 for description.

WMST 368 Women of Color in Contemporary United States Social Movements (3). Prerequisite, WMST 101. This course will examine the role of women of color as grassroots activists, leaders, and thinkers in the new social and community movements of the postwar period.

WMST 371 Women Mystics (RELI 371) (3). See RELI 371 for description.
WMST 373 Modern Women Writers (CMPL 374) (3). See CMPL 374 for description.
WMST 374 Southern Women Writers (ENGL 374) (3). See ENGL 374 for description.

WMST 375 History of Gender in America (HIST 375) (3). This course will explore how Americans from 1600 to the present have defined what is masculine and what is feminine and how they have constructed their identities around those definitions.

WMST 380 Almost Despicable Heroines in Japanese and Western Literature (ASIA 380, CMPL 380) (3). See CMPL 380 for description.

WMST 381 Women and Work in Japan (JAPN 381) (3). See JAPN 381 for description.
WMST 384 Women Writers in Japanese Society (JAPN 384) (3). See JAPN 384 for description.

WMST 385 Gender and Economics (AMST 385, ECON 385)
(3). See ECON 385 for description.

WMST 386 Comparative Studies in Culture, Gender, and Global Forces (AAAD 386) (3). See AAAD 386 for description.

WMST 388 The International Politics of Sexual and
Reproductive Health (3). Prerequisite, WMST 101. Permission of the instructor. Takes a feminist political-economy perspective on debates over current health issues of international concern, including abortion, population control, and sexually transmitted infections. Focuses on the United States, Mexico, and Kenya, as well as on international organizations and social movements.

WMST 389 Maid in America, Made in China: Laboring Women in Global Perspective (HIST 389) (3). See HIST 389 for description.

WMST 393 Practicum in Women's and Gender Studies (3). Prerequisite, WMST 101. Permission of the instructor. A supervised internship designed to provide experience working in organizations concerned with women's or gender issues. Must be arranged with a faculty advisor during the semester prior to the internship. See the department's Web site for important information.

WMST 396 Independent Reading and Research (3). Permission of the department chair. Faculty supervision required. Independent reading and research. A student can repeat the course as long as they work on a different topic each time they enroll.
WMST 410 Comparative Queer Politics (3). Prerequisite, WMST 101. Permission of the instructor. Compares the histories, experiences, identities, and political struggles of sexual and gender minorities in Asia, the Middle East, Africa, and the Américas and at the United Nations.

WMST 424 Gender Theory and the Study of Religion (RELI 424) (3). See RELI 424 for description.

WMST 437 Gender, Science Fiction, and Film (COMM 436) (3). The course combines several fields, analyzing the construction of gender through science, science fiction, and film. Students are exposed to science issues as they are represented in popular media.
WMST 438 Gender and Performance: Constituting Identity (ANTH 537, FOLK 537) (3). See ANTH 537 for description.

WMST 441 The Anthropology of Gender, Health, and Illness (ANTH 441) (3). See ANTH 441 for description.
WMST 442 Gender, Class, Race, and Mass Media (JOMC 442) (3). See JOMC 442 for description.

WMST 444 Race, Class, and Gender (SOCI 444) (3). See SOCI 444 for description.

WMST 446 American Women Authors (ENGL 446) (3). See ENGL 446 for description.
WMST 447 Gender, Space, and Place in the Middle East (ASIA 447, GEOG 447) (3). See GEOG 447 for description.

WMST 451 Women in the Visual Arts II (ARTH 451) (3). See ARTH 451 for description.
WMST 458 Archaeology of Sex and Gender (ANTH 458) (3). See ANTH 458 for description.
WMST 465 Gender, (Im)migration, and Labor in Latina
Literature (3). Students will explore the representation of
intersections between gender, identity, immigration, and migration in Latina/o literature. Emphasis will be placed on the intersections between labor, migration, and United States immigration policy.

WMST 475 Philosophical Issues in Gender, Race, and Class (PHIL 475) (3). See PHIL 475 for description.

WMST 476 Feminist Movements in the United States since 1945 (HIST 475) (3). See HIST 475 for description.

WMST 477 Advanced Feminist Political Theory (POLI 477) (3). See POLI 477 for description.

WMST 479 History of Female Sexualities in the West (HIST 479) (3). See HIST 479 for description.

WMST 486 Contemporary Russian Women's Writing (RUSS 486) (3). See RUSS 486 for description.

WMST 500 Gender, Empire, and Nation in Europe and Beyond, 18th to the 20th Century (HIST 500) (3). See HIST 500 for description.
WMST 501 The Gender of Welfare: Comparative Perspectives, 19th and 20th Century (HIST 501) (3). See HIST 501 for description.

WMST 517 Gender, Military and War in Comparative Perspective (HIST 517, PWAD 517) (3). See HIST 517 for description.

WMST 537 Women in the Middle East (ASIA 537, HIST 537) (3). See HIST 537 for description.

WMST 550 The Social Construction of Women's Bodies (3). Prerequisite, WMST 101. Permission of the instructor for students lacking the prerequisite. Looking specifically at the social and cultural construction of women's bodies, this course considers the ways in which biological difference is imbued with social significance.

WMST 553 Theorizing Black Feminisms (3). Prerequisites, WMST 101 and 202. Permission of the instructor for students lacking the prerequisites. Introduction to the theoretical and practical contributions of African American feminists who maintain that issues of race, gender, sexuality, and social class are central, rather than peripheral, to any history or strategy for bringing about social justice in the United States.

WMST 555 Women and Creativity (3). Prerequisites, WMST 101 and 202. Permission of the instructor for students lacking the prerequisites. This course will present an overview of the variety and diversity of contemporary American women's experiences of creative expressions. We explore how women have been historically excluded from the arts.

WMST 560 Women and Religion in United States History (3). An interdisciplinary consideration of women's roles, behavior, and ideas in the religious life of Americans from 1636 to 1982.

WMST 561 Performance of Literature by Women of Color (COMM 561) (3). See COMM 561 for description.

WMST 562 Oral History and Performance (COMM 562, FOLK 562, HIST 562) (3). See COMM 562 for description.

WMST 563 Introduction to Women's Health and Health Education (3). Permission of the instructor. An overview of women's health emphasizing their specific interest as family and community members, as patients, and as health professionals. Implications for health education practice and research.
WMST 568 Women in the South (HIST 568) (3). See HIST 568 for description.

WMST 569 African American Women's History (HIST 569) (3). See HIST 569 for description.

WMST 576 The Ethnohistory of Native American Women (HIST 576) (3). See HIST 576 for description.

WMST 583 Gender and Imperialism (3). Required preparation, one course in gender or non-Western societies. Permission of the instructor for students lacking the preparation. Focuses on feminist perspectives on imperialism; the effects of imperialism on colonized and European women; women's participation in anti-imperialist movements; and the legacies of imperialism for feminism today.

WMST 610 Feminism, Sexuality, and Human Rights (3). Required preparation for undergraduates, WMST 101, one other WMST course beyond the introductory level, and junior/ senior standing. Permission of the instructor required for both undergraduates and graduate students. Examines how transnational struggles over reproductive rights, HIV/AIDS, sex work, and "LGBT" rights have used, challenged, and transformed human rights discourses.

WMST 620 Women in Hispanic Literature (SPAN 620) (3). See SPAN 620 for description.

WMST 660 Kinship, Reproduction, Reproductive Technology, and the New Genetics (ANTH 660) (3). See ANTH 660 for description.
WMST 662 Gender Issues in Planning and Development (PLAN 662) (3). See PLAN 662 for description.

WMST 665 Queer Latina/o Literature, Performance, and Visual Art (ENGL 665) (3). See ENGL 665 for description.

WMST 666 Queer Latina/o Photography and Literature (ENGL 666) (3). See ENGL 666 for description.

WMST 691H Honors in Women's Studies (3). Prerequisites, WMST 101 and 202. Senior standing and permission of the department. The first semester of the yearlong honors thesis in women's and gender studies. Completing WMST 691H fulfills the WMST 695 requirement for the major.

WMST 692H Honors in Women's Studies (3). Prerequisite, WMST 691H. Permission of department. Second semester of the yearlong honors thesis project.
WMST 695 Senior Seminar: Principles of Feminist Inquiry (3). Prerequisites, WMST 101 and 202. Required preparation, at least one additional WMST course and senior standing or permission of the instructor. Required for majors; strongly recommended for minors. An advanced writing-intensive course drawing on a student's interests and background. Major research of specific topics utilizing feminist perspectives.

## Academic Affairs Schools

## Kenan-Flagler Business School

www.kenan-flagler.unc.edu
McColl Building, CB\# 3490; (919) 962-3235; bsba_info@unc.edu
DOUGLAS A. SHACKELFORD, Dean
Jennifer Conrad, Senior Associate Dean and Distinguished Professor

## Introduction

The Kenan-Flagler undergraduate business program offers a program of study that provides students with a thorough grounding in all areas of business and a broad introduction to the liberal arts. The Kenan-Flagler undergraduate experience is distinctive because the school offers

- An undergraduate business experience that is ranked highly in the nation by U.S. News \& World Report and Bloomberg BusinessWeek
- Career services professionals who help students identify career interests and a plan for pursuing them
- A liberal arts-oriented curriculum
- A global perspective relevant to the needs of business today
- Activities and organizations for an active student life
- Individual attention usually associated with smaller schools
- Multiple opportunities provided by a leading, large research university
- Faculty who are outstanding in and out of the classroom Students choose business electives to develop a specific area of business interest. Courses selected from other UNC-Chapel Hill schools and programs add to their depth of knowledge. The result is that students are able to see "the big picture." The school believes that completion of the undergraduate business program provides students with a distinct advantage in a highly selective and competitive job market.

Students may choose to complete a minor in business administration instead of a business major, or they may take a limited number of business administration courses as general electives for their chosen degree program.

The business administration program is considered a broadbased, general management degree, and the Kenan-Flagler Business School encourages breadth in both the business curriculum and in the continuation of study in fine arts, humanities, and natural and social sciences. A second major may be possible and requires advance approval by both the undergraduate business program and the second academic unit. In all cases, undergraduate business majors are encouraged to take upper-level courses during the third and fourth years.

## Admission to the Kenan-Flagler Business School

Kenan-Flagler's undergraduate business program is a small, select program with approximately 335 majors and 35 minors admitted each year. The program seeks candidates whose analytical and organizational abilities, written and oral communication skills, leadership potential, and motivation indicate strong potential
for success. Admission is competitive and based on academic achievement, leadership, cocurricular activities and involvement, work experience, diversity of skills and interests, and focus and depth of thought as expressed in essays, a persuasive cover letter, and résumé. Applicants may receive an admission interview.

## Preparation for the Business Administration Major or Minor

A student admitted to the Kenan-Flagler Business School may begin the undergraduate business program in the spring semester of the second year or fall semester of the third year. First- and secondyear students in the General College who consider themselves prebusiness majors complete certain prerequisite courses as part of their General Education requirements. Preparation for the business major and minor is the same, except that ECON 410 is not a prerequisite for the business minor.

A prebusiness track includes successful completion (defined as earning a final grade of at least a C, not C-) of the following courses (or their equivalents):

- BUSI 101
- ECON 101 and 410
- ENGL 105
- The calculus mathematics requirement can be fulfilled by taking MATH 152, 231, 232, or STOR 113. Students receiving credit by examination or transfer credit for both MATH 231 and 232 are exempt from this requirement.
- STOR 155

First-year students are encouraged to complete ENGL 105, the calculus mathematics requirement, ECON 101, and one of the BUSI 101, ECON 410, or STOR 155 courses. If students wish to be considered for admission in the spring semester of the second year, they need to complete all requirements by the end of the first semester of the second year. Sophomores should not apply for spring admission if they have more than one business prerequisite to complete in the fall semester of their sophomore year. To be considered for admission in the fall semester of the third year, all requirements should be completed by the end of the second year.

For the foundational skills in foreign language, the business school neither requires a particular language nor requires coursework beyond level 3. Please note, however, that some overseas study programs are language-based and may necessitate a student's proficiency beyond level 3. An emphasis in international business requires completion of a foreign language through level 4.

The business school makes no other specific recommendations about courses for other General Education requirements. The school encourages students to challenge themselves by exploring unfamiliar, new disciplines and by strengthening written and verbal communication and critical thinking. It is possible for a business major to earn a second major and a minor, or two minors. Firstand second-year students may wish to build a foundation for such a complementary academic track.

## Prebusiness Advising

First- and second-year students in the General College who consider themselves prebusiness majors are encouraged to seek prebusiness advising from the social and behavioral sciences division in the Academic Advising Program (Steele Building). The admissions staff from the Kenan-Flagler Business School conducts
a series of small group advising sessions to address application specific questions in Hardin Hub and Steele Building. Students may also sign up for these sessions through the scheduling system at advising.unc.edu.

Prospective and current applicants should also frequently check www.kenan-flagler.unc.edu/admissions/undergraduate-business/ deadlines-events for dates of upcoming information sessions, workshops, or important deadlines.

## Admission from the General College

Students interested in pursuing the business major can apply to begin the program in the spring of the second year or the fall of the third year. The undergraduate business admissions process can begin as early as the summer after the first year. All business prerequisites must be completed prior to beginning the program. Applicants with a minimum cumulative grade point average of 3.0 in all coursework and in business prerequisites are given priority consideration in the admissions process. While all of the factors mentioned above are considered in the admissions process, academic performance at UNC-Chapel Hill is a critical component.

Admission to the business minor follows the same application schedule and process as the business major. Admission is both selective and competitive with approximately 35 students admitted to the business minor. Students from any discipline may apply to the business minor during the fall semester of their second year or the fall semester of their third year. Applications for the minor are not accepted once a student has entered the fourth year.

The business administration major is a four- or five-semester program. Students are required to graduate from UNC-Chapel Hill in eight semesters. The business minor requires a minimum of two semesters, preferably three, to complete.

## Transfer Admission from Institutions other than UNC-Chapel Hill

Transfer students are an integral and vibrant part of the Carolina community. They bring a wealth of diversity and experience to the institution and enhance the overall experience for all students, faculty members, and staff. In the Kenan-Flagler undergraduate business program, we understand that transferring is a complex process and have outlined below the policies and guidelines to help students make informed decisions and achieve as smooth a transition as possible.

Transfer students must first be admitted to UNC-Chapel Hill by the Office of Undergraduate Admissions prior to applying to the undergraduate business major or minor. Students must spend at least one semester (fall) in the College of Arts and Sciences before they are eligible to start at the business school. (Students apply early in their first semester at UNC-Chapel Hill.) All students (transfer or not) must complete all business school prerequisites before they are eligible to start in the undergraduate business program. While students may be completing their prerequisites in the term during which they are applying, admission priority is given to students with fewer prerequisites remaining at the time of application.

## Sophomore Transfers

Sophomore transfer students are defined as undergraduates transferring to UNC-Chapel Hill in either their second, third, or fourth term in residence, meaning that they have five or more semesters to complete their degree requirements. Sophomore transfers

1. Must complete all business school prerequisites before they are eligible to start in the undergraduate business program. While students may be completing their prerequisites in the term during which they are applying, admission priority is given to students with fewer prerequisites remaining at the time of application.
2. Should submit a Transfer Equivalency Credit Review form, located on the Kenan-Flagler Web site, for business courses as soon as they accept the offer to attend UNC-Chapel Hill. (A course syllabus must be submitted with this form.) While most transfer equivalencies will be determined through the Office of Undergraduate Admissions, the business school makes all decisions on business course transfers. Students should allow up to three weeks for a decision.
3. Should know that admission to the business school is extremely competitive. We admit 50 percent of our applicants each year. Students should review the eligibility requirements and class profile at the undergraduate business admissions section of the Kenan-Flagler Web site. Students who are currently enrolled in business programs at other four-year institutions should think carefully about their decision to leave those programs.
4. Should strongly consider attending UNC Summer School to catch up on completing business school prerequisites. While summer enrollment is not required, more than 75 percent of UNC-Chapel Hill students attend summer school at some point during their four years. UNC Summer School provides transfer students with an excellent opportunity to acclimate to life in Chapel Hill, as well as the academic environment, by completing one or two courses before taking a full course load during the fall semester.
5. Must apply to the Kenan-Flagler Business School by the October 1 deadline (applications open on July 1). Sophomore transfers are not considered for the September 1 spring application deadline as their fall performance is part of their admissions evaluation.

## Junior Transfers

Junior transfer students are defined as undergraduates transferring to UNC-Chapel Hill and entering their fifth term of residence in the fall semester. Junior transfers

1. Are strongly encouraged to consider the undergraduate business minor instead of the business major. It is much more reasonable for a junior transfer student to be able to complete the requirements for the minor in their allotted four semesters, both in terms of prerequisites and core courses. Business minors receive all of the benefits that business majors do (alumni network, access to global program opportunities and career development initiatives, etc.), are highly sought after by recruiters, and achieve the same employment placement rates as business majors.
2. Should know that admission to the business school is extremely competitive. We only admit approximately 50 percent of our applicants each year. Students should review the eligibility
requirements and class profile at the undergraduate business admissions section of the Kenan-Flagler Web site. Students who are currently enrolled in business programs at other fouryear institutions should think carefully about their decision to leave those programs.
3. Should be interested in the undergraduate business major. Junior transfer students
a. Ideally would complete all of their business school prerequisites in their first two years of college/university coursework before coming to UNC-Chapel Hill.
b. Must have one or fewer business school prerequisites remaining by the end of the UNC-Chapel Hill second summer session before matriculating for the fall semester at UNC-Chapel Hill. The business school will not admit junior transfer students with more than one remaining prerequisite on their fall UNC-Chapel Hill class schedule. While summer enrollment is not required, it might be a good option for some students, since many prerequisites are offered in the summer months. More than 75 percent of UNC-Chapel Hill students attend summer school at some point during their four years. UNC Summer School provides transfer students with an excellent opportunity to acclimate to life in Chapel Hill, as well as the academic environment, by completing one or two courses before taking a full course load during the fall semester. The school will accept online transfer credit from an equivalent Carolina Courses Online for all prerequisites except BUSI 101. Please see www.fridaycenter.unc.edu to access Carolina Courses Online.
c. Must request to take up to two core business courses in the first fall semester. Applicants may request courses via the online request form located on the undergraduate business page of the Kenan-Flagler Web site. While there is no guarantee that seats will be secured in two core courses, completing the survey the day it opens (at $8 \mathrm{a} . \mathrm{m}$. on Monday of the first week of classes) provides the highest chance of securing one or two courses. Students interested in finance must request BUSI 408 Corporate Finance. Students interested in marketing must request BUSI 406 Principles of Marketing. Other options for core courses are BUSI 403, 404, 405, 407, and/or 410. Failure to take one or two core business courses in the fall semester will make it challenging to complete the degree requirements in three semesters.
4. Should submit a Transfer Equivalency Credit Review form, located on the Kenan-Flagler Web site, for business courses as soon as they accept the offer to attend UNC-Chapel Hill. (A course syllabus must be submitted with this form.) While most transfer equivalencies will be determined through the Office of Undergraduate Admissions, the business school makes all decisions on business course transfers. Students should allow up to three weeks for a decision.
5. Must apply by the September 1 deadline (applications open on July 1).
6. Should plan on securing a summer internship in the summer after the junior year. Increasingly, employers are making their full-time hiring decisions from their internship pool. Students
should plan time for an internship search as well as time over the summer to complete the internship.
7. Are expected to complete the degree requirements in the number of terms granted upon admission. The University expects students to graduate in a total of eight terms (including the number of terms transferred from the previous institution). Transfer students should not come into the program with the expectation that they will be granted an additional (ninth) semester. However, the school will entertain requests for an additional (ninth) semester if they are made in the eighth semester. Common reasons for securing an additional semester include the loss of transfer credits or the need to retake a failed course that is required for graduation but that is not offered in summer sessions or online.

## Business Administration Major, B.S.B.A.

Students are subject to the requirements in place when they are admitted to the Kenan-Flagler Business School; consequently, the requirements described in this bulletin particularly apply to students admitted to the school during the 2015-2016 academic year.

## School Requirements

- BUSI 401, 406, 407, 408, 410, and 411. Students should plan to complete these six courses within the first two semesters of entering the business program. Taking BUSI 411 in the second semester is recommended.
- BUSI 403, 404, and 405. Students can take these courses at any time.
- Eighteen credit hours of additional business electives from at least two areas (see "Emphasis Areas" below). An area core course, with an earned grade of at least a $C$ (not $C-$ ), is a prerequisite course for any elective course in that area (e.g., BUSI 406 Marketing is a prerequisite for BUSI 560 Advertising). Other restrictions may apply to certain business courses.
- At least five courses outside the Kenan-Flagler Business School and any additional business or nonbusiness courses needed to complete a minimum of 120 credit hours, including transfer credit, to graduate. Nonbusiness courses taken on a Pass/D+/D/ Fail basis and receiving a PS, or passing, grade may count toward the five required courses outside the Kenan-Flagler Business School. Students must complete a foreign language through level 4 if they choose to pursue an emphasis in international business.
- Undergraduate Business Global Awareness: This requirement may be fulfilled by a for-credit study abroad experience, by completion of an approved second major or minor in a contemporary language or in the Curriculum in Global Studies, by an approved three-credit global business course, by an F-1 student visa (for international students), or by other relevant coursework (by petition only). Students should only petition in the case of extenuating circumstances that prevent the student from fulfilling the requirement. In rare cases, a petition will be approved. Petitions to receive approval for an international experience will not be considered unless the experience is combined with graded coursework.


## Emphasis Areas

Students in the undergraduate business program are provided with the opportunity to add an optional area of emphasis to their general management degree. While the general management degree is the foundation of the undergraduate business program, students can add additional depth in the following areas: consulting, corporate finance, entrepreneurial studies, general finance, international business, investments, marketing management, operations management, real estate, or sales. Areas of emphasis generally consist of a minimum of nine credit hours of elective courses.

## Consulting

- BUSI 554 (3 hours)
- Applied learning experience (3 hours) chosen from one of the following options:
- BUSI 493 or 593 (based on approval)
o BUSI 505, 514, or 650
o Study abroad with a work component (based on approval)
o Other three-credit courses with practical, hands-on experience (based on approval)
- Elective course(s) from an area of interest (3 hours total):
o Finance: BUSI 582, 618; MBA 786A (by application and permission only)
${ }^{\circ}$ Marketing: BUSI 562, 563, 564, 566, 568, 617
- Operations: BUSI 532, 533, 534
${ }^{\circ}$ Organizational behavior: BUSI 550, 555
o Strategy and entrepreneurship: BUSI 506, 525
o Sustainability: BUSI 507, 513, 515


## Corporate Finance

- BUSI 409 and 582 (4.5 hours total)
- Elective courses ( 4.5 hours total) chosen from BUSI 496 (finance topic, based on approval), $502,517,518,580,584,587,588$, $591,600,602,618,688,691 \mathrm{H} / 692 \mathrm{H}$ (based on approval)


## Entrepreneurial Studies

- BUSI 500 and 506 (6 hours total)
- Elective courses (3 hours total) chosen from BUSI 496 (entrepreneurship topic, based on approval), 501, 502, 503, 504, $505,507,512,517,564,623,624,691 \mathrm{H} / 692 \mathrm{H}$ (based on approval)


## Finance (General)

- Elective courses (9 hours total) chosen from BUSI 409, 490.16 and 490.17 (Quantitative Investment Management), 490.18 and 490.19 (Portfolio Management), 496 (finance topic, based on approval), 502, 508, 517, 518, 573, 580, 582, 583, 584, 585, $587,588,589,591,594,598,600,601,602,603,618,688$, $691 \mathrm{H} / 692 \mathrm{H}$ (based on approval)


## International Business

- Foreign language through level 4
- Business-oriented international experience including semester abroad programs, summer programs, or Kenan-Flagler global immersion study trips
- International business elective courses to bring the total hours to nine credits. Course may be chosen from BUSI 200, 490.14 (Mega Projects in Latin America), 490.35 (Intercultural

Communication in the Workplace), 490.39 (Legal Environment of Global Business Transactions), 493 (based on approval), 496 (based on approval), 535, 573, 590.10 (International Development), 590.13 (Intermediate Working Spanish Part B), 590.14 (Working Mandarin Part B), 590.15 (Global Impact Initiative), 610, 617, 618, 691H/692H (based on approval) Internationally-themed business courses taken outside the United States count toward these nine credit hours.

## Investments

- BUSI 580 (3 hours)
- Elective courses (6 hours total) chosen from BUSI 490.16 and 490.17 (Quantitative Methods in Finance), 490.18 and 490.19 (Portfolio Management), 496 (finance topic, based on approval), 517, 518, 583, 584, 588, 589, 591, 594, 598, 600, 618, 688, $691 \mathrm{H} / 692 \mathrm{H}$ (based on approval)


## Marketing Management

- Elective courses (9 hours total) chosen from BUSI 496 (marketing topic, based on approval), 501, 559, 560, 561, 562, 563, 564, 566, 568, 590.009 (Services Marketing), 617, 691H/692H (based on approval)


## Operations Management

- BUSI 532 and 533 (6 hours total)
- Elective courses (3 hours total) chosen from BUSI 496 (operations management topic, based on approval), 534, 535, 536, 537, 538, $539,554,610,691 \mathrm{H} / 692 \mathrm{H}$ (based on approval); STOR 305


## Real Estate

- BUSI 585, 601, and 603 (6 hours total)
- Elective courses (3 hours) chosen from BUSI 496 (real estate topic, based on approval), 580, 589, $691 \mathrm{H} / 692 \mathrm{H}$ (based on approval); PLAN 246, 247, or 590


## Sales

- BUSI 501 and 561 (6 hours total)
- Elective courses (3 hours total) chosen from BUSI 496 (sales topic, based on approval), 559, 560, 562, 563, 564, 566, 568,
$617,691 \mathrm{H} / 692 \mathrm{H}$ (based on approval)


## Transfer of Business Course Credits from Other Institutions

Without regard to a student's prospective academic major or minor at UNC-Chapel Hill, the Kenan-Flagler Business School will consider for transfer credit business administration courses that meet each of the following six criteria. No exceptions are made.

1. For upper-level courses (equivalent to those numbered 400-699 in the Kenan-Flagler undergraduate curriculum), the course was completed at a) an institution accredited by AACSB International, or b) a constituent four-year institution of the University of North Carolina, or c) an international partner institution of Kenan-Flagler's undergraduate business program. All courses for the business minor must be completed at UNC Kenan-Flagler Business School. Upper-level courses completed at other institutions are not accepted for credit. For lower-level courses (BUSI 101 Management Accounting), the business school will consider comparable courses from any accredited institution of higher education.
2. The final course grade earned was at least C (not C-) as verified by an official transcript. Courses taken Pass/Fail are ineligible.
3. A comparable course is available in the Kenan-Flagler undergraduate curriculum.
4. The course is not approved for credit in other UNC-Chapel Hill departments (i.e., no double credits).
5. The student completed the course within the past three academic years.
6. The substantive coverage of material constitutes no less than 75 percent of coverage in the comparable Kenan-Flagler course, and there is sufficient indication of individual student evaluation (i.e., no fewer than two major examinations, including a final examination).
For students who wish to transfer to UNC-Chapel Hill, preapproval of such courses is recommended. Requests for validation of course credits earned at another institution must be made no later than the end of the first semester of enrollment at UNC-Chapel Hill following completion of the course. The business school does not award transfer credits in excess of 13 credit hours total (four courses in any combination of lower- or upper-level courses). For students who earn admission to KenanFlagler Business School, no more than three upper-level courses taken at another institution may be applied to the undergraduate business major curriculum unless earned as part of a preapproved Kenan-Flagler overseas study program. Transfer students who have completed a substantial number of business courses at another institution should contact the program office for more specific information related to transfer students. Note that the Department of Economics, not the business school, evaluates economics courses for transfer credit. The Department of Economics is a unit of the College of Arts and Sciences and is located in Gardner Hall.

To request review and validation of eligible courses, students should submit a Transfer Credit Request Form accessible from the undergraduate business program Web site. A copy of the course syllabus must be included for all courses being evaluated. The syllabus must include the title and edition of textbook(s) as well as list explicitly the course content. If the syllabus lists only chapters covered, without a description of the chapter content, a copy of the textbook's table of contents must be included.

## Business Administration Minor

The business administration minor offers solid exposure to management education. The business minor is available to students in any discipline. Students must successfully complete four specific business core courses and a minimum of two business elective courses ( 4.5 credit hours) for a total of 15 credit hours. The program usually takes two or three semesters to complete. Admission to the minor is competitive.

- All admitted business minors must complete the following prerequisite courses: BUSI 101, ECON 101, ENGL 105, MATH 152 or 231 or 232 or STOR 113 (students receiving credit by examination or transfer credit for both MATH 231 and 232 are exempt from the calculus requirement), and STOR 155.
- The following business courses must be completed as part of the minor: BUSI $403,406,408$, and 411 . Taking BUSI 411 no earlier than the second semester in the minor program is
recommended.
- Minors choose additional BUSI courses to reach the minimum 15 credit hours.
Business minors may take up to three additional business courses beyond the minor requirements. Any additional business courses require departmental permission.


## Taking Business Courses as a Nonmajor/Nonminor

Undergraduate students who do not intend to major or minor in business administration may take a limited number of business courses (limits may change based on course availability) as free electives for their particular major. The maximum number of courses in any semester is two, regardless of credit hours, and over the course of a student's academic career the limit is five courses, regardless of credit hours. Registration in business courses for nonmajors and nonminors is made on a space-available basis. Preference is given to students with an overall grade point average of 3.0. Requests for available seats are made online through the undergraduate business program Web site during the first week of each academic semester. Final approval to take a business course is at the discretion of the undergraduate business program. Refer to the course description list for additional information concerning prerequisites for specific courses.

## Advising

Once admitted to the business major, all academic matters, including academic advising, are handled in McColl Building. Each student is assigned a primary academic advisor as indicated in their Student Center in ConnectCarolina. Students admitted to the business minor should continue to work with their major department for academic matters outside of business minor requirements. All students should meet regularly with their advisor and monitor their progress toward completion of both the business major and minor requirements utilizing Tar Heel Tracker. Upon admission, business majors and minors receive information on how to schedule appointments through the undergraduate business program intranet.

## Special Opportunities in the Kenan-Flagler Business School

## Honors in Business

The Kenan-Flagler Business School honors thesis offers motivated undergraduate business students the opportunity to work closely with an individual faculty member on a specialized research topic of the student's choice during the senior year. Undergraduate business majors with a 3.3 cumulative graduate point average and a 3.5 grade point average in business courses are invited to be considered for the opportunity to participate in this two-course program (BUSI 691H and 692H).

In the first semester (BUSI 691H), students become familiar with the mechanics, methodologies, and recent literature on topics of major interest. Each student formulates an honors thesis proposal and initiates work on the project. During the second semester (BUSI 692 H ), the thesis work is conducted under the supervision of a
faculty advisor with expertise in the general topic's area of research.
Students who successfully complete the second-semester course (BUSI 692H) will submit to an oral examination on the thesis. Upon successful completion of the program, the student receives the bachelor of science degree with honors or highest honors, as determined by the student's committee.

## Career Services

The undergraduate business program provides career development services tailored to business students, such as specialized training and professional development activities, targeted networking opportunities, function- and industry-specific career clubs and student organizations, and focused career coaching. Undergraduate business students are expected to maintain an up-to-date profile on Careerolina through University Career Services, which is the primary resource for all UNC-Chapel Hill students for basic career exploration and interest development, job/internship postings, résumé referral, on-campus interviewing, and career fairs.

As the job market remains highly competitive, the undergraduate business program strongly encourages business students to undertake internships or other experiential learning opportunities when possible. These hands-on experiences can be a valuable part of a student's career development. Also, demonstrated leadership experience along with community service and a global perspective are some additional desirable factors that many employers seek in candidates.

## Leadership Development

The Kenan-Flagler Leadership Initiative strives to develop Kenan-Flagler students to become exceptional leaders who positively impact the organizations they lead and the communities they serve. This is accomplished through a systematic approachintegrating principles, practice, feedback, and reflection-that is grounded in leading-edge academic research and business practice. Examples of undergraduate business leadership development programming include lessons-of-experience sessions, managerial simulations, self-assessment workshops, executive coaching, student consulting projects, and student leader development.

## STAR Program

Kenan-Flagler's Student Teams Achieving Results (STAR) programs field teams of top M.B.A.s and undergraduate business students to build comprehensive and actionable strategies for eligible corporations and not-for-profits. STAR teams begin the project by developing a scope of work with the client and signing a confidentiality agreement. Over the life of the project, teams typically analyze the market, assess the competitive situation, develop a strategy, and define an action plan that covers financials, risk assessment, and implementation. STAR teams are guided throughout the course by a course professor, a team-specific faculty advisor, and client executives. Opportunities in STARDomestic Business Projects exist.

## Student Involvement

The undergraduate business program sponsors a variety of student organizations, which include the Accounting Club, AIESEC (International Association of Students Interested in Economics and Business Management), Campus Smart Initiative, Carolina

Entrepreneurship \& VC Club, Carolina Women in Business, Consulting Club, UNC Finance Society , International Business Club, Kairos Society, Marketing Club, Minority Business Student Alliance, Net Impact Undergraduate Club, Operations Club, Out for Business LGBT Club, Real Estate Club, Technology Club, Undergraduate Business Ambassadors, and Undergraduate Business Student Association, as well as two business fraternities, Alpha Kappa Psi and Delta Sigma Pi. Please visit the undergraduate business program Web site for the most up-to-date information on undergraduate business student clubs and organizations.

## Global Programs

Global Learning Opportunities in Business Education (GLOBE®) is Kenan-Flagler's flagship global program. This study abroad program is a partnership with Chinese University of Hong Kong, Copenhagen Business School, and the University of North Carolina. Every year 18 students from each school form a cohort of 54 students. They embark on a three-semester program that takes them around the world studying at each university for a semester. The GLOBE program customizes the curriculum based on unique strengths of each region. As a result, students take courses in subjects such as private equity, launching global ventures, marketing in China, and corporate response to European integration, among others.

The Phillips Ambassador Scholarship program offers scholarships exclusively for study abroad in Asia. Scholarships are awarded for semester and summer study abroad programs in Asia. Awards range from $\$ 5,000$ to $\$ 7,500$.

In addition to the GLOBE® and Phillips Ambassador programs, undergraduates can develop their global perspective through a variety of other academic options: business semester abroad, global immersion electives (GIEs), summer study abroad, international internships, working languages courses with short-term immersions, a global-related academic minor or second major, and a declared "emphasis area" in international business, which includes completion of global courses offered by the Kenan-Flagler Business School. Given the undergraduate business curriculum, semester programs are best suited for the spring semester of the junior year or for the fall semester of senior year. The undergraduate business program endorses several one-semester study abroad opportunities in Europe and Asia. Summer study abroad opportunities are available in Europe, Asia, and Latin America. Global immersion electives include study in such destinations as India, China, the United Arab Emirates, and South Africa.

## Undergraduate Awards

Each spring the Kenan-Flagler faculty recognizes select students for outstanding academic excellence, leadership, and community service. Beta Gamma Sigma, the national business school honorary society, inducts students each spring.

## Undergraduate Business Symposium

Since its inception in 1983, the Undergraduate Business Symposium continues to be the flagship event for the undergraduate business program and an annual highlight for the Kenan-Flagler community. It is the largest and longest-running student-organized event of its kind. Each year the event brings together more than 250 undergraduates and 50 executives from a
diverse set of industries and organizations from across the country. The Undergraduate Business Symposium provides students with the opportunity to learn about a variety of industries and organizations, the chance to network and interact with business executives and faculty, better insight into the dynamic business landscape, and the opportunity to showcase their analytical, communication, and problem-solving skills.

## Faculty

## Distinguished Professors

Barry L. Bayus, Richard A. Bettis, Robert M. Bushman, Jennifer S. Conrad, Jeffrey R. Edwards, Paolo Fulghieri, Eric Ghysels, Raj Grewal, John Hand, David J. Hartzell, David A. Hofmann, James H. Johnson Jr., John D. Kasarda, Wayne R. Landsman, Mark H. Lang, Edward Maydew, David J. Ravenscraft, Albert H. Segars, Douglas A. Shackelford, Anil Shivdasani, J.B. Steenkamp, Jayashankar M. Swaminathan, Valarie Zeithaml.

## Professors

Sridhar Balasubramanian, Edward J. Blocher, Greg Brown, James W. Dean Jr., Steve Jones, Christian Lundblad, Arvind Malhotra, Anne S. Marucheck, Alan W. Neebe, Atul Nerkar, Hugh O'Neill, William P. Putsis, Harvey M. Wagner.

## Associate Professors

Jeffery Abarbanell, Christopher Bingham, Richard S. Blackburn, Riccardo Colacito, Robert A. Connolly, Vinayak Deshpande, Nicholas M. Didow, Lynn Fisher, Alison Fragale, Diego Garcia, Katrijn Gielens, Wendell G. Gilland, Mustafa Gultekin, Camelia Kuhnen, Tarun Kushwaha, Eva Labro, Adam Mersereau, Ali Parlakturk, Jana Smith Raedy, Adam V. Reed, Jacob Sagi, Bradley Staats, Geoffrey Tate.

## Assistant Professors

Michael Christian, Mariano Croce, Dragana Cvijanovic, Sreedhari Desai, David Dicks, Isaac Dinner, Noah Eisenkraft, Seyedmorteza Emadi, Nickolay Gantchev, Bin Hu, Lisa Jones, Chotibhak Jotikasthira, Saravanan Kesavan, Venkat Kuppuswamy, Anh Le, Xiaoyuan Lu, Shimul Melwani, Paige Ouimet, Matthew Pearsall, Andrew Petersen, Scott Rockart, Amin Sayedi, Nur Sunar, Sriraman Venkataraman, Sean Wang, Kristin Wilson.

## Clinical Professors

Peter Brews, Mabel Miguel, Heidi Schultz, Charles Skender, Judy Tisdale.

## Clinical Associate Professors

Sharon Cannon, Courtney Edwards, Timothy Flood, Paul Friga, Patricia Harms, Claudia Kubowicz Malhotra, Ted Zoller.

## Clinical Assistant Professors

Alexander Arapoglou, Tamara Barringer, Larry Chavis, Jessica Christian, Elizabeth Dickinson, Carol Hee, Michael Meredith, Patrick Vernon, William Weld.

## Adjunct Professors

Douglas Elvers, Barry Roberts.

## Adjunct Associate Professors

Joseph Bylinski, Travis Day.
Adjunct Assistant Professors
Lynn Dikolli, David Roberts.

## Senior Lecturers

Gregory Hohn, Allen Snively Jr.

## Lecturers

Maria Elena Rodriguez, Courtney Wright.

## Professors of the Practice

Michael Jacobs, Charles Myer.

## Professors Emeriti

Robert Adler, Carl R. Anderson, Gary M. Armstrong, Jack N. Behrman, R. Lee Brummet, Dewitt Clinton Dearborn, Robert DesJardins, G. David Hughes, Thomas H. Jerdee, Jay Edward Klompmaker, Clifton Holland Kreps Jr., Hans E. Krusa, Harold Q. Langenderfer, J. Finley Lee, Richard Levin, Richard Wolcott McEnally, Curtis McLaughlin, Dannie Joseph Moffie, Jack Olin, William D. Perreault Jr., John Pringle, Richard Rendleman, Benson Rosen, Aleda Roth, David Rubin, William S. Stewart, Junius H. Terrell, Rollie Tillman, D. Clay Whybark.

## Contact Information

Undergraduate Business Program, Kenan-Flagler Business School, CB\# 3490, 3122 McColl Building, (919) 962-3235, fax (919) 962-6964, ub_helpdesk@unc.edu.
Web site: www.kenan-flagler.unc.edu.

## Courses

## BUSI-Business Administration

## BUSI 50 First-Year Seminar: Behind the Scenes: The World

 through Marketing Eyes (3). In this seminar, we'll explore our everyday world through a marketer's eyes. Our goal will be to achieve a real and practical understanding of the basics of marketing, both as a management tool and as a force in our society.BUSI 51 First-Year Seminar: Financial Reporting and
Analysis (3). This course develops the skills needed to examine and understand company financial reports in order to assess the integrity and objectivity of these reports.
BUSI 89 First-Year Seminar: Special Topics (3). Special topics course. Content will vary each semester.

BUSI 101 Management Accounting (4). Elements of accounting for management planning, budgeting, and control. Emphasis is on management uses of accounting information.

BUSI 105 Financial Accounting SS (3). Pre- or corequisite, ECON 101. Offered in summer school only. UNC-Chapel Hill business majors may not count BUSI 105 toward the B.S.B.A. degree. Role of accounting; basic concepts and methodology; mass data processing; valuation and income determination principles; management and internal control problems; and basic financial statement components.

BUSI 106 Financial Accounting CS (3). Pre- or corequisite, ECON 101. Offered online by Continuing Studies. UNC-Chapel Hill business majors/minors may not take BUSI 106. Role of accounting, basic concepts and methodology, mass data processing, valuation and income determination principles, management and internal control problems, and basic financial statement components.

BUSI 107 Management Accounting SS (3). Offered in summer school only. Elements of accounting for management planning, budgeting, and control. Emphasis is on management uses of accounting information.

BUSI 108 Management Accounting CS (3). Offered online by Continuing Studies. UNC-Chapel Hill business majors/minors may not take BUSI 108. May be taken before, after, or concurrently with BUSI 106. Elements of accounting for management planning, budgeting, and control. Emphasis is on management uses of accounting information.

## BUSI 188 Foundations of Leadership: Discovering Your

Strengths (1.5). This course introduces the concepts of strengthsbased leadership development to help uncover strengths and maximize potential for overall success. Students will learn how to connect these strengths to all areas of life, including, but not limited to, their academic journey as well as their future career path.

BUSI 189 Introduction to Careers in Business (1.5). This course gives students an overview of the career options in business. This overview provides an understanding of the foundations of business and allows students to reflect on what specific business areas they might want to pursue.
BUSI 200 Working Spanish for Intermediates (4.5). Minimum level-2 proficiency in Spanish or equivalent required. Course utilizes a unique combination of interactive technology, instructor-led workshops, conversation hours with native speakers, and a required immersion experience in Costa Rica, in order to create culturally sensitive language speakers who can function comfortably and effectively in the Spanish-language workplace.

BUSI 401 Management and Corporate Communication (3). Open to business majors. Writing- and speaking-intensive course that emphasizes professional communication. Provides opportunities to learn and apply the conventions and expectations for standard business documents and presentations. Features strategies for addressing informative, persuasive, and bad-news messages using a variety of media (print documents, electronic messages, and oral presentations).

BUSI 403 Operations Management (3). Analysis of the operations functions in both manufacturing and service organizations. Formulating operational policies that improve efficiency and support high-level business strategy. Developing remedies that mitigate uncertainty and variability in operational processes.

## BUSI 404 The Legal and Ethical Environment of Business

 (1.5). An introduction to the legal system and an examination of ethical issues that affect business.BUSI 405 Leading and Managing: An Introduction to Organizational Behavior (3). An introduction to leading and managing in organizations. Examines the impact of individual, group, and organizational factors on organizational performance and employee attitudes. Topics include leadership, perceptions, attitudes, motivation, group development, norms and cohesiveness, empowerment, conflict, negotiations, culture, structure, stress, innovation, and change.
BUSI 406 Marketing (3). Introduction to marketing with emphasis on the social and economic aspects of distribution, consumer problems, marketing functions and institutions, marketing methods and policies.

BUSI 407 Financial Accounting and Analysis (3). Students will acquire the tools to understand and analyze information presented in corporate financial statements. Financial accounting results and projected results are utilized in virtually every segment of the business world. Knowledge of financial accounting and analysis is necessary for managers, investors, bankers, financial analysts, and professional accountants.
BUSI 408 Corporate Finance (3). Prerequisites, BUSI 101 and ECON 101. Theoretical foundations of optimal financial policy. Problems and cases provide application of theory to financial decisions involving cash flow, capital structure, capital budgeting.

BUSI 409 Advanced Corporate Finance (1.5). Prerequisite, BUSI 408. A follow-up course to BUSI 408 that goes more deeply into the theory and application of financial management. Emphasis is placed on investment, financing, and dividend decisions.
BUSI 410 Business Analytics (3). Prerequisite, STOR 155. While witnessing an explosion of data, most organizations tend to be awash with data but short on information. This course exposes students to techniques that will help them impact on an organization's strategy, planning, and operations, working on applications spanning a number of fields, including operations management, finance, and marketing.

BUSI 411 Strategic Management (1.5). Students analyze sources of competitive success in organizations using case analysis and written reports to develop analytical reasoning and strategic decision-making skills. Topics include industry analysis, business and corporate strategy, and international business.

BUSI 490 Business Topics (1.5). Varied topics in business administration.

BUSI 493 Business Internship Project I (3). Permission of the department. With prior approval, a student may propose and complete an academic research project (paper and presentation) derived from an internship experience.
BUSI 496 Independent Study in Business (1.5-3). Permission of the department. Supervised individual study and research in the student's special field of interest.

BUSI 500 Entrepreneurship and Business Planning (3). Students gain an understanding of entrepreneurship and the tools and skills necessary to conceive, plan, execute, and scale a successful new venture. Students develop business ventures in teams through an experiential pedagogy.

BUSI 501 Professional Selling Strategies and Skills (3). Prerequisite, BUSI 406. Critical concepts and skills for selling products and services, and influencing others in business. Applicable to people considering sales or consulting as a career; to those thinking of starting an entrepreneurial company; or for those who want to understand how to influence peers, subordinates, and management.
BUSI 502 Entrepreneurial Finance (1.5). Prerequisite, BUSI 408 or 500 . In this course students use financial tools and concepts in a real-world entrepreneurial setting. Working in assigned teams, students prepare a pitch book with financial projections for a company they wish to start or buy.

BUSI 503 Family Business I: Introduction to Family Enterprise (1.5). Helps the student understand the evolutionary stages in the life of a family business and the challenges and opportunities that must be managed at each stage.
BUSI 504 Launching the Venture (1.5). Prerequisite, BUSI 500. This is a cross-campus course for exceptional students, staff, and faculty, designed to help launch UNC-Chapel Hill start-ups. Only for students serious about launching in the next nine to 12 months. Admission by online application. More information at www.launch. unc.edu.

BUSI 505 Consulting to Entrepreneurial Firms (3). Student teams engage in consulting projects to help local start-ups tackle entrepreneurial challenges. Data is collected through fieldwork, such as client meetings, customer surveys, interviews with thought leaders, site visits, product tests, and/or focus groups.
BUSI 506 Venture Capital and Start-Ups (3). Prerequisite, BUSI 408. An introduction to the tools and skills necessary to recognize opportunities in high tech, biotech, and traditional start-ups. Local entrepreneurs come to class to pitch to students, who analyze the start-ups from the perspective of venture capitalists.

## BUSI 507 Sustainable Business and Social Entrepreneurship

(3). Examines what it means to pursue business success as measured by the triple-bottom line of people, planet, and profit. Focuses on strategies that companies implement to reduce environmental impact internally and through the supply chain. Examines the responsibility of business to employees, consumers, the local community, and society at large.

## BUSI 508 Public-Private Development Projects (1.5).

 Prerequisite, BUSI 408. This course introduces students to challenges and opportunities associated with using public-private partnerships as a vehicle for meeting infrastructure and economic development needs. Students will develop an understanding of how the public and private sectors can have differing perceptions of risk, success, and effectiveness associated with such projects.
## BUSI 512 Family Business II: Governance and Ownership

(1.5). Recommended preparation, completion of BUSI 503. Helps the student understand specific ownership, stewardship, tax, transition, and wealth management issues that affect family enterprises.

BUSI 513 Innovations and Entrepreneurship in Developing Economies (1.5). Covers innovative private sector approaches to alleviating poverty around the world.

BUSI 514 STAR (4.5). Pre- or corequisite, BUSI 554. Student Teams Achieving Results (STAR) is a live management consulting project that leverages and integrates UNC Kenan-Flagler course curricula. Teams of five to seven M.B.A. and undergraduate students and one faculty member work with major corporations or not-for-profit entities to solve a major strategic issue.
BUSI 515 Social Entrepreneurship through Microfinance (1.5). Analyzes the role of microcredit/microfinance in global sustainable development. Students will be creating, organizing, and facilitating a sustainable microfinance initiative of their own design.

BUSI 517 Private Equity and Debt Markets (1.5). Prerequisite, BUSI 408. The objective of this course is to examine the changing world of private equity investments today. This is a survey course and will help prepare you to work for private equity and venture capital funds or to work for investment banks.
BUSI 518 Applied Private Equity (3). Prerequisites, BUSI 502 and 517. Permission of the instructor. Explores, at a very advanced level, all stages of the management of a venture capital and private equity fund, from capital formation, deal sourcing, due diligence, monitoring and adding value, and exiting of a portfolio company.

BUSI 519 STAR—Global Business Projects (4.5). A global, live management consulting project that integrates other curricula and students (UNC and beyond). Teams of graduate and undergraduate students and one faculty member work to solve a major strategic issue. Team members participate in a three-day training weekend, virtual teaming, and two weeks of in-country project work.
BUSI 520 Advanced Spreadsheet Modeling for Business (3). Primarily an online class. Use critical thinking and advanced Excel features to create spreadsheet models of common business problems. Topics include flexible design, problem-solving, statistical analysis, charting, logic, reference functions, financial analysis, organizing data for complex analysis, what-if analysis, enhanced decision-making tools, troubleshooting workbooks, and VBA.

BUSI 524 Applied Improvisation for Business Communication (3). Focuses on improving students' soft skills, such as presenting, expressiveness, and interviewing, by applying the principles and techniques of improvisational theater. Participants explore creativity, adaptation, awareness, self-confidence, risk taking, physicality, intuition, and teamwork. Students can stretch their abilities and discover things about themselves and others that are crucial to success.

BUSI 525 Advanced Business Presentations (1.5). Prerequisite, BUSI 401. This course is grounded in argument, persuasion, and visual rhetoric to give students skills needed to develop winning presentations. Students learn strategies to help their messages "stick" with their audiences and to develop slide decks for the boardroom and advanced media devices. The course emphasizes efficiency in presentation preparation.
BUSI 526 Leadership in Action (3). Permission of the department. Provides student leaders with practical leadership frameworks and tools; creates opportunities to apply these on the job as leaders; and provides individualized coaching, feedback, and mentoring. This is an applied learning course taught by
a seasoned practitioner designed to accelerate each student's development and growth.

BUSI 532 Service Operations (3). Prerequisite, BUSI 403. Studies key challenges in effective service delivery through the analysis of staffing and scheduling, customer waiting, and revenue management. Case studies illustrate examples of effective service design and delivery in various service industries including professional services, banking, health care, hospitality, and entertainment. A simulation project is used.

BUSI 533 Supply Chain Management (3). Prerequisite, BUSI 403. Analyzes the key drivers of supply chain performance including inventories, transportation, information technology, and sourcing. Studies strategies for supply chain coordination, and challenges and opportunities in global supply chains. A supply chain simulation is used.

BUSI 534 Business Modeling with Excel (3). Provides a broad scope of analytic experience across corporate functions that is beneficial in consulting environments.

BUSI 535 Global Operations Strategy (1.5). Prerequisite, BUSI 403. Permission of the department. This course examines how organizations can use their operations to build a competitive advantage. Students may not receive credit for both BUSI 535 and MBA 709A.

BUSI 536 Project Management (1.5). Prerequisite, BUSI 403.
Permission of the department. This course prepares students to take part in and lead projects effectively. The goal is to equip individuals across any career concentration rather than extend the expertise of project-management specialists. Students may not receive credit for both BUSI 536 and MBA 710

BUSI 537 Retail Operations (1.5). Prerequisite, BUSI 403.
Permission of the department. Examines developments in retailing and operations management principles applicable to these developments. Topics: consumer behavior, demand forecasting, logistics and distribution, store execution, international retailing, Internet-based retailing, performance assessment, and impact on financial performance. Students may not receive credit for both BUSI 537 and MBA 708.

BUSI 538 Sustainable Operations (1.5). Prerequisite, BUSI 403. This course explores the link between sustainability and the operations function of a firm. The course focuses on the following activities: product and process design; manufacturing; transportation; logistics and distribution; closed-loop/after-sales operations such as recycling, remanufacturing, and reuse; supply chain management.

BUSI 539 Health Care Operations (1.5). Prerequisite, BUSI 403. Permission of the department. Students apply principles and tools of operations management to explore improvement opportunities in the design, delivery, and management of the health care value chain. The course examines the health care operation from the perspective of operations metrics such as cost, quality, time (access), and variety/customization.

BUSI 541 Contract and Commercial Law (3). Designed to give basic instruction in law with special emphasis upon its relationship
with business. Content includes many subjects tested on the business law portion of the CPA examination, including the law of contracts and the Uniform Commercial Code (sales, negotiable instruments, and secured transactions).

BUSI 543 Ethics in Management (3). By examining real ethical dilemmas in business, this course will help students analyze a problem from the triple perspective of ethics, economics, and law.

BUSI 545 Negotiations (1.5). Prerequisite, BUSI 405. This course enables students to develop their expertise in managing negotiations. It integrates existing theory and research with personal experiences and ideas. Using hands-on exercises, readings, and lively discussions, students build and hone their ability to understand, adapt to, and evaluate the personal, social, and situational dynamics of negotiations.

## BUSI 550 Introduction to Organization Theory and Design

(3). Prerequisite, BUSI 405. While BUSI 405 examines the microlevel influences on organizational success, this course focuses on more macro-level influences, including environmental analysis, strategy, structure, inter-organizational relationships, control systems, culture, power, politics, and change.

BUSI 554 Consulting Skills and Frameworks (3). Pre- or corequisite, BUSI 408. Permission of the instructor. The course is dedicated to teaching the core skills for success in consulting and business in general: teamwork, analysis, and presentations.

BUSI 555 Groups and Teams in Organizations (1.5). Prerequisite, BUSI 405. Examines the design, management, and leadership of teams in organizational settings. Focus is on the interpersonal processes and structural characteristics that influence the effectiveness of teams, individual behavior in face-to-face interactions, and the dynamics of interpersonal relationships.

BUSI 559 New Product Marketing (1.5). Prerequisite, BUSI 406. This course provides students a thorough understanding and working knowledge of state-of-the-art tools that drive marketing strategies for launching and managing new products.
BUSI 560 Advertising (3). Prerequisite, BUSI 406. The organization and functions of advertising. Topics include economic and social aspects, types of advertising and advertising objectives, developing advertising messages, media selection and evaluation, advertising research.

BUSI 561 Sales Management (3). Prerequisite, BUSI 406. An overview of the sales management process, including sales force planning, budgeting, recruiting, selection, training, compensation, supervision, and control.
BUSI 562 Consumer Behavior (3). Prerequisite, BUSI 406. Review of conceptual models and empirical research in consumer behavior. Topics include decision processes, social and cultural influences, information processing, and ethical issues.

BUSI 563 Retailing and Distribution Channels (3). Prerequisite, BUSI 406. Examines the supply chain for retail businesses and management decision making in retailing.
BUSI 564 New Product Development (3). Prerequisite, BUSI 406. The course concentrates on the fuzzy front-end of the innovation process, focusing on tools and techniques to uncover
consumer insights (needs). The design thinking process is emphasized as part of a semester-long team project. Other topics explored include creativity, intellectual property basics, prototyping, and Innovation 2.0.

BUSI 565 Marketing Research (3). Prerequisite, BUSI 406.
An introduction to research methodology with emphasis on the compilation, analysis, and interpretation of data used in the planning and control of marketing operations.

BUSI 566 Marketing Strategy (3). Prerequisite, BUSI 406. The objective of this course is to understand and practice the strategic decision-making process in a dynamic competitive environment. The course builds on the foundations of marketing, and is based on lectures, cases, and computer simulations.

BUSI 568 Marketing Analysis and Decision Making (3). Prerequisites, BUSI 406 and 410. Marketing analytics is a systematic approach to harnessing these data to drive effective marketing decision making. We will learn to analyze historical data, market research data, and competitive information for making strategic marketing decisions. This course will be extensively based on case analysis and hands-on exercises.

BUSI 570 Financial Reporting A (3). Permission of the department. Required in spring semester for senior undergraduate business majors who are admitted to the Kenan-Flagler Master of Accounting Program. The first of two courses designed to provide students with an in-depth knowledge of the practice and theory of financial accounting.

BUSI 572 Introduction to Business Taxation (1.5). Prerequisite, BUSI 570. Permission of the department. Required in spring semester for senior B.S.B.A.s who are admitted to the KenanFlagler Master of Accounting Program. Provides students with an initial understanding of the basic framework of the United States income tax system as it applies to businesses.

BUSI 573 Global Financial Statement Analysis (3). Prerequisite, BUSI 407. Provides the tools necessary to understand and analyze information in financial statements prepared under global accounting standards. Includes a study of the costs, risks, and opportunities of United States investors and corporations regarding the convergence of United States accounting standards to global standards.

BUSI 580 Investments (3). Prerequisite, BUSI 408. A survey of investment principles and practices. Emphasis is given to the problems of security analysis and portfolio management with special attention to the investment problems of the individual investor.

BUSI 582 Mergers and Acquisitions (3). Prerequisite, BUSI 408. Through lectures, case studies, and guest speakers, this course will cover all aspects of mergers and acquisitions from strategy to postmerger integration with an emphasis on valuation. Related activities such as hostile takeovers, private equity deals, and international acquisitions will also be discussed.

BUSI 583 Applied Investment Management (3). Prerequisites, BUSI 407, 408, 520, and 580. Permission of the department. Year-long course. A live, student-managed investment fund with
real dollars and fiduciary responsibility to the UNC Foundation. Emphasis is on the decisions that must be made by and/or for the ultimate investor and the analytic tools and empirical evidence that can help inform such decisions.

BUSI 584 Financial Modeling (3). Prerequisite, BUSI 408. Skill development in constructing financial models for analyzing problems with decisions faced by financial professionals. Analyzing historical performance, forecasting free cash flows, estimating discount rates, determining terminal value, identifying other sources of value, and interpreting results in a dynamic setting.

BUSI 585 Introduction to Real Estate (3). An overview of residential and commercial real estate markets. The course samples many facets of real estate development, market analysis, operation, valuation and financing. Students will be exposed to the variety of skills and jobs that interact within the industry.
BUSI 586 Personal Finance (1.5). Prerequisite, BUSI 408. Introduces and broadens the concept of personal finance and increases understanding of the process of accumulating and protecting personal wealth. Students learn to identify and analyze risk and return relationships, understand investment alternatives and how strategies develop as life situations mature, and gain understanding of retirement planning and effectively transferring wealth.

BUSI 587 Investment Banking (1.5). Permission of the instructor and confirmed offer of investment banking analyst internship or full-time job. This course prepares students for investment banking positions and internships. The focus of the class is on financial modeling, general knowledge of banking, and what it takes to succeed in the industry.

## BUSI 588 Introduction to Derivative Securities and Risk

 Management (1.5). Prerequisite, BUSI 408. Introduction to derivative securities instruments (options and futures) and applications in investments and corporate finance.BUSI 589 Fixed Income (1.5). Prerequisite, BUSI 408. The course covers traditional bonds and term structure concepts as well as fixed income derivatives and interest rate modeling.
BUSI 590 Business Seminar (3). Completion of requisite core course(s) and permission of the instructor required. Selected topics in business administration presented in seminar format with students engaged in individual and team study under the supervision of a member of the faculty.

BUSI 591 Behavioral Finance (1.5). Prerequisite, BUSI 408. Completion of BUSI 409 recommended. An abundance of evidence suggests that the standard economic paradigm, "rational agents in an efficient market," does not adequately describe behavior in financial markets. This course will survey the evidence and use psychology to guide alternative theories of financial markets.

BUSI 592 Applied Private Equity: Real Estate (1.5). Prerequisites, BUSI 601 and 603. Permission of the instructor. This course explores, at a very advanced level, all stages of the management of a real estate private equity fund: from capital formation, deal sourcing, due diligence, monitoring and adding value, and exiting of the fund's real estate holdings.

BUSI 593 Business Internship Project II (3). Permission of the department. This course provides students with a format for reflection while performing a professional internship that enhances their ability to achieve career objectives.

BUSI 594 Hedge Fund Strategies (1.5). Prerequisites, BUSI 408, and 580 or 588 . Permission of the instructor. Open to seniors only. Covers the operational details of specific hedge fund strategies such as convertible arbitrage and long/short equity strategies.

BUSI 598 Alternative Investments (1.5). Prerequisites, BUSI 408 , and 580 or 588 . Permission of the instructor. Open to seniors only. Exposes students to the benefits, opportunities, and risks of incorporating alternative investments into managed institutional investment portfolios, including pension funds, endowments, and foundations.

BUSI 600 Risk Management (1.5). Prerequisite, BUSI 408. Permission of the instructor. Open to seniors only. Develops methods for applied analysis of financial and operational risk.
BUSI 601 Real Estate Finance (1.5). Prerequisite, BUSI 408. This course will focus on the different ways to finance real estate property, and how different financing techniques impact the feasibility and investment benefits for equity investors.

BUSI 602 Strategic Economics (1.5). Corequisite, BUSI 408.
This course focuses on decision making in the presence of strategic interaction. Students will apply game theory to yield insights into business decisions. Topics covered include pricing, entry, product market competition, first-mover advantage, capital budgeting, antitrust law, corporate governance, auctions, and mergers.

BUSI 603 Real Estate Development (1.5). Prerequisite, BUSI 408. This course is designed to introduce undergraduate students to the finance and economics of real estate development. The course will survey the physical products of real estate, its financial attributes, and the process by which a program of development is implemented. Includes site visits to local real estate projects.
BUSI 604 Real Estate and Capital Markets (1.5). Prerequisite, BUSI 601. Provides a view of how real estate fits into capital markets. Topics include risk-return profiles of residential and commercial real estate investments, real estate as a component of well-diversified investment portfolios, derivative markets for real estate investments, mortgages and timing options, mortgage-backed securities, and markets for real estate investment trusts.

BUSI 610 Global Environment of Business (3). Issues in operating overseas, including analyses of differences in country settings, legal and economic systems, and governmental policies affecting foreign operations. Studies trade theory, country groupings, and financial issues; managing operations in foreign lands; exporting.
BUSI 611 International Development (3). Poverty is part of life for most of the world's population, with half living on less than two dollars a day. Course focuses on understanding this from a business school perspective. Looks at institutional failures that contribute to persistent poverty and the multiple roles managers can play in reducing poverty.

BUSI 617 Global Marketing (3). Prerequisite, BUSI 406. Examination of the problems involved in marketing products and services across national boundaries. Problem issues include culture, ideology, economics, technical standards, and currency movements.

BUSI 618 Global Financial Markets (1.5). Prerequisite, BUSI 408. Develops the foundation for financial decisions in a global economic environment. Extends the analytical concepts and tools learned in introductory investment and corporate finance courses to multicountry/multicurrency settings. Covers three major areas: the economics of exchange rates, international money and capital markets, and international corporate finance.

BUSI 623 Global Entrepreneurship I (3). The course ranges from developing the creative mindset, ideation, development/ manufacturing, marketing, selling and managing. The course places heavy emphasis on doing and collaborating rather than listening passively: 1) dream: design process, 2) think: feasibility, 3) create: product development and manufacturing, and 4) tell: marketing. Restricted to GLOBE students.

BUSI 624 Global Entrepreneurship II (3). The course ranges from developing the creative mindset, ideation, development/ manufacturing, marketing, selling, and managing. The course places heavy emphasis on doing and collaborating rather than listening passively. 1) sell: sales; 2) run: management, finance and fundraising; and 3) launch Chapel Hill projects. Restricted to GLOBE students.

BUSI 650 Symposium Core Committee (1.5-3). Permission of the instructor. Service on the B.S.B.A. Symposium Core Committee to plan, execute, and evaluate the annual event.

## BUSI 653 Applied Learning: Symposium Core Committee

 (1.5). Permission of the department. This course is by invitation only to students who previously served on the Undergraduate Business Symposium core committee. As senior advisors, students practice the leadership, organization, delegation, communication, and teamwork skills that they learn about in their other courses.BUSI 688 Applied Derivatives (1.5). Prerequisites, BUSI 408 and 588. Real world applications of the concepts of no-arbitrage pricing covered in the introductory course will be covered. Other applications of derivatives such as portfolio insurance, the consideration of debt and equity as options, and real options.

BUSI 691H Honors Research Proposal (3). Permission of the department. Open to senior business administration majors with 3.5 minimum cumulative grade average. Students learn business research techniques and develop individual proposals for business research. Successful proposals may advance to honors thesis research and writing (BUSI 692H).

BUSI 692H Honors Thesis (3). Prerequisite, BUSI 691H. Permission of the department. Restricted to senior B.S.B.A.s with a 3.5 cumulative grade point average. Original investigation of a topic in business and preparation of a substantive research project under the direction of a faculty advisor. A written essay and an oral presentation are required.

## School of Education

soe.unc.edu
Peabody Hall, CB\# 3500; (919) 966-1346
G. WILLIAMSON McDIARMID, Dean

Deborah Eaker-Rich, Associate Dean, Chief Academic Officer and Director of Graduate Studies

Anne Bryan, Assistant Dean for Student Affairs
Wendy Gratz Borman, Assistant Dean for External Relations
John Plummer, Assistant Dean for Administration and Finance

## Introduction

The School of Education is committed to the preparation of candidates who can assume leadership roles in the field of education. Such preparation is accomplished through the coherent integration of the abilities and predispositions of candidates, the knowledge and abilities of faculty, and the contextual elements of academic and field settings. The growth and development of candidates is promoted through curriculum, instruction, research, field experiences, clinical practice, assessments, evaluations, and interactions with faculty members and peers. All of these elements work together to build a solid foundation for exemplary practices in education.

The School of Education is no longer accepting applications for admission into the bachelor of arts in education; however, students who matriculated in fall 2015 or earlier may pursue programs designed to prepare them to teach at one of the following levels: child development and family studies (birth to kindergarten), elementary (grades kindergarten through six), middle grades (grades six through nine). Initial teaching licensure in mathematics or science in grades nine through 12 is available through UNC-BEST, and undergraduate music majors can obtain licensure to teach music in grades kindergarten through 12. For individuals seeking initial teaching licensure in English, English as a second language, foreign language, math, science, and social studies education, the School of Education offers a master of arts in teaching (M.A.T.) program. Admission to this program is based on successful completion of a bachelor's degree in an appropriate major.

## Program of Study

The School of Education is designing a new program that will enable students to complete a bachelor's degree and a master of arts in teaching (M.A.T.) degree in approximately five years. The new program, subject to further University-level approvals, will offer licensure in elementary education, middle grades education, and secondary education. The School of Education also offers special opportunities for math and science secondary licensure (UNCBEST), music education in kindergarten through grade 12, and a minor in education. Students are subject to the requirements in place when they are admitted to the School of Education; consequently, the requirements for approved programs described in this bulletin particularly apply to students admitted to the school during the 2015-2016 academic year.

## Admission to the School of Education

Note: The following information applies to students applying to the UNC-BEST and music education programs. Admission criteria for the B.A.-M.A.T. have not yet been finalized; when they are, admission criteria and options for entrance into the program during the sophomore, junior, or senior year will be posted on the School of Education Web site at soe.unc.edu/services/apply.

The criteria for admission to the UNC-BEST and music education undergraduate programs include, but may not be limited to, good academic progress, commitment to the teaching profession and to children, strong letters of recommendation, and passing scores on the PRAXIS I: Pre-Professional Skills Test (PPST: Reading, Writing, and Mathematics) or approved scores on the SAT or ACT. Special consideration for admission is given to students with teaching-related scholarships and to students who would enhance the diversity of the teaching profession. In addition, students must have a minimum grade point average of 2.5 at the time they apply. Applicants also need to complete a form stating whether they have ever been convicted of a violation of law other than a minor traffic violation. This information has an impact on the school's ability to place students in public school field experiences, including student teaching, and also affects eligibility for teaching licensure. Applications are available online at soe.unc.edu. Interested students should check with advisors in the General College or on the School of Education's Web site for the application deadline. Questions about application requirements may be directed to the school's Office of Student Affairs at (919) 966-1346.

## Bachelor of Arts-Master of Arts

## in Teaching Program (B.A.-M.A.T.)

Subject to further University approvals, the School of Education is developing a B.A.-M.A.T. program in which students can complete a bachelor of arts degree and a master of arts in teaching degree in five years. It is anticipated that students can opt to apply for official admission into the B.A.-M.A.T program during their sophomore, junior, or senior year. Anticipated licensure areas offered in this program are as follows:

- K-6 elementary education
- 6-12 middle grades licensure, secondary licensure, or both: science, social studies, English, math
- K-12 foreign language: Spanish, French, German, Japanese
- Additional licensure areas available to add to one of the
above areas: special education, English as a second language, prekindergarten
Once final University approval has been granted, full information about these programs, including admissions criteria and required and/or suggested undergraduate majors, will be posted on the School of Education Web site at soe.unc.edu/academics.


## UNC Baccalaureate Education in Science and Teaching (UNC-BEST)

UNC-BEST is a collaboration between the School of Education and the College of Arts and Sciences. This innovative program offers undergraduate science (biology, chemistry, geology, physics)
and mathematics majors the opportunity to complete the requirements for a bachelor of arts or bachelor of science degree and obtain licensure as a secondary science or mathematics teacher in North Carolina in four years. Students will be prepared for North Carolina teaching licensure for grades nine through 12 in comprehensive sciences or mathematics.

UNC-BEST students are enrolled in their respective major in the College of Arts and Sciences and, once accepted into the UNC-BEST program, complete the requirements to earn North Carolina teaching licensure. Admission into the program requires a grade point average of 2.5 at UNC-Chapel Hill and successful completion of a minimum of six hours of mathematics (if applying for mathematics) or science (if applying for science) coursework on the UNC-Chapel Hill campus.

## Program Requirements

- Teaching methods course in the major: BIOL 410, CHEM 410, GEOL 412, MATH 410, or PHYS 410
- EDUC 403 Families, Schools, and Communities (must be taken concurrently with EDUC 532)
- EDUC 503 Leadership Seminar (must be taken concurrently with student teaching)
- EDUC 516 Introduction to the Education of Exceptional Learners OR EDUC 689 Foundations of Special Education
- EDUC 532 Child and Adolescent Development (must be taken concurrently with EDUC 403)
- EDUC 533 Social Justice in Education
- EDUC 593 Internship/Student Teaching: UNC-BEST Teaching Internship
- EDUC 601 Education Workshops


## Music Education: K-12 Licensure

The $\mathrm{K}-12$ music education licensure program is a collaboration between the School of Education and the College of Arts and Sciences. This innovative program offers undergraduate music majors the opportunity to complete the requirements for a bachelor of music and obtain licensure as a music teacher in North Carolina in four years.

## Program Requirements

- EDUC 403 Families, Schools, and Communities (must be taken concurrently with EDUC 532)
- EDUC 503 Leadership Seminar (must be taken concurrently with student teaching)
- EDUC 516 Introduction to the Education of Exceptional Learners OR 689 Foundations of Special Education
- EDUC 532 Child and Adolescent Development (must be taken concurrently with EDUC 403)
- EDUC 533 Social Justice in Education
- EDUC 593 Internship/Student Teaching: Music Education
- EDUC 601 Education Workshops
- MUSC 168, 226, 227, 228, 309


## Education Minor

The undergraduate minor in education is appropriate for undergraduate students interested in furthering their knowledge of education as a means of career development or to enhance their understanding of current schooling, community, and policy directions.
The minor requires an application to the School of Education that consists of a statement of interest and purpose, and an academic plan. The application process is intended to ensure the student's commitment to completing the minor. Applications are opened and submitted every fall. Priority is given to juniors, seniors, and students intending to enter the B.A.-M.A.T program.

Students may apply any year during their undergraduate career and will be required to complete a five-course sequence in which they receive a minimum of C or better in 12 hours of coursework. The minor consists of five courses.

- Three EDUC courses from the following list: EDUC 250, 504, 505, 506, 508, 509, 510, 511, 521, 522, 526, 533
- One course outside the School of Education from the following list: COMM 318; ENGL 291; GLBL 280; HIST 367; PLCY 530; PSYC 250, 471; SOCI 130, 423, 425, 426
- EDUC 697: Capstone Course (to be taken after completing three of the other required courses for the minor)
For more information about the minor in education, please contact the School of Education Office of Student Affairs at (919) 966-1346.


## Education Major, B.A.

Note: The School of Education is not currently admitting students into the bachelor of arts in education programs. New students wishing to pursue teacher licensure should review the information on the B.A.-M.A.T. program.

## Education Major, B.A.- <br> Child Development and Family Studies

This degree program is for junior and senior students officially matriculated into the School of Education in fall 2015 or earlier. Please see the 2014-2015 Undergraduate Bulletin for degree requirements.

## Education Major, B.A.-

## Elementary Education

This degree program is for junior and senior students officially matriculated into the School of Education in fall 2015 or earlier. Please see the 2014-2015 Undergraduate Bulletin for degree requirements.

## Education Major, B.A.-

## Middle Grades Education

This degree program is for junior and senior students officially matriculated into the School of Education in fall 2015 or earlier. Please see the 2014-2015 Undergraduate Bulletin for degree requirements.

## Establishing Licensure

North Carolina licensure requirements are distinct from the School of Education's degree requirements. In their senior year, elementary education (K-6) students who plan to obtain North Carolina licensure upon graduation must pass the North Carolina Foundations of Reading and General Curriculum examinations. It is anticipated that a licensure examination will be developed and required for the North Carolina birth-kindergarten license. Child development and family studies students should speak with their advisors and refer to the testing Web page on the School of Education Web site: soe.unc.edu/services/student_affairs/licensure/ undergrad_praxis.php. Middle grades education students should take the Subject Assessment Tests (PRAXIS II) in both of their content areas. UNC-BEST and music education students should take the appropriate PRAXIS II examination(s) also found on the School of Education Web site: soe.unc.edu/services/student_affairs/ licensure/undergrad_praxis.php.

Fees are charged for all licensure examinations. Information is available in 103 Peabody Hall. PRAXIS information is also available online at www.ets.org/praxis/nc/requirements and for NCFRGC at www.nc.nesinc.com.

Early in the semester in which a student plans to apply for graduation, initial teacher licensure forms for North Carolina must be completed and submitted to the licensure officer in 103 Peabody. Licensure application information is now available by program on the School of Education Web site: soe.unc.edu/ services/student_affairs/licensure/undergrad.php. After the official posting of a degree, the licensure application is processed by the School of Education's licensure officer and forwarded to the North Carolina State Department of Public Instruction.
The programs described in this bulletin are approved by the North Carolina Department of Public Instruction, the State Board of Education, and the National Council for the Accreditation of Teacher Education.

## Advising

With the exception of the minor in education, the education programs have a large number of requirements. To best facilitate completion of all requirements students are strongly encouraged to meet with an academic advisor every semester.

Kara GrawOzburn is the School of Education's academic advisor for all students interested in education. Ms. GrawOzburn sees students for advising both in Steele Building and in Peabody Hall as follows:

- Students who are interested in the B.A.-M.A.T. program should schedule their advising appointments in Steele Building.
- Students who have been officially admitted into the child development and family studies, elementary, or middle grades
programs will receive all of their advising in Peabody Hall.
- UNC-BEST and music education students remain in the College of Arts and Sciences even after they have been admitted into their education licensure program and should continue to receive all of their academic advising in Steele Building. Though they meet with Ms. GrawOzburn (in Steele Building) for education advising, they should continue to meet with their regular academic advisors in the College of Arts and Sciences for their math, science, or music advising.
- Students who are interested in and admitted into the minor in education should schedule all of their academic advising appointments in Steele Building.


## Special Opportunities in Education

## Honors in Education

During the spring semester of the junior year, an honors student in education participates in the honors seminar. During the fall semester of the senior year, the student prepares an honors thesis, on which there is an oral examination. The program is limited in enrollment and open on a space-available basis to students with a minimum cumulative grade point average of 3.3.

## Faculty

## Professors

Patrick Akos, Kathleen Brown, Gregory Cizek, Sharon Derry, Fenwick English, Susan Friel, John Galassi, Madeleine R. Grumet, Jill Hamm, Catherine Marshall, Linda Mason, G. Williamson McDiarmid, Judith Meece, George Noblit, Sam Odom, Xue Lan Rong, Keith Sawyer, Rune Simeonsson, Lynda Stone, Lynne Vernon-Feagans, William Ware, Barbara Wasik.

## Associate Professors

Harriet Able, Cheryl Mason Bolick, Lora Cohen-Vogel, Jocelyn Glazier, Jeff Greene, Dana Griffin, Leigh Hall, Eric Houck, Sherick Hughes, Steve Knotek, Rebecca New, Rita O'Sullivan, Eileen Parsons, James Trier.

## Assistant Professors

Janice Anderson, Claire Baker, Juan Carrillo, Claudia CervantesSoon, Dana Thompson Dorsey, Gemma Mojica, Kelly Ryoo.

## Professors of the Practice

Pat Ashley, Ann McColl, Neil Pedersen.

## Research Professors

Donald Bailey, Virginia M. Buysse, Martha Cox, Karen Erickson, Malbert Smith, A. Jackson Stenner, Carl Swartz.

## Research Associate Professors

Kristen Kainz, Kelly Maxwell, Desiree Murray, Ellen PeisnerFeinberg, Sharon Ritchie.

## Research Assistant Professor

Kara Hume.

## Clinical Professors

Suzanne Gulledge, Audrey Heining-Boynton, Stephen Hooper.

## Clinical Associate Professors

Leslie Babinski, Jennifer Diliberto-Fender, Kathleen Gallagher, Daniel Huff, Sharon Palsha, Stanley Schainker, Neal J. Shipman, James Veitch.

## Clinical Assistant Professors

Marco Barker, Clinton Bolton, Todd Boyette, Nick Cabot, Taffye Clayton, Jennifer Coble, Melissa DeRosier, Deborah Eaker-Rich, Sandra Evarrs, Michael Follo, Amy Gauthier, Caroline Hexdall, Martinette Horner, Cheryl Horton, Derrick Jordan, Alvera Lesane, Mollie Lloyd, Deborah Manzo, Cayce McCamish, Denise Morton, Stacey Parker, Robert Pleasants, Catherine Scott, Holly Sopko, Eric Sparks, Alex Tabori, Julie Vandiver, Meghan Walter, Anne Wheeler, Lynn Williford, Jennifer Wooten, Susan Wynn.

## Clinical Instructors

O. Ray Angle, Aaron Bachenheimer, Brittany Bahlman, Kathryn Bartholomew, Andrea Becker, Amy Blackburn, John Brodeur, Winston Crisp, Cynthia Demetriou, Christy Dunston, Jess Evans, Jeffrey Fuchs, Cristina Gillanders, Jacquelyn Gist, Emily Gomez, Suzanne Harbour, Thomas Hardiman, Ciji Heiser, James LoFrese, Priscilla Maynor, George McFarley Jr., Mary Faith Mount-Cors, Katherine Nobles, Ion Outterbridge, Christina Perry, Jeff Sackaroff, Bettina Shuford, Daniel Thomas Jr., Miranda Thomas, Jason VanHeukelman, Christy Walker.

## Lecturer

Vergie Taylor.

## Professors Emeriti

Richard Brice, Linda Brooks, Duane Brown, Frank Brown, William I. Burke, Richard Coop, James Cunningham, Barbara Day, Jill Fitzgerald, R. Sterling Hennis Jr., Paul B. Hounshell, Richard C. Hunter, Bobbie Boyd Lubker, Carol Malloy, William Malloy, William S. Palmer, Richard C. Phillips, Walter Pryzwansky, Dixie Lee Spiegel, Donald J. Stedman, Gary Stuck, Alan Tom, Neal H. Tracy, Gerald Unks, Ronald Wiegerink, Kinnard P. White, Ralph E. Wileman Jr.

## Contact Information

Office of Student Affairs, CB\# 3401, 103 Peabody Hall, (919) 966-1346.

Kara GrawOzburn, Assistant Director of Student Affairs, kara@unc.edu, (919) 843-6245.

## Courses

## EDUC-Education

EDUC 65 First-Year Seminar: School Daze: What's School Got to Do with Getting an Education? (3). This seminar explores the concepts of schooling and education. Students will be challenged to reconsider their experiences and notions about pre-K through 12 schooling and to examine alternatives.

EDUC 89 First-Year Seminar: Special Topics (3). Course content will vary each semester.

EDUC 121 Tutoring in the Schools I (2). Provides a basic introduction to teaching and education. This course consists of a seminar based with field placements in different levels of schools.

EDUC 122 Tutoring in the Schools II (1). Combines tutoring training with a field placement for tutoring in literacy and mathematics in grades kindergarten through three.

EDUC 130 Navigating the Research University (1). This course will provide students with knowledge to succeed at a research university. Students will consider what it means to have a liberal arts education and will learn about motivation, resiliency, and self-advocacy. Students will reflect on their current work toward academic success and their path to graduation.
EDUC 131 Career Exploration (1). Provides students an opportunity for exploration of career choices.
EDUC 132 Career Planning (1). This course is designed for juniors and seniors who are preparing to embark on their postCarolina job search. Students will learn how to develop the necessary tools and skills required to execute an effective job search.

EDUC 221 Tutoring in the Schools III (1). Combines tutoring training with a field placement for tutoring in literacy and mathematics in grades four through eight.
EDUC 222 Tutoring in the Schools IV (1). Focuses on the relationship among arts, creativity, and education.

EDUC 250 Risk and Resiliency: Challenges and Opportunities in Education (4). Explores factors that put children at risk for educational failure and interventions to increase resiliency. Service and learning experiences in educational and community agencies are integral to the course.

## EDUC 309 An Examination of Quality and the Pursuit

 of Betterness (3). A three-credit seminar on leadership styles, philosophies, and issues related to leadership. Each class will overlap these concepts (topical or theory/practice, service, and selfawareness).EDUC 316 Advanced Leadership Development Seminar (3). This is a three-credit course with a focus on delving deeper into issues relevant to leadership and education. This course is open to seniors, juniors, and sophomores with student organization experience and an interest in an advanced exploration of leadership.
EDUC 317 Dynamics of Effective Leadership (1). The course is intended to provide an introduction to leadership theory, a forum for reflection upon personal strengths and contributions to leadership, and an opportunity to explore the nature of working in teams and groups. Pass/Fail.

## EDUC 318 Peer Leadership in the University Environment

 (2). This course revolves around and centers on the Relational Leadership Model, which defines leadership as the relational and ethical process of people together attempting to accomplish positive change.EDUC 387 Peer Tutoring (3). Peer Tutoring is an APPLES service-learning course that provides undergraduates the opportunity to serve fellow students through tutoring. Tutors must have an overall GPA of 3.0 or higher.

EDUC 390 Special Topics in Education (3). This course provides students the opportunity for intensive exploration and discussion of selected topics in education.

## EDUC 401 Childhood Development: Understanding Birth

 to 12 (3). This course examines the field of child development as it contributes to the teaching and learning of children in early childhood and elementary educational settings, ages birth to 12 .
## EDUC 402 Models of Early Childhood Service Delivery

(3). This seminar serves as an introduction to the field of child development and early childhood education and special education. Students learn about the primary professional disciplines and agencies serving young children and their families. Current policy, recommended practices, and research innovations are reviewed.

EDUC 403 Families, Schools, and Communities (1-3). This course examines issues of diversity among and across families within 21st-century schools and communities. The course stresses strategies for effective communication and collaboration with families, professional team members, and school and community resources.

EDUC 404 Infant/Toddler Assessment and Intervention (3). Prerequisite, EDUC 401. Restricted to majors. Permission of the instructor for nonmajors. This course provides students with knowledge of program models and curricula/intervention strategies for working with infants and toddlers with and without disabilities. Additionally, information is provided regarding identification and assessment strategies for infants, toddlers, and two-year-olds. Program models for working with families are emphasized.

## EDUC 412 Introduction to Children and Schools and Field

 Experience (3). Permission of the instructor for nonmajors. This course helps prospective teachers gain the necessary knowledge to work sensitively and effectively with all elementary children and design appropriate learning experiences for elementary-aged students.EDUC 413 Language and Literacy Learning (3). Permission of the instructor for nonmajors. This course covers the theoretical and developmental aspects of language and literacy processes and practices. The course will cover reading, writing, speaking, listening, and viewing practices, birth to age 12 .

## EDUC 416 Curriculum Integration: Science, Math, and

 Technology (3). Permission of the instructor for nonmajors. The focus of this course is children's development in mathematical and scientific ways of knowing and the use of technology to support this development.EDUC 421 Community Organizations and Children I (1).
Provides an understanding of the community contexts of schools and an experience working in community groups. This is the first semester of a two-semester course.
EDUC 422 Community Organizations and Children II (1). Prerequisite, EDUC 421. Provides prospective teachers with an understanding of the community contexts of the schools. Second semester of a two-semester course.

EDUC 441 Education in American Society (3). A reflective examination of beliefs and attitudes associated with 1) the
historical, philosophical, sociological, political, and economic forces affecting education and schooling in the United States; 2) the structure and function of the school system; and 3) current issues and trends in American schooling and education.
EDUC 465 Introduction to Teaching (2). Offered concurrently with EDUC 466. Restricted to students admitted to the middle grades teacher education program. Initiates students into the teaching profession. The course stresses what it is like to be a teacher, with concurrent emphasis on the life of the student and the study of schools.

EDUC 466 Planning for Teaching in the Middle Grades (3). Offered concurrently with EDUC 465. Restricted to students admitted to the middle grades teacher education program. Helps students learn how to plan and develop skills to meet the unique and diverse needs of young adolescents as they prepare to teach.

EDUC 469 Developing Skills for Teaching (3). Prerequisites, EDUC 465 and 466. Helps students develop a variety of basic teaching skills used by classroom teachers. This course will be conducted primarily as a laboratory course.

EDUC 493 Practicum (1-6). Permission of the instructor for nonmajors. Students gain familiarity with the operations and complexity of teaching. Students observe instruction, assist in teaching, learn about the curriculum and specific resources, interact with school personnel, work with students, and apply skills learned in previous courses. Prepares students for internship or student teaching.
EDUC 496 Independent Study (1-3). Permission of the instructor. Provides readings and research under the direction of a faculty member. May be repeated for a maximum of six credit hours.

EDUC 503 Leadership Seminar (1-3). Course asks students to consider what it means to participate in schools as educational leaders. Students consider how to collaborate effectively with school colleagues, advocate for children and families, participate in the politics of schools and education, and examine what it means to be change agents in classrooms and schools.
EDUC 504 Learning in the Modern World (3). Students learn about current educational emphases and controversies as well as what the research and scholarship in the fields of education and cognition can contribute to our understanding of these phenomena.

EDUC 505 Leadership in Educational/Nonprofit Settings
(3). Introduces students to a research-based, highly practical understanding of leadership frames/styles prominent in educational/nonprofit organizations. Emphasizes continued student engagement with various leadership models and principles.

## EDUC 506 Politics, Policymaking, and America's Schools

(3). Through extensive case study and conversations with policy actors, students will learn the stages model of policy making and understand conflicting values that play out in policy decisions.

EDUC 508 Cultural Competence, Leadership, and You (3). This course was developed to confront and address questions of global cultural competence and self-critique. Culturally competent leaders work to understand their own biases and patterns of discrimination.

EDUC 509 Helping Youth Thrive in K-12 Schools (3). Learn strengths-oriented approaches in education practice, research, and policy. The course takes up contemporary literature on positive psychology, developmental assets, resiliency, cultural competence, school readiness, school engagement/connectedness, and positive youth development.

EDUC 510 Mexican American and Chicana/o Experience in Education (3). This course examines the political, cultural, and historical dimensions of the Mexican American and Chicana/o experience in education. A critical exploration of $\mathrm{K}-12$ schools, higher education, and various social initiatives intended to address inequities in education for Mexican Americans and Chicanas/os will also be a focus of this class.

EDUC 511 Politics of Reading (3). Course explores the politics and policies involved in literacy curriculum and pedagogy. Critical policy analysis is used as a tool to explore and understand the political issues involved in teaching young children to read and write.

## EDUC 513 Methods for Teaching in the Elementary School

 (9). Permission of the instructor for nonmajors. This methods block is a field based, integrated collection of science, literacy, and math courses designed to prepare preservice teachers for planning and implementing instruction in elementary schools.EDUC 515 The Arts as Integrative Teaching (2). Restricted to students admitted to the elementary education program or the child development and family studies program. Explores integration of the arts in the curriculum.

## EDUC 516 Introduction to the Education of Exceptional

Learners (3). Offers an overview of the special education field and its relevance to the classroom teacher. The course is based on an interdisciplinary perspective toward serving exceptional learners and collaboratively coordinating services. Course content emphasizes inclusive programming and the teacher's role in facilitating students' unique learning needs.

EDUC 519 Senior Seminar (3). Corequisite, EDUC 593. Course is restricted to majors. Permission of the instructor for nonmajors. The senior seminar is inquiry based and directly connects student teachers with classroom practices. Throughout the semester student teachers develop and implement inquiry projects.

## EDUC 520 Early Language and Literacy Learning-Birth to

 Third Grade (3). Course is restricted to majors. Permission of the instructor for nonmajors. Course focuses on the language, reading, and writing development of children birth through third grade. Promotes early literacy learning for all children with and without disabilities, including those at risk.EDUC 521 Schools, Cultures, and Communities I (3). Permission of the instructor. Explores current issues dealing with schools and the cultures and communities they encompass.

EDUC 522 Schools, Cultures, and Communities II (3). Prerequisite, EDUC 521. Permission of the instructor for students lacking the prerequisite. Continues to explore current issues dealing with schools and the cultures and communities they encompass.

EDUC 523 Teaching Early Mathematics-Birth to Third Grade (3). Course is restricted to majors. Permission of the instructor
for nonmajors. Students study the teaching and learning of mathematics for young children, birth to third grade. Emphasis is placed on content for math, as well as materials, techniques, and teaching aids.

EDUC 526 Ethics and Education: From Global Problems to Classroom Dilemmas (3). Among the topics examined are ethical implications of democratic schooling for a democratic society, educators as moral agents, and education as an institution with incumbent responsibilities. Students explore the explicit and implied ethics of education and schooling as they relate to policy makers, educators, and citizens concerned about social justice.

EDUC 531 Effective Teaching: First Steps (2). Characteristics of effective teachers, classroom management, instructional methods, instructional planning and presentation, monitoring and assessing student behavior and learning, differentiating instruction, yearly plans and pacing guides.

EDUC 532 Child and Adolescent Development (2-3). This course examines the field of human development as it contributes to the teaching and learning of all children. The emphasis is on understanding the nature of development in educational contexts and the implications of research and theory on human development for teacher practice and the creation of supportive learning environments for all children.

EDUC 533 Social Justice in Education (3). Course examines how education can help create more fair and just societies, ultimately contributing to high performing educational systems internationally. Students explore multiple perspectives on social justice; examine efforts at local, state, national, and global levels; and learn to articulate efforts in classrooms and schools with wider community initiatives.

EDUC 534 Effective Teaching: Assessment (2). Methods of assessment, multiple measures, monitoring student performance to inform and improve instruction, understanding students with special needs with individual education plans, test scores, and other information in student files.

EDUC 535 Teachers and Schools (3). Leadership in classroom and school with families, standards of practice, advocating equity, supporting teaching profession, school organization, school finance, legal issue/education strategies for environments that promote learning, issues and trends.

EDUC 540 Mathematics Teaching (2). NCTM Standards, Standard Course of Study, developing student understanding of mathematics, problem-solving skills, and professional commitment.

EDUC 541 Mathematics Problems for Instruction (2).
Mathematical tasks for learners in grades six through 12 and instructional methods necessary to maintain a task at a high cognitive level.

## EDUC 542 Planning for Mathematics Instruction (2).

 Examining patterns of practice and assessment, modifying and improving planned units, pacing instruction, reconsidering individual differences and differentiation.EDUC 550 Science Teaching (2). Nature of science, national science standards, teaching science as inquiry, safety in the science classroom, materials management.

EDUC 551 Designing Science Tasks (2). Prerequisite, EDUC 550. Developing and redesigning science instruction to engage students actively, with emphasis on classroom management for energetic curricula, modifying tasks and projects, assessment strategies, and utilization of resources.

EDUC 552 Improving Science Instruction (2). Prerequisite, EDUC 551. A practitioner's look at instruction in middle and high school science classrooms using many current pedagogical approaches of instruction: constructivism, models of inquiry, reflective practice, and conceptual change theory.

## EDUC 555 Constructive Coaching I: Starting Out Right

 (2). Designed to support lateral-entry candidates, solving the most urgent problems in the classroom. Includes frequent online communication, individualized attention to immediate problems and combines supervision, coaching, and mentoring.EDUC 556 Constructive Coaching II: Effective Management of Student Behavior (2). Prerequisite, EDUC 555. Course designed to help lateral-entry candidates by improving their classroom management skills, specifically those related to student behavior.

EDUC 557 Constructive Coaching III: Helping Students Learn (2). Prerequisite, EDUC 556. Course designed to support the lateral-entry candidates through individualized feedback about concerns, focusing on strategies for increasing student learning using content area literacy strategies.
EDUC 560 Second Language Teaching (2). Methods of teaching a second language, how people learn foreign languages, planning instruction, getting students to communicate, using and adapting foreign language textbooks, and developing lessons.

EDUC 561 Designing Second Language Tasks (2). Students examine instruction as effective mechanism for classroom management, choosing and redesigning tasks and projects to engage students in active learning. Assessment of student understanding investigated as necessary for development of effective instruction.

EDUC 562 Improving Second Language Instruction (2). Students will consider national standards frameworks as organizing principles for instructional strategies. They will develop skills by use of culturally authentic materials, performance based assessment, and units and lessons promoting successful language learning.

EDUC 563 Teaching Language Arts in the Middle Grades (3). Restricted to students admitted to the middle grades education program. Focuses on the goals and methods of teaching language arts in the middle grades, including planning for student diversity and unit planning.
EDUC 564 Teaching Social Studies in the Middle Grades (3). Restricted to students admitted to the middle grades education program. Focuses on the goals and methods of teaching social studies in the middle grades.

EDUC 565 Teaching Science in the Middle Grades (3). Restricted to students admitted to the middle grades education program. Focuses on methods for teaching science in the middle grades and includes emphasis on the individual needs of students, reading and writing in the content area, and unit planning.

EDUC 566 Teaching Math in the Middle Grades (3). Restricted to students admitted to the middle grades education program. Focuses on methods for teaching mathematics in the middle grades and includes emphasis on the individual needs of students, reading and writing in the content area, and unit planning.
EDUC 567 Children's Literature in Elementary and Middle
Schools (3). Explores literature in the contexts of interdisciplinary elementary and middle school curricula and the interests and needs of children and young adolescents. Topics include reader-response theory, censorship, Internet resources, school resources, and methods.

EDUC 568 Seminar on Teaching (3). Prerequisites, EDUC 465, 466, and 469; corequisite, EDUC 593.
EDUC 593 Internship/Student Teaching (1-12). Permission of the instructor for nonmajors. Student teaching internships are full-time, authentic, field-based experiences in an educational setting. Preservice teachers are responsible for planning lessons, delivering instruction, assessing students, managing the classroom, and demonstrating their teaching effectiveness. This internship is devoted exclusively to the student's functioning in a professional capacity.

## EDUC 595 Introduction to Exceptional Children (3).

Permission of the instructor for nonmajors. Surveys giftedness and mental disabilities; emotional and behavioral disorders learning disabilities; speech, hearing, vision, and physical impairments. Emphasizes the role of professionals, families, and the community in supporting the whole child.
EDUC 601 Education Workshops (1-3). Permission of the program director. Workshops designed around education topics primarily for licensed K-12 teachers.

EDUC 626 Pedagogical English Grammar for ESL Teachers (3). Enhances foreign and second language educators' understanding of English grammar, expands their skills in linguistic analysis, and helps them develop a more pedagogically sound approach to the teaching of English grammar.
EDUC 627 Pedagogical Linguistics for ESL Teachers (3). Provides future English as a second language teachers with advanced concepts in linguistics and comparative linguistics. Topics such as phonology and morphology will be covered.

EDUC 628 Methods of Teaching English as a Second Language (3). Covers teaching methods, assessment, and resource issues related to helping the ESL learner. Additional topics include theories of language learning and the relationships between culture and language.
EDUC 629 Language Minority Students: Issues for Practitioners (ANTH 629) (3). Permission of the instructor. Explores issues of culture and language associated with teaching English as a second language.

EDUC 689 Foundations of Special Education (3). This course provides an advanced introduction to key concepts, issues, and service delivery approaches pertaining to the educational needs of students with high incidence disabilities.

EDUC 691H Honors Seminar in Education (3). Restricted to honors candidates in the School of Education. Required for graduation with honors in education. Integration of critical analysis of selected educational themes, introduction to methods of educational research, and intensive work in skills of reading critically and writing.
EDUC 694H Honors Thesis in Education (3). Prerequisite, EDUC 691 H . A grade of B or better in EDUC 691 H is required to take this course. Required of all candidates for graduation with honors in education. Preparation of an honors thesis under the direction of a member of the School of Education faculty and an oral examination on the thesis.

EDUC 697 Education Minor Capstone Course (3). Student completes a major project in education. Course involves discussion about the changing and contested goals of education, how student projects are implicated in these complexities, and how the projects may be articulated in terms of policy change.

## School of Information and Library Science

sils.unc.edu
107 Manning Hall, CB\# 3360; (919) 962-8366;
sils-ug@ils.unc.edu
GARY MARCHIONINI, Dean
Barbara Wildemuth, Associate Dean for Academic Affairs

## Introduction

The School of Information and Library Science (SILS) was founded in 1931 and is one of the most highly regarded programs of its kind in the nation. The school first offered a minor in information systems in 1997 and initiated a major in information science in 2003. UNC-Chapel Hill is the only university in the state offering a bachelor's degree in information science and is one of only a small number of schools nationwide offering such a program.

Information science is the study of cognitive, social, technological, and organizational roles of information in all its forms. It rests on three foundational pillars: 1) content: the substance of the information being created, communicated, stored, and/or transformed; 2) people who interact with the content as creators of information, recipients of information, or intermediaries in the communication process; and 3) technology used to support the creation, communication, storage, or transformation of the content.

The bachelor of science in information science is designed to prepare its graduates for a variety of careers in the information industry, including information architecture, database design and implementation, Web design and implementation, and information consulting, as well as for graduate study. The minor in information systems provides students with an understanding of computing, multimedia, electronic information resources, and the Internet that complements their major field of study. Students concentrate their studies in the junior and senior years.

## Admission to the School of Information and Library Science

Undergraduate students who have completed all prerequisite courses may apply for admission to the major program. Participation is limited, and admission is competitive. Criteria for admission include the candidate's academic record, work and extracurricular experience, and substantive thinking about the role of information in society (and, for applicants to the minor, in their major field). Candidates from a variety of disciplinary backgrounds are sought for the minor. Prior computer experience is not a criterion for admission to the minor.
To apply for admission, students must complete an application through UNC-Chapel Hill's ApplyYourself application system. Information regarding the application process is available at sils.unc. edu/programs/undergraduate/admissions. Applicants are asked to provide the following materials:

- A current résumé, including information about work experience and/or extracurricular activities
- A copy of unofficial transcripts
- A brief essay (100-300 words), discussing the role of information (its creation, communication, storage, and/or transmission) in a particular application area or in society at large, and the candidate's reason(s) for pursuing the major in information science Applications for the spring semester are available September 1 through October 1. Applications for the fall semester are available February 1 through March 1. Applications are accepted only during the application windows. No paper applications are accepted.

Questions can be addressed to the Undergraduate Student Services Manager, School of Information and Library Science, CB\# 3360, 107 Manning Hall; or by sending e-mail to sils-ug@ils.unc.edu; or by calling (919) 962-8366.

## Preparing for the Major in Information Science

Students are subject to the requirements in place when they are admitted to the School of Information and Library Science; consequently, the requirements described in this bulletin particularly apply to students admitted to the school during the 2015-2016 academic year.

First-year students and sophomores who plan to apply for the B.S.I.S. must complete the following prerequisites.

- INLS 161 Tools for Information Literacy
- Approaches: Physical and life sciences: PSYC 101
- Approaches: Social and behavioral sciences: INLS 201
- Connections: Quantitative intensive (second quantitative reasoning course): COMP 110 or 116


## Information Science Major, B.S.

The information science major consists of 10 courses ( 30 credits). The courses required for completion of the B.S.I.S. are as follows:

- INLS 382 Information Systems Analysis and Design
- INLS 385 Information Use for Organizational Effectiveness
- INLS 523 Introduction to Database Concepts and Applications
- INLS 697 Information Science Capstone (taken in the senior year)
- A coherent set of six electives ( 18 credit hours), chosen in
consultation with the student's faculty advisor, that will meet the student's objectives. All electives, including SILS courses, must be approved by the director of undergraduate studies.
The information science major integrates the study of the creation and management of information content, the characteristics and needs of the people who create and use information, and the technologies used to support the creation and manipulation of information. Graduating students will
- Understand the many ways in which information can be created, communicated, stored, and/or transformed in order to benefit individuals, organizations, and society
- Possess practical skills for analyzing, processing, and managing information and for developing and managing information systems in our knowledge-based society. They will possess problem-solving and decision-making skills, be able to use information tools effectively, and be able to take a leadership role in our information economy
- Comprehend the value of information and information tools, and their role in society and the economy
- Be prepared to evaluate the role of information in a variety of industries, in different organizational settings, for different populations, and for different purposes
- Maintain a strong sense of the role of information in society, including historical and future roles
B.S.I.S. students are encouraged to participate in internship or part-time employment opportunities in an information agency or an information technology company. To do so, they may enroll in INLS 393 Information Science Internship (Field Experience). During the internship, they will be supervised on site by an information professional and will work with a SILS faculty member as an advisor. Faculty-led seminars and a paper enhance the experience.
B.S.I.S. students are encouraged to consider pursuing a minor or double major (e.g., in business administration or computer science). The completion of a minor or second major must be certified by the college or school in which it is earned.
B.S.I.S. students are not allowed to complete more than 45 credits of their program (i.e., 45 of the 120 credits needed for graduation from UNC-Chapel Hill) in INLS courses. They may take a few additional INLS electives but are encouraged to acquire a broad education in the liberal arts and sciences.

All INLS courses must be completed with a grade of C or better. Students may not select the Pass/D+/D/Fail option for any of the courses fulfilling requirements for the B.S.I.S. major or for any additional INLS electives, except for INLS 393 Information Science Internship. INLS 393 is only graded Pass/Fail. A minimum grade point average for graduation is 2.0.

## Dual Bachelor's-Master's Degree Program

The dual bachelor's-master's program is intended to enable information science majors to obtain both their bachelor's and master's degrees by early planning of an undergraduate program that integrates well with the graduate degree requirements for either a master's in information science (M.S.I.S.) or a master's in library science (M.S.L.S).
Applying to the dual-degree program occurs in two steps. First, the student must apply to the B.S.I.S. program with intent to
pursue the dual degree. When applying for the B.S.I.S., students are required to complete the "Intent to Pursue to the Dual Degree" form and submit it to the undergraduate student services manager by the B.S.I.S. application deadline. Second, the student must apply to the master's program in their sixth, seventh, or eighth semester of undergraduate study. For admission to study at the master's level in the fall semester, students should meet the application deadline in the prior spring, and for admission in the spring semester, the prior fall. In other words, students must apply in time to be continually enrolled, with no "gap" semester. The curriculum for the dual degree can be found on the SILS Web site (sils.unc.edu/programs/ bs-ms/curriculum).

Up to 12 credit hours of information science coursework taken while an undergraduate can be applied to the master's degree if the coursework is not also used to satisfy the graduation requirements for the bachelor's degree. The requirements for the master's degree can be found in the Graduate Record (www.unc.edu/gradrecord).

Students interested in the dual-degree program are strongly advised to consult the director of undergraduate studies at SILS in their sophomore year to discuss eligibility and an appropriate plan of study.

## Information Systems Minor

The undergraduate minor in information systems provides students with an understanding of computing, networking, multimedia, electronic information resources, and the Internet and can be used to solve problems in a variety of contexts. The minor complements the student's major field of study by offering knowledge, skills, and experience using these information technologies. The undergraduate minor in information systems requires 15 credits of approved courses, in which students receive grades of C or better.

- INLS 201 Foundations of Information Science
- INLS 161, 382, and 523
- One three-credit elective course chosen from INLS 151, 318, $385,393,396$, or 697; an INLS course numbered above 400; or a course from outside SILS of use or interest to the student that is relevant to the minor. Information systems minors may not use any course required for their major as an elective for the minor. All electives, including SILS courses, must be approved by SILS.


## Advising

All majors are assigned a faculty advisor upon admission to SILS. Students are strongly encouraged to meet regularly with their advisor and review their Tar Heel Tracker each semester. The department's director of undergraduate studies and undergraduate student services manager work with current and prospective majors by appointment. Further information on courses, undergraduate research opportunities, the honors program, careers, and graduate schools may be obtained from the SILS Web site.

Students who are double majoring are encouraged to meet periodically with an academic advisor in the College of Arts and Sciences. It is the student's responsibility to make sure he or she is making good progress toward completing a second major outside of SILS. Information systems minors are not assigned a faculty advisor from SILS but should continue to meet with their assigned advisor in their major department.

## Special Opportunities in SILS

## Honors in Information Science

An honors program is available to information science majors who have demonstrated the ability to perform distinguished work. The honors thesis allows exceptional students in the undergraduate major to demonstrate the ability to treat a problem in a substantial and scholarly way. Students write an honors thesis on a topic related to information science and defend it before a faculty committee. They may graduate with honors or highest honors.

The honors program consists of two courses: INLS 691H Research Methods in Information Science and INLS 692H Honors Thesis in Information Science. These courses are in addition to the 30 hours required for the major. INLS 691 H will be taken in the fall of the senior year. In this course, each student selects a research topic of interest, learns about research methods, and writes a research proposal. Assuming satisfactory completion of INLS 691 H , students register for INLS 692 H in the spring of their senior year. The student and advisor meet regularly to discuss the student's research and writing. The second reader for the thesis, identified jointly by the student and advisor, is chosen by the end of January. The director of the SILS honors program is the third reader. The thesis must be completed and circulated to the thesis committee by the end of March, and the oral defense of the thesis must take place in the middle of April (exact dates will be based on the registrar's calendar for the year). The final approved copies of the thesis must be submitted to the SILS office. The due date will be communicated to those in the honors program; it is always before the end of the semester.

Students may apply for the honors program in the spring of their junior year. The requirements for conducting an honors thesis in information science include having taken at least four INLS courses, including two numbered above 299, and having a total INLS grade point average of at least 3.5. The student should have an overall grade point average of at least 3.3. Enrolling in 692 H is contingent on completing 691 H with a grade of A - or higher.

Students who complete a high-quality thesis will graduate with honors; those whose thesis is exceptional will graduate with highest honors.

## Facilities/Resources

SILS maintains a combined specialized library and computer laboratory with ample seating for student collaborative work. The SILS Library is part of the UNC-Chapel Hill Academic Affairs Library System, and its collections are available for use in the library by all interested persons. The current collection consists of over 90,000 volumes and several hundred serials titles. The SILS computer laboratory is located in the school's Information Technology and Resource Center in Manning Hall and is available to students enrolled in SILS courses and programs. More than 40 PCs are available for student use, with space for use of student laptops in a wireless environment. A large selection of software is available, including data management, word processing, publishing, statistical analysis, Internet tools, graphics, development tools, multimedia, etc. Student assistants staff the help desk and are available to answer questions.

SILS students also have access to a small student lounge in Manning Hall.

## Student Involvement

Undergraduate students are encouraged to participate in Information Science Student Undergraduates Empowered (ISSUE). All of the school's standing committees have student representation, and all students are members of ISSUE. In addition, students may participate in professional associations in information and library science, including the student chapters of the American Society for Information Science and Technology (ASIST), the American Library Association (ALA), Special Libraries Association (SLA), the Art and Museum Library and Information Student Society (AMLISS), the Society of American Archivists (SAA), and Checked Out: SILS LBGTQ (lesbian, bisexual, gay, transgendered, and queer).

## Study Abroad

SILS has formal study abroad agreements with four schools: the Faculty of Information Studies at the Royal School of Library and Information Science in Copenhagen, Denmark; Charles University in Prague, the Czech Republic; the Department of Library Science, Information Science, and Book Studies at the University of Ljubljana, Slovenia; and the University of Carlos III in Madrid, Spain. In addition, UNC-Chapel Hill has formal university ties with approximately 75 other universities-many of them with library and information science schools-where SILS students can spend a semester studying abroad. In most cases, a student pays UNC tuition and becomes a regular student in the overseas institution. Benefits include low cost for in-state students, full immersion in the host culture, and a range of subjects and courses from which to choose. Credit received for the classes appears as transfer credit on the student's transcript.

## Undergraduate Awards

Two scholarships of \$1,000 each are awarded to newly admitted undergraduates in the spring and fall. Undergraduates completing an honors thesis are eligible to apply for a Carnegie Grant. This award of up to $\$ 200$ may be used to offset any costs that might occur during their research.

## Undergraduate Research

Undergraduates enrolled in the honors program conduct research as part of the completion of their honors thesis. Students not in the honors program may also take advantage of a number of opportunities to participate in research with faculty members.

## Career Opportunities

Career Services at SILS assists individuals in all aspects of career development, including assessing strengths and skill sets, developing a job search strategy, and connecting students and alumni with information professionals in their field.
As a professional school at UNC-Chapel Hill, we encourage students to use the technical and theoretical knowledge they gain in the classroom in professional settings. Many SILS students participate in field experiences (INLS 393) whereby they gain experience in a setting of the student's choosing.

Field experiences can be taken in any semester, including the summer, and can be in any information setting. Students must spend 135 hours at the site, attend field experience seminars, and
produce a short paper for their field experience faculty advisor. Students are eligible for field experiences once they have completed their junior year and two INLS courses: 382 and 385.
SILS also works closely with University Career Services and its programs and services, including on-campus recruiting for both summer internships and professional positions. Students are encouraged to take advantage of both the offerings from Careerolina as well as targeted events for SILS students.

## Faculty

## Professors

Stephanie W. Haas, Sandra Hughes-Hassell (Francis Carroll McColl Term Professor), Diane Kelly, Robert M. Losee, Gary Marchionini (Cary C. Boshamer Distinguished Professor), Sarah C. Michalak (Associate Provost for Libraries), Reagan Moore, Barbara B. Moran (Louis Round Wilson Distinguished Professor), Javed Mostafa, Arcot Rajasekar, Helen R. Tibbo (Alumni Distinguished Professor), Barbara M. Wildemuth.

## Associate Professors

Claudia Gollop, David Gotz, Bradley M. Hemminger, Christopher (Cal) Lee, Brian W. Sturm.

## Assistant Professors

Jaime Arguello, Robert Capra, Mary Grace Flaherty, Amelia Gibson, Mohammad Hossein Jarrahi, Ryan B. Shaw, Zeynep
Tufekci.

## Clinical Professor

Paul Jones (Director, ibiblio).

## Clinical Associate Professor

Cliff Missen (Director, WiderNet Project).
Clinical Assistant Professor
Ronald Bergquist.

## Lecturers

Denise Anthony, Ericka Patillo.

## Contact Information

Undergraduate Student Services Manager, School of Information and Library Science, CB\# 3360, 107 Manning Hall, (919) 962-8366, sils-ug@ils.unc.edu.

## Courses

## INLS-Information and Library Science

INLS 89 First-Year Seminar: Special Topics (3). Special topics course; content will vary each semester.

## INLS 151 Retrieving and Analyzing Information (3)

Introduction to and application of the processes that can be used in seeking information, evaluating the quality of the information retrieved, and synthesizing the information into a useful form.
INLS 161 Tools for Information Literacy (3). Tools and concepts for information literacy. Includes software use and maintenance, computer applications, and networked information systems.

INLS 201 Foundations of Information Science (3). Examines the evolution of information science; information representation, organization and management; search and retrieval; human information seeking and interaction; organizational behavior and communication; policy, ethics and scholarly communication.

INLS 202 Retrieval and Organizing Systems (3). Prerequisite,
INLS 201. Introduction to foundational core concepts and core techniques in information organization, information retrieval, and data mining.

INLS 203 Human Information Behavior (3). Prerequisite, INLS 201. Introduces key areas and concepts in information science, to include task modeling, information-seeking behavior, search behavior, human-computer interaction, usability, user interfaces, social media, and social media analysis.

INLS 318 Human Computer Interaction (3). Prerequisite, INLS 382. Design, implementation, and evaluation of interfaces for computer systems. User-based techniques, usability issues, and human factors.

INLS 382 Information Systems Analysis and Design (3). Pre- or corequisite, INLS 161. Analysis of organizational problems and how information systems can be designed to solve those problems. Application of database and interface design principles to the implementation of information systems.

INLS 384 Information and Computer Ethics (3). Prerequisite, INLS 201. Overview of ethical reasoning, followed by examination of ethical issues relevant to information science, including access to information and technology, societal impacts of technology, information privacy, surveillance and security, intellectual property, and professional ethics.

INLS 385 Information Use for Organizational Effectiveness (3). Basic concepts in the way that information, people, and technology interact to influence organizational effectiveness. Principles of problem solving, teamwork, leadership, and organizational change/ innovation.

INLS 393 Information Science Internship (3). Permission of the school. Supervised observation and practice in information science. The internship typically takes place in an information agency or an information technology company. Faculty-led seminars and a paper enhance the experience. Pass/Fail only.

INLS 396 Independent Study in Information Systems (1-3) Study by an individual student on a special topic under the direction of a specific faculty member. A prospectus/plan for the work is required in advance of registration.

INLS 461 Information Tools (3). Tools and concepts for information literacy: client-server relationships, Web and Internet standards (including open source), underlying structure and use of specific software. Undergraduates may take either INLS 161 or INLS 461.

INLS 465 Understanding Information Technology for Managing Digital Collections (3). Prepares students to be conversant with information technologies that underlie digital collections in order to evaluate the work of developers, delegate tasks, write requests for proposals, and establish policies and
procedures. Teaches students how to think about information technology systems and recognize and manage interdependencies between parts of the systems.

INLS 490 Selected Topics (1-3). Exploration of an introductorylevel special topic not otherwise covered in the curriculum. Previous offerings of these courses do not predict their future availability; new courses may replace these.

INLS 500 Human Information Interactions (3). The behavioral and cognitive activities of those who interact with information, with emphasis on the role of information mediators. How information needs are recognized and resolved; use and dissemination of information.

INLS 501 Information Resources and Services (3). Analysis, use, and evaluation of information and reference systems, services, and tools for both printed and electronic delivery. Provides a foundation in electronic information search techniques, question negotiation, interviewing, and instruction.

INLS 502 User Education (3). Prerequisite, INLS 501. Permission of the instructor for students lacking the prerequisite. Examines the history and context of LIS training programs. Pedagogy, teaching skills, methods of evaluation are addressed. Students may tailor learning projects to their own interests.

INLS 503 Communication Skills for Information Professionals (3). Through individual presentations, group exercises, and performance-centered feedback, this course seeks to improve students' ability to communicate their ideas clearly and present themselves positively in a professional setting.

INLS 509 Information Retrieval (COMP 487) (3). Study of information retrieval and question answering techniques, including document classification, retrieval and evaluation techniques, handling of large data collections, and the use of feedback.

INLS 512 Applications of Natural Language Processing (COMP 486) (3). Prerequisite, COMP 110, 116, or 121. Study of applications of natural language processing techniques and the representations and processes needed to support them. Topics include interfaces, text retrieval, machine translation, speech processing, and text generation.

INLS 513 Resource Selection and Evaluation (3). Identification, provision, and evaluation of resources to meet primary needs of clientele in different institutional environments.

INLS 515 Consumer Health Information (3). Examines concepts of health, health conditions, policy, and information collections and services from social and cultural perspectives. Analysis and design for provision and access to consumer health information services.

INLS 520 Organization of Information (3). Introduction to the problems and methods of organizing information, including information structures, knowledge schemata, data structures, terminological control, index language functions, and implications for searching.

INLS 523 Introduction to Database Concepts and
Applications (3). Pre- or corequisite, INLS 161 or 461. Design and implementation of basic database systems. Semantic modeling,
relational database theory, including normalization, indexing, and query construction, SQL.

INLS 525 Electronic Records Management (3). Explores relationships between new information and communication technologies and organizational efforts to define, identify, control, manage, and preserve records. Considers the importance of organizational, institutional and technological factors in determining appropriate recordkeeping strategies.

INLS 530 Young Adult Literature and Related Materials (3). A survey of print and nonprint library materials particularly suited to the needs of adolescents.

INLS 534 Youth and Technology in Libraries (3). This course encourages students to explore the array of technologies available to children and adolescents, the issues surrounding the use of technology, the role of care givers, and potential impacts on development.

INLS 540 Building a Personal Digital Library (3). Students will implement a personal digital LifeTime Library. Topics include creation of a personal digital library, organization of the material, creation of descriptive metadata, management, and sharing of the collection.

INLS 541 Information Visualization (3). An introduction to information visualization through reading current literature and studying exemplars. The course reviews information visualization techniques, provides a framework for identifying the need for information visualization, and emphasizes interactive electronic visualizations that use freely available tools. Students will construct several visualizations. No programming skills are required.

INLS 550 History of the Book and Other Information Formats (3). The history of the origin and development of the book in all its formats: clay tablets to electronic. Coverage includes scientific and other scholarly publications, religious works, popular literature, periodicals, and newspapers.

INLS 551 History of Libraries and Other Information-Related Cultural Institutions (3). The history of cultural institutions related to information from earliest times to the present day. Includes specific institutions, trends in service and facilities, and individuals important in the development of these institutions.

INLS 554 Cultural Institutions (3). Explores cultural institutions-libraries, museums, parks, zoological and botanical gardens, reconstructions, and other settings-as lifelong educational environments.

INLS 556 Introduction to Archives and Records Management
(3). Survey of the principles, techniques, and issues in the acquisition, management, and administration of records, manuscripts, archives, and other cultural and documentary resources in paper, electronic, and other media formats.

INLS 558 Principles and Techniques of Storytelling (3). An overview of storytelling, its historical development, and the presentation and administration of storytelling programs. The class focuses on performance skills merged with theoretical issues.

INLS 560 Programming for Information Science (3).
Introduction to programming and computational concepts.

Students will learn to write programs using constructs such as iteration, flow control, variables, functions, and error handling. No programming experience required.

INLS 566 Information Assurance (3). Prerequisite, INLS 161 or 461. Aspects of data integrity, privacy, and security from several perspectives: legal issues, technical tools and methods, social and ethical concerns, and standards.

INLS 572 Web Development I (3). Prerequisite, INLS 161 or 461. Introduction to Internet concepts, applications, and services. Introduces the TCP/IP protocol suite along with clients and servers for Internet communication, browsing, and navigation. Examines policy, management, and implementation issues.
INLS 574 Introduction to Local Area Networks (3). Prerequisite, INLS 161 or 461. Introduction to local area network hardware, topologies, operating systems, and applications. Also discusses LAN management and the role of the network administrator.

INLS 576 Distributed Systems and Administration (3). Prerequisite, INLS 161 or 461 . Distributed and client/server-based computing. Includes operating system basics, security concerns, and issues and trends in network administration.

INLS 578 Protocols and Network Management (3). Prerequisite, INLS 161 or 461. Network protocols and protocol stacks. Included are discussions of protocol classes, packet filtering, address filtering, network management, and hardware such as protocol analyzers, repeaters, routers, and bridges.
INLS 581 Research Methods Overview (3). An introduction to research methods used in information and library science, exploring the design, interpretation, analysis, and application of published research.

INLS 582 Systems Analysis (3). Introduction to the systems approach to the design and development of information systems. Methods and tools for the analysis and modeling of system functionality (e.g., structured analysis) and data represented in the system (e.g., object-oriented analysis) are studied. Undergraduates are encouraged to take INLS 382 instead of this course.

INLS 584 Information Ethics (3). An overview of ethical reasoning, followed by discussion of issues most salient to information professionals, e.g., intellectual property, privacy, access/censorship, effects of computerization, and ethical codes of conduct.

## INLS 585 Management for Information Professionals

(3). Introduction to management principles and practices for information professionals working in all types of organizations. Topics include planning, budgeting, organizational theory, staffing, leadership, organizational change and evaluation, and decision making.

INLS 609 Experimental Information Retrieval (3). Prerequisite, INLS 509. This course takes an in-depth look at experimental information retrieval systems that focus on different search tasks and are evaluated in community-wide evaluation forums such as TREC and INEX.

INLS 613 Text Mining (3). This course will allow the student to develop a general understanding of knowledge discovery and
gain a specific understanding of text mining. Students will become familiar with both the theoretical and practical aspects of text mining and develop a proficiency with data modeling text.
INLS 620 Web Information Organization (3). Prerequisites, INLS 520 or 560 . Similar programming background needed. Understand the Web as a platform for information organizing systems. Learn how the Web has been designed to be a service platform, data publishing platform, and application platform.
INLS 621 Personal Information Management (3). This course focuses on issues in personal information management research and practice, including information organization, human cognition and memory, task continuity across devices, preservation, and the role of technology in personal information management.
INLS 623 Database Systems II: Intermediate Databases (3). Prerequisites, INLS 382 or 582, and 523. Intermediate-level design and implementation of database systems, building on topics studied in INLS 523. Additional topics include MySQL, indexing, XML, and nontext databases.

INLS 624 Policy-Based Data Management (3). Prerequisite, INLS 461 or COMP 110 or 116. Students will develop policies for managing digital repositories and persistent archives. The rules will be implemented in the integrated Rule-Oriented Data System (iRODS), which organizes and distributes data into shareable collections.

INLS 626 Introduction to Big Data and NoSQL (1.5). Prerequisite, INLS 523. Information is being generated at an exponential scale in many areas, from astronomy to social networking and e-marketing. Processes for handling these data are data intensive, require heavy read/write workloads, and do not need the stringent ACID properties of relational databases. Several specific systems will be studied as examples.

INLS 672 Web Development II (3). Prerequisite, INLS 572. Study of design and implementation of applications using both client and server side configuration and programming. Example topics include PHP, Ruby on Rails, and Javascript.
INLS 690 Intermediate Selected Topics (1-3). Exploration of a special topic not otherwise covered in the curriculum, at an intermediate level. Previous offering of course does not predict future availability; new courses may replace these. Topic varies by instructor.

INLS 691H Research Methods in Information Science (3). Senior standing and permission of the instructor. Restricted to information science majors. An introduction to research methods used in information science. Includes the writing of a research proposal.
INLS 692H Honors Thesis in Information Science (3). Senior standing and permission of the instructor. Restricted to information science majors. Students in the SILS undergraduate honors program engage in independent research and write an honors thesis reporting the research under the supervision of a faculty member.

INLS 696 Study in Information and Library Science (1-3).
Permission of the instructor. Study by an individual student on a special topic under the direction of a specific faculty member. Six credit maximum for master's students. Graduate faculty.

INLS 697 Information Science Capstone (3). Senior standing required. Information science major or minor. Contemporary topics of information science, information systems, information technology, information design, and information management. Assessment of future impact of new developments.

## School of Media and Journalism

www.jomc.unc.edu
Carroll Hall, CB\# 3365; (919) 962-1204
SUSAN KING, Dean
Christopher S. Roush, Senior Associate Dean for Undergraduate Studies

Heidi Hennink-Kaminski, Senior Associate Dean for Graduate Studies

## Introduction

The School of Media and Journalism was founded as the Department of Journalism in 1924 and became the School of Journalism in 1950. The school offers a course of study leading to the bachelor of arts with a major in media and journalism, a bachelor of arts with a major in business journalism, and a minor in media and journalism.

For 90 years the school has built an impressive record of service. Through excellent teaching, research, and public service, and through its students, faculty, alumni, and friends, the school has been a force in journalism-mass communication education and the mass media of North Carolina and beyond. When the school was last accredited in 2015 by the Accrediting Council on Education in Journalism and Mass Communications (ACEJMC), the national team stated that the school "has earned a reputation as one of the premier programs."

Today, more than 10,000 of the school's alumni are active in every aspect of media and journalism. They hold high positions with newspapers, international news agencies, magazines, Internet companies, broadcasting companies, and advertising agencies; in public relations, business journalism, photo and video journalism, and graphic design; and in research, government, education, and industry.

The school has an excellent reputation, and relations with the mass media are first-rate. The primary role of the school has been and continues to be the education of young people for professional careers in mass communication in North Carolina and beyond.

## Admission to the School

Students are subject to the requirements in place when they are admitted to the School of Media and Journalism; consequently, the requirements described in this bulletin particularly apply to students admitted to the school during the 2015-2016 academic year.

Students enroll in the General College of the University during their first two years, after which they may transfer to the School of Media and Journalism. (Students may take some JOMC courses in
the first two years as noted in the section on preparing for the major.)
Undergraduate admission to UNC-Chapel Hill is handled by the University's Office of Undergraduate Admissions, and requests for information and application forms should be sent to that office. The Office of Undergraduate Admissions also will advise transfer students on the proper first-year and sophomore courses to take in preparation for junior-year transfer to Chapel Hill from other campuses.

Students typically are admitted to the school when they attain sophomore standing with a total of 45 or more completed hours and have completed most of the requirements of the General College on the Chapel Hill campus or have earned grades of C or better in equivalent courses at other recognized institutions. To qualify for admission from the General College or from another UNC-Chapel Hill department or school, students must meet the minimum overall 3.1 grade point average required for admission to the school. Although students can take up to 24 hours of JOMC courses prior to being admitted, the grade point average policy will be strictly followed. Students will not be admitted to the school to finish the courses required for the degree if they do not meet the grade point average requirement.

Because the University limits the number of transfer students from other institutions, transfer applicants compete for admission to the school on the basis of grade point averages and other academic credentials, and on such matters as commitment to a career in media and journalism and letters of recommendation. The Office of Undergraduate Admissions makes the final decision on admitting transfer students, after consultation with the school.

## Preparation for the Major

Students may take JOMC 153 Writing and Reporting in the first semester of their sophomore year. JOMC 101 Media Revolution and 102 Exploring the Visual World are open to first-year students and sophomores. Seniors have first priority for courses, then juniors, then sophomores. Many courses require prerequisites and are restricted to majors only.

Students should take the introductory courses in their major area of study as soon as possible because those courses are prerequisites for subsequent ones. Those introductory courses are as follows:

- Advertising/Public Relations area of study: JOMC 137 Principles of Advertising and Public Relations
- Journalism area of study: JOMC 253 Introduction to Public

Affairs Reporting or JOMC 157 News Editing

## Media and Journalism Major, B.A.

The school prepares men and women for careers in media and journalism by offering an academic program that provides a basic liberal arts education, an understanding of the responsibilities of a free press in a democratic society, and a fundamental knowledge of journalistic and mass communication techniques and substance.
The philosophy that guides the school is that journalists and communicators must understand the political, social, economic, and cultural forces that operate within society. For this reason, students acquire a background in the humanities, social sciences, and natural sciences while preparing themselves for media and journalism careers. About one-third of the credit hours earned toward the bachelor of
arts with a major in media and journalism are in journalism-mass communication (JOMC) courses. The balance of each student's program is expected to provide the broad education necessary for those who plan careers in mass communication.

More than perhaps any other field, journalism requires a strong foundation in word usage, grammar, punctuation, and other writing skills, as well as technical proficiency in the use of computers. Students are expected to have this foundation before they enter the school; consequently, students must score at least 70 percent on the school's usage and grammar examination as a condition for graduation. The examination is administered several times a semester and during the summer.

Students are responsible for meeting all other graduation requirements. If they have questions about their requirements they should consult an advisor in the school's Student Records and Registration Office (Carroll Hall), or an associate dean. Specific information about graduation requirements, advising, registration, and other procedures is also available on the school's Web site.
The school cannot guarantee that courses needed to satisfy a student's degree requirements will be offered during summer school. Students who plan to complete degree requirements in summer school should be aware that low enrollments sometimes force the school to cancel certain courses or sections during either or both summer sessions.

## Requirements outside the School

Students must take specified courses to satisfy General Education requirements:

- Foundations: Quantitative reasoning: Students are advised but not required to take STOR 151 Basic Concepts of Statistics and Data Analysis to satisfy this requirement.
- Approaches: Social and behavioral sciences (nonhistorical): Students must take ECON 101 Introduction to Economics, and POLI 100 Introduction to Government in the United States, 208 Political Parties and Elections, or 209 Analyzing Public Opinion.
- Approaches: Social and behavioral sciences (historical analysis): Students must take HIST 128 American History since 1865.
- Connections: Students must satisfy all eight Connections requirements.
- State and local government and politics requirement: Students must complete POLI 101 State and Local Government in the United States.
Students are expected to gain a depth of knowledge of a topic outside the school. At a minimum, they must take an outside concentration of at least three courses (minimum of nine credit hours) in another department or school. Courses used to satisfy General Education Approaches or Foundations requirements may not be used as one of the three outside concentration courses. Students may also satisfy the outside requirement by completing a minor or second major in another department or school. Students who wish to complete a second major outside the school and who did not declare the second major before being admitted to the school must download a second-major declaration form from the school's Web site and return it to Student Records and Registration in Carroll Hall for approval. They must then meet with an academic advisor in the College of Arts and Sciences to ensure that they can meet all requirements for the second major.


## Requirements in All Sequences

The degree earned is the bachelor of arts with a major in media and journalism, and areas of study are not noted on the diploma. Three areas of concentration are offered: a concentration in advertising/ public relations, with specializations in advertising, public relations, and strategic communication; a concentration in journalism, with specializations in editing and graphic design, broadcast and electronic journalism, multimedia, photo and video journalism, or reporting; or a concentration in a specialized program called My Plan. Some courses are required for all majors in the school, and each area of study has specific course requirements.

Students who enter the University in fall 2013 or later must complete a minimum of 39 credits and a maximum of 48 credits in media and journalism with a grade point average of 2.0 or better. A grade of D in a JOMC core course will not be counted in the minimum number of media and journalism credits required for graduation; the course must be retaken if it is required for the major. If the course is not specifically required then another course that meets the requirement the first course was meeting may be taken in its stead. JOMC 393 and JOMC 100 cannot be counted in the minimum of 39 credit hours required, but they will count in the maximum of 48 credit hours allowed in media and journalism for graduation and in the total 120 -credit hours University requirement. The school will normally accept only six credit hours of media and journalism courses taken at other institutions and requires students to pass exemption examinations to receive credit for certain basic courses. The school does not accept transfer credit for JOMC 153.

Of the basic 120 hours for graduation at least 72 hours must be outside media and journalism. Within those 72 hours, at least 65 must be in the College of Arts and Sciences. Please check the courselist below or ConnectCarolina for prerequisite information for JOMC courses. Courses listed as meeting more than one requirement (e.g., specialization and immersion) may be used to meet only one requirement.

Students must achieve a passing score of at least 70 on the school's usage and grammar examination.

## School Core

All students in the school must complete the following courses in the school core:

- JOMC 141 Media Ethics
- JOMC 153 Writing and Reporting
- JOMC 221 Audio Video Information Gathering
- JOMC 340 Introduction to Media Law: Journalism Focus or JOMC 341 Introduction to Media Law: Advertising, Public Relations, and Strategic Communication Focus (JOMC 153 is a prerequisite)


## Immersion Areas

Students in the school must also complete two courses from a single group in an immersion area.

- The Audience: JOMC 376, 445, 449, 463, 474, 475, 477, 490 (when appropriate topic)
- Mass Communication Theory: JOMC 240, 445, 490 (when appropriate topic)
- History, Law, and Regulation: JOMC 242, 342, 424, 428, 440, 450, 448, 458, 490 (when appropriate topic)
- Digital Media: JOMC 349, 440, 449, 463, 474, 477, 490 (when appropriate topic), 551, 552
- Diversity: JOMC 342, 441, 442, 443, 446, 447, 490 (when appropriate topic)
- Political Communication: JOMC 244, 446, 447, 458, 475, 490 (when appropriate topic)
- Business and Entrepreneurship: JOMC 424, 450, 475, 490 (when appropriate topic), 551, 552
- Sports Communication: JOMC 245, 376, 377, 455, 476, 490 (when appropriate topic)
- Honors: JOMC 691H, 692H

In addition to the school core and completion of two courses in an immersion area, students must complete a number of courses in each major area of study.

## Media and Journalism Major, B.A.Advertising/Public Relations Curriculum

The advertising/public relations curriculum is for students who wish to communicate on behalf of organizations, including corporations, government agencies, nonprofit and advocacy groups, and public relations and advertising agencies. Students learn to develop persuasive advertising messages or focus on strategic communication efforts for an organization. Both are pursued within an ethical framework of communication.

## Advertising/Public Relations Curriculum Core Requirements

- JOMC 137 Principles of Advertising and Public Relations
- JOMC 279 Advertising and Public Relations Research
- At least four courses in one of three areas: advertising, public relations, or strategic communication:
${ }^{\circ}$ Advertising (four-course minimum): JOMC 271, 272, 334, 390 (when advertising is the topic), 470, 471, 472, 473, 475, 479, 671, 690
o Public Relations (four-course minimum): JOMC 232, 431, 434, and at least one of the following courses: JOMC 182, 187, $333,334,390$ (when public relations is the topic), 433, 435. Not all of the courses in the preceding list may be offered every semester.
o Strategic Communication (four-course minimum): JOMC $232,271,272,334,390$ (when strategic communication is the topic), 431, 671, 690
- Two additional JOMC elective courses (six hours) to reach 39 hours (not to exceed 48 hours)


## Media and Journalism Major, B.A.Journalism Curriculum

The journalism curriculum is for students who wish to become journalists, who want to broadcast, report, write, photograph, and present news and information to better inform society. These students learn techniques and theories to conceptualize information within the context of an independent press designed to create an informed public able to govern itself.

## Journalism Core Requirements

Courses listed more than once can be counted for only one requirement. Certain journalism curriculum areas may require more
than 39 hours.

- JOMC 253 Introduction to Public Affairs Reporting. Students are encouraged to take this course simultaneously with 221. Students specializing in editing and graphic design must substitute JOMC 157 for 253.
- At least four courses (unless stated otherwise) in one of five areas: editing and graphic design, broadcast and electronic journalism, multimedia, photo and video journalism, and reporting:
o Editing and graphic design (seven-course minimum, 21 hours): JOMC 182, 187, 457, 482, 483, 484, and 584. (Suggested courses, but not required: JOMC 486 and 585)
- Broadcast and electronic journalism (four-course minimum): JOMC 252, 421, 422 or 426, and at least one additional course from the following list: JOMC 422, 423, 424, 425, 426, 427, 428, 429
${ }^{\circ}$ Multimedia (four-course minimum): JOMC 187, 581, 582 or 583, 586
o Photo and video journalism (seven-course minimum): JOMC 180, 181, 480, 582, 584, 587, and 481. (Suggested courses, but not required: JOMC 182 and 187)
- Reporting (four-course minimum): JOMC 157 and at least three courses from the following list: JOMC 252, 256, 258, 390 (when appropriate topic), $451,452,453,454,456,457$, 459, 460, 463, 565
- Depending on the specialization chosen, at least two additional JOMC elective courses (six hours) to reach 39 hours (not to exceed 48)


## Media and Journalism Major, B.A.My Plan Specialization

Sophomores with a total of 45 or more completed hours and a 3.4 accumulative grade point average in all work may apply to complete the My Plan program, a plan that includes school core courses (12 credit hours) plus their choice of media and journalism courses to equal 39 or more hours (not to exceed 48). Under the My Plan specialization students are able to take classes across the curriculum and structure a major under the guidance of a full-time faculty member and with the approval of the school's senior associate dean of undergraduate studies. A student completing the My Plan program must meet all school and specialization requirements and UNC-Chapel Hill requirements. Because electing the My Plan specialization is by application only, a student cannot predeclare this specialization with an advisor in the Academic Advising Program and should choose another predeclaration in the school.

## Core Requirements

- JOMC 141, 153, 221, and 340 or 341
- At least 15 hours of skills courses and at least 12 hours of conceptual courses in public relations, advertising, strategic communication, broadcast and electronic journalism, reporting, editing and graphic design, photo and video journalism, multimedia, or business journalism


## Business Journalism Major, B.A.

Stock market swings on Wall Street, changes in how corporate America operates and is governed, and fluctuations in the United States and global economies have left many journalists and communication professionals scrambling to improve their skills to cover such stories. The bachelor of arts with a major in business journalism teaches undergraduate students the concepts, skills, and techniques needed to report and write about such issues for media and journalism in the 21st century. It is the only such program in the University system and the only such undergraduate program at any public university east of the Mississippi River.

The School of Media and Journalism, in conjunction with the Kenan-Flagler Business School, created the major in business journalism to enable potential journalists and other communication professionals to address the growing need for understanding how markets and business work and the ability to explain these increasingly complex areas in a way that the average mass communication consumer can understand. The program prepares undergraduate students for positions primarily in journalism but also in public relations and internal communications.

## Admission Requirements

Students must apply within the School of Media and Journalism. Applications will only be accepted each fall. The earliest students may apply is the fall of their sophomore year. Because admission to the major is by application only, a student should predeclare reporting as their intended specialization in the school with an advisor in the Academic Advising Program. To enter the program, a student must be classified as a sophomore with a total of 45 or more completed hours the fall following their application and have a cumulative grade point average of 3.1 .

Students must provide the following documents: 1) application, 2) résumé, 3) writing sample, 4) 200 -word statement explaining why they want to join the program, and 5) two letters of recommendation.

## Core Requirements

- BUSI 403, 404, 407, 408 (BUSI 101 and ECON 101 are prerequisites)
- JOMC 141, 153, 221, 340 or 341, 450, 451, 452


## Additional Requirements

- At least one course from BUSI 401, 405, 406, 409 (If you choose BUSI 409 you will need one additional BUSI course from this list.)
- MATH 152, 231, or 232; or STOR 112 or 113. Students receiving credit by examination for both MATH 231 and 232 are exempt from this requirement.
- STOR 155
- Social and behavioral sciences (nonhistorical) Approaches requirement: Students must take ECON 101 Introduction to Economics, and POLI 100 Introduction to Government in the United States, 208 Political Parties and Elections, or 209 Analyzing Public Opinion.
- Social and behavioral sciences (historical analysis) Approaches requirement: Students must take HIST 128 American History since 1865.
- State and local government and politics requirement: Students
must take POLI 101 State and Local Government in the United States.
- Students must complete at least 21 credit hours with C grades or better in JOMC courses.
- Students must complete at least 13.5 hours with C grades or better in BUSI courses.
In order to graduate, business journalism majors must achieve a score of at least 70 percent on the school's usage and grammar examination. Students have several opportunities to take the usage and grammar examination before they graduate.

To receive a bachelor of arts degree with a major in business journalism, students must complete at least 120 credit hours with a minimum 2.0 grade point average as required by the University.

## Media and Journalism Minor

Students from outside the school may earn a minor in media and journalism. Participation is limited, and interested students must submit applications in the school's Records and Registration suite by January 15 . Preference is given to sophomores.

Students must choose one of the following specializations and complete at least 15 credit hours with C grades or better in JOMC courses taken at UNC-Chapel Hill.

Minors are not required to pass the school's usage and grammar exam.

## Reporting

- Either JOMC 141 or 340
- JOMC 153, 157, and 253
- One course from the following list: JOMC 256, 258, 390 (when appropriate topic), $451,452,453,460$, or 565


## Business Journalism (6 courses)

- Either JOMC 137 or 253
- Either JOMC 141, or 340 or 341
- JOMC 153, 450, 451, and 452


## Advertising

- JOMC 137, 153, 271, and 272
- One course from the following list: JOMC 141, 240, 242, 334, 341, 342, 349, 390 (when appropriate topic), 441, 442, 445, $446,448,470,475,479,671$, or 690


## Public Relations

- JOMC 137, 153, and 232
- Either JOMC 431 or 434
- One course from the following list: JOMC 141, 240, 242, 341, 342, 349, 390 (when appropriate topic), 441, 442, 445, 446, 448, or 450


## Broadcast and Electronic Journalism

- JOMC 221, 252, and 421
- Either JOMC 141 or 340
- One course from the following list: JOMC 240, 242, 342, 349, 390 (when appropriate topic), 429, 441, 442, 445, 446, or 448


## Mass Communication and Society

- JOMC 240
- Four courses from the following list: 141, 242, 340 or 341, 342, $349,424,441,442,445,446$, or 448


## Visual Communication

- JOMC 153 or 252
- JOMC 581
- Three courses from the following list: JOMC 180, 181, 182, 187, 482, 484, 582, 584, 586, or 587


## Certificate Programs

A certificate signifying a concentration of three or more courses in a related field of study is noted on a student's transcript. A limited number of students (within and outside the school) are admitted to each program and guaranteed a seat in the three required courses.

## Certificate in Sports Communication

The program, which aims to lead the nation in educating young practitioners about important issues of sports in the United States and beyond, provides courses about sports and the media, offers internships and scholarships for students, and brings visiting lecturers to the school. Students interested in applying to the program should contact the director of the sports communication program. Students must complete three (nine credit hours) of the following five courses to receive the certificate: JOMC 376, 377, 429, 455, 476.

## Certificate in Business Journalism

The certificate in business journalism is offered for students within and outside the school interested in a career in business reporting or editing as well as for students interested in careers in corporate communication and corporate advertising. Students interested in applying to the program should contact the director of the business journalism program. Students must complete three courses (nine credit hours) to receive the certificate: JOMC 450, 451, and 452.

## Certificate in Latina/o Journalism and Media

The certificate is an interdisciplinary program of the School of Media and Journalism, the Department of Romance Studies, and the Department of English and Comparative Literature through its Latina/o studies minor and program. It is offered only to media and journalism majors. Students must complete four courses ( 12 credit hours) to receive the certificate.

- JOMC 443
- SPAN 369
- Advanced Spanish proficiency, which may be satisfied by completing SPAN 326, 335, 375, or by passing a proficiency examination
- An introductory Latina/o studies course, which may be fulfilled by ENGL 364, GEOG 430 or 452, HIST 241, or MUSC 147
- One course (three credit hours) counting towards the certificate may double count in other majors or minors.


## Advising

For students who have been accepted to the School of Media and Journalism, advising is available on a walk-in basis in Carroll Hall, Student Records and Registration (Rooms 158-160), Monday through Friday, 8:00 a.m. to 5:00 p.m., year-round. Students are strongly encouraged to meet regularly with an advisor. Advising on College of Arts and Sciences second majors is available by appointment in Academic Advising, located in Steele Building.

## Special Opportunities in Media and Journalism

## Honors in Media and Journalism

An honors program is available to students who have demonstrated their ability to perform distinguished work. Invitation to the seniorlevel honors courses (JOMC 691H and 692H) is based upon a grade point average of 3.5 or better in the major and 3.3 overall, recommendation by a faculty member in the school, and approval by the director of the honors program. Students successfully completing the program are graduated with honors or with highest honors.

## Student Involvement

Students are urged to work on campus publications and other programs, including The Daily Tar Heel, The Carolina Communicator, "Carolina Week," "Carolina Connection," Black Ink, and Blue or White. In addition, the school operates the Reese News Lab, where students also can gain experience. Students are also encouraged to join appropriate professional organizations, including campus chapters of the Society of Professional Journalists, American Advertising Federation, Public Relations Student Society of America, Carolina Association of Black Journalists (affiliated with the National Association of Black Journalists), Electronic News Association of the Carolinas, Society for News Design, and National Press Photographers Association.

## Experiential Education

The practicum course (JOMC 393) offers students an opportunity to do supervised professional work during a regular semester for one credit hour, with a maximum of three credit hours total. Students work on area media or in media-related positions for eight to 10 hours a week and write a report at the end of the semester.

## Internships

The school strongly encourages students to obtain internships, primarily in the summer, because they provide invaluable professional experience. Reporting, advertising, photo and video journalism, graphic design, broadcast news, public relations, business, and other internships are possible. Students can enroll in JOMC 393 to receive internship credit (one credit hour). The school's career services director oversees internship credit. Many media organizations in North Carolina and other states send executives to the school to interview students for internships. When JOMC 393 or other courses are an internship, the credit does not count toward graduation requirements for media and journalism. Approval is required from the senior associate dean for other special studies courses.

## Study Abroad

Students are encouraged to study abroad. Students should consult with the study abroad advisor and the senior associate dean to determine any media and journalism course credit prior to the study abroad term.

## Undergraduate Scholarships

Many special scholarships are available to media and journalism majors and to students transferring into the school. For
information, see the school's Web site or write the senior associate dean of the school by December 1 for the following academic year.

## Undergraduate Research

Undergraduates participate in research through a research pool that assists faculty members in their research and creative activities, through independent studies with faculty members to work on specific projects, and through the school's honors program, which engages the student in substantive research that culminates in a thesis in the senior year.

## Graduate School

The school offers an M.A. degree in mass communication and a Ph.D. degree in mass communication. JOMC graduate courses may be used as minor or supplementary courses for the M.A. and Ph.D. in other fields. For further information on the graduate program, write to the associate dean for graduate studies of the School of Media and Journalism or see the school's Web site.

## Career Opportunities

The school operates a Career Services Office (located in the Student Records and Registration Suite), which seeks to fit the right graduating senior (or alumnus or alumna) with the right job. Students in the school are also encouraged to use the services of University Career Services.

## Faculty

## Professors

Penny M. Abernathy, Patrick D. Davison, Anne M. Johnston, Susan King, Thomas R. Linden, Seth Noar, Cathy L. Packer, Dan Riffe, Christopher S. Roush, JoAnn Sciarrino, Brian Southwell, Dulcie M. Straughan, John M. Sweeney, C.A. Tuggle, Lucila Vargas, Jan J. Yopp.

## Associate Professors

Debashis Aikat, Andy R. Bechtel, Lois A. Boynton, Francesca Dillman Carpentier, Paul F. Cuadros, Barbara G. Friedman, Rhonda Gibson, Heidi J. Hennink-Kaminski, Joe Bob Hester, Michael Hoefges, Paul Jones, Terrence Oliver, Laura A. Ruel, Ryan M. Thornburg.

## Assistant Professors

Spencer Barnes, Maria Comello, Tori Ekstrand, Dan Kim, Steven King, Daniel Kreiss, Trevy McDonald, Adam Saffer, Chad Stevens, Lisa Villamil.

## Professors of the Practice

J. Ferrel Guillory, Jim Hefner, Dana McMahan.

## Lecturers

Winston Cavin, Valerie K. Fields, Jock Lauterer, Paul O'Connor.

## Professors Emeriti

John B. Adams, Harry Amana, Richard Beckman, Thomas Bowers, Jane D. Brown, Richard R. Cole, Albert R. Elam, Frank Fee, Robert Lauterborn, Raleigh C. Mann, Philip Meyer, James J.

Mullen, Carol Reuss, Donald Shaw, Richard H. Simpson, Charles S. Stone, Leroy Towns, Ruth Walden, Xinshu Zhao.

## Contact Information

Information is available from the Office of Student Records and Registration in Carroll Hall, from the Dean's Office in 117 Carroll Hall, or from the senior associate dean for undergraduate studies. Current and prospective students will also find the school's Web site helpful. A weekly newsletter is e-mailed to media and journalism majors and premajors during the academic year. Contact the assistant dean for communication to be added to the listserv.

School of Media and Journalism, CB\# 3365, Carroll Hall, (919) 962-1204.

## Courses

## JOMC-Journalism and Mass Communication

JOMC 61 First-Year Seminar: Sex, Drugs, and Rock 'n' Roll: Teen Health and the Media (3). Students will examine the existing research and gather their own evidence for or against negative health effects. They will create media literacy exercise that could help interpret/resist negative health effects.
JOMC 89 First-Year Seminar: Special Topics (3). Special topics course. Contents will vary each semester.

JOMC 100 Grammar for Journalists (1). The goal of this course is to teach students basic skills in grammar, punctuation, and spelling and help prepare them for the school's spelling and grammar exam. Students must earn a score of 70 or above on the exam to receive their degree.

## JOMC 101 The Media Revolution: From Gutenberg to

 Zuckerberg and Beyond (3). An introduction to the various facets of communication from the objective world of news media to the persuasive worlds of advertising, public relations, and social media. Developing skills and strengthening knowledge concerning media and communication industries, their content, and their effects on society as well as on individuals.JOMC 102 Future Vision: Exploring the Visual World (3). Survey of visual communication tools, techniques, and theories, and how they may be used in all areas of the mass media, present and future. Not open to students who have already taken JOMC 180,182 , or 187.

JOMC 120 Introduction to Video Production and Editing (3). Prerequisite, JOMC 252. Permission of the instructor. Introduction to video production, with close attention to refining creative and technical skills while preparing professional-quality video segments.

JOMC 137 Principles of Advertising and Public Relations (3). Survey of the economics, philosophy, and history of both fields with emphasis on research, foundations, design, execution, and assessment of strategic communication efforts. Provides an understanding of both disciplines, including historical developments, issues and controversies, best practices, career opportunities, and components of successful advertising and public relations campaigns.

JOMC 141 Media Ethics (3). Explore what constitutes ethical practices, what interferes with ethical practices, and what emerging ethical issues may challenge the newest generation of professional communicators. Cases involve print, broadcast, and Internet news media; photojournalism; graphic design; public relations; and advertising.

JOMC 153 Writing and Reporting (3). A laboratory course that teaches journalistic skills essential to writing across platforms. Practice in using news gathering tools, such as sourcing and interviewing techniques; writing stories, including leads, organization, quotations, and data; editing for grammar, punctuation, brevity, style, and accuracy; and critical thinking about news values and audiences.

JOMC 157 News Editing (3). Prerequisite, JOMC 153. Study and practice in copyediting, headline writing, and caption writing for print, digital, and social media.

JOMC 180 Beginning Photojournalism (3). Permission of the school. An introductory course in photojournalistic technique and content gathering. Students photograph, edit, and publish assignments, including general news events, sports, feature and portrait assignments, and a picture story.

JOMC 181 Intermediate Photojournalism (3). Prerequisite, JOMC 180. Permission of the school. Students expand their personal photographic vision and professional portfolio by honing their knowledge and skills of studio and location lighting, propping, and styling. Students learn studio and location portraiture and photo illustration and create a photo essay or portrait series.
JOMC 182 Introduction to Graphic Design (3). Permission of the school. Principles and practices of design, typography, graphics, and production for visual communication for print and electronic media. Computer graphics and pagination.

JOMC 187 Introduction to Interactive Media (3). Permission of the school. Entry-level course in multimedia storytelling that includes modules on theory; the profession; design; content gathering; and editing, programming, publishing, and usability.
JOMC 221 Audio-Video Information Gathering (3). Prerequisite, JOMC 153. Restricted to declared journalism majors and minors. Introduces students to the tools and skills needed to engage in quality news-oriented storytelling with audio, video, and multimedia. Students will learn to deliver news stories using multiple platforms, taking advantage of the strengths of each.

JOMC 232 Public Relations Writing (3). Prerequisites, JOMC 137 and 153. Service-learning course provides hands-on practice in developing multiplatform communication tools (print, digital, and social media) used by public relations practitioners.
JOMC 240 Current Issues in Mass Communication (3). Analysis of the interrelationships between United States mass media and the society that they serve.

JOMC 242 From Gutenberg to Google: A History of Media (3). A historical examination of the changing role of the media professional and forms of media and communication as they have developed in relation to particular social, political, economic, and technological conditions.

## JOMC 244 Talk Politics: An Introduction to Political

 Communication (3). Prerequisite, JOMC 153. An overview of political communication issues and an examination of political campaigns for students who intend to practice communication in the public arena and for those interested in political processes.JOMC 245 Sports and the Media (1). A comprehensive overview of the relationship between sports and the media. Athletes, coaches, and professionals share what goes into producing the sports journalism that we read, listen to, and watch.

JOMC 252 Audio Journalism (3). Students learn how to conceive, research, report, and produce audio stories for broadcast on radio and/or streaming on the Web. Students also learn interviewing and reporting techniques that will prepare them for higher-level courses.

JOMC 253 Introduction to Public Affairs Reporting (3). Prerequisite, JOMC 153. Exercises in news gathering, interviewing, and writing news regardless of the delivery platform.

JOMC 256 Feature Writing (3). Prerequisite, JOMC 153. Instruction and practice in writing feature articles for newspapers and magazines.

JOMC 258 Opinion Writing (3). Prerequisite, JOMC
153. Practice in writing commentary for all forms of mass communication, from journalism to public relations, no matter the delivery format.
JOMC 271 Advertising Copy and Communication (3). Prerequisite, JOMC 137. Application of findings from social science research; social responsibility of the copywriter and advertiser; preparation of advertisements for the mass media; research in copy testing.

JOMC 272 Advertising Media (3). Prerequisite, JOMC 137. The media-planning function in advertising for both buyers and sellers of media; the relationships among media, messages, and audiences; computer analysis.

## JOMC 279 Advertising and Public Relations Research (3).

Prerequisite, JOMC 137. Critical understanding and application of quantitative and qualitative methods used in the strategic planning and evaluation of advertising and public relations campaigns.

JOMC 296 Individual Study (3). Permission of the instructor. An individual readings and problems course to be directed by a faculty member in whose field of interest the subject matter lies.

## JOMC 333 Video Communication for Public Relations and

 Marketing (3). Prerequisite, JOMC 137. Introduction to the use of video as a means of communicating with a variety of an organization's publics, both internal and external. Significant emphasis on building professional skills including teamwork, project management, client management, and creative problem solving.JOMC 334 Presentation Design for Strategic Communication (3). Students learn basic principles of graphic design vocabulary and work with related software. By the end of the course, students should be able to accomplish basic design tasks, understand how software applications work together, and be able to use software as a comfortable part of the creative design process.

JOMC 340 Introduction to Media Law: Journalism Focus (3). Prerequisite, JOMC 153. Focuses on speech and press freedoms under the First Amendment. Topics include prior restraint, libel, privacy, protection of anonymous sources, free press-fair trial, federal regulation of electronic and new media, freedom of information, intellectual property, and international issues.
JOMC 341 Introduction to Media Law: Advertising, Public Relations, and Strategic Communication Focus (3). Prerequisite, JOMC 153. Focuses on speech and related freedoms under the First Amendment. Topics include commercial speech, corporate speech, libel, privacy, regulated commercial communications, federal regulation of electronic and new media, freedom of information, intellectual property, and international issues.

JOMC 342 The Black Press and United States History (3). A chronological survey of the African American press in the United States since 1827. Emphasis is on key people and issues during critical areas in the African American experience.
JOMC 344 Censorship (3). Its history, conflicting philosophies and practice through politics, government, ethnicity, religion, pressure groups, the media, and the law, with emphasis on events and personalities.

JOMC 349 Introduction to Internet Issues and Concepts (3). Students develop an understanding of social, legal, political, and other issues related to the use of the Internet. Offered online.

JOMC 376 Sports Marketing and Advertising (3). Examines the range of promotional techniques being used in the modern sports industry. Topics include sponsorships, advertising, merchandising, and the effects of commercialization.

JOMC 377 Sports Communication (3). Permission of the instructor. Examination of organizations involved in the sports communication field, including publishing, team and league media relations, college sports information offices, broadcasting, and advertising.

JOMC 390 Special Skills in Mass Communication (1-3). Courses on various skills in journalism-mass communication with subjects and instructors varying each semester. This course satisfies a skills- or craft-course requirement. Descriptions for each section available on the school's Web site under Course Details.

JOMC 393 Mass Communication Practicum (1-3). Prerequisite, JOMC 153. Permission of the instructor for students lacking the prerequisite. Students work with area media and advertising and public relations firms and meet weekly for consultation and evaluation by the faculty advisor. Must be taken Pass/Fail only.
JOMC 421 Television News Reporting and Producing (3). Prerequisites, JOMC 221 and 252. This course covers writing, reporting, and producing television news stories and programs, with emphasis on basic as well as innovative broadcast story forms.

JOMC 422 Producing Television News (3). Prerequisite, JOMC 421. Permission of the instructor. Students work under faculty guidance to produce "Carolina Week," a television news program, and are responsible for all production tasks such as producing, reporting, anchoring, directing, and others.

JOMC 423 Broadcast News and Production Management (3). Prerequisite, JOMC 422 or 426 or 429 . Permission of the instructor. Students participate in a collaborative learning environment to hone skills learned in earlier courses and help lessexperienced students acclimate to the broadcast news experience within the school. By invitation only.
JOMC 424 Media Management and Policy (3). An introduction to media management, generally, and the supervision and motivation of employees, specifically. The course also delves into policy and legal issues impacting modern media operations. It explores the special skills associated with management of media properties in the context of constant change.

JOMC 425 Voice and Diction (3). Designed to help students develop presentation skills and use voices effectively as professional broadcast journalists.
JOMC 426 Producing Radio (3). Prerequisite, JOMC 252. Students work under faculty guidance to produce "Carolina Connection," a weekly 30 -minute radio news program, and are responsible for all production tasks: producing, reporting, anchoring, and editing.

JOMC 427 Studio Production for Television News (3). Prerequisite, JOMC 221. This course is a project-based, handson studio production course with special focus on technical skill development and directing in a news environment.
JOMC 428 Broadcast History (3). A theoretical course designed to help students develop an understanding of and an appreciation for the role broadcast journalism has played in recent American history.

JOMC 429 Sports Xtra (3). Prerequisite, JOMC 221. In this course students will produce a weekly sports highlights, analysis, and commentary program for distribution via cable television. Students fill all editorial, field production, and studio production positions.
JOMC 431 Case Studies in Public Relations (3). Prerequisite, JOMC 137. Helps students think as public relations professionals who deal with the demanding, dynamic environment of corporate, government, and nonprofit public relations. Students examine realworld situations and strategies, discussing factors that affect how public relations is practiced in organizations, including identifying stakeholder groups, developing strategies, embracing diversity, and recognizing ethical issues.

JOMC 433 Crisis Communication (3). Prerequisites, JOMC 137 and 153. Provides an assessment and understanding of crises, examining the role public relations professionals play in helping organizations use mass communication theories and best practices. Includes media training. Introduces students to areas of crisis research, allowing them to complete the Federal Emergency Management Agency's National Incident Management System certification.

JOMC 434 Public Relations Campaigns (3). Prerequisites, JOMC 232, 279, and 431. In this capstone experience, students apply concepts and skills from earlier classes to develop a campaign plan for a client organization. Activities include conducting background and audience research; developing realistic objectives,
strategies, tactics, and evaluation plans; producing a portfolio of supporting materials; and pitching the campaign to the client.

JOMC 435 Public Information Strategies (3). Prerequisite, JOMC 137. This course provides a comprehensive assessment and understanding of the role of public relations professionals throughout government and the nonprofit sector as well. The course examines the unique requirements placed on communicators who are simultaneously responsible for representing their respective organizations while keeping the public informed.

JOMC 440 Digital Media Law and Society (3). Prerequisite, JOMC 340. Explains legal issues raised by Internet communication and guides students in thinking critically about how those issues can be resolved. Reviews how courts, other branches of government, the private sector, and legal scholars have responded to the Internet. Topics may include digital copyright, net neutrality, privacy, and Internet censorship abroad.

JOMC 441 Diversity and Communication (3). An examination of racial stereotypes and minority portrayals in United States culture and communication. Emphasis is on the portrayal of Native Americans, African Americans, Hispanics, and Asian Americans in the mass media.

## JOMC 442 Gender, Class, Race, and Mass Media (WMST

 442) (3). The media play a critical role in the construction and contestation of ideas about gender, class, and race. Using a range of methods, students will analyze media messages past and present to understand how gender, race, and class influence media production and consumption.JOMC 443 Latino Media Studies (3). An introductory course to the study of United States Latina/os and the media. It analyzes the media portrayal of Latina/os in United States mainstream media. The course also examines media that cater to Latina/os and explores the way in which Latina/o audiences use the multiple media offerings available to them.

JOMC 445 Process and Effects of Mass Communication (3). Mass communication as a social process, incorporating literature from journalism, social psychology, sociology, political science, and history. To acquaint students with factors in message construction, dissemination, and reception by audiences.

## JOMC 446 Global Communication and Comparative

Journalism (3). Covers theories explaining the workings of global and local communication systems, the transnational flow of news, and opportunities and challenges that social media and other new platforms pose to the production and distribution of news. It also familiarizes students with the media communication systems of key countries.

JOMC 447 International Media Studies (3). The study of media system operations in a particular country, such as Mexico, including how news and information are disseminated and used by audiences. Taught in the spring semester and includes a trip to that country during spring break.

JOMC 448 Freedom of Expression in the United States (3). An examination of the development of freedom of expression in the United States within the context of the nation's history.

JOMC 449 Blogging, Smart Mobs, and We the Media (3). For advanced undergraduates through Ph.D. students. Practical and theoretical approaches to understanding, designing, building, and using virtual communities, including studies of network capital, social capital, and social production.

JOMC 450 Business and the Media (3). Role of media in United States society and effects on public perceptions of business. Relationship of business press and corporate America. Current issues in business journalism.

JOMC 451 Economics Reporting (3). Prerequisite, JOMC 153. Coverage of Wall Street and the economy, including stocks, bonds, and economic indicators. Reporting on the Federal Reserve, labor, consumer sector, manufacturing and inflation, and certain industries.

JOMC 452 Business Reporting (3). Prerequisite, JOMC
153. Methods and tactics of covering businesses for mass communication. Why and how companies operate and how to write stories about corporate news from public records and other sources.

JOMC 453 Advanced Reporting (3). Prerequisites, JOMC 153 and 253 . Rigorous, in-depth instruction and critiques of students' news and feature assignments done with different reporting methodologies: interviewing, official records, direct and participant observation, and survey research (the Carolina Poll).

JOMC 454 Advanced Feature Writing (3). Prerequisites, JOMC 153 and 256. Writing and reporting important topics in in-depth feature articles. Discussion and utilization of writing and reporting techniques in order to complete articles for publication or other dissemination. In-depth instruction and critiques of student work.

JOMC 455 Sports Writing (3). Researching and writing sports stories, including game coverage, magazine features, and opinion columns. Students complete reporting and writing exercises inside and outside of the classroom.

JOMC 456 Magazine Writing and Editing (3). Prerequisites, JOMC 153 and 256. Instruction and practice in planning, writing, and editing copy for magazines.

JOMC 457 Advanced Editing (3). Prerequisite, JOMC 157. Concentration on the editing and display of complex news and features stories and other print media content with a significant emphasis on newspaper design and graphics.

JOMC 458 Southern Politics: Critical Thinking and Writing (3). Interpretive-contextual journalism focused on the trends, issues, and politics that influence democracy in North Carolina, the American South, and the nation. Through readings and the practice of analytical journalism, the course explores government policy making, election campaigns, social and economic trends, ethics, and citizen-leader relationships.

JOMC 459 Community Journalism (3). Prerequisite, JOMC 153. Comprehensive study of the community press, including policies, procedures, and issues surrounding the production of smaller newspapers within the context of the community in its social and civic setting.

JOMC 460 Data Driven Journalism (3). An introduction to basic statistics and numerical and mathematical literacy, as well as a look at professional data-driven journalism projects. Students who successfully complete this course will be able to acquire, organize, analyze, and present data to a general news audience.
JOMC 463 News Lab: Creating Tomorrow's News Products (3). Students work under faculty guidance to develop and test an idea for a start-up news product. Students will create a prototype, test it on a target market, and compile a business feasibility report for the product. The course emphasizes collaboration among students with a variety of skills and experiences.

JOMC 470 Digital Advertising and Marketing (3). Prerequisites, JOMC 279 and 475. This course provides the practical knowledge and insights required to establish digital advertising and marketing objectives and strategies, properly select the earned and paid media platforms, and monitor and measure the results of those efforts.
JOMC 471 Advanced Advertising Copywriting (3). Prerequisite, JOMC 271. Permission of the instructor. Rigorous, in-depth instruction and critiques of student advertising writing.

JOMC 472 Art Direction in Advertising (3). This course provide students with finished advertising for their portfolios through visual theory instruction, creative exercises, and strategy application.
JOMC 473 Advertising Campaigns (3). Prerequisite, JOMC 271 or 272. Planning and executing advertising campaigns; types and methods of advertising research; the economic function of advertising in society.

JOMC 474 The Branding of Me (3). Prerequisite, JOMC 477. What have you done to brand yourself? Students will use YouTube, Twitter, and Facebook in a calculated plan with other new-media marketing tools to land that first job.
JOMC 475 Concepts of Marketing (3). Designed to provide the larger business context for students anticipating careers in advertising, public relations, and other media industries, the course teaches the vocabulary and basic concepts of marketing as it will be practiced.

JOMC 476 Ethical Issues and Sports Communication (3).
Permission of the instructor. Ethical dilemmas and decisions in the commercialization and coverage of sports, including the influence of television, pressure to change traditions and standards for monetary reasons, and negative influences on athletes.
JOMC 477 New Media Technologies: Their Impact on the Future of Advertising, Marketing, and Public Relations (3). This course will introduce you to the nontraditional, future vision required to be successful in advertising, marketing, and public relations and the more personal, individualized technologies that will grab people's attention in the future.
JOMC 478 Media Marketing (3). Prerequisite, JOMC 137. Principles and practices of retail advertising in all media, with emphasis on selling, writing, and layout of retail advertising for the print media.
JOMC 479 Market Intelligence (3). Permission of the instructor. This course helps students learn to make better business decisions by teaching contemporary analytical tools to solve brand and advertising problems.

JOMC 480 Advanced Photojournalism (3). Prerequisite, JOMC 180; pre- or corequisite, JOMC 153. Permission of the school. Advanced course in photojournalism content gathering, history, ethics and storytelling. Students shoot advanced newspaper and magazine assignments and create short multimedia stories combining photography, audio, and video.
JOMC 481 Documentary Photojournalism (3). Prerequisite, JOMC 480. Permission of the school. Students study the documentary tradition and produce stories within the social documentary genre of photojournalism. Students choose a relevant social issue and create a multimedia Web site featuring long-form documentary storytelling.

JOMC 482 News Design (3). Prerequisite, JOMC 182; pre- or corequisite, JOMC 153. Detailed study of page layout and graphics techniques for all forms of news media.
JOMC 483 Magazine Design (3). Prerequisite, JOMC 482. Permission of the school. Detailed study of page layout and graphics techniques in magazines.
JOMC 484 Information Graphics (3). Prerequisite, JOMC 182. Permission of the instructor for students lacking the prerequisite. Study and application of graphic design and information-gathering techniques to creating charts, maps, and diagrams.
JOMC 485 Publication Design (3). Prerequisite, JOMC 182; pre- or corequisite, JOMC 153; permission of the instructor. Detailed study and application of graphic design techniques in magazines, newspapers, advertising, and corporate communication.
JOMC 486 Motion Graphics (3). Detailed study and application of motion-graphic techniques that utilize the combination of words, photos, graphics, video, sound, and voice-overs to convey stories for news and entertainment. Students learn Adobe After Effects software and the art of storytelling to enable them to conceptualize and execute digital animations.
JOMC 490 Special Topics in Mass Communication (1-3). Small classes on various aspects of journalism-mass communication with subjects and instructors varying each semester. Descriptions for each section available on the school's Web site under Course Details.

JOMC 551 Digital Media Economics and Behavior (3). The course will focus on the changing economics affecting 21st-century news organizations and the economic drivers of other content providers such as music companies, the film industry, online aggregators, and commerce sites for lessons that can be applied across industry segments.
JOMC 552 Leadership in a Time of Change (3). Prerequisite, JOMC 452, 475, or 551. During a time of fast-paced technological innovation, this course examines the critical strategic choices facing media executives. Students will observe and research a media company that is making the transition, as well as produce a case study on that effort.

## JOMC 560 Medical and Science Journalism (HBEH 660,

HPM 550) (3). Prepares students to work as medical and science journalists. The course emphasizes writing skills in all delivery formats and interpreting medical, health, and science information for consumers.

JOMC 561 Medical and Science Video Storytelling (HBEH 561, HPM 551) (3). Students work in teams to produce, shoot, script and report medical, environmental, and science stories for broadcast on "Carolina Week," the award-winning, studentproduced television newscast.

## JOMC 562 Science Documentary Television (HBEH 562,

HPM 552) (3). Students work in teams to conceive, produce, and script mini-documentaries on science and environmental topics for broadcast on North Carolina Public Television.

JOMC 564 Medical and Science Reporting (3). Prerequisite, JOMC 153. Required preparation, a second reporting or writing course. Focuses on developing strategies to research and write about medical issues, specifically selecting topics, finding and evaluating sources, and information gathering. Students produce a range of stories, from short consumer pieces to in-depth articles.

JOMC 565 Environmental Storytelling (ENEC 565) (3). An interdisciplinary course for students interested in environmental issues or journalism to produce stories about environmental issues that matter to North Carolinians. Students learn to identify credible sources, manage substantial amounts of information, and find story focus as they report on technical and often controversial subjects in a variety of media.

JOMC 581 Multimedia Design (3). Prerequisite, JOMC 187. Permission of the instructor for students lacking the prerequisite. Theory and practice of multimedia design with an emphasis on usability, design theory, and evaluative methodologies, including focus groups, survey research, eye-track testing, and search engine optimization.
JOMC 582 Multimedia Narratives (3). Prerequisites, JOMC 180 or 187 , and 221 . Permission of the school. Students learn how to gather audio and video content, editing and storytelling techniques, and how to publish these media onto a variety of multimedia platforms.

JOMC 583 Multimedia Programming and Production (3). Prerequisite, JOMC 187. Permission of the school. Advanced course in multimedia programming languages that includes designing and building dynamic projects.
JOMC 584 Documentary Multimedia Storytelling (3). Permission of the instructor. Students work on a semester-long documentary multimedia project that includes photo and video journalists, audio recordists, designers, infographics artists, and programmers. Open by application to students who have completed an advanced course in visual or electronic communication.

JOMC 585 3D Design Studio (3). Prerequisites, JOMC 187 and 182. Permission of the instructor. The use of three-dimensional design and animation to create visual explanations.
JOMC 586 Intermediate Interactive Media (3). Prerequisite JOMC 187. Web programming, graphic design, and storytelling for the Web. Students will use HTML5 CSS3, JavaScript, and other Web publishing languages while learning how to design, storyboard, and script an interactive storytelling project. Students will collect and incorporate photos, text, video, graphics, and database information into interactive multimedia presentations.

JOMC 587 Multimedia Storytelling: Carolina Photojournalism Workshop (3). The Carolina Photojournalism Workshop has a dual mission: to provide an immersive, real-world learning experience for students, and to create and publish exceptional multimedia content on the culture of North Carolina that can be a resource for people in our state and the world.

JOMC 602 Mass Communication Education in the Secondary School (3). Graduate standing. Readings, discussion, and projects fostering excellence in teaching journalism-mass communication in the high school, from philosophy and practice to professional skills.

JOMC 603 Mass Communication Law in the Secondary School (3). Graduate standing. Application of First Amendment speech and press freedoms to secondary school media, including libel, privacy, access to information, journalistic privilege, prior restraint, advertising and broadcast regulations, and ethical practices.
JOMC 604 Mass Communication Writing and Editing in the Secondary School (3). Graduate standing. High school journalism teachers and advisors learn to teach the skills journalists need to communicate. Emphasis on writing and thinking skills necessary to convert information into clear messages.

JOMC 605 Design and Production of Secondary School Publications (3). Graduate standing. High school journalism teachers and advisors learn to teach the skills journalists need to produce publications. Designed for persons with no background in design. Degree-seeking students may not use both JOMC 182 and 605 to complete degree requirements.
JOMC 671 Social Marketing Campaigns (3). Social marketing is the application of marketing concepts and practices to bring about behavior change for a social good. This course is designed as a service-learning course and fulfills the experiential education requirement.

JOMC 690 Special Topics in Advertising (1-3). Courses on special topics in advertising with subjects and instructors varying each semester.

JOMC 691H Introductory Honors Course (3). Permission of the instructor. Required of all students reading for honors in journalism.

JOMC 692H Honors Essay (3). Permission of the instructor. Required of all students reading for honors in journalism.

## Summer School

summer.unc.edu
134 E. Franklin Street, Room 200, CB\# 3340; (919) 966-4364
JAN JOHNSON YOPP, Dean

## History

The University of North Carolina at Chapel Hill established what was possibly the first United States summer school in 1877. It enrolled 235 students in courses from 10 disciplines. Women were first admitted into University courses during this summer session. Students came from 42 North Carolina counties and several neighboring states. By 1925, 19,983 students had enrolled in Summer School. The University has continued annually to provide a wide offering of summer academic opportunities to the people of North Carolina and other residents from this country and abroad. From 1934 to 1987 the programs were administered by the Office of Summer Sessions. The traditional name of Summer School was reinstated in 1988.

## Opportunities

The College of Arts and Sciences as well as many professional schools offer summer courses for undergraduates and graduates. The same faculty members who make the University one of the nation's best teach the courses, assisted by visiting professors who are specially recruited by departments for this purpose.
Summer School is central to the teaching mission of the University. The summer is one of the three periods during which the campus is open for formal instruction. Summer courses are of comparable quality and provide the same credit as corresponding courses in the fall or spring terms.

For students who have problems in the fall or spring terms getting courses they need or have to choose between courses, summer provides a time when the course can be taken. This option relieves pressure on fall and spring enrollments, creates opportunities to enhance students' programs, increases student access to courses in nonmajor fields and other schools, and ensures that students can complete their degree requirements in a timely manner.

Because some subjects are best learned in an intensive and concentrated way, summer provides a time when students can focus on a single field. This learning style is particularly useful for some laboratory experiences, concentrated arts courses, and foreign languages. Some curricula require field study or research projects, and summer uniquely allows time for these studies.

During the summer, faculty members and students can concentrate on one or two courses without interruptions of other administrative, academic, and social events that exist during the year. The total number of students is fewer in the summer, and the mix includes greater diversity and a higher proportion of nontraditional and visiting students than during the fall or spring terms. Because class sizes are smaller and classes meet daily, students interact more with faculty and with one another.

The summer program is also one of the key ways the campus reaches out to visiting and postdegree students who can benefit from what the University has to offer. Finally, summer is a time for
faculty members to develop and experiment with new content and teaching models that can be incorporated into fall or spring courses.

## Programs

Summer School offers two sessions of five weeks each, a three-week Maymester, and other short courses with various beginning and ending dates. In recent years about 600 sections of courses have been offered each summer to about 5,000 students in Summer Session I and about 4,000 in Summer Session II. The available courses include many that satisfy undergraduate degree requirements. Twelve semester hours of credit typically would be earned by a full-time summer student over both summer sessions. Many students take fewer hours or attend only one session. Total credit hours earned by students in the summer are about 40,000 . About 95 percent of summer students are regular UNC-Chapel Hill students, and the other 5 percent are visiting students.

In recent summers, enrolled students have come from all 100 counties in North Carolina and all 50 states, as well as the District of Columbia, Puerto Rico, the Virgin Islands, and 60 foreign countries.

## Highlights

Summer School highlights include concentrated three-week courses offered in Maymester, five-week online courses, some field courses and law courses that extend beyond the usual Summer Session I, some courses taught especially for public school teachers that begin after mid-June when the public schools end their term, and other credit programs that operate on a concentrated schedule. Courses are offered in the late afternoon or evening. Some offerings combine off-campus activities and on-campus classes or combine online and face-to-face learning formats.

## Student Services and Advising

Summer School coordinates and distributes information on summer course offerings for credit in all Academic Affairs units. Course offerings are available on the Summer School Web site in midDecember. Regular UNC-Chapel Hill students who need information on summer courses and early registration should contact their advisor, dean, or the relevant academic department. These students and all others can obtain updated information daily on the Web site at summer.unc.edu.

Summer School admits and advises visiting students. A potential visiting student can obtain information and an online application from the Web site at summer.unc.edu. The dean of Summer School serves as the dean for these students to approve any schedule adjustments and to represent their interests in other academic and administrative matters. All UNC-Chapel Hill majors and minors have a primary academic advisor in Steele Building. They are strongly encouraged to meet regularly with their advisor and review their Tar Heel Tracker.

Summer School students are able to use most of the campus facilities enjoyed by students in the fall and spring semesters, such as the libraries, computer rooms, and athletic facilities. Information on summer University housing and on dining plans is available in March. The Carolina Union, Carolina intramural coed recreational sports, and The Summer Tar Heel provide activities, events, and information during the summer.

## Health Affairs Schools

## School of Dentistry

www.dentistry.unc.edu
3220 Old Dental Building, CB\# 7450; (919) 537-3459
JANE A. WEINTRAUB, Dean
James Beck, Executive Associate Dean

## Introduction

The dental hygienist is an educator and motivator as well as a health care provider. As a practicing member of the dental health team, the hygienist is primarily concerned with the maintenance of oral health and the prevention of dental disease. Additionally, dental hygienists may assume professional leadership roles; participate in the development, implementation, and evaluation of community health programs; engage in research activities; or serve as consultants and assume managerial roles in certain types of dental care delivery systems

The UNC School of Dentistry's dental hygiene program is the only dental hygiene program in North Carolina that offers a baccalaureate degree. The dental hygiene program is designed to prepare graduates for professional practice in a variety of settings, including the dental office, community settings, and institutional settings. At the undergraduate level, the School of Dentistry offers entry-level and advanced courses of study in dental hygiene. A baccalaureate degree or a certificate in dental hygiene is available to students entering the profession.

## Program of Study

The degree offered is a bachelor of science with a major in dental hygiene. A certificate in dental hygiene also is offered. Students are subject to the academic requirements in place when they are admitted to the dental hygiene program; consequently, the requirements described in this bulletin particularly apply to students admitted to the school during the 2015-2016 academic year.

## Admission to the Program

Applicants may be admitted for dental hygiene study after two years of college work, provided they meet requirements of the University and the Curriculum for Dental Hygiene. Personal interviews may be requested. To assure proper planning for admission, applicants should maintain close contact with the program during the application process.

Enrollment is limited, and applicants are accepted on a competitive basis. Admission to the University does not guarantee admission into the dental hygiene program. Selections are based on academic achievement with an emphasis on performance in science courses, character, knowledge of working with the dental team, and a sincere interest in dental hygiene as a professional career. For UNC-Chapel Hill students, application for admission to the program is usually made during the second year of General College study. Interested students should submit an online application, which can be accessed from ConnectCarolina at Apply Yourself
(gradschool.sites.unc.edu/apply-yourself-programs). Applicants who have previously attended UNC-Chapel Hill should complete the online application for readmission and submit official transcripts from all colleges since matriculation into UNC-Chapel Hill. Contact the dental hygiene office for specific information. For transfer applicants, all prerequisite dental hygiene coursework and General College courses taken at other institutions must be approved for transfer in advance by the Office of Undergraduate Admissions. Official transcripts from all schools attended (including high school) must be submitted.

Three letters of recommendation must be submitted with the application. Two of the letters should be from previous college course directors and one letter, a character reference. In addition, applicants must shadow in a dental office for a minimum of 20 hours. This requirement may be fulfilled through prior dental assisting experience.

Prior to being admitted and enrolled, all applicants will be required to present evidence of satisfactory completion of General College requirements and prerequisite hygiene courses required by the major. Applicants with a previous degree should contact the Office of Undergraduate Admissions to determine fulfillment of General College requirements.

## Dental Hygiene Major, B.S.

All baccalaureate-seeking dental hygiene students must fulfill the General Education requirements. In addition to completing ENGL 105, a foreign language through level 3, a quantitative reasoning course (STOR 151 recommended), and a lifetime fitness course, dental hygiene students must fulfill the Approaches requirements and successfully complete at least five Connections courses, including global issues, experiential education, and U.S. diversity. Other specific requirements include the following courses:

- BIOC 107 or CHEM 101 and 101L (CHEM 101/101L satisfies the physical and life sciences with laboratory Approaches requirement.)
- BIOC 108 or CHEM 102 and 102L
- BIOL 252, EXSS 276, or PHYI 202
- COMM 100, 113, or 120 (COMM 113 satisfies the communication intensive Connections requirement.)
- MCRO 251 or 255
- PSYC 101 (satisfies the physical and life sciences Approaches requirement)
- SOCI 101 or 111 (Both courses satisfy the social and behavioral sciences Approaches requirement.)


## Dental Hygiene Professional School Program

## First Year Fall Semester (15 hours)

- CBIO 741 Introduction to Human Anatomy
- DHYG 241 Nutrition
- DHYG 252 Dental Radiology
- DHYG 253 Dental Anatomy and Oral Physiology
- DHYG 257 Introduction to Dental Hygiene
- DHYG 257L Preclinical Dental Hygiene


## First Year Spring Semester (17 hours)

- DHYG 261 Dental Pharmacology
- DHYG 262 Dental Health Education
- DHYG 263 Periodontology
- DHYG 264 Histology
- DHYG 265 Dental Materials and Techniques
- DHYG 267 Dental Hygiene Theory
- DHYG 267L Clinical Dental Hygiene
- DHYG 414 Radiographic Interpretation

Second Year Fall Semester ( 17 hours)

- DHYG 351 General and Oral Pathology
- DHYG 352 Community Dental Health
- DHYG 357 Clinical Dental Hygiene
- DHYG 401 Oral Microbiology
- DHYG 402 Special Care in Dentistry
- DHYG 403 Current Concepts in Periodontics


## Second Year Spring Semester (12-13 hours)

- DHYG 362 Community Dental Health II
- DHYG 363 Dental Ethics
- DHYG 367 Clinical Dental Hygiene
- DHYG 393 Dental Hygiene Practicum
- Dental hygiene elective (one to two hours) chosen from DHYG 390, 411, 415, 417, 422, 423, 495
All course descriptions can be found in ConnectCarolina and in the UNC School of Dentistry Academic Catalog (dentistry.unc.edu/ academic/documents/academiccatalog.pdf).


## Certificate in Dental Hygiene

Applicants interested in the certificate program in dental hygiene may be admitted to the program without junior standing after completion of BIOL 252, EXSS 276, or PHYI 202; CHEM 101/101L and 102/102L (or BIOC 107 and 108); COMM 100, 113, or 120; ENGL 105; MCRO 251 or 255; PSYC 101; and SOCI 101 or 111. After completion of the basic professional program, a certificate in dental hygiene is awarded. Continued enrollment to complete the baccalaureate degree requirements is an option for the student.

## Additional Information for the Dental Hygiene Programs

Upon provisional acceptance into the dental hygiene program, all students must provide an acceptable criminal background check and provide documentation of required immunizations, as well as varicella vaccine series and/or a positive quantitative titer, hepatitis B series (three shots) and a positive quantitative titer, and the two-step tuberculosis skin test (TST). The two skin tests must be taken within a 12 -month period. Specific information is provided in the School of Dentistry Academic Catalog (dentistry.unc.edu/ academic).

One of the consequences of the delivery of health care is the possibility of contracting infectious disease such as tuberculosis, hepatitis, herpes, or HIV. To minimize this risk, the UNC School of Dentistry has adopted an infectious control policy that requires wearing a clinical overgarment, protective safety eyewear, disposable gloves, and a mask when oral examinations and dental hygiene services are being provided.

Dental school fees are required that include instrument rental and other supplies needed for clinical care and the education of patients. Additional costs may occur for projects required in the curriculum.

## Advising

Dental hygiene students have a primary academic advisor in the program offices located in the first dental building, known as Old Dental Building. Students are strongly encouraged to meet regularly with their advisor and review their Tar Heel Tracker each semester. The undergraduate dental hygiene program's director and the chair of the dental hygiene admissions committee work with current and prospective students by appointment (see "Contact Information" below). Further information on courses, undergraduate research opportunities, careers, and graduate programs may be obtained from the School of Dentistry Web site.

## Special Opportunities in Dental Hygiene

## Departmental Involvement

Students are eligible to become members of the student American Dental Hygienists' Association, American Dental Education Association, American Association of Dental Research, American Association of Public Health Dentistry, and other specialty organizations. Student membership fees may be required.

## Experiential Education

Students have the opportunity to participate in community-based clinical experiences as well as providing oral hygiene programs in the community. Service-learning opportunities are possible as an elective. Each semester students will be involved with hands-on experiences providing dental hygiene services. During the final semester of dental hygiene, students will participate in a three-week practicum. Due to the location of community sites, undergraduate students may need access to transportation. Expenses for travel are the responsibility of the student.

## Licensure

Certificate and baccalaureate degree graduates are eligible for dental hygiene licensure examinations at the state and national levels. Candidates must pass both the national and clinical board examinations in order to be granted a license to practice dental hygiene. Additional costs are associated with the examinations required for licensure. Some dental hygiene licensure examinations require background checks with fingerprint analysis.

## Accreditation

The dental hygiene program accreditation status is approval without reporting requirements as determined by the Commission on Dental Accreditation.

## Undergraduate Awards

Dental hygiene students are eligible for awards through the Spurgeon Dental Society in the School of Dentistry and the Dental Foundation of North Carolina. In addition, student awards are also available through the American Dental Hygienists' Association, American Association of Public Health Dentistry, American Dental Education Association, and other specialty organizations.

## Undergraduate Research

Research opportunities are available at the undergraduate level for dental hygiene students. Students are encouraged to become involved in research activities pertaining to dental hygiene and dentistry. Student research grants are available through the university, professional organizations, and private industry.

## Facilities

The UNC School of Dentistry is currently the largest dental school facility in the nation. The dental hygiene program, located within the school, is equipped with state-of-the-art classrooms, case study rooms, laboratory (simulation and dental material labs), and clinical facilities. Koury Oral Health Sciences building houses research laboratories, student lockers, lounge areas with amenities, and Kirkland Auditorium. The UNC School of Dentistry also features an atrium with a media wall, social seating, and dining areas with a food court.

## Graduate School and Career Opportunities

Upon satisfactory completion of the baccalaureate program, students are eligible for application to graduate programs in dental hygiene education, public health, and other areas. The UNC School of Dentistry offers a master of science (M.S.) graduate degree program in dental hygiene education to which graduates of the dental hygiene program may apply. Graduates also are eligible to apply for admission to the school's predoctoral dental curriculum provided they successfully complete the required program prerequisites.

The growth of the dental health care field assures an excellent employment outlook for the coming years. Courses of study provide comprehensive educational experience to qualified individuals for the practice of dental hygiene in accordance with the current and changing demands for health services and in accordance with the laws and ethics pertaining to practice.

## Faculty

## Professors

Roland Arnold, Lyndon Cooper, Terrence Donovan, Gregory Essick, Eric Everett, Richard Gracely, Garland Hershey, Harald Heymann, Ching-Chang Ko, Jessica Y. Lee, Ralph Leonard, John Ludlow, William Maixner, Sally Mauriello, Ken May Jr., Valerie Murrah, Steven Offenbacher, Lauren Patton, Ceib Phillips, Luis Pimenta, Enrique Platin, Andre Ritter, Michael Roberts, Emile Rossouw, Gary Slade, John Stamm, Edward Swift, Ricardo Teles, Timothy Turvey, Donald Tyndall, Ray White, Aldridge Wilder, Rebecca Wilder, Robert Wright, Tim Wright, Mitsuo Yamauchi.

## Associate Professors

Carlos Barrero, Silvana Barros, George Blakey, Lee Boushell, Alice Curran, Ingeborg De Kok, Kimon Divaris, Scott Eidson, Sylvia Frazier-Bowers, Albert Guckes, Carol Haggerty, Asma Khan, Lorne Koroluk, Mark Kutcher, Lewis Lampiris, Pei Feng Lim, Gary Lucci, Shaun Matthews, Michael Milano, Glenn Minsley, Shannon Mitchell, Andre Mol, Antonio Moretti, Andrea Neely, Ricardo Padilla, James Parker, Mary Pettiette, Rocio Quinonez,

Glenn Reside, Eric Rivera, Allen Samuelson, Margot Stein, John Sturdevant, Flavia Teles, Ricardo Walter, Jennifer Webster-Cyriaque, David Zajac, Andrea Ferreira Zandona, Thomas Ziemiecki.

## Assistant Professors

Sumitha Ahmed, Antonio Amelio, Eric Bair, Sun-Yung Bak, Sompop Bencharit, Jennifer Brame, Christine Downey, Derek Duggan, Ibrahim Duqum, Lynn Fox, Glenn Garland, Brent Golden, Matthew Hopfensperger, Lynne Hunt, Kenneth Johnson, Luisito Mendoza, Patricia Miguez, Thiago Morelli, Amy Nguyen, Tung Nguyen, Jonathan Reside, Lattice Sams, Anne Sanders, Lynn Smith, Shad Smith, Lisa Stoner, Peter Tawil, Inna Tchivileva, Carolina Vera-Resendiz, Alexandra Yarborough.

## Contact Information

Questions concerning the program should be directed to the Student Services Manager, Dental Hygiene Programs, CB\# 7450, 3220 Old Dental Building, (919) 537-3459. Web site: www. dentistry.unc.edu/academic.

## School of Medicine

WILLIAM L. ROPER, Dean

## Stephen R. Hooper, Associate Dean and Chair, Department of Allied Health Sciences

Divisions of the Department of Allied Health Sciences in the UNC School of Medicine offer two professional majors to undergraduate students: the bachelor of science degree with a major in clinical laboratory science and the bachelor of science degree with a major in radiologic science. Students must apply for admission to these programs, usually in the sophomore year; admission is competitive. Following completion of the first two years' work in the University's General College, admitted students complete their final two years in clinical laboratory science or radiologic science. Students are subject to the requirements in place when they are admitted to these programs; consequently, the requirements described in this bulletin particularly apply to students admitted during the 20152016 academic year.

In addition, the Division of Speech and Hearing Sciences offers a minor in speech and hearing sciences for undergraduate students interested in pursuing a graduate degree in speech-language pathology or audiology.

## DIVISION OF CLINICAL LABORATORY SCIENCE

www.med.unc.edu/ahs/clinical
Suite 4100 Bondurant Hall, CB\# 7145; (919) 966-3011
SUSAN J. BECK, Director

## Introduction

Clinical laboratory science (CLS), also called "medical laboratory science," is the health profession that provides laboratory information and services needed for the diagnosis and treatment of disease. The field of clinical laboratory science combines many sciences, including microbiology, hematology, chemistry, and immunology. Clinical laboratory scientists perform a variety of laboratory tests, ensure the accuracy of the test results, explain the significance of laboratory test results, and evaluate new methods for laboratory tests. They play an essential role in the diagnosis and treatment of disease. Some of the tests performed in the clinical laboratory are relatively simple. Others, such as DNA analysis and flow cell cytometry, are complex and require extensive education.

Examples of laboratory tests performed by clinical laboratory scientists include

- Detection of the abnormal cells that cause leukemia
- Analysis of cardiac enzyme activity released during a heart attack
- Identification of the type of bacteria causing an infection
- Analysis of the coagulation factors in cases of abnormal bleeding
- Detection of blood group antibodies that cause transfusion reactions
- Analysis of genetic markers for cystic fibrosis
- Typing patients for histocompatibility matches prior to transplantation


## Admission to the Program

A maximum of 20 students are chosen for admission each year. Students are selected on the basis of science and mathematics prerequisite courses, grades, a written application, interviews, and letters of recommendation. Students with an overall grade point average less than 2.0 cannot be considered for admission to the UNC-Chapel Hill Clinical Laboratory Science Program. Successful completion of the prerequisite courses listed under the major does not guarantee admission to the program. Because enrollment is limited, students are encouraged to begin the application process early in the fall preceding the year of enrollment. The deadline for completed applications is the second Tuesday in January. Completed applications received after that deadline will be considered for admission if positions are available in the program.

## Clinical Laboratory Science Major, B.S.

## Core Requirements

- CLSC 410, 410L, 420, 420L, 430, 440, 440L, 442, 442L, 450, $450 \mathrm{~L}, 460,460 \mathrm{~L}, 462,462 \mathrm{~L}, 470,470 \mathrm{~L}, 480,480 \mathrm{~L}, 540 \mathrm{~L}$, 542L, 550L, 560L, 570L, 580L, 582L, 620, 630, 670


## Additional Requirements

- BIOL 101, 101L, and a second biology course (BIOL 202 is highly recommended)
- CHEM 101, 101L, 102, 102L, 241, and 241L
- MATH 130, 231, or STOR 151

In the first and sophomore years, clinical laboratory science majors satisfy General Education requirements and take a basic science curriculum comparable to that of other science students. In the sophomore year, students apply for admission into the final two years of the program. Students in the UNC-Chapel Hill General College are required to satisfy all Foundations and Approaches requirements and take at least five Connections courses, including global issues, experiential education, and U.S. diversity courses.

The junior year includes courses that cover the principal areas of clinical laboratory science. Students also learn and practice laboratory techniques in a student laboratory. Senior students rotate through the clinical laboratories at UNC Hospitals and other laboratories in the state. They also take advanced courses in the clinical laboratory sciences.

The suggested course sequence for the required preclinical laboratory science courses at UNC-Chapel Hill is listed below. Transfer students receiving placement credit may have a slightly different sequence.

## First Year Fall Semester

- CHEM 101 and 101L (C- or better required)
- ENGL 105
- Foreign language level 1
- MATH 130 or 231 or STOR 151
- Lifetime fitness
- Approaches course


## First Year Spring Semester

- BIOL 101 and 101L
- CHEM 102 and 102L
- Foreign language level 2
- Approaches/Connections course
- Approaches/Connections course


## Sophomore Year Fall Semester

- CHEM 241 and 241L
- CHEM 261 is not required but is recommended for students who have time in their schedules for additional science courses.
- Foreign language level 3
- Approaches and Connections courses


## Sophomore Year Spring Semester

- BIOL course (BIOL 202 strongly recommended)
- BIOL 252 is not required but is recommended for students who have time in their schedules for additional science courses.
- Remaining Approaches and Connections courses


## Junior Year Fall Semester

- CLSC 410 and 410L, 420 and 420L, 430, 440 and 440L, and 450 and 450L


## Junior Year Spring Semester

- CLSC 442 and 442L, 462 and 462L, 470 and 470L, and 480 and 480L


## Senior Year

Clinical Education: Senior clinical education takes place in UNC Hospitals' laboratories and other clinical laboratories in North Carolina. These laboratories are highly regarded in the field of laboratory medicine, and students have the opportunity to learn the most recent techniques in clinical laboratory science.

Courses taken during fall or spring semester:

- CLSC 460, 460L, 540L, 542L, 550L, 560L, 570L, 580L, 582L, 620, 630, and 670


## Advising

First-year and sophomore students interested in the clinical laboratory science (CLS) major have a primary academic advisor in Steele Building. Students are strongly encouraged to meet regularly with their advisor and review their Tar Heel Tracker each semester. The director of the Division of Clinical Laboratory Science is available to meet with current and prospective majors by appointment (see "Contact Information" below). The Division of Clinical Laboratory Science provides academic advising for students who are enrolled in the program. Further information on the curriculum may be obtained from the division's Web site.

## Special Opportunities in Clinical Laboratory Science

## Departmental Involvement

Student ambassadors in the Department of Allied Health Sciences organize students' professional activities and social events.

## Experiential Education

Senior clinical courses provide a range of clinical laboratory experience in chemistry, hematology, hemostasis, microbiology, transfusion medicine, immunology, histocompatibility, and molecular testing.

## Certification

Upon successful completion of the clinical laboratory science curriculum, graduates receive the B.S. degree with a major in clinical laboratory science. A certificate also is awarded by the Division of Clinical Laboratory Science and the Department of Allied Health Sciences. Graduates of the program are eligible to take the national certification examination in medical laboratory science.

## Accreditation

The Clinical Laboratory Science Program is accredited by the National Accrediting Agency for Clinical Laboratory Sciences, 5600 N. River Road, Suite 720, Rosemont, IL, 60018-5119, (773) 7148880, www.naacls.org.

## Undergraduate Awards

Louise Ward Scholarships: Three scholarships are awarded to clinical laboratory science students each year based on academic excellence, potential for success as a clinical laboratory science student and practitioner, and financial need.

Additional scholarships available to clinical laboratory science students include

- The Lanning-Taylor Scholarship, awarded to a senior clinical laboratory science student
- The Raleigh Pathology Laboratory Associates Scholarship, awarded to a junior or a senior student
- The WakeMed Health and Hospital Annual CLS Scholarship, awarded to a junior or senior student
- The Allene W. Alphin and Jesse C. Alphin Scholarships, awarded to two clinical laboratory science students
Outstanding CLS Student: Each year a clinical laboratory science senior is named as the outstanding student based on nominations from clinical and academic faculty members.


## Facilities

The laboratory facility for first-year clinical laboratory science courses includes individualized work areas with reagents, supplies, and laboratory instruments for students. In senior courses, students develop their skills in state of the art clinical laboratory facilities.

## Graduate School and Career Opportunities

Clinical laboratory science provides a basis for a broad range of future endeavors. Graduates with a B.S. degree in clinical laboratory science can elect to pursue further study in medicine, dentistry, veterinary medicine, business or management, hospital administration, computer science, education, clinical chemistry, clinical microbiology, immunology, or another laboratory science area. The Division of Clinical Laboratory Science also offers a master's degree in the clinical laboratory science-molecular diagnostic science track.

Clinical laboratory scientists are employed in hospital laboratories, commercial laboratories, physicians' office laboratories, research institutes, clinical trials, and forensic laboratories. Clinical laboratory scientists also may be employed as technical or sales representatives for corporations. Graduates of the program are very successful on national certification exams and enjoy high employment rates. See the alumni section of the Web site for examples of careers in clinical laboratory science.

## Faculty

## Professors

Susan J. Beck, Vicky A. LeGrys.

## Assistant Professors

Shauna Hay, Tara Moon.

## Instructors

Lisa Cremeans, Laine Stewart.

## Contact Information

Susan Beck, CB\# 7145, Suite 4100 Bondurant Hall, (919) 966-3011, sbeck@med.unc.edu.

## Courses

## CLSC-Clinical Laboratory Science

CLSC 150 Current Topics in Clinical Laboratory Medicine (1). A survey of topics in laboratory medicine including transfusions, forensic science, infectious diseases, and hematologic diseases.
CLSC 410 Laboratory Mathematics (1). Permission of the instructor for nonmajors. Basic mathematical principles, calculations, quality assurance, and method validation relevant to the clinical laboratory.

CLSC 410L Basic Laboratory Skills (1). Majors only. An introduction to the basic skills associated with the clinical laboratory. Includes topics such as the proper technique for pipetting, calibration of pipettes, operation of the centrifuge and the spectrophotometer, and the formulation of standard curves and control ranges.
CLSC 420 Urinalysis and Body Fluids (1). Permission of the instructor for nonmajors. The physical, chemical, and microscopic analysis of body fluids in the clinical laboratory with an emphasis on correlation of laboratory data.

CLSC 420L Urinalysis Laboratory (1). For clinical laboratory science majors only. The physical, chemical, and microscopic examination of urine with an emphasis on the correlation of laboratory data.
CLSC 430 Biochemistry (3). Permission of the instructor for nonmajors. Physiological biochemistry of the metabolic pathways and alterations in selected diseases. Also includes principles and applications of molecular techniques in the clinical laboratory.

CLSC 440 Hematology I (2). Permission of the instructor for nonmajors. Introduction to normal hematopoiesis, blood cell function and identification, hematologic tests, principles of hemostasis, and hemostasis disorders.

CLSC 440L Hematology I Laboratory (1). Permission of the instructor for nonmajors. Basic clinical assays for identification and evaluation of erythrocytes, leukocytes, and platelets with an emphasis on microscopy. Also includes coagulation testing.

CLSC 442 Hematology II (3). Majors only. Hematologic disorders involving erythrocytes and leukocytes, with an emphasis on the analysis and interpretation of laboratory data.

CLSC 442L Hematology II Laboratory (1). Majors only. Microscopic identification and evaluation of abnormal erythrocyte and leukocyte morphology, correlation with other laboratory data, and clinical interpretation.

CLSC 450 Immunology (3). Permission of the instructor for nonmajors. Basic immunology and serology. Innate and immune body defenses. The development and properties of cellular and humoral elements and their alterations in pathological and other conditions.

CLSC 450L Immunology Laboratory (1). Permission of the instructor for nonmajors. Laboratory evaluation of body defenses and correlation with disease states. Clinical serological analyses include examples of basic techniques and correlation with immunity.

CLSC 460 Microbiology I (2). Permission of the instructor for nonmajors. Study of the life cycles and the infective mechanisms of the human parasites. Pathology of parasitic infections and public health considerations.

CLSC 460L Microbiology I Laboratory (1). Permission of the instructor for nonmajors. Clinical laboratory diagnostic methods for human parasitic and fungal infections. Microscopic morphology of fungal organisms and parasites, including their various life cycle forms.

CLSC 462 Microbiology II (2). Majors only. A comprehensive course describing bacteria that infect humans. Correlation of diseases and pathological mechanisms of bacteria.
CLSC 462L Microbiology II (2). Majors only. Laboratory sessions provide practical experience in clinical identification of bacteria.
CLSC 470 Clinical Chemistry (3). Majors only. An introduction to the methods of analysis used in the clinical chemistry laboratory. Emphasis on the correlation of chemistry laboratory values with disease states.

CLSC 470L Clinical Chemistry Laboratory (2). Majors only. Performance of clinical laboratory assays for significant biochemical molecules. Principles of analysis, quality control, method evaluation, and basic laboratory instrumentation are presented.
CLSC 480 Immunohematology (3). Majors only. Introduction to blood group serology with an emphasis on the major blood group systems, pretransfusion testing, and antibody identification.

CLSC 480L Immunohematology Laboratory (2). Majors only. Laboratory techniques for red cell typing, antibody identification, and pretransfusion testing.
CLSC 540L Clinical Hematology Laboratory (4). Prerequisite, CLSC 440. Majors only. Laboratory rotation in clinical hematology.
CLSC 542L Clinical Hemostasis Laboratory (2). Prerequisite, CLSC 440. Majors only. Laboratory rotation in clinical coagulation.
CLSC 550L Clinical Immunology Laboratory (1). Prerequisite, CLSC 450. Majors only. Laboratory rotation in clinical immunology.
CLSC 560L Clinical Microbiology Laboratory (4). Prerequisite,
CLSC 460. Majors only. Laboratory rotation in clinical microbiology.
CLSC 570L Clinical Chemistry Laboratory Rotation (4).
Prerequisite, CLSC 470. Majors only. Laboratory rotation in clinical chemistry.
CLSC 580L Clinical Immunohematology Laboratory (4). Prerequisite, CLSC 480. Majors only. Laboratory rotation in clinical immunohematology.
CLSC 582L Clinical Transplantation Medicine Laboratory
(1). Prerequisite, CLSC 480. Majors only. Clinical rotation in histocompatibility, flow cytometry, and hematopoietic progenitor cell laboratories.

CLSC 610L Clinical Laboratory Methods (3). An introduction to the basic skills associated with the clinical laboratory, including laboratory math and quality assurance.
CLSC 620 Clinical Laboratory Management (2). Majors only. Foundation in the technical and nontechnical aspects of supervision and management of clinical laboratory testing.

CLSC 630 Research Methods in Clinical Laboratory Science (2). Majors only. An overview of the knowledge of research design and methods commonly used in the clinical laboratory research arena, providing the basis for the critical examination of professional literature.

## CLSC 650 Clinical Laboratory Science Laboratory

Administration (3). Foundation in the technical and nontechnical aspects of supervision and management of clinical laboratory testing.

CLSC 670 Clinical Laboratory Science Educational Methods (2). Majors only. Introduction to the basic principles of clinical laboratory education, including objectives, learning formats, test development, and clinical teaching.

## DIVISION OF RADIOLOGIC SCIENCE

www.med.unc.edu/ahs/radisci
Suite 3050 Bondurant Hall, CB\# 7130; (919) 966-5147
JOY RENNER, Director

## Introduction

The School of Medicine's radiologic science program is designed to prepare individuals for professional practice and associated responsibilities in the health specialty of medical imaging. Graduates provide patient assessment and care required for medical imaging procedures in addition to insuring that the highest quality imaging study is completed with the patient's radiation dose as a factor. In addition to diagnostic radiology, students may select other imaging modalities and practice areas for additional competence and training. These other areas include pediatrics, mammography, computed tomography, magnetic resonance imaging, vascular interventional radiology, and cardiac catheterization laboratory. The curriculum includes course discussions and projects on global health imaging issues and the potential for international experiences in medical imaging departments and programs abroad.

## Admission to the Program

Following completion of the first two years' work in the University's General College, students may be admitted to the professional major offered by the Department of Allied Health Sciences of the UNC School of Medicine. Students enrolled at other colleges and universities who are interested in transferring to the Chapel Hill campus following their sophomore year should contact the Office of Undergraduate Admissions and the Division of Radiologic Science early in their college career to assure proper planning and transferability of courses. Students are encouraged to begin the application process early in the fall semester preceding the year of intended enrollment. The program begins in Summer Session II each year. Transfer applications should be received in the Office of Undergraduate Admissions by the designated University deadline, which is usually early January.

Since enrollment in the major is limited, completion of the student's course of study in the General College does not guarantee a position in the professional class. Students should contact the

Division of Radiologic Science in the fall semester preceding anticipated enrollment to receive admissions information. Student selections are made on a competitive basis with consideration given to academic achievement, character, both written and oral communication skills, and demonstrated interest in medical imaging as a professional career.

## Radiologic Science Major, B.S.

The schedule of academic work for radiologic science (medical imaging) majors includes the following General Education requirements. Students must complete all Foundations and Approaches requirements and take at least five Connections courses, including global issues, experiential education, and U.S. diversity. In addition, the following specific requirements apply to students in the General College:

- The Foundations quantitative reasoning requirement must be satisfied with MATH 130, 231*, or 232.
- Six courses in the physical and life sciences are required: BIOL 101/101L and 252/252L; CHEM 101/101L or BIOC 107/107L; PHYS 104 and 105 or PHYS 114 and 115; and PSYC 101. * MATH 231 is a prerequisite for PHYS 114 (see above). If ByExamination (BE) or transfer credit is awarded for PHYS 104 and 105, then MATH 130 may be used for the Foundations quantitative reasoning requirement. If students plan to take PHYS 114 at UNC-Chapel Hill, then MATH 231 is required for the Foundations quantitative reasoning requirement.

After admission to the program, the curriculum in radiologic science includes courses in gross anatomy, pathophysiology, radiography, imaging methods, research, practice issues, and clinical practice. The first year of the program provides the foundation and skills for clinical practice and patient care in diagnostic radiography. The second year of the program builds on this foundation and enhances skills for career and practice advancement through communications, physics, and research. During the second year, the student elects areas of clinical concentration, such as magnetic resonance imaging, computed tomography, advanced diagnostic imaging, cardiac catheterization, and vascular/interventional imaging.

## SSII (Junior Year)

- AHSC 440
- RADI 442


## Junior Year Fall Semester

- RADI 461, 462, 463, and 660


## Junior Year Spring Semester

- RADI 470, 471, 472, and 473


## SSI and SSII (Senior Year)

- RADI 574 and 575


## Senior Year Fall Semester

- RADI 583, 585, 586, 594, and 694


## Senior Year Spring Semester

- RADI 584, 597, 681, and 686


## Advising

First-year and sophomore students interested in the B.S. degree with a major in radiologic science have a primary academic advisor in Steele Building during the first two years of the degree program. Students are strongly encouraged to meet regularly with their advisor and review their Tar Heel Tracker each semester. The director of the Division of Radiologic Science is available to meet with current and prospective majors by appointment (see "Contact Information" below). The division's faculty provides academic advising for students who are enrolled in the program. Further information on the curriculum may be obtained from radiologic science Web site.

## Special Opportunities in Radiologic Science

## Experiential Education

All of the clinical education courses provide students with the opportunity to gain competence and proficiency in all areas of radiologic science practice in a variety of clinical environments.

## Undergraduate Awards

Undergraduate students are considered for the Faculty Award for Excellence, the Award for Academic Excellence, and the Tina Robbins Award.

## Undergraduate Research

Students complete a two-semester research sequence leading to a project and paper during the senior year of the program and are encouraged to submit the research projects to state and national research competitions.

## Certification

Upon graduation, students are eligible to take the national certification examination from the American Registry of Radiologic Technologists in Radiography and in other clinical areas of expertise.

## Accreditation

The program leading to the B.S. degree with a major in radiologic science is fully accredited by the Joint Review Committee for Education in Radiologic Technology.

## Scholarships and Grants

Students in the Division of Radiologic Science are eligible for Phyllis Ann Canup Pepper Scholarships, the Dr. Jerry Lambiente Loyalty Fund Scholarship, the Rufus "Buddy" Clarke Loyalty Fund Scholarship, and the Jane Cox Hendrix Scholarships.

## Facilities

The program has a state-of-the-art laboratory with digital imaging capabilities in the Burnett-Womack Building adjacent to the offices and classroom building. The laboratory includes radiography and fluoroscopic equipment with digital imaging plate readers and software.

## Graduate School and Career Opportunities

The Division of Radiologic Science bachelor of science degree program provides a basis for further study. Additional clinical specializations are available in diagnostic medical sonography (ultrasound), nuclear medicine, and radiation therapy. Graduates may elect graduate studies in health physics, business and education, management, public health, and other health professions. The division offers a master's in radiologic science degree program for those students seeking advanced clinical practice as a radiologist assistant.

The clinical practice of medical imaging (radiologic technology) may include one or more of the specialty areas listed here, depending on professional preference and the type, size, and mission of the health facility where the technologist is employed: general radiography (such as orthopedics or pediatrics), vascular imaging, cardiac catheterization, computed tomography, and magnetic resonance imaging. Responsibilities and salaries vary according to the area and scope of practice.

Employment opportunities available in a variety of settings, in both rural and urban areas, include 1) more generalized practice in medium to small hospitals; 2) specialized clinical practice in a large hospital; 3) clinics and free-standing imaging centers, which may offer both special and general practice opportunities; or 4) clinical practice coupled with expanded responsibilities in quality control, service education, and supervision, particularly in a large hospital.

## Faculty

## Professor

Jordan B. Renner.

## Associate Professor

Joy J. Renner.

## Assistant Professors

Melissa Jackowski, Lauren Noble, Andrew Woodward.

## Adjunct Instructor

Melissa Culp.

## Professors Emeriti

Charles B. Burns, Janice C. Keene, Robert L. Thorpe.

## Contact Information

For additional information contact the Director, Division of Radiologic Science, CB\# 7130, Suite 3050 Bondurant Hall, (919) 966-5147, jrenner@med.unc.edu. All admissions and program information can be found at www.med.unc.edu/ahs/ radisci.

## Courses

## RADI-Radiologic Science

RADI 432 Concepts and Perspectives in Radiologic Science
(1). This overview of radiologic science encompasses patient care, imaging modalities for diagnosis and treatment, radiation protection, health care trends, and information management systems. Pass/Fail course.

RADI 442 Introduction to Radiologic Science (3). Majors only. Lectures, discussions, demonstrations, and laboratory exercises are combined to introduce topics including patient assessment, image characteristics, radiation protection, positioning skills, medical terminology, and the role of imaging sciences in health care.

RADI 461 Radiography I (4). Prerequisites, AHSC 440 and RADI 442. Prepares students for standard radiography of upper extremities, lower extremities, axial skeleton, bony thorax, chest, abdomen, and the basic skull, considering pathologies and gross, radiographic, and cross-sectional anatomy. Three lecture hours and two laboratory hours.

RADI 462 Radiographic Imaging I (4). Prerequisites, AHSC 440 and RADI 442. An overview of radiographic imaging methods examining the imaging process as a sequence of events from X-ray production through hard-copy processing. The imaging equipment is discussed in terms of function, influence on the image, the impact of alteration on image characteristics, and compensation techniques for changes in the sequence. Three lecture hours and two laboratory hours.
RADI 463 Clinical Education I (4). Prerequisites, AHSC 440 and RADI 442. A clinical course focusing on the application and evaluation of radiography in the hospital setting. With supervision, the student develops clinical skills through observation and participation in radiographic procedures. Twenty practicum hours.

RADI 471 Radiography II (3). Prerequisite, RADI 461. The course content prepares students for standard radiography of cranial bones, facial bones, and special cranial projections. Contrast studies include gastrointestinal, urinary, biliary, cardiovascular, and other special procedures. The course includes pathologies and gross, radiographic, and cross-sectional anatomy. Two lecture hours and two laboratory hours.

RADI 472 Radiographic Imaging II (4). Prerequisite, RADI 462. A detailed study of specific elements of the radiographic process, with an emphasis on the interrelationships of the radiographic parameters, refinement of image analysis and problem-solving skills, and quality control testing for evaluating the performance of the radiographic equipment and accessories. Three lecture hours and two laboratory hours.

RADI 473 Clinical Education II (4). Prerequisite, RADI 463. A continuation of RADI 463 with emphasis on the application and evaluation of more complex radiographic studies. Twenty practicum hours.

RADI 574 Clinical Education III (3). Prerequisite, RADI 473. Under general supervision, the student will function at an increased level of responsibility in general diagnostic radiography in a variety of clinical settings outside of the university setting.

RADI 575 Clinical Education IV (5). Prerequisite, RADI 574. Under general supervision, the student will function at an increased level of responsibility in radiography in clinical settings outside of the university setting. The course includes a comprehensive review examination and case studies.

RADI 583 Clinical Education V (4). Prerequisites, RADI 574 and 575. A clinical course utilizing contract learning to provide students an opportunity to gain additional competency
in specialized areas of radiology. Twenty-four practicum and independent study hours.
RADI 584 Clinical Education VI (6). Prerequisite, RADI 583. This course is a continuation of RADI 583 using learning contracts to allow students to explore and gain additional expertise in various areas of radiology. Twenty-four clinical hours.
RADI 585 Radiologic Health Physics (3). Prerequisite, RADI 472. Permission of the instructor for students lacking the prerequisite. A course in the physics of diagnostic radiology, including radiation effects on tissue, radiation detection and measurement, protection methods and techniques, and environmental radiation issues. Three lecture hours.

RADI 586 Research in Radiologic Science I (1). Majors only. The major part of the course is devoted to an investigative project on a discipline-related topic of student interest. Select issues affecting professional affairs of radiologic technologists are also included.

RADI 591 Practicum in Radiologic Science (4). Prerequisite, RADI 584. This course offers an elective clinical experience in an area of student interest.

RADI 594 Professional Communications and Interactions (3). Majors only. This course provides for a brief cognitive and skills approach to communication skills, the teaching/learning process, and methods and materials of instruction and delivery. Three lecture/discussion hours per week.

RADI 597 Leadership in Radiologic Science (3). Majors only. In this course students will analyze the theoretical literature on leadership and apply that knowledge in the analysis of various radiology environment situations. Three lecture hours.

RADI 660 Pathophysiology (3). Majors only. This course will enhance and integrate the student's knowledge of anatomy, physiology, and pathology related to all human body systems. Emphasis will be placed on understanding how structure, function, and disease are interrelated. Three lecture hours per week.

## RADI 662 Instrument and Imaging Methods (4).

RADI 670 Integrated Principles of Radiographic Analysis (4). Prerequisite, RADI 660. This course involves students in situational problem solving and radiographic analysis. Integration of concepts and knowledge of anatomy, pathology, procedures, patient care, and imaging principles are emphasized. Four lecture hours.
RADI 672 Radiographic Imaging II (4). A detailed study of specific elements of the radiographic process, with an emphasis on the interrelationships of the radiographic parameters, refinement of image analysis and problem-solving skills, and quality. Three lecture hours and two laboratory hours.

## RADI 681 Trends in Medical Imaging Practices Issues in the

 Radiology Practice Environment (3). Majors only. The course covers issues related to healthcare systems, medicolegal ethics, and practice and quality assurance. Three lecture hours per week.RADI 686 Research in Radiologic Science II (2). Majors only. Students complete a research project involving a major clinical or policy issue in radiologic science. This course is an expansion of the fall semester research culminating in both a paper and presentation.

RADI 694 Clinical Decisions in Radiology (3). Majors only. This course involves the pharmacology of common radiology medications and advanced patient assessment techniques. With the additional knowledge and skills, students can make informed decisions regarding patient care. Three lecture hours.

## DIVISION OF SPEECH AND HEARING SCIENCES

www.med.unc.edu/ahs/sphs
Suite 3050 Bondurant Hall, CB\#7190; (919) 966-1007
JACKSON ROUSH, Director

## Introduction

Graduate study in speech and hearing sciences is concerned with the body of knowledge and scientific study that pertain to normal and abnormal speech, language, and hearing, and with professional, academic, and research activities in those areas. The Division of Speech and Hearing Sciences offers three graduate degrees: a master's (M.S.) in speech-language pathology, a professional doctorate (Au.D.) in audiology, and a research doctorate (Ph.D.) in speech and hearing sciences. A minor in speech and hearing sciences is available for undergraduate students at UNC-Chapel Hill who anticipate pursuing one or more of these graduate degrees.

## Speech and Hearing Sciences Minor

- SPHS 530, 540, 570, 582, and 583

The minor in speech and hearing sciences consists of five courses: phonetics, speech science, anatomy and physiology of the speech and hearing mechanisms, audiology, and a communication disorders survey course. Each course is offered only once per year; students interested in the minor are encouraged to enroll in the introductory course (SPHS 583) early in the sequence and in speech science (SPHS 540) last in the sequence.

Admission to the minor is competitive by application. Undergraduate students have the option of taking these courses without declaring a minor; however, students in the minor will have priority for registration. For students interested in pursuing graduate study, additional coursework is highly recommended, including courses in biological science, physical science, social/ behavioral science, developmental bases of communication, and statistics. Detailed information on the application process and preprofessional coursework can be found on the division's Web site at www.med.unc.edu/ahs/sphs/for-unc-undergraduates.

## Advising

All students interested in a minor in speech and hearing sciences have a primary academic advisor in Steele Building. Students are strongly encouraged to meet regularly with their advisor and review their Tar Heel Tracker each semester. The department's director of undergraduate studies will meet with current and prospective minors by appointment (see "Contact Information" below). Further information may be obtained from the division's Web site.

## Faculty

## Professors

Elizabeth R. Crais, Karen Erickson, Melody Harrison, Jackson Roush, David E. Yoder.

## Associate Professors

Katarina Haley, Lori Leibold, Sharon Williams.
Assistant Professors
Lauren Calandruccio, Adam Jacks.

## Research Professors

John H. Grose, Joseph W. Hall, Linda Watson.

## Adjunct Assistant Professor

Debra R. Reinhartsen.

## Clinical Associate Professors

Martha Mundy, Stephanie Sjoblad, David Zajac.
Clinical Assistant Professors
Lisa Domby, Will Hoole, Patricia Johnson, Cara McComish, Nancy McKenna, Brenda Mitchell, Amanda O'Donnell.

## Adjunct Clinical Associate Professor

Holly Teagle.

## Contact Information

Division of Speech and Hearing Sciences, CB\# 7190, Suite 3050 Bondurant Hall, (919) 966-1007.

## Courses

## SPHS-Speech and Hearing Sciences

SPHS 196 Undergraduate Research Experience (1-4). Supervised undergraduate directed research on communication science topics of mutual interest to the student and a faculty member.

SPHS 530 Introduction to Phonetics (3). A detailed study of the International Phonetic Alphabet with emphasis on the sound system of American English. Application of phonetics to problems of pronunciation and articulation. Includes broad and narrow phonetic transcription.

SPHS 540 Speech Science (3). Introduction to the science of speech, including production, acoustics, and perception.
SPHS 570 Anatomy and Physiology of the Speech, Language, and Hearing Mechanisms (3). Anatomy and physiology of the speech producing and aural mechanisms.

SPHS 582 Introductory Audiology I (3). Theory and practice of the measurement of hearing, causative factors in hearing loss, evaluation of audiometric results, and demonstration of clinical procedures.
SPHS 583 Introduction to Clinical Practice in Speech-Language Pathology and Audiology (3). Introduction to diagnosis and treatment of communication disorders, including articulation, fluency, voice, and language, and those resulting from autism and hearing loss.

## School of Nursing

nursing.unc.edu
Carrington Hall, CB\# 7460; (919) 966-4260
DONNA S. HAVENS, Interim Dean and Professor
Gwen D. Sherwood, Associate Dean for Academic Affairs
Beverly Foster, Director, Undergraduate Program
Rumay Alexander, Director, Office of Multicultural Affairs
Katherine Moore, Assistant Dean, Office of Student Affairs

## Introduction

Established in 1950, the School of Nursing was the first institution in North Carolina to offer a baccalaureate degree in nursing (1950). Additional programs of study were added as follow: a master's degree program in nursing (1955); continuing education program for nurses (1964); a nurse practitioner program (1970); a Ph.D. program (1989); an accelerated baccalaureate degree in nursing for those who already hold undergraduate degrees in other fields (2001), and a doctor of nursing practice (D.N.P.) program (2013). The school is committed to educating nurses for entry into practice at the baccalaureate level and entry into advanced practice at the graduate level, enhancing and improving the health and well-being of North Carolinians and people throughout the United States through education, nursing science, scholarship, clinical practice, and community service. Admitted students exhibit the level of preparation, intellectual competence, and personal qualities judged necessary for the study of nursing in a university. School of Nursing B.S.N. graduates consistently achieve one of the highest NCLEX (licensure examination) passing rates in the state, well above the national average. The school welcomes men and women from diverse cultural, economic, geographic, and academic backgrounds to apply to its programs of study.

## Program of Study

The School of Nursing at the University of North Carolina at Chapel Hill offers an undergraduate program of study designed to provide students with the knowledge, skill, and understanding necessary to function effectively in all areas of professional nursing. The curriculum leading to the bachelor of science in nursing (B.S.N.) degree offers two options for study: 1) two years of upperdivision courses in the School of Nursing, which follow two years of lower-division courses in the General College (or equivalent courses completed at another college/university) OR a previously earned bachelor's degree plus the noted prerequisites (B.S.N. Option); and 2) an accelerated second degree option for students with a previous bachelor's degree (A.B.S.N. Option). Students are subject to the requirements in place when they are admitted to the School of Nursing; consequently, the requirements described in this bulletin particularly apply to students admitted to the School of Nursing during the 2015-2016 academic year.

## Admission to the School

## First Degree Applicants

Students seeking a first bachelor's degree are admitted to the upperdivision (junior/senior) B.S.N. (six-semester) option, typically in the spring semester of the sophomore year. Students must complete all lower-division (first-year/sophomore) courses prior to matriculating into the School of Nursing. The first nursing courses begin in the first summer session (May) preceding the junior year.

## Admission Criteria

Admission to the School of Nursing is competitive. The minimum cumulative grade point average for admission to the B.S.N. option is a 2.8 on a 4.0 scale. Admission to UNC-Chapel Hill as a firstyear student does not guarantee admission to the School of Nursing as a junior. Applicants must be eligible to return to all institutions previously attended.

At the time of application, applicants to the B.S.N. option must have completed at least three of the five key science courses within the past 10 years. The key science courses are BIOL 252, MCRO 251, PHYI 202, PSYC 101, and STOR 151 or 155. A grade of B- or better is required in BIOL 252, MCRO 251, and PHYI 202, and a grade of C or better is required in PSYC 101 and STOR 151/155. STOR 155 is strongly recommended for students interested in graduate study.
The admissions committee critically evaluates each applicant's academic performance, descriptive essays, community service history, and special skills and abilities that have the potential to affect care delivery or contribute overall to the nursing profession. The ideal applicant will clearly demonstrate a strong academic history as well as a commitment to the ideology of nursing and service to others. Performance in required science courses is particularly important.

## Application

Applications may be submitted by the December deadline for summer (May) matriculation. UNC-Chapel Hill students applying to the School of Nursing as sophomores or juniors complete the electronic nursing application. The application link, instructions, deadlines, and decision timeframe can be found on the School of Nursing Web site at nursing.unc.edu/admissions/applications.

## Second Degree Applicants

Students who have completed a bachelor's degree in a subject other than nursing may pursue admission to the B.S.N. (six-semester) option OR the more accelerated and intensive A.B.S.N. (foursemester) option. Second degree students will have 60 credit hours from their previous degree counted toward the B.S.N. degree. Applicants have to complete (or verify completion as part of their previous degree) only six courses from the lowerdivision requirements: BIOL 252, MCRO 251, PHYI 202, PSYC 101, STOR 151 or 155 , and a U.S. diversity or global issues Connections course.

## Admission Criteria

Admission to the School of Nursing is competitive. The minimum cumulative grade point average for admission to the B.S.N. option is a 2.8 on a 4.0 scale, and the minimum cumulative grade
point average for the A.B.S.N. option is a 3.0 on a 4.0 scale. All applicants seeking admission as second degree students must have earned the first degree prior to submitting the nursing application. Applicants must be eligible to return to all institutions previously attended. At the time of application, applicants to the A.B.S.N. option must have completed all five key science courses noted above, while applicants to the B.S.N. option must have completed at least three of these courses. The key science courses must have been completed within the past 10 years. A grade of B - or better is required in BIOL 252, MCRO 251, and PHYI 202, and a grade of C or better is required in PSYC 101 and STOR 151/155. STOR 155 is strongly recommended for students interested in graduate study. The admissions committee review is as described previously.

## Application

Applications for the A.B.S.N. option may be submitted by the August deadline for spring (January) matriculation, while applications to the B.S.N. option may be submitted by the December deadline for summer (May) matriculation. All first and second degree applicants must complete the electronic nursing application. The application link, instructions, deadlines, and decision timeframe can be found on the School of Nursing Web site at nursing.unc.edu/admissions/applications.

## Nursing Major, B.S.N.

The baccalaureate program in nursing prepares graduates to employ critical thinking and caring in 1) understanding the problems of contemporary health and illness; 2) utilizing a systematic approach to assess human responses to actual and potential health problems in a variety of settings; 3 ) directly providing and managing competent care for individuals, families, and groups who have simple to complex health care needs throughout the lifespan; 4) employing interpersonal processes and therapeutic communication skills; 5) integrating professional values and role behaviors; and 6) collaborating with other groups in shaping health policies that affect both individual and community health.

Courses in the nursing major are taken at the upper-division level. The courses build on a strong foundation in the sciences and humanities to develop the knowledge and skills needed to practice nursing in contemporary society. Clinical experiences take place in a broad variety of settings that reflect current patterns of health care delivery and provide opportunities for students to develop competence in empathetic care, critical thinking, technical skills, clinical judgment and decision making, interdisciplinary collaboration, and management of care.

## Lower-Division Courses in the General College

Students are admitted to the baccalaureate nursing program at the upper-division level. All lower-division courses must be completed before beginning nursing courses. Lower-division courses taken at another college or university must be approved for transfer by the UNC-Chapel Hill Office of Undergraduate Admissions as comparable to the courses offered on this campus. Prospective students can request an unofficial transfer evaluation to determine the status of compliance with lower-division requirements. The unofficial transfer evaluation request form should be attached to copies of all United States college transcripts and sent to the UNC-

Chapel Hill School of Nursing address on the form. The form is available at nursing.unc.edu/admissions/transcript-evaluation.

All students must meet the Foundations and Approaches requirements outlined elsewhere in this bulletin. Students with a bachelor's degree must complete only the six courses marked with an asterisk (below) or verify completion of these courses as a part of the previous degree. Note: second degree applicants may meet either the global issues or U.S. diversity prerequisite. For nursing students, these requirements must include the following courses:

- *For the Foundations quantitative reasoning requirement: either STOR 151 Basic Concepts of Statistics and Data Analysis or STOR 155 Introduction to Statistics
- For the Approaches physical and life sciences requirements (for a total of 28 credits):
o BIOL 101/101L Principles of Biology
o *BIOL 252 Fundamentals of Human Anatomy and Physiology (with laboratory; online laboratory is unacceptable)
o CHEM 101/101L and CHEM 102/102L General Descriptive Chemistry, or BIOC 107 and BIOC 108 Introduction to Biochemistry
o *MCRO 251 Introductory Medical Microbiology (with on-site laboratory; online laboratory is unacceptable)
o *PHYI 202 Introduction to Physiology
o *PSYC 101 General Psychology
Nursing students also must satisfy the following Connections requirements: global issues*, U.S. diversity*, and at least two others, bringing the total credit hours required of B.S.N. applicants to 68 . A grade of B- or better is required in BIOL 252, MCRO 251, and PHYI 202, and a grade of C or better is required in PSYC 101 and STOR 151/155 (or approved equivalents). STOR 155 is strongly recommended for students interested in graduate study.

Special Note: Applicants must complete the two-course combination, Anatomy and Physiology I and Anatomy and Physiology II sequence from the same college/university, OR a complete course in anatomy and a complete course in physiology. If these courses are not completed on this campus, they must be approved equivalents to the courses offered at UNC-Chapel Hill.

## Overview of the Major

A.B.S.N. and B.S.N. Options

- NURS 253, 254, 261, 360, 361, 362, 364, 366, 371, 382, 456, $470,472,477,479,588,591$, and one of the following courses: 487,488 , or 489


## Critical Information for ALL Nursing Students

## Essential Standards for Admission, Progression, and Graduation

The curricula leading to degrees in nursing from the University of North Carolina at Chapel Hill School of Nursing require students to engage in diverse and complex experiences directed at the acquisition and practice of essential nursing skills and functions. Unique combinations of cognitive, affective, psychomotor, physical, and social abilities are required to perform these functions satisfactorily. In addition to being essential to the successful
completion of the requirements of a nursing degree, these skills and functions are necessary to ensure the health and safety of patients, fellow students, faculty members, and other health care providers.

The Essential Standards document describes the nonacademic qualifications, required in addition to academic qualifications, which the school considers critical for entrance to, continuation in, and graduation from a UNC-Chapel Hill School of Nursing degree program. Candidates for nursing degrees, with the exception noted for selected graduate programs, must be able to meet these minimum standards, with or without reasonable accommodation, for successful completion of degree requirements. Refer to the school's Web site for additional information: nursing.unc.edu/ current-students/student-handbook.

## Professional Risk

The practice of nursing involves the care of individuals who are ill or injured. Communicable diseases are common in health care delivery settings and may be a threat to nursing students. During the performance of clinical practice/research activities, a student may have contact with patients/subjects with HIV/ AIDS, tuberculosis, hepatitis B, hepatitis C, and other infections. Such contact, although rare when proper preventive measures are used, may result in a student's being exposed to infectious agents and/or transmitting an infectious disease to other students, faculty members, patients, family members, and subjects. During pregnancy, the fetus may be at risk. As a student enrolled in the School of Nursing at the University of North Carolina at Chapel Hill, students are expected to provide care to patients who may have known or unknown communicable diseases. Application to and acceptance of an offer from the School of Nursing indicates a student's understanding of related professional risks.

## Fitness for Practice

All students admitted to the School of Nursing are required by the North Carolina Board of Nursing to provide documentation of their fitness to provide safe nursing care to the public. Failure to provide requisite documentation will result in the withdrawal of the admission offer. Additionally, North Carolina law requires incoming students to present to the University, before the first day of enrollment, evidence verifying that the student has received all required immunizations.

Further, federal and state statutory regulations and clinical affiliate contractual mandates require that nursing students demonstrate particular cognitive and clinical competencies consistent with their minimum professional practice standards. As such, students must attain and maintain full compliance with all requirements. The school also requires students to undergo, at the student's expense, a criminal history database check following admission acceptance. The check covers all addresses in which the student has lived, worked, or attended an educational institution in the past seven years or since the 16th birthday, whichever is less. Database checks will address all criminal charges, felony and misdemeanor level convictions (except minor traffic related violations), and the Sexual Offender/Predator Registry for all states in which the student has lived. Reports are shared with clinical agencies that require that all charges be resolved prior to the start of clinical practice. Questions about these requirements may be
directed to the Office of Student Affairs.
Multiple clinical agencies now require that students undergo drug testing prior to the start of clinical practice at their sites. A 12-panel urine drug screen is required per contract specifications and conducted at the student's expense.

## Disability Statement

Consistent with its mission and philosophy, the School of Nursing at the University of North Carolina at Chapel Hill is committed to providing educational opportunities to students with disabilities. In accordance with the Americans with Disabilities Act of 1990 and Section 504 of the Rehabilitation Act, the school provides reasonable accommodations to otherwise qualified students with disabilities. The decision regarding appropriate accommodations will be based on the specifics of each case.

Students who seek reasonable accommodations for disabilities must contact the Office of Accessibility Resources \& Service ([919] 962-8300). Staff in this office will determine a student's eligibility for, and recommend, appropriate accommodations and services. More information may be obtained through the Web site at accessibility.unc.edu. Also see the School of Nursing's policy located at nursing.unc.edu/current-students/student-handbook.

## Computer Requirements

All School of Nursing students are required to use e-mail for conveying course/clinical/research/other school-related business. All e-mail communication regarding School of Nursing matters must utilize the student's University MS-Exchange e-mail address only. The use of external e-mail services is not permitted. School of Nursing courses use the Sakai learning management system, which requires frequent reliable access to Internet resources. For both these reasons easy access to personal computers and the Web are imperative. The School of Nursing provides a PC laboratory solely for the use of undergraduate students, and students may also access PC laboratory facilities elsewhere on campus.
All B.S.N. and A.B.S.N. option students are required to have a laptop computer that meets the minimum requirements specified for the preloaded laptop computers available through the University's Carolina Computing Initiative (CCI) program. Specifications can be found at cci.unc.edu/new-students/minimum-laptop-requirement. Choosing a vendor for the laptop purchase is the student's prerogative; however, it is important to note that the University provides "software and operating system support for non-CCI laptops on a best-effort basis. Hardware support for non-CCI laptops is the responsibility of the owner" (source: CCI. unc.edu). In addition to the computer itself, students must have an Internet Service Provider (ISP) and an account for a high-speed access service.

## Vehicular Requirements

Because of the broad scope of clinical facilities and locations, undergraduate nursing students must have access to a car. For information about the North Carolina requirements for automobile liability insurance, vehicle registration, and operator's license, write to the North Carolina Department of Motor Vehicles, Raleigh, NC 27602. Students and/or parents are responsible for maintaining appropriate insurance coverage. Some insurance companies may
consider such travel as "business driving." Expenses for travel are the responsibility of the student.

## Registered Nurse Licensure Examination Requirements

The North Carolina Board of Nursing (NCBON) requires all graduates of the School of Nursing who apply to take the National Council Licensure Examination (NCLEX) to undergo a routine criminal background check, which necessitates submission of a complete set of fingerprints with the NCLEX application. A Social Security Number is required for the licensure application to the NCBON.

## Advising

All first degree students intending to major in nursing have a primary academic advisor in Steele Building. Students are strongly encouraged to meet regularly with their advisor to learn the latest course requirements necessary to become an outstanding candidate for a career in nursing, and to review their Tar Heel Tracker each semester. In addition, students can visit the Health Professions Advising Office (second floor, Hanes Hall) soon after entering the University for specific guidance on career preparation. Advising information, advising hours, and information about joining the pre-health listserv may be found on the office's Web site at careers. unc.edu/students/pre-professional-advising/pre-health.

## Special Opportunities in Nursing

## Hillman Scholars Program in Nursing Innovation

UNC-Chapel Hill School of Nursing is one of only three schools nationally that has been awarded a Hillman Scholars Program in Nursing Innovation grant. The program's primary goal is to create a new cadre of nurse scientists and leaders who will design innovative solutions for health care delivery. This highly competitive program is open to new B.S.N. and A.B.S.N. students and provides a pathway for students to earn their B.S.N. and Ph.D. in five to six years. Six academically talented nursing students will be admitted to the program each year and receive financial and enhanced mentoring support to facilitate their progress towards the Ph.D. By completing a Ph.D. early in their career, Hillman Scholars will have a longer time to influence patient care through leadership, innovation, and research in academic and clinical settings. For additional information about the program, please visit nursing.unc. edu/hillman.

## Careers beyond the Bedside Project

The CaBB (Careers beyond the Bedside, 2012-2015) project is a federally funded grant to increase diversity in the nursing workforce. The program targets students currently underrepresented in the nursing profession. This program seeks students from economically or educationally disadvantaged backgrounds, and/or historically underrepresented ethnic minority groups, first-generation college students, or students who currently reside in a medically under-served geographic area. Many of the benefits of the CaBB project are open to any prenursing/nursing student. For more information about CaBB , please visit nursing.unc.edu/careers-beyond-the-bedside.

## Departmental Involvement

Students are encouraged to participate in student leadership opportunities. These include the elected class governance system, the dean's Student Advisory Council or course management team options, the Association of Nursing Students (the only preprofessional nursing organization available), and the Student Health Action Coalition. More details can be found online at nursing.unc.edu/current-students/student-handbook/student-organizations-and-activities-general.

## Experiential Education

The nursing program requires extensive direct clinical practice in a variety of acute care, chronic care, and community-based settings considered essential for the preparation of competent practitioners. Clinical contact time varies by study option and course but averages approximately 12 to 16 hours per week.

## Financial Aid

Students granted admission to the School of Nursing seeking the baccalaureate degree at UNC-Chapel Hill may be considered for a variety of nursing-specific scholarships and other financial aid opportunities. For assistance, contact the Office of Scholarships and Student Aid by phone at (919) 962-8396 or through the Web at studentaid.unc.edu, or call the Office of Students Affairs at (919) 966-4260.

## Study Abroad

Students may participate in selected study abroad options offered through required or elective courses.

## Undergraduate Awards

During the final semester of study, the top one-third of students in each option will be invited to membership in Sigma Theta Tau International Nursing Honor Society. The George Livas Award recognizes the graduating student who most clearly demonstrates academic excellence and leadership. Other awards presented during the school's commencement ceremony honor those students achieving the highest grade point average in their respective option.

## Undergraduate Research

Through the honors program the University and the School of Nursing recognize undergraduates who have demonstrated exceptional academic ability and independent work in their major (www.unc.edu/depts/honors). Qualified and interested students in their last two semesters of study will be paired with a faculty advisor who guides the student in an independent study honors project. The director of the undergraduate program supervises the honors program. Students participating in the honors program must have a cumulative University grade point average that meets University requirements. In addition, students must have and maintain a 3.4 cumulative nursing grade point average. Calculation of the cumulative grade point average is based solely on the required hours earned to date for the nursing degree. Grade point averages are not rounded. The student and honors advisor must complete a written contract, and the student must register for NURS 691H and 692H Honors Study in Nursing. Each honors course carries three hours of credit and is assigned a letter grade by the advisor. A student's project must show evidence of independent, creative, abstract, analytical, and critical thinking.

## Facilities

The School of Nursing is located in Carrington Hall. The Education-Innovation-Simulation Learning Environment (EISLE) provides undergraduate students with a simulated clinical environment in which to practice and acquire fundamental psychomotor and psychosocial skills necessary for clinical application. Under the close supervision of nursing faculty and teaching assistants, students learn therapeutic techniques and procedures, utilize problem-solving approaches, and prioritize patient care in simulated situations.

## Graduate School and Career Opportunities

The school offers a master of science in nursing (M.S.N.) and doctor of nursing practice (D.N.P.) degree in five advanced practice areas and a Ph.D. degree in nursing science. B.S.N. graduates may pursue the M.S.N. or D.N.P. after one year of clinical practice, or they may pursue the Ph.D. directly following the B.S.N., prior to completion of any master's-level coursework. For further information on the graduate program, contact the Office of Student Affairs as noted below or see the school Web site.

The school works closely with University Career Services to prepare all B.S.N. graduates for the transition from student to professional practitioner. A preparatory career development series and career fair are offered annually. Additionally, the school cooperates with clinical agencies across the country to make available to students an array of information on employment opportunities in a myriad of settings and entry-level roles.

## Faculty

## Professors

Linda Beeber, Donna Havens, Cheryl Jones, George Knafl, Kathleen Knafl, Mary Lynn, Barbara Mark, Deborah Mayer, Mary H. Palmer, Gwen Sherwood, Suzanne Thoyre, Marcia Van Riper.

## Associate Professors

Debra Barksdale, Anna Beeber, Diane Berry, Beth Black, Jennifer D'Auria, Eric Hodges, Coretta Jenrette, Shawn Kneipp, Pamela Rowsey, Sheila Santacroce, Mi-Kyung Song, Hugh Waters, SeonAe Yeo.

## Assistant Professors

Jada Brooks, Cheryl Giscombe, Rebecca Kitzmiller, Ashley Leak Bryant, Jennifer Leeman, Cecelia Rocigno, Lixin Song, Theresa Swift-Scanlan, Mark Toles, Debbie Travers, Jia-Rong Wu, Jessica Zegre Hamsey.

## Research Professor

Catherine Fogel.

## Research Assistant Professors

Josephine Asafu-Adjei, Jamie Crandell, Todd Schwartz.

## Clinical Professors

Rumay Alexander, Linda Cronenwett, Carol Durham, Victoria Soltis-Jarrett, Mary Tonges.

## Clinical Associate Professors

Kathy Alden, Tom Bush, Janna Dieckmann, Noreen Esposito, Beverly Foster, Carolyn McKenzie, Laura McQueen, Sonda Oppewal, Mary Lynn Piven, Marva Price, Theresa Raphael-Grimm, Sheilda Rodgers, Julie Waldrop, Meg Zomorodi.

## Clinical Assistant Professors

Jennifer Alderman, Diane Caruso, Marianne Cockroft, Nancy Crowell, Amanda Davis, Suja Davis, Jean Davison, Dustine Dix, Patricia Gingrich, Christina Harlan, Elaine Harwood, Jill Hill, Renee Hill, Sandra Hoffman, Grace Hubbard, Sara Hubbell, Ann Jessup, Maureen Kelly, Beth Lamanna, Rhonda Lanning, Christina Leonard, Vicki Lester, Regina McCarthy, Katherine Moore, Betty Nance-Floyd, Ann O’Hale, Julianne Page, Carrie Palmer, Susan Pelliccio, Mary Schuler, Mary Charles Sutphin, Virginia Tysinger, Julie Jacobson Vann, Jennie Wagner, Wanda Wazenegger, JoAn Williams, Megan Williams, Lisa Woodley.

## Clinical Instructors

Abu Bangura, Andrea Biondi, Su Cartmell, Kelly Ellington, Shannon Ford, Tamryn Fowler, Michael Goley, Linda Greninger, Elizabeth Griffin, Theodore Heiser, Nancy Ho, Margaretann House, Ramona Irabor, Kristin Lauer, Julie Lewis, Rachel Lorenzen, Caiocimara McPhee, Leigh Mullen, Kennedy Onori, Jillian Orlowski, Megan Randall, Elizabeth Rochin, Leslie Sharpe, Kathryn Smith, Deborah Stirdivant, Karen Valcheff, Tracy VernonPlatt, Michelle White.

## Contact Information

For general information on the School of Nursing, contact the Office of Student Affairs, School of Nursing, CB\# 7460, Carrington Hall, (919) 966-4260, nursing@unc.edu.

## Courses

## NURS-Nursing

NURS 253 Individual Development across the Lifespan (2).
Majors only. This course emphasizes a lifespan approach to theories and perspectives on individual growth and development. Content focuses on physical, cognitive, and socioemotional development, and risk factors from birth to death.

NURS 254 Discipline of Nursing I (1). Majors only. This course introduces the discipline, profession, and practice of nursing through a study of history, values, culture, legal issues, and education. Critical thinking central to nursing practice is introduced.

NURS 261 Nursing Role in Normal Nutrition (2). Majors only. This course involves the nursing application of nutritional concepts to the care of individuals, families, groups, and populations across the lifespan.

## NURS 360 Concepts, Processes, and Skills for Evidence-Based

 Nursing (4). Majors only. The course focuses on understanding basic nursing concepts. The development of communication, teaching, and psychomotor skills are emphasized in conjunction with nursing process. Research as a basis for practice is recognized.NURS 361 Pathophysiology (3). Majors only. This course is concerned with alterations involved in disruptions of normal physiology as well as pathophysiological principles underlying therapeutic interventions and outcomes.

NURS 362 Pharmacology across the Lifespan (3). Majors only. Using the science of pharmacology and pharmacologic principles underlying therapeutic interventions, this course focuses on an introduction to nursing responsibilities regarding pharmacologic therapy across the lifespan.

## NURS 364 Nursing Care of Adults with Major Health

Problems, I (6). Prerequisites, NURS 253, 261, 361, and 366. Corequisites, NURS 360 and 362. Majors only. This is the first of two adult health courses in which students apply critical thinking skills to nursing care of adults with major health problems.

NURS 366 Health Assessment (3). Majors only. This course addresses concepts and methods of comprehensive health assessment of children, adults, and elders. Emphasis will be on data collection as a basis for initiation of caring and decision making in nursing practice.

NURS 369 Physical Assessment (3). Admission to the R.N.B.S.N. option or permission of the instructor. This course expands the student's previous knowledge base of the skills and principles of historical, psychological, and physical assessment and identifies these data as the basis for nursing care.
NURS 371 Nursing Inquiry and Evidence-Based Practice (3). Pre- or corequisite, NURS 364. Permission of the instructor for students lacking the prerequisite. Students are introduced to key concepts of evidence-based nursing practice, including the research process, protection of human subjects, and retrieval and appraisal of evidence to maintain a scientifically sound practice.

NURS 377 Research in Nursing Practice (3). Majors only. This course introduces components of the research process with application to the theory and practice of nursing. The course provides the foundation for master's-level nursing research course.
NURS 379 Leadership in Nursing Practice (3). Majors only. Students will examine health care organizations from a systems perspective and develop leadership skills necessary in professional practice.

NURS 382 Family-Centered Genomic Health Care (1). Majors only. This course explores essential competencies in genetics and genomics for registered nurses. The learner gains knowledge about family assessment and the impact of genomic issues on individuals and families.

NURS 456 Discipline of Nursing II (2). Prerequisites, NURS 254 and at least one of the following: NURS 470, 472, 477, or 479. Majors only. This course emphasizes professional development through exploration of a variety of roles and practice environments. Students analyze personal and professional goals and values to develop a framework for nursing practice.

NURS 470 Public Health Nursing (5). Prerequisites, NURS 364 and 371. Corequisites, NURS 472, 477, or 479. Majors only. Students apply public health concepts to community practice to improve health and reduce disparities across the lifespan,
emphasizing interventions using partnership strategies at individual/ family, organizational, and policy levels.
NURS 472 Nursing Care of Infants, Children, and Their
Families (5). Prerequisite, NURS 364. Majors only. Nursing care of infants, children, and their families is explored. Knowledge from a variety of disciplines is applied through the nursing process to the direct care of infants and children.

NURS 477 Psychiatric Mental Health Concepts for Broad Clinical Application in Nursing (5). Prerequisites, NURS 253, 361, and 362. Corequisites, NURS 364 and 382. Majors only. Using theories of psychosocial development, psychopathology, therapeutic communication, and psychotherapy, this course requires students to examine the range and complexities of human emotional suffering and methods of effective intervention.

NURS 479 Maternal/Newborn Nursing (5). Prerequisite, NURS 364. Majors only. The course focuses on application of caring and critical thinking skills in providing evidence-based nursing care to childbearing families.

NURS 487 Practicum in Nursing: Work-Study Experience (3). Prerequisites, NURS 254 and 364. Certification as Nurse Aide I and II also required as pre- or corequisite. Majors only. This course provides the student an opportunity to participate in a work-study experience in participating health care agencies. Students participate in a reflective experience that integrates classroom and experiential learning.
NURS 488 Practicum in Nursing: Health Services Improvement Work Experience (3). Prerequisites, NURS 254 and 364. Majors only. Certification as a Nurse Aide I and Nurse Aide II are recommended. Practice in health care settings is the course focus. Students participate in a reflective experience that provides the context to integrate classroom and experiential learning into an evolving professional identity.

## NURS 489 Practicum in Nursing: Global Health Experience

(3). Prerequisites, NURS 254, 364, and two of the following: 470, 472, 477, 479, 591. Majors only. Certifications as a Nurse Aide I and Nurse Aide II are recommended. Practice in global health care settings is the course focus. Students participate in a reflective experience that provides the context to integrate classroom and experiential learning into an evolving professional identity.

## NURS 491 Improving Nursing Practice: Application of

 Concepts, Theories, and Research (3). Majors only. This course emphasizes analysis of clinical problems that affect the nursing care of selected populations. Students also apply the nursing process, therapeutic communication skills, and teaching-learning principles in clinical situations.NURS 492 Conceptual Bases of Professional Nursing Practice (3). Majors only. Selected concepts, theories, and models are synthesized, appraised, and applied as a basis for making judgments and decisions in nursing practice.

NURS 494 Community Health Nursing for the Public's Health (3-6). Majors only. Prepares R.N. students for population-focused practice in community health nursing. Analyses and applications of selected theories; health promotion/protection and disease prevention strategies are emphasized.

NURS 496 Advanced Practicum in Nursing (1-3). Majors only. The focus of this course is the development of knowledge and experience related to research or service learning and its application to the practice of nursing and health care.

NURS 497 Preparation for Professional Practice (1). This course will assist students in preparation for the NCLEX-RN examination through a strategic and systematic individualized plan of study that utilizes the ATI program and other relevant resources. Taken in the last semester of study. Limited enrollment. Pass/Fail only.

NURS 585Alternative Paradigms for Nursing Practice (3). Majors only. Concepts and principles underlying biomedical and biopsychosocial approaches to health care delivery are analyzed to determine their impact on health and to provide a framework for integrating both approaches to care.

NURS 586 Contemporary Issues in Nursing Practice (3). Majors only. The context of professional nursing practice will be analyzed from a social, economic, and policy perspective. Analysis will include projections for the future of the profession.

NURS 588 Leadership in Health Care Organizations (4). Prerequisites, NURS 364, 371, and 487 or 489, and 472 or 477 or 479. Corequisite, NURS 488. Majors only. This course explores organizational leadership and management practices and theories. Current social, economic, legal, ethical, and policy issues affecting practice, education, and the profession of nursing are examined.

## NURS 591 Nursing Care of Adults with Major Health

Problems, II (8). Prerequisites, NURS 364 and 371. Corequisite, NURS 456. Majors only. This senior-level course focuses on applying critical thinking, clinical decision making, and evidencebased nursing practice to complex health problems of adults. Unique health needs of older adults are addressed.

NURS 600 SHAC: Student Health Action Coalition (0). This course provides service-learning opportunities to apply nursing practice within the context of interprofessional care for vulnerable populations by participating with Student Health Action Coalition (SHAC) activities.

NURS 607I Interprofessional Team Work and Communication:
Key to Patient Safety (3). Majors only. This interprofessional course focuses on understanding roles, teamwork, and communication to improve patient safety within the health care environment. National standards and initiatives will be the foundation of the course. Pass/Fail only.

NURS 609 Health Care in the Global Context (1). Majors only or permission of the instructor. A faculty led experiential learning opportunity focusing on development and knowledge related to research, health care systems, or service learning and its application to nursing and health care.
NURS 6131 Intermediate Spanish for Health Care I (AHSC 613I, PHCY 613I, PUBH 613I, SOWO 613I) (3). See PUBH 613 I for course description.

NURS 614I Intermediate Spanish for Health Care II (AHSC 614I, PHCY 614I, PUBH 614I, SOWO 614I) (3). See PUBH 614 I for course description.

NURS 615I Advanced Spanish for Health Care I (AHSC 615I, DENT 615I, MEDI 615I, PHCY 615I, PUBH 615I, SOWO
615I) (3). See PUBH 615I for course description.
NURS 671 Nursing Inquiry and Evidence-Based Practice for Advanced Scholarship (3). Students anticipating graduate study are introduced to scientific inquiry and principles of evidencebased practice, including theoretical perspectives related to inquiry; ethics; identification of research problems, development of research questions, and appropriate design; data interpretation with emphasis on statistical analysis; and rigorous appraisal of research reports.

NURS 680 Experimental Courses (1-3). Pilot test for new courses in the nursing program.

NURS 685 Care of the Dying and Bereaved throughout the Life Span (3). Permission of the instructor for nonmajors. Students from a variety of health sciences-related disciplines gain an understanding of issues in working with dying and bereaved individuals of all ages and their families.

NURS 687 Ethical Issues in Nursing (2). Examination and discussion of major ethical issues arising in the professional practice of nursing in the context of systematic consideration of the nature of ethical choice.

NURS 691H Honors in Nursing, Part I (3). Permission of the program director. Majors only. Preparation of a two-semester honors project under the direction of department advisors.

NURS 692H Honors in Nursing, Part II (3). Permission of the program director. Majors only. Preparation of a two-semester honors project under the direction of department advisors.

## UNC Eshelman School of Pharmacy

www.pharmacy.unc.edu
Office of Student Affairs, 109 Beard Hall, CB\# 7566; (919) 966-9429

ROBERT BLOUIN, Dean
Wendy Cox, Assistant Dean
Rowell Daniels, Executive Associate Dean
Roy Hawke, Assistant Dean
Pamela Joyner, Executive Associate Dean
Wayne Pittman, Associate Dean
Phil Rodgers, Assistant Dean
Mollie Scott, Regional Associate Dean
Dhiren Thakker, Associate Dean
Alexander Tropsha, Associate Dean
Rick Wernoski, Executive Associate Dean

## Introduction

Pharmacists are the drug-information experts and are among the most trusted and most accessible of health care professionals. Generalists practice in a variety of environments, including
community pharmacies, health-system pharmacies, and the pharmaceutical and health care industries. Specialty pharmacy practitioners pursue training beyond the doctor of pharmacy (Pharm.D.) through residencies and fellowships and may ultimately practice in areas such as pediatrics, geriatrics, cardiology, oncology, ambulatory/community care, and others.

Pharmacists evaluate complex approaches to drug therapy and advise patients and other health care professionals on strategies to achieve the best results from pharmaceutical care. Other pharmacists are engaged in practices that monitor, manage, and implement policies affecting drug prescribing and use across large groups of patients, such as those enrolled in a health plan.
Students enrolling in the Pharm.D. program will experience an enriched curriculum beginning in the fall of 2015. The curriculum emphasizes active engagement of students in the classroom, fosters scientific inquiry and innovation, and immerses students in patient care early and continually in their education. During the professional program, up to 16 months are spent in professional practice experiences under the direct supervision of practicing pharmacists. More information on the curriculum can be found on the School's Web site at www.pharmacy.unc.edu.

## Program of Study

The UNC Eshelman School of Pharmacy offers graduate education and training programs in addition to the clinical doctor of pharmacy practice degree (Pharm.D.). The school offers an M.S. in pharmaceutical sciences with a concentration in health-system pharmacy administration and a Ph.D. in pharmaceutical sciences with concentrations in molecular pharmaceutics, pharmacotherapy and experimental therapeutics, chemical biology and medicinal chemistry, and pharmaceutical outcomes and policy.

The Pharm.D. grants entry into the profession and practice of pharmacy. It is neither an undergraduate nor a graduate degree program, but rather a professional degree such as an M.D. or D.D.S. The Pharm.D. curriculum requires a minimum of two years to satisfy prerequisite requirements, normally completed in the General College, followed by four years of professional coursework. Students are subject to the requirements in place when they are admitted to the program.

The doctor of pharmacy program is accredited by the Accreditation Council for Pharmacy Education. Graduates of the school's Pharm.D. program may sit for the state licensure examination for pharmacists.

The school has a satellite campus for the Pharm.D. program at Asheville, NC. The first students were enrolled in this satellite program in August 2011. Students based at the satellite campus receive the same instruction and are subject to the same admission and progression standards as students on the Chapel Hill campus.

Students graduating from the UNC Eshelman School of Pharmacy must demonstrate professional practice competencies, including but not limited to the ability to

- Develop patient-specific therapeutic plans
- Select an appropriate route and method of medication administration
- Determine the appropriate dose and dosage schedule for a medication
- Provide and manage systems for delivering pharmaceutical products
- Counsel patients regarding the importance, nature, scope, and methods of delivery of the drug products and therapeutic plans being implemented
- Monitor drug therapy and educate patients with regard to selfmonitoring to help manage disease
- Communicate effectively with patients, patient advocates, and other health care professionals
- Organize, plan, direct, and manage a pharmaceutical-care practice or system
In addition, pharmacy graduates must pass national and state licensing examinations in order to practice as a pharmacist.


## Admission Requirements

Students are admitted to the Pharm.D. program (the four-year program of professional studies) in the UNC Eshelman School of Pharmacy upon completion of at least two years (the prepharmacy years) of collegiate work in the General College of UNC-Chapel Hill or at any accredited institution of higher learning in the United States. Criteria for admission include satisfactory completion (with a grade of C- or better) of all prepharmacy courses prior to beginning the pharmacy program. Other considerations for admission include overall quality of academic performance in prepharmacy courses, Pharmacy College Admissions Test (PCAT) scores, interview scores, involvement in extracurricular activities, and two letters of recommendation.

## Application Procedures

Students applying to the UNC Eshelman School of Pharmacy must submit complete applications to the Pharm.D. program through the Pharmacy College Application Service (PharmCAS) and the School. For application deadlines, processes, and procedures, visit the Web site at www.pharmacy.unc.edu.

Since pharmacy students are health care professionals, the UNC Eshelman School of Pharmacy requires that accepted applicants receive immunizations and testing in addition to those required for the general University student population. To enroll in this program, a student must have been fully immunized against hepatitis B. Note that the hepatitis B vaccination series takes a minimum of six months to complete, so students should start the series no later than December 15 of the year in which they plan to enroll. Students will also need to be tested for tuberculosis (TB) exposure, as well as varicella (chicken pox) and hepatitis B immunity.

## Prerequisites and Program Requirements

The General Education requirements and program prerequisites for the UNC Eshelman School of Pharmacy can be found on the school's Web site at www.pharmacy.unc.edu.

## Advising

Advising in the UNC Eshelman School of Pharmacy is a form of teaching. Advising fosters within student pharmacists skills, abilities, and dispositions that encourage directed career exploration
as well as ongoing professional development, lifelong learning, and growth. Faculty advisors serve as content experts and mentors and are assigned to new students prior to the first semester of study. To fully maximize both curricular and cocurricular experiences, students are encouraged to schedule consistent and ongoing advising appointments throughout the course of their study. Professional advisors are also available to assist with student success strategies, decision making, and goal setting. Advising-related inquiries can be addressed to the Office of Student Affairs in 109 Beard Hall (pharmacy.unc.edu/osa).

## Special Opportunities in the UNC Eshelman School of Pharmacy

## Honors in Pharmacy

The School offers a departmental honors program to provide professional growth to highly motivated students. The honors program of the school is an enrichment of the Pharm.D. curriculum designed to help develop critical thinking skills and expand the range of possibilities available to academically talented and motivated pharmacy students. Students are invited to participate in the honors program seminar during the fall semester of their first year of pharmacy school. Students must complete an application and interview with the honors program committee. Once admitted into the program, the students must meet several requirements for retention in the program. Honors program students complete all required coursework in the curriculum and have the additional opportunity to work closely with individual faculty members on topics of particular interest. In addition, they participate in a weekly seminar series and conduct original research in collaboration with a faculty member. Most research projects lead to publication in a professional or scientific journal, and students often find that the honors program is an avenue to expanded career opportunities.

## Student Organizations

Pharmacy students are active in campus and community activities through their involvement with approximately 15 pharmacy student organizations. They belong to groups that link them to such national professional organizations as the American Pharmacists Association and the American Society of Health System Pharmacists. Pharmacy students provide medication reviews for elderly citizens, staff clinics for indigent patients, and participate in health fairs on campus and in local malls or corporations. Several times each year trips are planned to attend meetings across the nation. Student leadership is fostered through intentional involvement in student organizations and enrolled students are highly encouraged to invest in the opportunities offered through student organizations.

## Experiential Education

The school's Office of Experiential Education provides doctor of pharmacy students with a structured, supervised program of participation in the practice of pharmacy. Students gain experience in problem solving and providing patient care while applying the foundational and pharmaceutical sciences learned in the classroom and laboratories. Under the supervision of faculty and selected preceptors, students learn to make decisions based on professional
knowledge and judgment. The Office of Experiential Education requires up to 16 months of full-time precepted practice with early practice experience in the second and third professional year, followed by nine months of advanced practice experiences in the fourth professional year. The experiential education requirements of the program meet the North Carolina Board of Pharmacy experience requirement ( 1,500 hours) to sit for the licensure examination.

## Residencies and Fellowships

To increase the depth of their education, many Pharm.D. graduates seek residency training in pharmacy practice. Pharmacy residencies, like medical residencies, provide stipends for further clinical training. There are over 3,000 pharmacy residency positions in the United States with sites in hospitals, community pharmacies, and some specialized facilities. Residency programs may be taken in general pharmacy practice and in specialty areas such as pediatrics, drug information, infectious diseases, oncology, psychiatry, and many others. Some Pharm.D. graduates seek additional training in research methods in drug development, pharmacokinetics, pharmacoeconomics, or pharmacotherapy. Postgraduate fellowship programs involve advanced training in these areas and may occur at academic centers or in the pharmaceutical industry. Like residencies, they are paid positions.

## Facilities

The UNC Eshelman School of Pharmacy houses state-of-the-art teaching and research laboratory facilities. Two lecture halls and two small-group classrooms house cutting-edge video teleconferencing and recording equipment used primarily for delivery of instruction to the satellite campus but also available to graduate and continuing education.

## Graduate School and Career Opportunities

Graduate degrees offered through the UNC Eshelman School of Pharmacy are administered by The Graduate School of the University of North Carolina at Chapel Hill. Students may pursue graduate study in pharmaceutical sciences with concentration in molecular pharmaceutics, pharmacotherapy and experimental therapeutics, chemical biology and medicinal chemistry, or pharmaceutical outcomes and policy. A master of science in pharmaceutical sciences with a specialization in health-system pharmacy administration is also offered through the school.

Pharmacy offers a variety of opportunities for career advancement and job security. Because pharmacy education draws from the chemical, physical, biological, and behavioral sciences to develop its knowledge base, pharmacists can contribute to the rational use of medications in many settings. Pharmacists work in all areas of the health care system, including

- Community pharmacy, as a practitioner or a manager in a retail pharmacy, clinic, or office practice
- Health system pharmacy, as practitioner, supervisor, or manager in large or small hospitals, nursing homes, extended care facilities, and health-maintenance organizations
- Pharmaceutical industry, in positions involving research, production, product development, product marketing, and drug information
- Government, in the United States Public Health Service, Veterans Administration, Drug Enforcement Administration, Food and Drug Administration, and military services


## Faculty

## Professors

Sue Blalock, Robert Blouin, Kim Brouwer, Stephen Frye, Leaf Huang, Timothy Ives, Michael Jay, Rudy Juliano, Alexander Kabanov, Angela Kashuba, Harold Kohn, David Lawrence, Andrew Lee, Kuo-Hsiung Lee, Jian Liu, J. Herbert Patterson, Denise Rhoney, Betsy Sleath, Dhiren Thakker, Alexander Tropsha, Xiao Xiao.

## Associate Professors

Kristy Ainslie, Elena Batrakova, Joel Farley, Federico Innocenti, Michael Jarstfer, Craig Lee, Rihe Liu, Mary Roth McClurg, Wayne Pittman, Robert Shrewsbury, Scott Singleton, Philip Smith, Dennis Williams, Tim Wiltshire, William Zamboni, Qisheng Zhang.

## Assistant Professors

Stacy Bailey, Albert Bowers, Delesha Carpenter, Julie Dumond, Stacie Dusetzina, Gang Fang, Daniel Gonzalez, Nathaniel Hathaway, Shawn Hingtgen, Sam Lai, Jacqui McLaughlin, Christine Oramasionwu, Thomas Urban.

## Research Professors

Zishan Haroon, Dmitri Kireev, Susan Morris-Natschke, Michael Wagner.

## Research Associate Professors

Alexander Golbraikh, Juan Li, Xiaodong Wang.

## Research Assistant Professors

Eric Bachelder, Soumya Benhabbour, Ruth Everett, Masuo Goto, Weigang Huang, Lindsey James, James Luft, Devika Soundara Manickam, Xin Ming, Eugene Muratov, Melanie Priestman, Chunping Qiao, Paul Sapienza, Marina Sokolsky-Papkov, Ruhang Tang, Qunzhao Wang, Yongmei Xu, Kuo-Hsiung Yang, Xiang Yi.

## Clinical Professors

Robert Dupuis, Heyward Hull, Pamela Joyner, Greene Shepherd.

## Clinical Associate Professors

Amanda Corbett, Wendy Cox, Stephen Dedrick, Stephen Eckel, Stefanie Ferreri, Macary Marciniak, Adam Persky, Jo Ellen Rodgers, Phillip Rodgers, Mollie Scott.

Clinical Assistant Professors
Heidi Anksorus, Daniel Forrister, Suzanne Harris, Roy Hawke, Kim Leadon, Ruth Ann Lee, Nicole Pinelli, Kelly Scolaro, Carla White, Charlene Williams.

## Professors Emeriti

George Cocolas, Fred Eckel.

## Contact Information

Office of Student Affairs, UNC Eshelman School of Pharmacy, CB\# 7566, 109 Beard Hall, (919) 966-9429.

## Courses

## PHCY-Pharmacy

PHCY 124 Contemporary Communications in Healthcare (1). Prerequisite, ENGL 105. This course exposes students to approaches and strategies that optimize communication in today's dynamic healthcare field. It is ideal for those considering a career in the health sciences. Students will engage in multifaceted activities and discussions with experienced practitioners and apply course concepts to real world scenarios.

## Gillings School of Global Public Health

www.sph.unc.edu
Rosenau Hall, CB\# 7400; (919) 966-2499; sph-osa@unc.edu BARBARA K. RIMER, Dr.P.H., Dean
Anna Maria Siega-Riz, Ph.D., Associate Dean for Academic Affairs Charletta Sims Evans, M.Ed., Assistant Dean for Students Affairs

Four departments in the UNC Gillings School of Global Public Health offer undergraduate degrees: biostatistics, environmental sciences and engineering, health policy and management, and nutrition. Lists of faculty members in those departments are included here, along with information about undergraduate majors. Other courses offered by the school and open to undergraduate students are also listed below under the subject codes PUBH and SPHG.

## Introduction

The UNC Gillings School of Global Public Health provides exceptional teaching, conducts ground-breaking research, and delivers dedicated service to people across North Carolina, throughout the United States, and around the world. Ranked the top public school of public health by U.S. News and World Report for 2012 and second among all public health schools, the school's mission is to improve public health, promote individual well-being, and eliminate health disparities.

The school, accredited by the Council on Education for Public Health, and located in close proximity to UNC-Chapel Hill's schools of medicine, nursing, dentistry, and pharmacy, offers undergraduate and graduate programs on campus and through state-of-the-art online-education programs. The Michael Hooker Research Center and many renovated laboratories and classrooms provide an environment highly conducive to learning about public health and discovering new ways to improve and promote health worldwide.

Beyond campus, we teach, conduct research, and serve communities across our state and nation and around the world. Our Gillings Global Gateway (sph.unc.edu/global-health/gillings-global-gateway) organizes the school's global health activities. The school's service and outreach arm, the North Carolina Institute for Public Health, brings public health scholarship and practice communities together. Research and Innovation Solutions (sph.unc. edu/ris/research-and-innovation-solutions) enables us to anticipate
new public health challenges, quickly find solutions, and accelerate the delivery of best practices to improve people's lives.

To learn more about the public health field, visit www. whatispublichealth.org. The site, developed by the Association of Schools of Public Health, defines public health, describes its impact on our lives, and introduces a variety of public health careers.

## Admission to the School

The undergraduate degree offered is the bachelor of science in public health (B.S.P.H.). Four majors are available to undergraduate students: biostatistics, environmental health sciences, health policy and management, and nutrition. Each of these combines features of a broad-based education with concentrated study in a specific public health discipline. The programs prepare individuals for preprofessional positions in health-related fields and provide a firm base for graduate study. Students are permitted to pursue two majors in the school. Students are subject to the requirements in place when they are admitted to the Gillings School of Global Public Health; consequently, requirements described in this bulletin particularly apply to students admitted to the school during the 2015-2016 academic year. In addition to the information presented below please see our Gillings Program Search (GPS, sph. unc.edu/gps) for the most up to date information on the school.

Students who wish to obtain the B.S.P.H. degree typically spend two years in the General College of the University of North Carolina at Chapel Hill (or in an equivalent core program of academic study elsewhere) and two subsequent years under the administration of the Gillings School of Global Public Health. Enrollment in the B.S.P.H. degree programs is limited. Typically a student is selected in the latter half of the sophomore year and admitted on a competitive basis. The minimum recommended grade point average for admission to programs in biostatistics, environmental health sciences, health policy and management, and nutrition is 3.0.

For current UNC-Chapel Hill students, the B.S.P.H. application is available online at app.applyyourself.com/AYApplicantLogin/ fl_ApplicantLogin.asp?id=unc-ch.

Transfer students must apply through the Office of Undergraduate Admissions at admissions.unc.edu/apply/transferstudents.

## Requirements Common to All Undergraduate Majors in the Gillings School of Global Public Health

The last 30 hours of degree credit must be taken in residence in Chapel Hill. The Gillings School of Global Public Health requires that students earn a C (not C-) or better in prerequisite, core public health, and department-required courses. The Department of Nutrition requires at least a B- (or by-exam credit) in BIOL 252, CHEM 102, CHEM 261, and NUTR 240.

At the end of the sophomore year, students are expected to have earned approximately 60 semester hours of credit. These must include all Foundations and Approaches requirements and at least five Connections requirements, including global issues, experiential education, and U.S. diversity*. One of the two physical and life
science Approaches courses must be BIOL 101/101L.
*Environmental health sciences majors are not required to have completed all Foundations, Approaches, and Connections by the end of their sophomore year.

The junior/senior total of approximately 60 semester hours includes BIOS 600 (BIOS 500H for biostatistics students), ENVR 600*, EPID 600, HBEH 600, HPM 600* and for most departments, a minimum of three electives (seven credit hours) outside the school.
*Environmental health sciences majors and health policy and management majors, see details under department-specific requirements.
The specific requirements of the four majors are outlined below.
In addition to the courses offered through the departments of biostatistics, environmental health sciences, health policy and management, and nutrition (see course descriptions in the department sections below), the Gillings School of Global Public Health also offers the following courses for undergraduate students.

## PUBH-Public Health

PUBH 89 First-Year Seminar: Special Topics (3). Content varies by semester.
PUBH 420 AIDS: Principles and Policy (1). Elective course jointly given by the schools of Dentistry, Public Health, Nursing, Pharmacy, and Medicine, designed to provide a multifaceted understanding of social, clinical, and biological aspects of the AIDS epidemic.
PUBH 423 AIDS Service (3). This course will integrate community service into the campus-wide AIDS course. Students will work as volunteer interns three to five hours per week for 10 weeks during the semester with Triangle-area community service organizations.
PUBH 450 Data Skills Online (3). This online, asynchronous class presents a series of discrete tools designed to teach skills to health professionals for using technology and data management/ analysis. Online course.

## PUBH 496 Readings in Public Health Practice (1-3).

Permission of the instructor. Intensive study of a special problem in public health practice.
PUBH 500 Global Health Discussion Series (0.5). Provides opportunities for students to get to know each other through an exchange and discussion. Students exchange points of view with globally experienced faculty at UNC-Chapel Hill.

PUBH 510 Interdisciplinary Perspectives in Global Health
(3). Explores issues, problems, and controversies in global health through an interdisciplinary perspective; examines the complex tapestry of social, economic, political, and environmental factors that affect global health; analyzes global health disparities through a social justice and human rights lens; and exposes students to opportunities in global health work and research.

## SPHG-School of Public Health General

SPHG 350H Introduction to Public Health (3). This
introductory course will describe the history of public health, the key terms and concepts, and how the core areas of public health
are integrated to promote health at a population level. The class will engage the students in active learning through the use of media, innovative technology, discussion groups, and field experiences.

SPHG 600 Introduction to Public Health (3). School of Public Health majors only. This introductory course describes the history of public health, key terms, concepts, and the integration of core areas of public health to promote health at a population level. The class engages students in active learning through the use of media, innovative technology, discussion groups, and field experiences.

SPHG 620 Exploring Public Health (1). This introductory course serves to develop a foundation in the breadth and depth of public health, locally and globally. Students will develop an understanding of the basic concepts of the public health disciplines and how they are used to promote health at a population level.

SPHG 690 Special Topics in Public Health (1-3). Topic will vary with the instructor and semester.

## DEPARTMENT OF BIOSTATISTICS

www.sph.unc.edu/bios
3103 McGavran-Greenberg Hall, CB\# 7429; (919) 966-7262
MICHAEL R. KOSOROK, Chair
Jianwen Cai, Vice Chair
Amy H. Herring, Associate Chair

## Biostatistics Major, B.S.P.H.

## Core Requirements

- Public health core courses: ENVR 600, EPID 600, HBEH 600, and HPM 600
- BIOS 500H, 511, 545, 550, 664, 668, and 691


## Additional Requirements

- BIOL 101/101L; COMP 110 or 116; and MATH 231, 232, and 233 are required before matriculation into the program
- BIOL 201 or 202 (which have prerequisites, BIOL 101 and CHEM 101 or 102)
- MATH 381, 521 or 528, and 547
- Three electives outside the Gillings School of Global Public Health
Biostatistics is a discipline concerned with the improvement of human health through the application and advancement of statistical science. The undergraduate major in biostatistics prepares students to apply quantitative skills to a variety of health-related issues, including clinical trials, environmental studies, population studies, and studies involving patterns of disease, disability, and death. The curriculum consists of a strong mathematical background; advanced coursework in statistical applications, theory, and computing; and an understanding of the public health sciences.

The Department of Biostatistics in the Gillings School of Global Public Health was the first undergraduate program in the country to offer an undergraduate degree in biostatistics. The degree provides an excellent foundation for continued studies (primarily graduate school in biostatistics or medical school) and a strong
foundation for employment in the health care industry for a small number of highly qualified students.

## Advising

The program director serves as the academic advisor for all biostatistics undergraduates. Undergraduate students are encouraged to meet regularly with the program director and review their Tar Heel Tracker each semester. In addition, they can also visit the Office of Student Services. The program director and the student services office staff work with current and prospective majors by appointment (see "Contact Information" below). Departmental academic advising is particularly important for those majors who are considering going on to graduate school. Further information on courses, undergraduate research opportunities, the honors program, careers, and graduate schools may be obtained from the department's Web site.

## Special Opportunities in the Department of Biostatistics

## Honors in Biostatistics

The Department of Biostatistics offers an honors program in which undergraduate seniors can pursue individualized study and undertake a special project. The program is intended for undergraduates to show their potential talent to do research. Students who have a grade point average of 3.3 or higher are eligible to participate in honors research and write an honors thesis. Faculty members' readiness to guide the students in their honors work governs the final selection of those allowed to enter the program. Students completing an honors program must register for BIOS 693 H and BIOS 694H.

## Experiential Education

The required course, BIOS 664 Sample Survey Methodology, fulfills the General Education experiential education requirement. In addition, students are required to take BIOS 691 Field Observations in Biostatistics during the fall semester of the senior year. This course consists of an orientation to and observation of six or more major nonacademic institutions in North Carolina's Research Triangle Park area that employ biostatisticians, including pharmaceutical companies, contract research organizations, nonprofit companies, and government agencies. BIOS 691 does not fulfill the General Education experiential education requirement.

## Laboratory Teaching Internships and Assistantships

Students are encouraged to investigate part-time employment during the academic year and full-time employment during the summer after their junior year with members of our faculty and their collaborators on current research and service projects.

## Study Abroad

Students are encouraged to participate in the University's study abroad programs before matriculating to the B.S.P.H. in biostatistics program or in the summers. Identification of a study abroad program early in the student's career is necessary for course planning purposes.

## Undergraduate Awards

The Theta Chapter of Delta Omega honors up to 10 percent of the department's graduates with an award of excellence. Awards are presented in the spring as part of the biostatistics awards ceremony.

Among the 15 students in the 2013 graduating class, seven students were admitted to Phi Beta Kappa.

## Undergraduate Research

Students are encouraged to consider doing senior honors research and should consult individual faculty members for opportunities. However, some students choose to take advantage of the myriad part-time employment opportunities with our faculty members on their research and service projects or opportunities within nearby Research Triangle Park.

## Facilities

The Department of Biostatistics has a student library, a student study room, and computer facilities for its students.

## Graduate School and Career Opportunities

In recent years, the majority of undergraduate biostatistics students from this program have chosen to attend medical school or graduate school in biostatistics (or other closely related fields) following graduation. More than 65 percent of recent graduates have entered medical school or graduate programs (primarily biostatistics) immediately following graduation. Recent graduates are attending medical schools at Johns Hopkins University, Vanderbilt University, University of Virginia, Duke University, and UNC-Chapel Hill. Biostatistics graduate programs where students have matriculated immediately following completion of this undergraduate program include the University of WashingtonSeattle, Harvard, UNC-Chapel Hill, and the University of Michigan. Previous graduates who chose to seek employment have taken positions in the pharmaceutical industry, contract research organizations, and medical settings. Examples of employers of recent graduates include Duke Clinical Research Institute, Blue Cross Blue Shield, Rho, PPD, National Institutes of Environmental Health Science, and Research Triangle Institute. Traditionally, career opportunities have been outstanding for skilled biostatisticians.

## Faculty

## Professors

Jianwen Cai, Jason P. Fine, Amy H. Herring, Joseph G. Ibrahim, Alan Karr, Gary G. Koch, Michael R. Kosorok, Danyu Lin, James Marron, Andrew Nobel, Bahjat Qaqish, Pranab K. Sen, Richard Smith, Chirayath M. Suchindran, Kinh-Nhue Truong, Donglin Zeng, Haibo Zhou, Hongtu Zhu, Fei Zou.

## Associate Professors

Lloyd J. Edwards, Michael G. Hudgens, Anastasia Ivanova, Wei Sun.

## Assistant Professors

Mengie Chen, Yun Li.

## Research Professors

Shrikant I. Bangdiwala, Richard E. Bilsborrow, Robert M. Hamer, John S. Preisser Jr., Paul W. Stewart.

## Professor of the Practice

Sonia M. Davis.

## Research Associate Professors

Ethan Lange, Todd A. Schwartz.

## Research Assistant Professors

Josephine Asefu-Adjai, Eric Bair, J.L. Crandell, Fang-Cheng Lin, Daniela Sotres-Alvarez, Mark Weaver.

## Clinical Professor

David J. Couper.
Clinical Associate Professors
Robert Agans, Jane Monaco.
Clinical Assistant Professors
Annie Green Howard, Lisa Wruck.

## Research Instructor

Katherine J. Roggenkamp.

## Adjunct Associate Professors

Rosalie Dominik, Matthew R. Nelson, Maura E. Stokes.

## Adjunct Assistant Professors

Jacqueline Johnson, Karen Kesler, Pei-Fe Kuan, Jean Orelien, William Valdar, Michael Wu.

## Professors Emeriti

Lloyd E. Chambless, Clarence E. Davis, James E. Grizzle, Ronald W. Helms, Lawrence L. Kupper, Keith E. Muller, Dana E. Quade, Michael J. Symons, Craig D. Turnbull.

## Contact Information

Dr. Jane Monaco, Program Director, CB\# 7429, 3107D
McGavran-Greenberg Hall, (919) 966-7250.
Office of Student Services, CB\# 7429, 3103 McGavran-Greenberg Hall, (919) 966-7292.

## BIOS-Biostatistics

BIOS 392 Undergraduate Internship (1-3). Academic credit for approved internship experience.
BIOS 396 Readings in Biostatistics (1-12). Directed readings or laboratory study. May be taken more than once. Two to six laboratory hours a week.

BIOS 500 H Introduction to Biostatistics (3). Prerequisites, MATH 231 and 232; corequisite, BIOS 511. Access to SAS, Excel required. Permission of instructor for nonmajors. Introductory course in probability, data analysis, and statistical inference designed for BSPH biostatistics students. Topics include sampling, descriptive statistics, probability, confidence intervals, tests of hypotheses, chisquare distribution, two-way tables, power, sample size, ANOVA, nonparametric tests, correlation, regression, survival analysis.

BIOS 511 Introduction to Statistical Computing and Data
Management (4). Required preparation, previous or concurrent course in applied statistics. Permission of instructor for nonmajors. Introduction to use of computers to process and analyze data, concepts and techniques of research data management, and use of statistical programming packages and interpretation. Focus is on use of SAS for data management and reporting.
BIOS 540 Problems in Biostatistics (1-21). Arrangements to be made with the faculty in each case. A course for students of public health who wish to make a study of some special problem in the statistics of the life sciences and public health.

BIOS 543 Biostatistical Seminar for Clinical and Translational Investigators (1). Prerequisites, BIOS 541 and 542. Permission of the instructor for students lacking the prerequisites. This seminar provides clinical and translational researchers who have basic quantitative training in biostatistics with a more in-depth understanding of selected topics and introduces them to more advanced methods. Pass/Fail only.
BIOS 545 Principles of Experimental Analysis (3). Permission of the instructor for nonmajors. Required preparation, basic familiarity with statistical software (preferably SAS able to do multiple linear regression) and introductory biostatistics, such as BIOS 600. Continuation of BIOS 600. Analysis of experimental and observational data, including multiple regression and analysis of variance and covariance.

BIOS 550 Basic Elements of Probability and Statistical Inference I (GNET 636) (4). Required preparation, two semesters of calculus (such as MATH 231, 232). Fundamentals of probability; discrete and continuous distributions; functions of random variables; descriptive statistics; fundamentals of statistical inference, including estimation and hypothesis testing.

BIOS 551 Basic Elements of Probability and Statistical Inference II (3). Prerequisite, BIOS 550. Permission of the instructor for students lacking the prerequisite. Required preparation, basic familiarity with statistical software (preferably SAS able to do multiple linear regression) or permission of the instructor. The theory and application of multiple linear regression and related analysis of variance including logistic regression and Poisson regression.
BIOS 600 Principles of Statistical Inference (3). Required preparation, knowledge of basic descriptive statistics. Major topics include elementary probability theory, probability distributions, estimation, tests of hypotheses, chi-squared procedures, regression, and correlation.

BIOS 610 Biostatistics for Laboratory Scientists (3). Required preparation, elementary calculus. This course introduces the basic concepts and methods of statistics, focusing on applications in the experimental biological sciences.
BIOS 660 Probability and Statistical Inference I (3). Required preparation, three semesters of calculus (such as MATH 231, $232,233)$. Introduction to probability; discrete and continuous random variables; expectation theory; bivariate and multivariate distribution theory; regression and correlation; linear functions of random variables; theory of sampling; introduction to estimation and hypothesis testing.

BIOS 661 Probability and Statistical Inference II (3).
Prerequisite, BIOS 660. Permission of the instructor for students lacking the prerequisite. Distribution of functions of random variables; Helmert transformation theory; central limit theorem and other asymptotic theory; estimation theory; maximum likelihood methods; hypothesis testing; power; Neyman-Pearson Theorem, likelihood ratio, score, and Wald tests; noncentral distributions.

BIOS 662 Intermediate Statistical Methods (4). Pre- or corequisites, BIOS 511 and 550. Principles of study design, descriptive statistics, sampling from finite and infinite populations, inferences about location and scale. Both distribution-free and parametric approaches are considered. Gaussian, binomial, and Poisson models, one-way and two-way contingency tables.

BIOS 663 Intermediate Linear Models (4). Required preparation, BIOS 662. Matrix-based treatment of regression, one-way and two-way ANOVA, and ANCOVA, emphasizing the general linear model and hypothesis, as well as diagnostics and model building. Reviews matrix algebra. Includes statistical power for linear models and binary response regression methods.
BIOS 664 Sample Survey Methodology (STOR 358) (4). Prerequisite, BIOS 550. Permission of the instructor for students lacking the prerequisite. Fundamental principles and methods of sampling populations, with emphasis on simple, random, stratified, and cluster sampling. Sample weights, nonsampling error, and analysis of data from complex designs are covered. Practical experience through participation in the design, execution, and analysis of a sampling project.
BIOS 665 Analysis of Categorical Data (3). Prerequisites, BIOS 545, 550, and 662. Permission of the instructor for students lacking the prerequisites. Introduction to the analysis of categorized data: rates, ratios, and proportions; relative risk and odds ratio; Cochran-Mantel-Haenszel procedure; survivorship and life table methods; linear models for categorical data. Applications in demography, epidemiology, and medicine.

BIOS 666 Applied Multivariate Analysis (3). Prerequisite, BIOS 663. Application of multivariate techniques, with emphasis on the use of computer programs. Multivariate analysis of variance, multivariate multiple regression, weighted least squares, principal component analysis, canonical correlation, and related techniques.
BIOS 667 Applied Longitudinal Data Analysis (3). Analysis of variance and multiple linear regression course at the level of BIOS 545 or 663 required. Familiarity with matrix algebra recommended. Univariate and multivariate repeated measures ANOVA, GLM for longitudinal data, linear mixed models. Estimation and inference, maximum and restricted maximum likelihood, fixed and random effects.

BIOS 668 Design of Public Health Studies (3). Prerequisites, BIOS 545 and 550. Statistical concepts in basic public health study designs: cross-sectional, case-control, prospective, and experimental (including clinical trials). Validity, measurement of response, sample size determination, matching and random allocation methods.
BIOS 669 Working with Data in a Public Health Research Setting (3). Prerequisite, BIOS 511 or EPID 700. Permission of the instructor for students lacking the prerequisite. Provides a
foundation and training for working with data from clinical trials or research studies. Topics: issues in study design, collecting quality data, using SAS and SQL to transform data, typical reports, data closure and export, and working with big data.

BIOS 670 Demographic Techniques I (3). Source and interpretation of demographic data; rates and ratios, standardization, complete and abridged life tables; estimation and projection of fertility, mortality, migration, and population composition.

BIOS 672 Probability and Statistical Inference I (4). Required preparation, three semesters of calculus. Introduction to probability; discrete and continuous random variables; combinatorics; expectation; random sums, multivariate distributions; functions of random variables; theory of sampling; convergence of sequences, power series, types of convergence, L'Hopital's rule, differentiable functions, Lebesgue integration, Fubini's theorem, convergence theorems, complex variables, Laplace transforms, inversion formulas.

BIOS 673 Probability and Statistical Inference II (4). Prerequisite, BIOS 660. Permission of the instructor for students lacking the prerequisite. Distribution of functions of random variables; central limit theorem and other asymptotic theory; estimation theory; hypothesis testing; Neyman-Pearson Theorem, likelihood ratio, score, and Wald tests; noncentral distributions. Advanced problems in statistical inferences, including information inequality, best unbiased estimators, Bayes estimators, asymptotically efficient estimation, nonparametric estimation and tests, simultaneous confidence intervals.

BIOS 680 Introductory Survivorship Analysis (3). Prerequisite, BIOS 661. Permission of the instructor for students lacking the prerequisite. Introduction to concepts and techniques used in the analysis of time to event data, including censoring, hazard rates, estimation of survival curves, regression techniques, applications to clinical trials.

BIOS 690 Special Topics in Biostatistics (1-3). Field/topical/ research seminar. Instructors use this course to offer instruction in particular topics or approaches.

BIOS 691 Field Observations in Biostatistics (1). Field visits to, and evaluation of, major nonacademic biostatistical programs in the Research Triangle area. Field fee: $\$ 25$.

BIOS 693H Honors Research in Biostatistics (3). Directed research. Written and oral reports required.

BIOS 694H Honors Research in Biostatistics (3). Directed research. Written and oral reports required.

# DEPARTMENT OF ENVIRONMENTAL SCIENCES AND ENGINEERING 

www.sph.unc.edu/ese

162A Rosenau Hall, CB\# 7431; (919) 966-4818

## MICHAEL AITKEN, Chair

## Environmental Health Sciences Major, B.S.P.H.

The undergraduate major in environmental health sciences is designed to develop a comprehensive understanding of the environmental factors that impact human health; the physical, chemical, and biological processes that underlie the impact of human activity on the environment and human health; methods used to assess the impact of human activity on the environment and human health; and science-based solutions for environmental problems. Students may choose to emphasize environmental chemistry, environmental health biology, or environmental physics. Admission into the program requires satisfactory completion of coursework in biology, chemistry, and mathematics. Recent graduates have entered graduate programs in environmental science, microbiology, marine science, applied mathematics, and environmental engineering. Students who pursued employment after completing the B.S.P.H. degree are working in environmental advocacy organizations, environmental consulting firms, industry, and investment banking firms.

Students apply to the B.S.P.H. with a major in environmental health sciences in the spring of their sophomore year. By the end of their sophomore year successful applicants should have earned a grade of C or better from UNC-Chapel Hill in at least one course per group in three of the following groups: BIOL 201, 202; CHEM 102/102L, 261; COMP 116 (or approved alternatives BIOL 201H, BIOL/MATH 452 or GEOG 595 ); MATH 231 or 241, 232 or 283, 233; PHYS $114,115,118,119$.

## Environmental Health Sciences Major, B.S.P.H.-General Concentration

## Core Requirements

- Public health core courses: BIOS 600, EPID 600, HBEH 600, and HPM 600
- ENVR 230 and 430
- ENVR 698 (to be taken in the senior year) or 593 (with approval)
- Environmental health electives: All students must complete four advanced (400-level or above) courses with a substantive environmental health content, of which at least two must be listed within the Department of Environmental Sciences and Engineering. This requirement is satisfied by any ENVR course (or course cross-listed with ENVR) that is at least two credit hours and numbered between 401 and 690, except for ENVR 593, 600 and 601 . Other courses may be substituted with the approval of the director of undergraduate studies.
These courses provide an overview of the principles of environmental science and their application to environmental problems. Environmental health sciences (ENHS) majors are not
required to take ENVR 600. ENVR 430 meets the Gillings School of Global Public Health requirement for ENHS majors.


## Additional Requirements

- BIOL 101/101L, 201, and 202
- CHEM 101/101L, 102/102L, and 261
- COMP 116 or BIOL 201 H or BIOL/MATH 452 or GEOG 595
- MATH 231 or 241, and MATH 232 or 283, and MATH 233 if placed out of MATH 231 and MATH 232
- PHYS 114 or $118^{*}, 115$ or $119^{*}$ (* $=$ preferred)
- Students must satisfy the experiential education, global issues, U.S. diversity, and two additional Connections requirements.


## Environmental Health Sciences <br> Major, B.S.P.H.-Environmental <br> Chemistry Concentration

## Core Requirements

- Public health core courses: BIOS 600, EPID 600, HBEH 600, and HPM 600
- ENVR 230 and 430
- ENVR 698 (to be taken in the senior year) or 593 (with approval)
- Environmental health electives: All students must complete four advanced (400-level or above) courses selected from ENVR 403, $416,419,451,575,650$, and 675


## Additional Requirements

- BIOL 101/101L, 201, and 202
- CHEM 101/101L, 102/102L, 241/241L, 261, and 481
- COMP 116 or BIOL 201H or BIOL/MATH 452 or GEOG 595
- MATH 231 or 241, and MATH 232 or 283, and MATH 233, and MATH 383
- PHYS 114 or $118^{*}, 115$ or $119^{*}$ (* $=$ preferred)
- Students must satisfy the experiential education, global issues, U.S. diversity, and two additional Connections requirements.


## Environmental Health Sciences Major,

B.S.P.H.-Environmental Health Biology Concentration

## Core Requirements

- Public health core courses: BIOS 600, EPID 600, HBEH 600, and HPM 600
- ENVR 230 and 430
- ENVR 698 (to be taken in the senior year) or 593 (with approval)
- Environmental health electives: All students must complete four advanced (400-level or above) courses selected from ENVR 411, $412,421,431,433,442,468,630$, and 640


## Additional Requirements

- BIOL 101/101L, 201, and 202
- CHEM 101/101L, 102/102L, and 261
- COMP 116 or BIOL 201H or BIOL/MATH 452 or GEOG 595
- MATH 231 or 241, and MATH 232 or 283, and MATH 233 if placed out of MATH 231 and MATH 232
- PHYS 114 or $118^{*}, 115$ or $119^{*}$ (* $=$ preferred)
- Students must satisfy the experiential education, global issues, U.S. diversity, and two additional Connections requirements.


## Environmental Health Sciences <br> Major, B.S.P.H.-Environmental Physics Concentration

## Core Requirements

- Public health core courses: BIOS 600, EPID 600, HBEH 600, and HPM 600
- ENVR 230 and 430
- ENVR 698 (to be taken in the senior year) or 593 (with approval)
- Environmental health electives: All students must complete four advanced (400-level or above) courses selected from the following list: ENVR 403, 416, 451, 452, 453, 666, 671, 672, and 675


## Additional Requirements

- BIOL 101/101L, 201, and 202
- CHEM 101/101L, 102/102L, and 261
- COMP 116 or BIOL 201H or BIOL/MATH 452 or GEOG 595
- MATH 231 or 241, and MATH 232 or 283, and MATH 233 , and MATH 383
- PHYS 114 or $118^{*}, 115$ or $119^{*}$ (* $=$ preferred)
- Students must satisfy the experiential education, global issues, U.S. diversity, and two additional Connections requirements.


## Advising

Student advising is overseen by the director of undergraduate studies; individual student advising is distributed among the department's faculty members. Students interested in one of the concentrations will be advised and mentored by an environmental sciences and engineering faculty member whose expertise is relevant to the concentration. The program director and staff in the Student Services Office will verify that coursework requirements for the concentration have been met. Undergraduate students are encouraged to meet regularly with the program director and review their Tar Heel Tracker each semester. The program director and the Office of Student Services staff work with current and prospective majors by appointment (see "Contact Information" below). Departmental academic advising is particularly important for those majors who are considering going on to the dual bachelor's-master's degree. Further information on courses, undergraduate research opportunities, the honors program, careers, and graduate schools may be obtained from the department's Web site.

## Special Opportunities in Environmental Health Sciences

## Honors in Environmental Health Sciences

Students who have a grade point average of 3.3 or higher are eligible to participate in honors research and to write an honors thesis.

## Study Abroad

There are several opportunities for pursuing environmental study abroad, both through the department and through the UNC Study Abroad Office (studyabroad.unc.edu/studyabroad.cfm).

## Undergraduate Research

Many undergraduate students participate in the research programs of the department. Students are encouraged to consult individual faculty members for opportunities to participate in such research. In addition, the department has information concerning fellowships and internships, some of which are combined with research opportunities in laboratories or field settings.

## Facilities

The Department of Environmental Sciences and Engineering houses research laboratories located in Rosenau Hall, McGavranGreenberg Hall, Michael Hooker Research Center, the Baity Building, and off-campus research facilities. These laboratories are involved in important research in water quality; biogeochemistry; atmospheric chemistry and air pollution; effects of environmental chemicals on DNA tissues and organisms; environmental and public health microbiology; and occupational health and safety.

The department also offers labs for modeling and computational analysis of environmental systems, such as atmospheric circulation and air quality models, ground and surface water flow and transport models, fluid flow and contaminant transport models for indoor air environments, exposure analysis and health effects, risk assessment, and environmental epidemiology.

More detailed information about the individual laboratories and centers can be found at www.sph.unc.edu/envr.

## Graduate School and Career Opportunities

While undergraduate education prepares students for citizenship in ways that go beyond professional concerns, the program in environmental health sciences also provides skills needed for employment and graduate study. Students ending their studies at the undergraduate level gain skills necessary to work in positions such as risk analysts in consulting firms and regulatory agencies; research assistants in local, state, and national environmental and environmental health departments; and scientific advisors to environmental organizations. The degree also prepares students for graduate study in the environmental sciences, environmental health sciences, environmental studies, toxicology, and professional disciplines such as medicine, environmental law, and public health.

Undergraduate students with appropriate science backgrounds have the opportunity to pursue a dual bachelor's-master's degree. This program allows students to complete a master's degree in the department within one additional year of study beyond receipt of the bachelor's degree. Interested students should read the program
description and requirements carefully; they can be found online at sph.unc.edu/files/2013/07/dual_degree_masters_jan_16_20132.pdf.

Students have opportunities to explore possibilities for employment through the rich network of connections among the department, University, and numerous environmental organizations in the Research Triangle Park area, which is home to the highest concentration of environmental health sciences groups in the nation.

## Faculty

## Professors

Michael D. Aitken, Louise M. Ball, James P. Bartram, Gregory W. Characklis, Avram Gold, Cass T. Miller, Leena Nylander-French, Mark D. Sobsey, James A. Swenberg, Stephen C. Whalen, Dale Whittington.

## Associate Professors

Rebecca C. Fry, Jacqueline MacDonald Gibson, Marc L. Serre, Jill Stewart, William Vizuete, Howard S. Weinberg, J. Jason West.

## Assistant Professors

Orlando Coronell, Jason Surratt.

## Professor of the Practice

Peter J. Kolsky.

## Lecturer

Courtney Woods.

## Joint Professors

Richard N.L. Andrews, John M. Bane, Ilona Jaspers, Richard A. Luettich Jr., Christopher S. Martens, Rachel T. Noble, Hans W. Paerl, Paul B. Watkins.

## Joint Associate Professor

Michael F. Piehler.

## Research Professors

Michael R. Flynn, William G. Gray, Richard M. Kamens.

## Research Associate Professor

## Jun Nakamura.

## Research Assistant Professors

Wanda Bodnar, David R. Singleton, Zhenfa Zhang.

## Joint Research Professor

David McNelis.

## Adjunct Professors

Greg Allgood, Francis Binkowski, Linda S. Birnbaum, Clarissa Brocklehust, Gaylen R. Brubaker, Daniel L. Costa, David DeMarini, David Dix, Alfred Eisner, David S. Ensor, Shabbir Gheewala, M. Ian Gilmour, Chong Kim, David Leith, Wayne Litaker, Michael Madden , David Peden, Joseph Pinto, Joachim Pleil, James Samet, Woodhall Stopford.

## Adjunct Associate Professors

Sarav Arunchalam, John M. Dement, H. Kenneth Hudnell, Terrence K. Pierson, Kenneth Sexton, Thomas B. Starr, Miroslav Styblo.

## Adjunct Assistant Professors

Jacky Rosati, Roger Sit.

## Adjunct Lecturer

Raymond Hackney.

## Professors Emeriti

Russell F. Christman, Douglas J. Crawford-Brown, Francis A. DiGiano, Donald L. Fox, Donald E. Francisco, William H. Glaze, Harvey E. Jeffries, Donald L. Lauria, David H. Moreau, Frederic K. Pfaender, Mark Shuman, Philip C. Singer, Charles M. Weiss, Donald Willhoit.

## Contact Information

Dr. Louise Ball, Program Director, CB\# 7431, 158 Rosenau Hall, (919) 966-7911.

Student Services Manager, Department of Environmental Sciences and Engineering, CB\# 7431, 162A Rosenau Hall, (919) 966-4818.

## ENVR-Environmental Health Sciences

ENVR 100 Environmental Protection (3).

## ENVR 190 Selected Topics in Undergraduate Studies

(1-3). Permission of the instructor. Current topics of interest in environmental science and their application to understanding environmental issues are directed towards undergraduates. Topics and instructors will change. One to three lecture hours per week.

ENVR 230 Environmental Health Issues (3). Examines key events that have shaped our understanding of the impacts of environmental agents on human health and uses them to introduce basic concepts in environmental health.

ENVR 231 Environmental Health Projects (3).
ENVR 295 Undergraduate Research (3). Directed readings or laboratory study. Written reports are required. May be taken more than once for credit. Six to nine hours per week.

## ENVR 296 Readings in Environmental Sciences and

 Engineering (1-9).ENVR 300 Analysis and Solution of Environmental Problems
(3). Interdisciplinary, team-based analyses of environmental phenomena are performed and applied to problems of the selection of effective environmental strategies. Students may select from a wide range of examples and venues. Three lecture hours a week.

ENVR 312 Risk-Based International Environmental Decisions (ENEC 312) (3). See ENEC 312 for description.

ENVR 400 Seminar Series (1). Presents the results of ongoing research projects in the Department of Environmental Sciences and Engineering. Topics and presenters are selected from among the departmental graduate students and faculty.
ENVR 401 Unifying Concepts (3). Unifying concepts of environmental systems, including conservation principles, modeling, economics, and policy with applications from throughout natural, engineered, human systems. Interfaces among scientific, engineering, and policy aspects of the field.

ENVR 402 Problem-Based Learning (2). Permission of the instructor. A problem common to the field of environmental science will be studied in detail through the use of small groups of students from the various disciplinary areas in the department.

## ENVR 403 Environmental Chemistry Processes (ENEC

403) (3). Required preparation, a background in chemistry and mathematics, including ordinary differential equations. Chemical processes occurring in natural and engineered systems: chemical cycles; transport and transformation processes of chemicals in air, water, and multimedia environments; chemical dynamics; thermodynamics; structure/activity relationships.

ENVR 411 Laboratory Techniques and Field Measurements (3). Students learn laboratory, field, and analytical skills. Provides a solid introduction to experimental research in environmental sciences and engineering. Students are provided with applications in limnology, aquatic chemistry, and industrial hygiene.
ENVR 412 Ecological Microbiology (3). Required preparation, one course in general microbiology. A description of microbial populations and communities, the environmental processes they influence, and how they can be controlled to the benefit of humankind.

ENVR 413 Limnology (3). Required preparation, introductory biology, chemistry, and physics. Basic aspects of freshwater ecosystem function. Emphasis on trophic level interactions and integration of physical, chemical, and biological principles for a holistic view of lake ecosystem dynamics.
ENVR 416 Aerosol Physics and Chemistry (4). Permission of the instructor for nonmajors. Physical and chemical principles underlying behavior of particles suspended in air. Topics include rectilinear and curvilinear motion of the particles in a force field, diffusion, evaporation, and condensation, electrical and optical properties, and particle coagulation. Three lecture hours a week and two laboratory sessions.

ENVR 417 Oceanography (BIOL 350, GEOL 403, MASC 401) (3). See MASC 401 for description.

## ENVR 419 Chemical Equilibria in Natural Waters (3).

Principles and applications of chemical equilibria to natural waters. Acid-base, solubility, complex formation, and redox reactions are discussed. This course uses a problem-solving approach to illustrate chemical speciation and environmental implications. Three lecture hours per week.

ENVR 421 Environmental Health Microbiology (3).
Required preparation, introductory course in microbiology or permission of the instructor. Presentation of the microbes of public health importance in water, food, and air, including their detection, occurrence, transport, and survival in the environment; epidemiology and risks from environmental exposure. Two lecture and two laboratory hours per week.
ENVR 422 Air and Industrial Hygiene (3). Problem definition, sources of information, health effects, legislative framework, and control methods for chemical, physical, and biological hazards. Recognition, evaluation, and remediation of hazards associated with community and industrial environments. Three lecture hours per week.

ENVR 423 Industrial Toxicology (PHNU 423) (3). See PHNU 423 for description.

ENVR 430 Health Effects of Environmental Agents (3). Required preparation, basic biology, chemistry through organic, calculus. Permission of the instructor for students lacking this preparation. Interactions of environmental agents (chemicals, infectious organisms, radiation) with biological systems including humans, with attention to routes of entry, distribution, metabolism, elimination, and mechanisms of adverse effects. Three lecture hours per week.

## ENVR 431 Techniques in Environmental Health Sciences

(2). Required preparation, basic biology, chemistry through organic, math through calculus; permission of the instructor for students lacking this preparation. A practical introduction to the measurement of biological end-points, emphasizing adverse effects of environmental agents, using laboratory and field techniques. Two laboratory hours per week.
ENVR 432 Occupational Safety and Ergonomics (PHNU 786, PUBH 786) (3). Fundamentals of occupational safety and ergonomics with emphasis on legislation and organization of industrial safety and ergonomic programs, including hazard recognition, analysis, control, and motivational factors pertaining to industrial accident and cumulative trauma disorder prevention.

ENVR 433 Health Hazards of Industrial Operation (3). Prerequisite, ENVR 422. An introduction to the health hazards associated with the various unit operations of industry. Field trips to local industries planned.

## ENVR 434 Theory and Practice of Exposure Evaluation

 (3). Prerequisite, ENVR 416. Methodology and philosophy of evaluating exposures to air contaminants in the workplace. Course is divided into lectures, case-study analyses, and a hands-on term project. Three lecture hours per week.
## ENVR 442 Biochemical Toxicology (BIOC 442, TOXC 442)

(3). Prerequisite, CHEM 430. Required preparation, one course in biochemistry. Permission of the instructor for students lacking the prerequisites. Biochemical actions of toxicants and assessment of cellular damage by biochemical measurements. Three lecture hours per week.
ENVR 449 Ecology of Wetlands (MASC 449) (4). Required preparation, one year of biology, one year of chemistry, one semester of ecology, and permission of the instructor. An introduction to the functioning of freshwater and estuarine marsh and swamp ecosystems, with emphasis on systems of the southeastern United States.

## ENVR 450 Principles and Applications of Environmental

Engineering (3). Principles that govern the behavior of contaminants in air and water. Application of these principles to engineered processes that control air and water quality. Three lecture hours per week.

ENVR 451 Elements of Chemical Reactor Engineering (3). Focuses on chemical reaction rates and reaction mechanisms. Covers mole balances, rate laws, chemical kinetics, and reactor design. Principles are applied to any environmental system where chemical transformations must be described. Three lecture hours per week.

ENVR 452 Fluid Dynamics (GEOL 560, MASC 560, PHYS
660) (3). See MASC 560 for description.

ENVR 453 Groundwater Hydrology (3). Required preparation, math through differential equations and some familiarity with fluid mechanics. Conservation principles for mass, momentum, and energy developed and applied to groundwater systems. Scope includes the movement of water, gas, and organic liquid phases, the transport and reaction of contaminants. Three lecture hours per week.

## ENVR 462 Geostatistics for Spatial/Temporal Environmental

 Phenomena (3). Required preparation, statistics. Stochastic analysis of space-time environmental phenomena. Random field modeling of physical laws. Geostatistical estimation and simulation. Natural heterogeneity. Stochastic PDE of groundwater flow and solute transport.ENVR 463 Random Field Modeling of Physical Processes (3).
Recommended preparation, calculus through differential equations is desirable. Science of the probable. Random fields. Physical significance and methodological theses. Spatial and spatiotemporal variability. Ordinary and generalized fields of natural processes. Transport-type models. Bayesian/Maximum maximum entropy estimation. Three lecture hours per week.

ENVR 468 Advanced Functions of Temporal GIS (ENEC 468)
(3). Overview of geographical information systems (GIS) using the Arc GIS software, and introduction to advanced geostatistical functions for temporal GIS describing environmental and health phenomena distributed across space and time. Application to the spatiotemporal mapping of environmental water quality.
ENVR 470 Environmental Risk Assessment (ENEC 470) (3). Required preparation, one course in probability and statistics. Use of mathematical models and computer simulation tools to estimate the human health impacts of exposure to environmental pollutants. Three lecture hours per week.

## ENVR 472 Quantitative Risk Assessment in Environmental

 Health Microbiology (3). Recommended preparation, microbiology, epidemiology, and infectious diseases. Survey of alternative approaches, frameworks, and decision-making tools for quantitative risk assessment of microbial pathogens that infect humans and cause disease by the exposure routes of water, food, air, and other vehicles.ENVR 480 Modeling of Marine and Earth Systems (GEOL 480, MASC 480) (1-3). See MASC 480 for description.

ENVR 505 Chemical Oceanography (GEOL 505, MASC 505)
(4). See MASC 505 for description.

## ENVR 514 Measurement of NOx, O3, and Volatile Organic

Compounds (3). This course is intended to develop a student's ability to operate the primary instruments for measuring these important pollutants, collect and process samples where necessary, record data, and process instrument data into final air concentration data.

ENVR 520 Biological Oceanography (BIOL 657, MASC 504)
(4). See MASC 504 for description.

ENVR 522 Environmental Change and Human Health (ENEC
522) (3). See ENEC 522 for description.

ENVR 552 Organic Geochemistry (MASC 552) (3). Prerequisite, CHEM 261 or MASC 505, or permission of the instructor. Sources, transformations, and fate of natural organic matter in marine environments. Emphasis on interplay of chemical, biological, and physical processes that affect organic matter composition, distribution, and turnover.

ENVR 570 Methods of Environmental Decision Analysis (3). Required preparation, one course in probability and statistics. Use of quantitative tools for balancing conflicting priorities (such as costs versus human health protection) and evaluating uncertainties when making environmental decisions.
ENVR 575 Global Climate Change: Science, Impacts, Solutions
(3). This class addresses the importance of climate change in its entirety. The first half of the course addresses climate science, followed by climate change impacts, energy and mitigation technologies, economics, and international politics. Improving communication and quantitative skills is emphasized through homework, in-class presentations, and a research paper.

ENVR 585 American Environmental Policy (ENEC 585, PLAN 585, PLCY 585) (3). Intensive introduction to environmental management and policy, including environmental and health risks, policy institutions, processes, and instruments, policy analysis, and major elements of American environmental policy. Lectures and case studies. Three lecture hours per week.

## ENVR 593 Undergraduate Practicum in Environmental Health

Sciences (1-3). A practical experience in a setting relevant to environmental health.

ENVR 600 Environmental Health (3). This course examines the relationship between environmental quality, human health and welfare, with particular attention to contamination in human environment; physical, biological, and social factors; trade-offs regarding prevention and remediation measures. Satisfies core School of Public Health requirement. Three lecture hours per week.
ENVR 601 Epidemiology for Environmental Scientists (3). An introduction to relevant epidemiologic concepts that inform environmental science research. Learning objectives include discussing basic epidemiologic concepts and measures of disease occurrence in populations, explaining epidemiological study designs for studying associations between risk factors or exposures in populations, evaluating epidemiologic evidence, and comprehending basic ethical principles.

## ENVR 610 Global Perspectives on Environmental Health

Inequalities (3). Students will learn about how social, economic and political factors impact environmental health outcomes and will be introduced to theories and methods for incorporating social determinants frameworks into environmental health research, as well as the role of environmental justice movements.

ENVR 630 Systems Biology in Environmental Health (3). Required preparation, one year of biology. Environmental systems biology examines how environmental stressors influence the components of a biological system, and how the interactions between these components result in changes in the function and behavior of that system.

ENVR 640 Environmental Exposure Assessment (3). Permission of the instructor for nonmajors. The course material introduces the general concepts of assessing environmental exposures to chemicals in human populations. This includes the design of ecologic and personal monitoring studies, the techniques and equipment used for sampling and analysis, and interpretation of data.
ENVR 650 Principles of Chemical Carcinogenesis (2). Required preparation, organic chemistry. Bioactivation of carcinogens; interaction of activated metabolites with DNA, and their effects on DNA structure, replication, repair, and the control of these processes during development of chemically induced carcinogenesis. Two lecture hours per week.

ENVR 661 Scientific Computation I (MATH 661) (3). See MATH 661 for description.
ENVR 662 Scientific Computation II (COMP 662, MATH 662) (3). See MATH 662 for description.

ENVR 666 Numerical Methods (3). Prerequisites, COMP 116 and MATH 383. Numerical methods for solving problems arising in sciences and engineering. Solution of linear equations using direct and iterative approaches, solution of nonlinear systems of algebraic equations, solution of ordinary differential equations including single and multistep methods, and methods for stiff systems of ODEs and collocation methods for linear and nonlinear PDEs.

## ENVR 668 Methods of Applied Mathematics I (MATH 668)

(3). See MATH 668 for description.

## ENVR 669 Methods of Applied Mathematics II (MATH 669)

(3). See MATH 669 for description.

ENVR 671 Environmental Physics I (3). Prerequisite, ENVR 461. A first graduate-level course in physical principles relevant to environmental systems. Topics include dimensional analysis, tensor calculus, conservation of mass and momentum. Applications are considered from natural and engineered systems and across all relevant media. Focus is on the development of mechanistic representation of environmental systems.

ENVR 672 Environmental Physics II (3). Prerequisite, ENVR 671. Second part of a graduate-level sequence in physical principles relevant to environmental systems. Topics include turbulence, conservation of energy, multiscale methods, and thermodynamics. Applications are considered from natural and engineered systems and across all relevant media. Focus is on development of mechanistic representation of environmental systems.
ENVR 673 Hydraulics for Environmental Engineering (3). Prerequisites, MATH 231 and PHYS 114. Permission of the instructor for undergraduates. This course teaches practical basics of how to solve environmental engineering problems in the hydraulics of pipes, pumps, networks, and open channels. The course is a mix of classroom lectures, problem-solving sessions, and laboratory sessions.

ENVR 675 Air Pollution, Chemistry, and Physics (3). This class is designed for graduate students planning for research in air pollution, emphasizing chemical kinetics and engineering approaches to problem solving in addition to atmospheric structure,
meteorology, and modeling. We address problems of stratospheric and tropospheric ozone, particulate matter, and acid rain. We emphasize quantitative problem solving in homework.

ENVR 682 Water, Sanitation, Hygiene, and Global Health (3). Builds on an understanding of infectious and toxic hazards, disease causation, and environmental transmission. Deals with hazard and disease classification; safety, risk, and vulnerability; interventions and their health impact; approaches in different settings; distal factors (e.g., water scarcity, climate change); and approaches to studying unsafe water, sanitation, and hygiene.

ENVR 683 Water-Health Research I (2). Permission of the instructor for undergraduates and nonmajors. Introduces students to methods for research conception, design, planning, and implementation in fields related to water and its impacts on health. Students study approaches and tools that may be applied in waterrelated research and are coached in developing their own research design.
ENVR 684 Water-Health Research II (2). Permission of the instructor for undergraduates and nonmajors. Familiarizes students with the principles of scientific communication with an emphasis on scientific writing and oral presentations. Using their own water and health research, students learn how to communicate effectively in informal settings and how to prepare for interviews with the media.

ENVR 685 Water and Sanitation Planning and Policy in Less Developed Countries (PLAN 685) (3). See PLAN 685 for description.
ENVR 686 Policy Instruments for Environmental Management (ENEC 686, PLAN 686, PLCY 686) (3). See PLCY 686 for description.

ENVR 691H Honors Research (3). Permission of the instructor. Directed readings or laboratory study of a selected topic. A written report is required in the form of an honors thesis (ENVR 692H).

ENVR 692H Honors Thesis (3). Students complete honors research projects.

ENVR 695 Undergraduate Research (1-3). Directed readings or laboratory study. Written reports are required. May be taken more than once for credit. Three to nine hours per week.

ENVR 698 Capstone: Analysis and Solution of Environmental Decisions (ENEC 698) (3). See ENEC 698 for description.

## DEPARTMENT OF HEALTH POLICY AND MANAGEMENT

www.sph.unc.edu/hpm

Rosenau Hall, CB\# 7411; (919) 966-4609
SANDRA GREENE, Interim Chair
Mark Holmes, Associate Chair for Research
John Paul, Associate Chair for Academics

## Health Policy and Management <br> Major, B.S.P.H.

## Core Requirements

- Public health core courses: BIOS 600, ENVR 600, EPID 600, and HBEH 600
- HPM 310, 315, 320, 330, 340, 341, 350, 351, 352, 393 (requires a $\$ 400.00$ field training fee), and 697
- Six credit hours outside the Department of Health Policy and Management

Additional Requirements (prerequisites for admission to the B.S.P.H. program in health policy and management)

- BIOL 101/101L
- ECON 101
- STOR 155
- One of the following financial or managerial accounting courses: BUSI $51,101,105,106,107$, or 108
- One of the following courses (or credit by examination): MATH 130, 152, 231, 232, 233; STOR 112, 113
The mission of the B.S.P.H. program in health policy and management is to develop responsible graduates who have the necessary knowledge, skills, and behaviors to pursue successful careers in health services systems in the United States and abroad.

The curriculum is designed to help students develop the following competencies: health industry knowledge; communication and teamwork skills; research, analysis, and problem-solving skills; business skills, including financial management, human resources management, information management, strategic planning and marketing, organizational understanding, and leadership; and professionalism.

The program aims to prepare students for both entry-level positions and for advanced degree programs. Graduates of the program obtain positions in a variety of organizations, such as health care consulting firms, hospitals, health systems, physician practices, public health departments, government agencies, health research organizations, community health organizations, health insurance companies, health technology organizations, and global health organizations.

Graduates also have been successful in their pursuit of advanced degrees in a range of fields, including public health, accounting, law, medicine, dentistry, and business administration.

## Advising

All students are assigned a faculty advisor in the department. Faculty advisors work collaboratively with the program director, office of student services, and career services coordinator to support students' academic, professional development, and career services needs.

## Special Opportunities in Health Policy and Management

## Honors in Health Policy and Management

The department offers an honors program. Students who meet the eligibility criteria are invited to participate in the two-semester honors program in their senior year. HPM 691 H is offered as a seminar in the fall semester. HPM 692H is offered as a seminar in the spring semester. Students defend their proposals in the fall and their theses in the spring.

## School and Departmental Involvement

Opportunities exist for involvement in student organizations such as the Healthcare Executives Student Association, the Healthcare Improvement Group, the Student Global Health Committee, GlobeMed, AcademyHealth, the Minority Student Caucus, and the school's student government. In addition, students have volunteered to help with the management of the Student Health Action Coalition (SHAC), a student-run health care clinic. Finally, students are invited to join the department's B.S.P.H. Student Board. This organization helps plan and coordinate professional development and social events and promotes the program across campus.

## Experiential Education

Each student in the program is required to complete a 12 -week internship during the summer between the junior and senior years. In addition, some health policy and management courses provide the opportunity for students to work on service-learning and consulting projects with health organizations in the community.

## Study Abroad

Students are encouraged to study abroad prior to entering the program in the junior year. While in the program, students may complete their 12 -week internship in a country other than the United States.

## Undergraduate Awards

The department presents awards for undergraduate students at an annual Awards Day in late spring.

## Undergraduate Research

Students with research interests may seek opportunities to work with faculty on research projects. In addition, those who meet eligibility requirements may pursue honors thesis research.

## Graduate School and Career Opportunities

Graduates successfully pursue employment in health care consulting firms, hospitals, health systems, physician practices, public health departments, government agencies, health research organizations, community health organizations, health insurance companies,
health technology organizations, and global health organizations.
Graduates also pursue advanced degrees in public health, health administration, business administration, accounting, medicine, dentistry, and law.

## Faculty

## Professors

Peggye Dilworth-Anderson, Marisa E. Domino, Jessica Lee, Joseph Morrissey, Jonathan Oberlander, George Pink (Distinguished), Thomas C. Ricketts, Sally C. Stearns, Morris Weinberger (Distinguished), Bryan Weiner.

## Associate Professors

Ethan Basch, Bruce J. Fried, Mark Holmes, Bryce Reeve, Kristin Reiter, Paula Song, Justin Trogdon.

## Assistant Professors

Timothy Carney, Stacie Dusetzina, Cleo Samuel, Christopher M. Shea, Harsha Thirumurthy, Stephanie Wheeler.

## Research Professors

Edward Baker Jr., Sheila Leatherman, R. Gary Rozier.

## Research Associate Professors

Asheley Skinner, Alex White.

## Research Assistant Professors

Antonia Bennett, Sarah Birken, Kristen Hassmiller Lich.

## Professors of the Practice

Leah Devlin, Sandra Greene, Pam Silberman.

## Adjunct Professors

Amy Abernethy, Stuart Altman, William K. Atkinson II, Dan Beauchamp, Deborah Bender, Hayden Bosworth, Fred T. Brown Jr., Young Moon Chae, Fred Cox, Edward Dauer, Steven Garfinkel, Robert Greczyn, Wayne Holden, Donald Holzworth, Joan Krause, Kathleen Lohr, Barbara Mark, John O'Donnell, Carmen Odom, Krista Perreira, Janet Porter, Richard Saver, Betsy Sleath, Kevin Sowers, Jeffrey Swanson, Judith Tintinalli, Wendee Wechsberg, Jane Weintraub, Rebecca Wells.

## Adjunct Associate Professors

Mary A. Beck, Andrea Biddle, Paul Brown, Nancy Henley, Frederick Homan, Melissa Kaluzny, Clara Lee, Shoou-Yih Daniel Lee, Matthew Maciejewski, Patricia Mac Taggart, Michael Markowitz, Lauren McCormack, Lori McLeod, Michael O'Malley, Lucy Savitz, Richard Scoville, Steven J. Sloate, Daryl Wansink, Hugh Waters.

## Adjunct Assistant Professors

Oscar Aylor, Nicole Bates, Chris Beadles, Diane Bloom, Carolyn Carpenter, Rachel Caspar, Dorothy Cilenti, Michaela Dinan, Young Kyung Do, Jeff Federspiel, Erin Fraher, Kimberley Geissler, Laura Gerald, Susan Helm-Murtagh, Susan Hogue, George Jackson, Dio Kavalieratos, Lisa Koonin, Egil Marstein, Lukasz Mazur, Aaron McKethan, Felicia Mebane, Benjamin Meier, L.
Douglas Melton, Matthew Neilsen, Gary Nestler, Stephen Orton,

Michael Park, Stephanie Poley, David Potenziani, Andrea Radford, Adam Searing, Daniel Stevens, Karen Stitzenberg, Michael Stobbe, Kathleen Thomas, Laurel Trantham, Debbie Travers, Gary West, John Wiesman, Leah Zullig.

## Adjunct Instructors

Eddie Alcorn, Dawn Carter, J. Michael Collins, Robert Crawford, Donna Dinkin, Randall Egsegian, Franklin Farmer, Peggy Glenn, Eric Griffin, John Grinnell, Douglas A. Johnston, Lawrence K. Mandelkehr, Donald Markle, Drake Maynard, Anne McGeorge, Aimee McHale, Paul Morlock, Gary Palmer, Michael Patterson, Robert Patterson, William Pilkington, Eugene Pinder, Patricia Pozella, Ericka Rentz, Harry Reynolds, Fred Sexton, Robert Stevens, Franklin Walker, Cameron Wolfe.

## Clinical Professors

Thomas Bacon, Suzanne Hobbs, John Paul.

## Clinical Associate Professor

Dean Harris.

## Clinical Assistant Professors

James V. Porto Jr., Jeffrey Simms, Margaret Thomas, Karl Umble, John Waters.

## Lecturers

William Gentry, Jay Levy, Sanford West.

## Professors Emeriti

Edward Brooks, Sagar Jain, Arnold Kaluzny, Kerry Kilpatrick, Peggy Leatt.

## Contact Information

Karl Umble, Interim Program Director, CB\# 7411, 113 Rosenau Hall, (919) 962-2974.

Jackie Siler, Student Services/Assistant Registrar, Department of Health Policy and Management, CB\# 7411, 120 Rosenau Hall, (919) 966-4609.

## HPM-Health Policy and Management

HPM 220 Writing for Health Administrators (3). Focuses on communication skills development, with an emphasis on clarity, conciseness, and effectiveness of writing memoranda, reports, proposals, letters.

HPM 230 Management of Human Resources (3). Introduction to the field of human resource management in health organizations in the United States. Detailed treatment of selected topics with a view to help develop operational skills.
HPM 249 Clinical Informatics for Outcomes Management (3). Explores the practical role of clinical informatics skills and tools in health care organizational performance improvement and how this role is currently evolving in hospitals, group practices, and provider organizations.

## HPM 310 Introduction to Law and Ethics in Health

Management (3). Prerequisite, HPM 350. An introduction to health law and ethics for health administration undergraduate seniors.

HPM 315 Health Economics (3). Prerequisite, ECON 101. This course will provide students economic theory that will be applied to the market for health and health care. The goal is to give students the knowledge and experience to analyze health policy and management issues using economic concepts and tools.
HPM 320 Introduction to Strategic Planning and Marketing
(3). An introduction to the development and implementation of strategic planning and marketing processes in health care organizations.

HPM 330 Introduction to Organization Leadership, Management, and Behavior (3). Team-based service learning in a hospital, health center, or other organization to facilitate learning about leading teams, organizations, partnerships, and global initiatives. Change, conflict, human resources, and other topics are addressed through readings, cases, reflections, and guest practitioners.
HPM 340 Foundations of Health Care Financial Management (3). Prerequisite, BUSI 101. Permission of the instructor for nonmajors. Basic methods and techniques in financial management of health care programs, including financial statement analysis, cost determination and allocation, pricing of services, and budgeting.

HPM 341 Information Systems, Technology, and Tools (3). The purpose of this course is to enhance students' understanding of information systems and technology in health care, specifically focusing on the limitations of such technology. Students will be introduced to MS Excel and MS Access and shown how tools within these programs can help to mitigate some of the limitations.
HPM 350 Introduction to Health Services Systems (3). HPM 350 and 352 provide an overview of the U.S. health system. HPM 350 reviews the organization, management, and financing of the U.S. health system and the resources required to provide health services. Both courses introduce students to careers in the field of health policy and management.

HPM 351 Policy Issues in Health Services Delivery (2). Restricted to HPM B.S.P.H. students. This seminar addresses current health services delivery concerns from policy perspectives. Guest speakers, debates, and development of issue papers are used to explore implications for access and quality of health care.

HPM 352 Introduction to Health Services Systems II (3). HPM 352, in conjunction with HPM 350, provides an overview of the U.S. health services system, including such topics as quality of care and managed care. The course also introduces students to careers in the field of health policy and management and helps students develop necessary communication skills.

HPM 360 Health Systems around the World: Understanding England's National Health Service (1). Participants in this oneweek experiential short course explore the structures, policies, challenges, and future directions of England's National Health Service and compare this model with the United States. Class time is balanced with time in the field visiting London-area health facilities and historical sites and meeting with area experts.

HPM 380 Database Design for Health Care Applications (3). Hands-on introduction to the design and implementation of relational databases to manage and analyze health care data (using

Microsoft Access). Includes design of fully automated databases as well as the use of Access as an analysis tool in conjunction with Microsoft Excel.

HPM 393 Field Training in Health Policy and Management (2). Restricted to HPM B.S.P.H. students. Required of all B.S.P.H. students in HPM. The first six weeks of a supervised 12-week administrative internship in a health care organization.

HPM 396 Readings in Health Policy and Management (1-3). Permission of the instructor. For undergraduates enrolled in the department's bachelor's degree program. Directed readings or research; written reports are required.

HPM 420 Community and Public Health Security: Disasters, Terrorism, and Emergency Management (3). This course examines systems for emergency management at federal, state, and local levels. The roles of emergency management, health services, and public health in disaster management are also reviewed. Every other week, evening online sessions required with instructors.

HPM 421 Community and Public Health Disasters: Agents of Action and Public Health Hazards (3). Permission of the instructor. This course covers biological, chemical, nuclear, and environmental agents that threaten public health. Offered to students in CPDM program only.

## HPM 422 Emergency Management I Analytic Methods

(3). Introduction of analytical tools to assess, evaluate, map, and investigate disasters (including biological outbreaks). These tools will be used to improve planning and evaluation of disaster management programs. Every other week, evening online sessions required with instructors.

## HPM 423 Emergency Management II Disaster Management

 (3). Explores issues of preparedness, response, recovery, mitigation, and research in disaster management. Students will participate in evacuation decision-making, volunteer management, and the development of a disaster exercise. Every other week, evening online sessions required with instructors.HPM 435 Marketing for Not-for-Profit Organizations (3). Permission of the instructor. Application of basic principles of marketing and marketing decision models to problems in health care and other not-for-profit organizations.

## HPM 440 Introduction to Management Information

 Systems in Health Care (3). Conceptual and practical aspects in the analysis, development, and utilization of computer-based information and control systems with emphasis on application to the health care environment.HPM 466 Competition, Regulation, and Insurance (3). Examines alternative approaches to containing health care costs adapted by public and private payers.

## HPM 470 Statistical Methods for Health Policy and

Management (3). Introduction of linear model approach to analysis of data in health care settings. Topics include probability distributions, estimation tests of hypotheses, methods in multiple regression, and analysis of variance and covariance.
HPM 472 Program Evaluation (3). Concepts and methods of the program evaluation paradigm as applied in health administration.

HPM 496 Readings in Health Policy and Management (1-3). Directed readings or research. Written reports are required.

HPM 522 Aging, Family, and Long-Term Care: Cultural, Ethnic, and Racial Issues (3). Current issues pertaining to the health and well-being of older Americans, and how such issues influence family dynamics and choices about long-term care. Critical topics on chronic illness, family and community caregiving, ethnicity/culture, and socioeconomic status will be covered in the course.

HPM 531 Physician Practice Management (3). Permission of the instructor. Restricted to seniors. Course targets students interested in a health care career. Topics include structure of group practices, governance/ownership, risk management, malpractice, physician compensation, operational and financial management.

HPM 532 Health Care Consulting (3). This course will provide students with a working knowledge of the various forms of health care consulting, including internal consulting. Students will enhance their analytical, presentation, teamwork, and project management skills.

HPM 550 Medical and Science Journalism (HBEH 660, JOMC 560) (3). See JOMC 560 for description.

HPM 551 Medical and Science Video Storytelling (HBEH 561, JOMC 561) (3). See JOMC 561 for description.
HPM 552 Science Documentary Television (HBEH 562,
JOMC 562) (3). See JOMC 562 for description.
HPM 560 Media and Health Policy (3). Introduces students to news media organizations and their role in health policy development. Students will learn how to evaluate media content and strategies and to communicate effectively via mass media.
HPM 564 Health Care in the United States: Administrative and Policy Issues (3). Restricted to HPM majors. An overview of key health services issues including quality, access, financing, insurance, ethics, and delivery systems plus an introduction to health care policy and politics.

HPM 565 Global Health Policy (PLCY 565) (3). See PLCY 565 for description.
HPM 571 Health and Human Rights (PLCY 570) (3). See PLCY 570 for description.
HPM 600 Introduction to Health Policy and Management (3). This course provides an overview of the United States healthcare system. Students will explore the system's organization, financing, management, resources, and performance. For each topic, they will analyze relevant legislation and discuss current issues. Students will develop skills in policy research and analysis, healthcare system evaluation, and basic financial literacy.

HPM 601 Issues in Health Care (1). Lectures on current topics in health care.

HPM 602 Concurrent Practice (1-3). Permission of the program director. Supervised activities in an approved health organization, to include one or more specific projects, approved by HPM faculty member and directed by an approved preceptor/mentor in the organization.

HPM 605 Practice Application Journaling I (0.5). This course is the first of six field-based journal practica in which students monitor their learning processes, identify where knowledge and skills learned in courses are helpful and relevant to areas of their professional responsibility, and apply that knowledge and those skills to actual work situations.

HPM 606 Practice Application Journaling II (0.5). Prerequisite, HPM 605. This course is the second of six field-based journal practica in which students monitor their learning processes, identify where knowledge and skills learned in courses are helpful and relevant to areas of their professional responsibility, and apply that knowledge and those skills to actual work situations.

HPM 607 Practice Application Journaling III (0.5). This course is the third of six field-based journal practica in which students monitor their learning processes, identify where knowledge and skills learned in courses are helpful and relevant to areas of their professional responsibility, and apply that knowledge and those skills to actual work situations.

HPM 608 Practice Application Journaling IV (0.5). This course is the fourth of six field-based journal practica in which students monitor their learning processes, identify where knowledge and skills learned in courses are helpful and relevant to areas of their professional responsibility, and apply that knowledge and those skills to actual work situations.

HPM 609 Practice Application Journaling V (0.5). This course is the fifth of six field-based journal practica in which students monitor their learning processes, identify where knowledge and skills learned in courses are helpful and relevant to areas of their professional responsibility, and apply that knowledge and those skills to actual work situations.

HPM 610 Practice Application Journaling VI (0.5). This course is the sixth and final of six field-based journal practica in which students monitor their learning processes, identify where knowledge and skills learned in courses are helpful and relevant to areas of their professional responsibility, and apply that knowledge and those skills to actual work situations.

HPM 611 Public Health Concepts in a Systems Context (3). This course develops systems reasoning in health policy and management students through the application of systems techniques and systems thinking to core public health concepts in health policy and management, environmental health, epidemiology, and health behavior.

HPM 620 Implementing Health Informatics Initiatives (3). Focuses on implementing informatics programs and projects in health organizations. Informatics initiatives aim to facilitate effective information use for the purpose of improving the quality of health services and/or efficiency of processes. Therefore, these initiatives have implications for various stakeholder groups, including consumers, practitioners, administrators, and policy makers.
HPM 625 Applied Public Health Informatics: Diagnosis and Design of Public Health Intelligence (3). Examines public health surveillance and other data as drivers/enablers of public health intelligence. Students will gain knowledge of the metrics, measures,
and methods used to evaluate public health intelligence in a variety of settings. This course is intended as a nontechnical introduction to applied public health informatics.

## HPM 634 Public Health Issues in Community Preparedness

 and Disaster Management (PWAD 634) (3). Examines conventional public health constructs of community preparedness and disaster management. Includes a review of traditional and emerging literature. Emphasizes conceptual development and application of adaptive leadership strategies.HPM 652 Economic Evaluation of Health Care Technology (DPOP 802) (3). Focus is on determination of costs and benefits associated with alternative resource allocation schemes. Crucial economic concepts (e.g., utility valuation of health states and marginal analysis) are presented.
HPM 653 Pharmacoeconomics (DPOP 801) (3). See DPOP 801 for description.

HPM 660 International and Comparative Health Systems (3). Methods of comparing health systems, examinations of related national health systems, and analysis of related high prevalence health issues.

HPM 664 Globalization and Health (MHCH 664) (3). Globalization-its economic, environmental, political, technological, institutional, and sociocultural dimensions-historically and currently contributes to beneficial and adverse effects on population, community, and family and individual health.

HPM 670 Systems Simulation for Health Services (3). Course will prepare students to simulate health services using the MedModel simulation software. Basic concepts of discrete event simulation.

HPM 690 Special Topics in Health Policy and Management (0.5-3). Special topics course for health policy and management undergraduate students.
HPM 691H Honors Research (3). Required preparation, approved cumulative grade point average by the end of the junior year. Readings and seminars for undergraduates showing potential and talent for research. Students will design an independent research project, write a proposal, and complete an IRB application as partial completion of an honors thesis.

HPM 692H Independent Honors Research (3). Prerequisite, HPM 691H. Permission of the instructor. Students collect data, analyze and report findings, and make recommendations to complete an honor thesis and present findings in presentation/ poster format.
HPM 697 BSPH Capstone (3). The capstone course is an "integrative exercise" for BSPH students prior to graduation. It is intended to simulate the integration of various disciplines-finance, human resources, ethics, policy, operations, and information technology-into a comprehensive and practical framework. Students work with health care organizations to solve financial or operational problems.

## DEPARTMENT OF NUTRITION

www.sph.unc.edu/nutr/degrees
260 Rosenau, CB\# 7461; (919) 966-7212
ELIZABETH MAYER-DAVIS, Chair

## Nutrition Major, B.S.P.H.

The bachelor of science in public health (B.S.P.H.) program in nutrition introduces the undergraduate student to the science of nutrition in health and disease and to social and behavioral aspects of eating in the context of public and individual health. The Department of Nutrition is one of the top-ranked nutrition departments in the country. The curriculum offers a range of courses on the nutritional and epidemiological aspects of human diseases. Students who graduate with a B.S.P.H. degree in nutrition have the necessary prerequisites for applying to schools of medicine, dentistry, pharmacy, and veterinary medicine, as well as other graduate programs in nutrition and to participate in nutrition research projects or explore other related areas of interest.

## Prerequisite Courses Required for Admission

- BIOL 101/101L and 252
- CHEM 101/101L, 102/102L, and 261
- MATH 130, and 231 or 241
- NUTR 240

Courses in mathematics not completed during the first two years may be taken during the junior year.

## Core Courses

- Public health core courses: BIOS 600, ENVR 600, EPID 600, HBEH 600, and HPM 600
- NUTR 295 (three or four semesters pending honors research), 400, 600, 611, 620, and 692H (optional)


## Additional Requirements

- BIOL 202
- CHEM 241/241L and 262/262L
- PHYS 114 or 118
- PHYS 115 or 119


## Advising

All majors have a primary academic advisor in the department. Undergraduate students are encouraged to meet regularly with their advisor and review their Tar Heel Tracker each semester. In addition, they can visit the Office of Student Services. Advisors, the program director, and the Office of Student Services staff work with current and prospective majors by appointment (see "Contact Information" below). Departmental academic advising is particularly important for those majors who are considering going on to graduate school. Further information on courses, undergraduate research opportunities, the honors program, careers, and graduate schools may be obtained from the department's Web site.

## Special Opportunities in Nutrition

## Honors in Nutrition

The Department of Nutrition provides an opportunity for honors study for qualified students. To be eligible for admission to the honors program students must have, at a minimum, a cumulative grade point average of 3.3 at the beginning of their senior year and must maintain the grade point average throughout the major if they intend to pursue honors. Students register for NUTR 295 (three credits) every semester, and then, NUTR 692H (three credits) in their final semester while completing an honors thesis in nutrition.

## Departmental Involvement

The Nutrition Coalition (studentorgs.unc.edu/nc) is an organization of students enrolled in one of the department's four degree programs. The coalition meets several times each semester to address student concerns and to plan service and social activities. Open to the entire University, the coalition strives to broaden the scope of understanding of the various fields and environments in which nutrition is making advances. "A is for Apple" is a studentled, volunteer organization aimed at teaching basic nutrition principles to local elementary school students. Career development workshops are available each year to provide guidance for students applying to graduate and medical schools.

## Experiential Education

Two courses in nutrition include experiential components (NUTR 245 and 295). However, NUTR 295, available only to nutrition majors, fulfills the General Education experiential education requirement.

## Undergraduate Awards

Nutrition honors research students may apply for the Honors Undergraduate Research Awards. The application is available on the Honors Carolina Web site (honorscarolina.unc.edu). Students also may be considered for any of the following awards: Chancellor's Awards for Excellence in Student Activities and Leadership, The Order of the Golden Fleece, The Order of the Grail-Valkyries, The Order of the Old Well, Frank Porter Graham Honor Society, Phi Beta Kappa, and the Joseph Edozien Outstanding Undergraduate Award in Nutrition.

## Undergraduate Research

To enhance students' general education and help them decide whether a research career is something they might pursue, all B.S.P.H. nutrition students are required to complete nutrition research, either as part of the honors thesis or as independent research.

## Faculty

## Professors

Linda S. Adair, Alice Ammerman, Melinda Beck, Margaret Bentley, Cynthia Bulik, Rosalind A. Coleman, Penny Gordon-Larsen, Anthony Hackney, Stephen Hursting, Mark Koruda, Sergey Krupenko, Kay Lund, Leslie Lytle, Nobuyo Maeda, Elizabeth Mayer-Davis, Daniel Pomp, Barry M. Popkin, Anna Maria SiegaRiz, June Stevens, Miroslav Styblo, James Swenberg, Dianne S.
Ward, Steven H. Zeisel.

## Associate Professors

Ramon Bataller, Myles Faith, Deborah Tate.

## Clinical Associate Professor

Suzanne Havala Hobbs.

## Clinical Assistant Professors

Amanda Holliday, Janice Sommers.
Research Professors
Martin Kohlmeier, Philip May.
Research Associate Professor
Wenhong Cao.

## Research Assistant Professors

Patrick Bradshaw, Karen Corbin, Molly De Marco, Zuzana Drobna, Shufa Du, Temitope Erinosho, Leslie Fischer, Valerie Flax, Derek Hales, Archana Lamichhane, Lucia Leone, Katie Meyer, Mihai Niculescu, Shu Wen Ng, Jennifer Poti, Carmen SamuelHodge, Christina Shay, Patricia Sheridan, Lindsey Smith, Kimberly Truesdale.

## Adjunct Professors

John Anderson, James Elliott, Robert G. McMurray, Susan Sumner.
Adjunct Associate Professors
Temitope Keku, Boyd Switzer, Melicia Whitt-Glover.

## Adjunct Assistant Professors

Marlyn Allicock, Andrea Anater, Melissa Bauserman, Judith Borja, Melissa Daniels, Juhaeri Juhaeri, Lucia Leone, Meghan Slining.

## Adjunct Instructors

Angelo Mojica, Susan Wyler.

## Professors Emeriti

Janice M. Dodds, Joseph Chike Edozien, MaryAnn C. Farthing, Pamela S. Haines.

## Associate Professor Emerita

Pamela S. Haines.

## Contact Information

Miroslav Styblo, Program Director, CB\# 7461, 2302 Michael Hooker Research Center, (919) 966-5721.

Joanne Lee, Student Services Manager, Department of Nutrition, CB\# 7461, 260 Rosenau Hall, (919) 966-7212. Web site www.sph. unc.edu/nutr/degrees.

## NUTR-Nutrition

NUTR 240 Introduction to Human Nutrition (3). Prerequisites, BIOL 101/101L and CHEM 102/102L. Relationships of human nutrition to health and disease. Integration of biology, chemistry, and social sciences as related to human function. Nutrient composition of foods and safety of the food supply.
NUTR 245 Sustainable Local Food Systems: Intersection of Local Foods and Public Health (3). Examines the intersection of local foods and public health with respect to nutrition and
environmental, economic, and community issues. Students explore impacts and potential solutions of the increasingly industrialized and centralized food system, while assisting community partners to increase opportunities for farmers, local food marketers, distributors, and entrepreneurs.
NUTR 295 Undergraduate Research Experience in Nutrition (3). Permission of the instructor. For undergraduates enrolled in the department's baccalaureate degree program. Directed readings or laboratory study on a selected topic. May be taken more than once for credit.

NUTR 400 Introduction to Nutritional Biochemistry (3). Prerequisites, BIOL 101, CHEM 101 and 102, and NUTR 240. Permission of the instructor for students lacking the prerequisites. Function of the human body focusing on nutrient interaction. Review of structure and function of cells and organs. For advanced undergraduates and graduate students needing to enhance background prior to NUTR 600.
NUTR 600 Human Metabolism: Macronutrients (3). Prerequisite, NUTR 400. Permission of the instructor for students lacking the prerequisite. Cell biochemistry and physiology emphasizing integration of proteins, carbohydrates, and lipids in whole-body metabolism; regulation of energy expenditure, food intake, metabolic adaptations, and gene expression; and macronutrient-related diseases (atherosclerosis, obesity).

NUTR 611 Nutrition across the Life Cycle (MHCH 611) (3). Prerequisite, NUTR 400. This course covers nutrition during the life cycle. Units include women during preconception, pregnancy, and lactation; infancy; childhood; adolescence; and older adults (65+). Nutrient and energy needs, assessment of nutritional status, and cultural and socioeconomic barriers are discussed for each phase.

NUTR 620 Human Metabolism: Micronutrients (3). Prerequisites, NUTR 400 and 600. Permission of the instructor for students lacking the prerequisites. Cell biochemistry and physiology emphasizing metabolism of vitamins and minerals including antioxidant protection, immune function, nutrient control of gene expression, and disease states induced by deficiencies (e.g., irondeficient anemia).

NUTR 630 Nutrition Communication, Counseling and Culture (3). Prerequisite, NUTR 240. Permission of the instructor for students lacking the prerequisite. Course teaches the future nutrition professional the art and science of communicating with individuals, groups, and the public. Students will enhance cultural awareness, practice counseling individuals and facilitating groups, and frame nutrition messages for mass media including social media.

## NUTR 640 Medical Nutrition Therapy I: Chronic Disease

 Management (3). Prerequisite, NUTR 630. Course designed to examine the rationale and implementation of diet therapy and nutrition support in the prevention or treatment of chronic disease.
## NUTR 642 Medical Nutrition Therapy II: Acute Disease

 Management (3). Prerequisite, NUTR 640. Course designed to examine the rationale and implementation of diet therapy and nutrition support in the prevention or treatment of acute diseases.NUTR 650 Food Science, Production, and Meal Preparation (2). Prerequisite, NUTR 240. Introduction to foods, food
composition, and properties; factors affecting selection, handling, and preparation of foods; food safety; basic food industry knowledge; meal planning. NUTR 650 laboratory required.
NUTR 650L Food Science, Production, and Meal Preparation Laboratory (1). Concurrent with NUTR 650. This is the laboratory that accompanies NUTR 650. This laboratory applies the basic concepts of meal preparation, food production, and food science. Laboratory fee required. Three laboratory hours per week.
NUTR 692H Honors Research in Nutrition (3). Permission of the instructor. Directed readings or laboratory study of a selected topic. Requires a written proposal to be submitted to and approved by the B.S.P.H. Committee and faculty research director. A written report is required. May be taken more than once for credit. Six laboratory hours per week.
NUTR 695 Nutrition Research (1-9). Permission of the instructor. Individual arrangements with faculty for bachelor and master students to participate in ongoing research.
NUTR 696 Readings in Nutrition (1-9). Permission of the instructor. Reading and tutorial guidance in special areas of nutrition.

## The William and Ida Friday Center for Continuing Education

fridaycenter.unc.edu
100 Friday Center Drive, CB\# 1020; (919) 962-3000
ROBERT GRAY BRUCE, Director
Timothy Sanford, Director, Credit Programs for Part-Time Students
Annette Madden, Director, Professional Development and Enrichment Programs
Debra Watkins, Director, Conference and Events Center
Tyler Ritter, Director, Communication and Instructional Design Raphael Ginsburg, Assistant Director of Correctional Education
The Friday Center for Continuing Education is the University's arm for extending credit and noncredit instruction to North Carolinians who wish to further their education on a part-time basis or through short, intensive periods of study. The Friday Center's conference facility is designed to accommodate varied continuing education conferences and activities.

Through self-paced courses, students can complete degreerelated correspondence and online courses under the direction of UNC-Chapel Hill instructors. UNC-Chapel Hill serves as the administrative center for this statewide program, which also offers courses from eight other member institutions of the University of North Carolina system. Carolina Courses Online is a distanceeducation program that offers courses via the Internet. Class sessions are not required, but courses generally follow the semester schedule. Internet access and e-mail are required in order to enroll.
Part-time Classroom Studies enables part-time students to enroll in undergraduate and graduate evening and daytime courses. Offcampus Credit Studies provides classroom instruction in locations away from campus or in flexible time formats. The Correctional Education Program enables qualified inmates in the North Carolina
prison system to take correspondence courses and on-site classes, and provides assistance in the transition to study release.

The Professional Development and Enrichment Programs unit provides consultative and management services in developing continuing education programs in a variety of formats. A number of noncredit conferences and institutes are held at UNC-Chapel Hill each year, usually with the cosponsorship of a University school or department or an educational or professional organization.
Enrichment programs for the local community also are offered.
The Friday Center for Continuing Education maintains several social and digital media sites, including Facebook (facebook.com/ uncfridaycenter), Twitter (twitter.com/uncfridaycenter), and the blog "Student Voices" (fridaycenterblogs.web.unc.edu).

## Academic Policies and Procedures

## Regulations and Requirements

Students are responsible for observing the procedures, regulations, and requirements of the University as they are set forth here and in other official University publications. This section describes many of the requirements and regulations that apply to undergraduates, but it is not a complete list of all such regulations and requirements. Unless otherwise stated, the regulations described in this section will govern the academic progress of students from their first year in the General College through their final semester in the College of Arts and Sciences or one of the undergraduate professional schools. The staff of the University will gladly provide students with detailed information concerning their academic program or academic problems, but this does not relieve any student of individual responsibility for meeting the University's requirements and observing University regulations.

## Policy on Awarding of Undergraduate Degrees and Transcript Notations

The University of North Carolina at Chapel Hill will award only one bachelor's degree to a student, regardless of a possible secondmajor declaration, and will not admit or award a degree to a student who has already earned a bachelor's degree through another school of the University or at another college. Undergraduates in the professional schools in the Divisions of Academic Affairs and Health Affairs may earn a second major (not a second degree) in the College of Arts and Sciences or another professional school, but the first major must be in the professional school. Exception: a student may earn a second bachelor's degree in one of several health profession schools of the University after receiving a bachelor's degree if the student is admitted to the professional school.

Students pursuing two major fields of study for the bachelor of arts or bachelor of science degree earn only one degree and receive only one diploma. Both the diploma and the official transcript will indicate the degree and the two majors.

Students completing the requirements for both a bachelor of science degree and a bachelor of arts degree earn only the bachelor of science degree and receive only that diploma. Students completing the requirements for both a bachelor of arts degree and a bachelor of fine arts or bachelor of music degree earn only the bachelor of fine arts or bachelor of music degree and receive only that diploma. Note that these students must complete General Education requirements pertinent to the bachelor of arts as well as all requirements for the bachelor of fine arts or bachelor of music degree. Both the diploma and the official transcript will indicate the degree (with its major) and the second major.

## Related Policies

Under no circumstances can a second undergraduate degree be awarded in Academic Affairs after one has been earned in Health Affairs. In the rare instance that an undergraduate student completes the requirements for an undergraduate degree and a graduate degree at the same time, the two degrees cannot be
awarded at the same graduation. The undergraduate degree must be awarded first, and the graduate degree awarded at a subsequent degree award date.

Students who apply to graduate on a given degree award date, but who must complete requirements (such as courses with grades of IN or AB ) after that degree award date, must reapply to graduate on a degree award date that follows the actual completion of requirements. Coursework taken after the degree award date cannot be used to change a degree already awarded, or to complete retroactively a degree, or to add retroactively an additional major or minor.

Adjustments may be made to a transcript only for one year following the date of graduation. Grade appeals, for instance, can be initiated after graduation. Courses with temporary grades not affecting graduation ( AB or IN ) can be completed after the date of graduation and the grade point average changed accordingly; however, the student's status at the time of graduation is not affected. Graduation with distinction, for instance, is based only on the grade point average at the date of graduation and may not be awarded retroactively. Students who neglect to declare a second major or a minor at the time of graduation may request that the dean's office verify that the requirements had been satisfied at the time of graduation. In such cases, indication of the second major or minor can be added to the transcript within one year after the graduation date.

## Registration

## General Policies

UNC-Chapel Hill students use the ConnectCarolina Student Center to register for courses. Students should refer to the Registration Guide on the Office of the University Registrar's Web site at registrar.unc.edu/registration/registration-guide for instructions regarding registration.

Students who register during the billing period must pay tuition and fees, or give notice of anticipated aid, to the Office of Student Accounts and University Receivables by the published tuition and fees due date or their schedule will be cancelled and all their classes dropped before the beginning of classes. Students who register after the billing period must pay estimated tuition and fees or give notice of anticipated aid before they can register for that semester. Students who register after the date designated for official registration must pay an additional fee of $\$ 20.00$ for late registration. If the delay results from circumstances clearly beyond the student's control, an appeal may be made in writing to the registrar. The appeal must show sufficient justification for the delay and has to be approved by the dean of the school in which the student is enrolled.

North Carolina law requires that no person shall attend a college or university in North Carolina without presenting a certificate of immunization to the college or university on or before the first day of matriculation. This certificate indicates that the student has received immunizations required by law. New students at UNCChapel Hill must provide the director of Campus Health Services
with an immunization record certified by a physician. Students who fail to present the required certificate of immunization within 30 days of enrollment will be withdrawn from the University. Their enrollment will not be reinstated until they have provided a certificate of immunization to Campus Health Services.

Registration for credit for any course at the start of the semester is limited to the first five days of classes unless a late registration is approved by the course instructor and the student's dean or academic advisor. Any student who has not registered for courses after the primary billing date will be restricted from accessing the registration system for that term and will be required to submit a prepayment. For more information, please see "Course Schedule Changes" below.

## Registration Advising for First-Year Students and Sophomores

All first-year students and sophomores are assigned a primary academic advisor in the Academic Advising Program (Steele Building) in the College of Arts and Sciences but may see any advisor as appropriate. Advisors' names and office locations are posted on the Web at advising.unc.edu. First-year students must meet with an advisor for registration advising at least once during their first year and complete an online module in order to be cleared to register for their third semester on campus. All students are strongly encouraged to review their Tar Heel Tracker each semester and before visiting an advisor to ensure that they update themselves on degree requirements and remain on track to graduate.

Advisors will answer students' questions and review their tentative course selections to help students achieve appropriate academic progress. In subsequent semesters, students are encouraged to discuss academic progress with their academic advisor. Students should follow instructions received from the Office of the University Registrar, which may be accessed by logging on to ConnectCarolina.

## Registration Advising for Juniors and Seniors

Juniors and seniors receive academic advising during registration periods according to the directives set out by their college/ professional school and major.

The department or curriculum in which the student's primary major is housed determines the procedures juniors and seniors must follow for registration. In some cases, the student must meet with a faculty advisor in the department or curriculium of the primary major before being able to register each semester. These advisors answer questions specific to the major and about graduate and career opportunities in the field.

Students admitted to a professional school will receive advising and assistance on all academic matters from an advisor in their school.

## Academic Level (Class Standing)

All students who begin their undergraduate careers at UNCChapel Hill are considered first-year students for the first and second semesters. In their third semester and thereafter, a student's classification (sophomore, junior, senior) is determined by the cumulative number of credit hours earned:

- 1-29 credit hours earned: first-year student
- 30-59 credit hours earned: sophomore
- 60-89 credit hours earned: junior
- 90 + credit hours earned: senior


## Registration Priority

A student's first available date for registration (registration priority) is based on the number of semesters completed.

By policy of the Faculty Council (Resolution 2007-3), the University limits students to eight semesters of full-time study. To help ensure graduation within the eight-semester limit, students' registration priority will be based on the number of semesters completed; the more semesters students have completed, the higher their registration priority.

Terms in residence are tallied in three ways:

1. UNC-Chapel Hill full-time enrollment

Regardless of the number of credit hours, any fall or spring semester of enrollment in UNC-Chapel Hill courses (including UNC-Chapel Hill study abroad courses, but excluding Carolina Courses Online) counts as one semester of full-time study, unless the student is enrolled as a part-time student through Part-Time Classroom Studies. (Summer sessions at UNC-Chapel Hill do not count as semesters.)
2. UNC-Chapel Hill part-time enrollment

Each full multiple of 15 cumulative credit hours earned at UNC-Chapel Hill in fall or spring terms (not summer terms) counts as one semester of full-time study for any student enrolled as a part-time student through Part-Time Classroom Studies.
3. Transfer credits awarded for courses taken at other colleges Each full multiple of 15 cumulative transfer-credit hours counts as one semester of full-time study. Excluded from this calculation are transfer hours awarded for courses taken either concurrent with high school or during any summer term after the student has matriculated at UNC-Chapel Hill.
Any term in which a student is enrolled exclusively in online courses does not count as a semester of full-time study. Students may refer further questions to the Academic Advising Program (if the student is in the College of Arts and Sciences) or to their respective dean's office.

## Cancellation of Enrollment

A cancellation is, in effect, the same as not having a registration at all. No entry is made on the student's permanent record, and no tuition and fees are charged. A registration cancellation will be processed for any student who has a "hold" on the tuition and fees due date for each term, and students will be notified. A cancellation will be processed if a student is not cleared financially; is not academically eligible to continue in school; or shows a cashier's hold, Office of Undergraduate Admissions hold, dean's office hold, or Campus Health Services cancellation hold. In some cases, a student may need to cancel his or her registration for personal reasons and may do so by following instructions listed on the Office of the University Registrar's Web site (registrar.unc.edu/academic-services/withdrawals-cancellations). For a cancellation after classes begin, however, students must process the cancellation through their dean's office.

## Administrative Changes to Course Registration

Students have the responsibility to maintain the accuracy of their course schedule. A department or curriculum in the College of Arts and Sciences has the option to drop a course from a student's registration if the student fails to attend both of the first two class meetings (or the first class meeting if the course meets only once each week). The appropriate dean's office will be responsible for informing departments of students who cannot attend the first two class meetings because of illness or other reasons approved by a dean. Students should never presume that an instructor or department/curriculum will systematically drop classes from the student's schedule. However, if such an action is taken by a department/curriculum, the registration openings resulting from these drops will be offered to other students seeking enrollment in the courses during the official add period (first five days of classes) or thereafter, as determined by the instructor of the class or by the department, curriculum, or school.

Departments/curricula can drop students' courses using the computerized registration system prior to the last day to reduce a course load for financial credit. To effect such a drop after that date, a student must submit a completed registration/drop/add form first to the student's dean's office for approval and then to the Office of the University Registrar. Students who have applied for graduation and who have requested an academic underload must have that request approved to receive financial credit for reducing their course load.

## Auditing Courses

To audit a class, registered students and persons not registered must obtain a registration/drop/add form from the teaching department offering the class. Permission from the class instructor and the department chair is required and should be indicated on the form with a written signature. This procedure applies to fall, spring, and both summer terms.

Requests to audit a class may be submitted only after the end of the official registration period (last day for students to add a class or late register) when it has been determined that there is still space available in the class. This date can be found on the University Registrar's Calendar for the specific term.

Auditing classes is permitted only in lecture-based courses and never in courses that include laboratories or performances. Auditing is not permitted in courses that focus on the development of written or oral communication skills or that rely heavily on class participation. Auditing is not permitted in independent studies courses, internships, special topics, directed readings, or similar courses. Auditing is also not permitted in classes that are offered primarily online. Students may not audit courses offered through the Friday Center for Continuing Education (Part-Time Classroom Studies, Carolina Courses Online, Self-Paced Courses, or tutorial programs) or courses preparing students for credit by examination.

Students auditing a course do not write papers, take quizzes or examinations, or request review of their work, and do not participate in class discussions unless otherwise directed by the course instructor. Students who audit a course may not subsequently receive course credit for that course. For more information on the University's policy on auditing, see registrar. unc.edu/academic-services/policies-procedures/university-policy-
memorandums/upm-9-auditing-courses.
Students officially registered for other classes in the same term may audit a class without paying a fee. Persons not registered for classes must pay a $\$ 20.00$ fee per class to the Office of Student Accounts and University Receivables, then bring the permission and receipt to the Office of the University Registrar to complete the process. Payments will only be accepted after the end of the official registration period.
If requested, a copy of the registration transaction will be given to the student to provide to the class instructor at the beginning of the term.

## Changes in Fall and Spring Semester Schedules

## Continuous Course Enrollment: Foundations English Composition and Foreign Language Requirements

Effective in fall 2012, students admitted as first-year or as transfer students are required to complete ENGL 105/105I (ENGL 100 and $105 / 105 \mathrm{I}$, if applicable) during their first year, and they must maintain continuous enrollment in Foundations foreign language courses until they have completed this requirement. Students are not permitted to drop ENGL 100, ENGL 105/105I, or foreign language levels 1 through 3 being used to fulfill the Foundations requirement after the second week of the semester, unless approved by a dean in the Academic Advising Program. Such approval will be for exceptional circumstances only. Students should not stop attending English composition and rhetoric and Foundation foreign language classes without speaking with a dean in the Academic Advising Program.

## Course Schedule Changes

Insofar as possible, changes in course registration schedules should be made during the first five days of classes. During this time, students may add courses using the online registration system. After the first five days of classes, if students wish to register or make additions to their schedule, they must obtain a registration/drop/ add form from their academic advisor, the concerned department, or their professional school and must obtain the signatures of both their instructor and their school dean (or dean's designee). For students in the General College and the College of Arts and Sciences, only the associate dean for advising (or dean's designee) has this authority. After the final day to add classes on the Web, deans (or deans' designees) will approve only those registrations or course additions that have first been approved by the instructor.

## Course Schedule Changes during Weeks One and Two

During the first two weeks of classes, students may drop a course using the online registration system, but they are responsible for ensuring that their schedules do not fall below the minimum 12 academic hours required for full-time registration.

## Course Schedule Changes during Weeks Three through Eight

After the second week of classes, students should not stop attending any class or completing assignments unless and until their academic advisor or dean officially approves dropping the course from the student's schedule. After the second and before the end of the
eighth week of classes, students who wish to drop a course must obtain a registration/drop/add form from their academic advisor, the concerned department, or their school and must obtain their dean's signature (or deans' designees) on the form. If permission is granted, the registration/drop/add form is submitted to the Office of the University Registrar on the student's behalf. When a course is dropped between the second and eighth week of classes, a grade of WC (withdrawal by choice) shall be recorded and used internally for tracking and reporting purposes. For external purposes, the WC grade is equivalent to the W grade. Once declared, a WC grade cannot be rescinded except when a student withdraws from an entire semester due to extenuating circumstances. All first-year, firsttime students entering the University in fall 2014 or thereafter are allowed to accumulate no more than 16 hours of WC grades during their undergraduate career.

Different drop-add procedures apply to first-year students who entered the University as degree-seeking students prior to fall 2014, along with sophomore and junior transfer students who entered in fall 2014, and junior transfer students who enter in fall 2015. Details on the previous policy can be found on the University Registrar's Web site at registrar.unc.edu/registration/registration-policies/drop-add-procedures.

## Course Schedule Changes after the Eighth Week of Classes: The Appeal Process

After the eighth week of classes, students must petition to drop courses through the dean's office of the school in which they are enrolled. For students in the General College and the College of Arts and Sciences, the associate dean for advising (or designee) has this authority.

To drop a course after the eighth week of classes, students must complete and submit an appeal to the appeals committee of their college or school. In the General College and the College of Arts and Sciences, an appeals committee meets weekly. Possible legitimate reasons for requesting a course drop after the eighth week of classes include serious illness, personal or family problems, financial problems requiring employment after the start of the semester, or other serious problems that prevent students from meeting their academic responsibilities.

Students must first discuss their reasons for requesting a late course drop with an academic advisor or their academic dean. The advisor or dean will explain the process for an appeal and refer the student to the online information and link to the online appeal form. The appeal must include a statement from the student, an evaluation of performance and class attendance from the course instructor, and any pertinent documentation that provides compelling support for the appeal. The student must submit all documents online to the office of the associate dean for advising in the Academic Advising Program of the College of Arts and Sciences and General College. Submission of an appeal does not ensure that the request will be granted, and students must continue to attend classes and complete all assignments until informed of the committee's decision. If a course drop is approved, the registration/drop/add form is processed through the Office of the University Registrar.

Students enrolled in professional schools should acquaint themselves with the appropriate appeals procedures in their schools.

The notation of W (withdrawn) is entered in the grade column
of academic transcripts if students are permitted by their school to drop a course after the eighth week of classes or proportional equivalent for summer terms and other nonstandard enrollment periods. This notation is automatically entered unless the student's academic dean specifies otherwise.

## Interinstitutional Registration

A student regularly enrolled in a degree program at the University may enroll by interinstitutional registration for a course at Duke University, North Carolina Central University, North Carolina State University, the University of North Carolina at Charlotte, or the University of North Carolina at Greensboro under the following conditions:

- Space must be available in the course.
- The student's academic dean must certify 1 ) that the course is appropriate for the student's degree program, and 2) that an equivalent course is not available at this university during the same term.
- Enrollment in interinstitutional registration is limited to one interinstitutional course per regular term, provided that the student is registered for the balance of her or his full-time load at UNC-Chapel Hill. All enrollment transactions must be processed by the Office of the University Registrar.
- A student will be billed by his or her home institution for all the courses taken (including interinstitutional courses) at the prevailing tuition rate. The University of North Carolina at Chapel Hill will receive no fees from an interinstitutional student taking courses at this campus unless there is a special fee associated with a particular course. In such a case, the student must pay the fee.
- The last day for a student to submit an interinstitutional request to the Office of the University Registrar will be the last day to add a course without departmental approval, according to the registrar's calendar. If a student is interested in a course that begins after this deadline, due to differing university schedules, or separate modules that the course is being offered in, the deadline will be the fifth day after the start of that class. Start dates will be verified with the school offering the course.
- Students must comply with the academic calendar of their home institution for all dates, such as deadlines for adding and dropping courses.
- A student taking a course by interinstitutional registration will be graded in the course in accordance with the grading system of the institution where the course is taken, and grades will be converted in accordance with the grading system of the home institution. The transcript will identify the institution where the course was taken in the space where the descriptive course title is normally shown.
Additional information, procedural instructions, and forms are available at the Office of the University Registrar at registrar.unc. edu/registration/special-enrollments/inter-institutional-programs.


## Policies and Guidelines for a Cooperative Learning Environment

Teaching and learning occur simultaneously through a partnership between instructor and student. Instructors share knowledge, experience, and ideas with their students. Students process these thoughts, generate new ones, and share them with their teachers and classmates. In most cases, students and instructors communicate clearly and effectively. However, misunderstandings do occur. In an attempt to foster a positive academic environment, the Faculty Council, upon recommendation of the Educational Policy Committee, establishes the following policies and guidelines.

## The Faculty Council resolves:

## Part I. Policies

Section 1.
The Faculty Council recognizes and affirms the following policies. This recognition is not to be interpreted as precluding modification of any policy by the appropriate authority.

- The Honor Code. The faculty should inform students of the provisions of the honor code and be aware of their own responsibilities specified in the honor code. Faculty responsibilities are stated in the Instrument of Student Judicial Governance.
- Student Grievance Policy and Procedures. According to UNCChapel Hill Student Grievance Committee procedures, students may file a grievance against a UNC-Chapel Hill employee, EPA nonfaculty employee, staff employee, or student employee (when acting in the role of employee) when there is a violation of one of the following:
A. The UNC-Chapel Hill Policy on Prohibited Harassment, Including Sexual Misconduct, and Discrimination;
B. The Americans with Disabilities Act;
C. Title IX, which prohibits exclusion from participation on the basis of sex;
D. Section 504 of the Rehabilitation Act of 1973, which outlaws discrimination on the basis of a handicap; or
E. The Family Educational Rights and Privacy Act, which allows students to challenge the content of their educational records.
Copies of these policies can be obtained from the Office of the Dean of Students. They contain information about how to file a grievance. A grievance based on incidents that occurred more than six months before the complaint was filed will not be considered.
- Student Access to Academic Records—Protection against Improper Disclosure. As stated in The Family Educational Rights and Privacy Act of 1974, students may have access to their full academic records. Individuals who are, or have been, in attendance at UNC-Chapel Hill may inspect and review their education records. Otherwise, education records are subject to confidentiality requirements as specified by law and may not be disclosed improperly. Requests for recommendations imply that the student has given consent to the disclosure of information related to ability and performance. Judgments of ability and character may be provided under appropriate circumstances, normally with the knowledge or consent of the student.
"Education records" are those records directly related to a student that are maintained by an educational institution. Particular

University policy provisions are found in the University of North Carolina at Chapel Hill's Policies and Procedures under the Family Educational Rights and Privacy Act of 1974.

- Appealing a Grade. The University has systems for appealing a grade. The exact procedures vary among the academic units. Students should consult with their dean or department chairperson to obtain information about grade appeal procedures. See the section on "Grade Protests."


## Part II. Guidelines

## Section 2.

The Faculty Council endorses the following guidelines for the faculty-student relationship. This endorsement shall not be construed as faculty legislation, is not intended to establish a contractual undertaking by the University or any individual, and shall not constitute the basis for civil action in a court or a claim in any administrative or judicial body of the University of North Carolina at Chapel Hill.

- Clear Definition of Potential Honor Code Violations. In an attempt to avoid unintended misunderstanding, instructors should clearly state what is acceptable in their classes. When study aids such as computers are allowed, the instructor is responsible for explaining what constitutes proper use of these items. These rules should be established at the beginning of the course and should not be changed without giving students proper notice.
- Assignment of Graded Work during the Last Week of the Semester. Instructors may not assign graded work during the last week of classes unless the course syllabus clearly states that such an assignment will be given.
- Suggested Classroom Procedures. In general, instructors are strongly encouraged to follow the guidelines for course design and classroom procedures recommended by the Center for Faculty Excellence. When students enter into a learning relationship, they have certain needs and expectations. They are entitled to information about course procedures, attendance policy, content, and goals. Instructors should provide a syllabus that describes the course and methods of evaluation. Particular attention should be paid to several areas of special concern to students, including provision of reserve readings and grading policy.
Evaluated assignments should be returned to the students within a reasonable amount of time. Since part of the purpose of such assignments is to provide feedback, students should be given time to assess and to learn from their mistakes. Ideally, such assessment would take place while the relevant topics are still fresh in their minds.

Extra credit, if offered, should be announced publicly and made available to the entire class.

- Students Should Have Freedom of Expression. Students should be free to take reasoned exception to the data or views offered in any course of study. They are responsible, however, for learning the content of any course of study in which they are enrolled. Incorrect facts and poorly supported arguments or opinions inevitably have an impact on grades. Nothing herein shall be construed to limit the freedom of the faculty to assign grades according to appropriate academic standards.
- Responsibilities of Students and Teachers. Just as students ought to expect instructors who are knowledgeable and well-prepared, so should teachers expect their students to be motivated, eager
to learn, and actively engaged in class. It is the responsibility of teachers to make their courses serious intellectual experiences for themselves and for their students. It is the responsibility of students to take seriously the courses in which they enroll. Good teachers need good learners.
Students should understand that they are members of a community of scholars, and membership in such a community is not a passive activity. To be full participants in the educational community and to maximize the educational value of a class, preclass preparation is necessary. Proper class preparation involves obtaining course materials as they are needed and completing assignments as they are due. Full participation in a class requires regular attendance, arriving on time and remaining until class conclusion, and active involvement in the work of the class.

Students should also consider the extent of their own involvement in a class in assessing the educational value of the class.

## Class Attendance Policy

Regular class attendance is a student obligation, and a student is responsible for all the work, including tests and written work, of all class meetings. No right or privilege exists that permits a student to be absent from any class meetings except for excused absences for authorized University activities (see below) or religious observances required by the student's faith. If a student misses three consecutive class meetings, or misses more classes than the course instructor deems advisable, the course instructor may report the facts to the student's academic dean.

## Excused Absences for Religious Reasons

Students are authorized up to two excused absences each academic year for religious observances required by their faith. Students who wish to request more than two excused absences in an academic year for religious observances required by their faith will need to contact their course instructors and request the additional absence, which will only be granted with the course instructor's permission. Primary holy days for religious observance are noted on a Webbased interfaith calendar site at www.interfaithcalendar.org.
Students are responsible for providing a written notice for an excused absence for a religious observance two weeks in advance of the date requested or as soon as possible if the date occurs within the first two weeks of the semester. This policy also applies to students who have an excused absence for a religious observance during the summer.

Students must be given the opportunity to make up tests and other work missed due to an excused absence for a religious observance. Make-up tests may entail an alternative examination, or other accommodation which allows the student not to be penalized for an excused absence for a religious observance.

## Other Absences

Only course instructors excuse absences from class for valid reasons (illness or family emergency, religious observance, etc.). A student should present his or her explanation for any absences in writing to the course instructor in advance if the reason for the absence could be foreseen, or as soon as possible thereafter if the reason for the absence could not be foreseen.

A student may appeal a course instructor's denial of a request that
an absence be excused if the request to be excused from class and the reasons for the request are presented to the course instructor in writing within the time limits above. The appeal is to be made to the course instructor's immediate academic supervisor.

Students who are members of regularly organized and authorized University activities and who may be out of town taking part in some scheduled event are to be excused during the approved period of absence. Notification of such an absence must be sent by the responsible University official to the course instructor before the date(s) of the scheduled absence.

## Policy Statement on Gender Inclusive Language

The University of North Carolina at Chapel Hill is committed to providing an inclusive and welcoming environment for all members of our community. Consistent with that commitment, gender inclusive terms (chair; first-year student; upper-level student, etc.) should be used on University documents, Web sites, and policies. A guidance handout (Gender-Sensitive Language) may be found on the UNC Writing Center Web site at writingcenter.unc.edu/ handouts/gender-sensitive-language.

## Policies on Prohibited Harassment and Nondiscrimination

For the Policy on Prohibited Discrimination, Harassment and Related Misconduct, Including Sexual and Gender-Based Harassment, Sexual Violence, Interpersonal Violence and Stalking (policies.unc.edu/files/2013/04/PPDHRM.pdf), and the Policy Statement on Nondiscrimination (policies.unc.edu/policies/ nondiscrim), please see page two of this bulletin.

## Improper Relationships between Students and Employees

On March 15, 1996, The University of North Carolina Board of Governors adopted a systemwide policy that prohibits amorous or sexual relationships between faculty or staff employees and 1) students they evaluate or supervise by virtue of their teaching, research, administrative, or other employment responsibility and 2) students who are minors below the age of 18 . The policy also states that faculty or staff employees may not supervise or evaluate students to whom they are related by blood, law, or marriage. For the full guidelines based on the board's policy, please see hr.unc.edu/policies-procedures-guidelines/spa-employee-policies/employee-relations.

## Final Examinations

Undergraduate courses taught on campus must include a final assessment (i.e., final examination) unless the provost grants an exception. A traditional final examination is written and administered at a predetermined time as specified in the official final examination schedule, and takes place at a designated location.

The final examination schedule, announced prior to the beginning of the semester, sets the time for each examination. Once having been established, the schedule cannot be changed. Examinations must be held at the time shown on the schedule. No
special preparation quizzes may be given during the last five days of classes (last two days of classes for summer school) before the beginning of the final examination period. No examination may start later than 7:00 p.m. Final examinations for a full course should ordinarily cover a minimum of two hours and should not exceed a period of three hours. Only examinations requiring an exceptional portion of practical work should be longer than three hours.

Only the provost can grant exceptions to the scheduled time and location of a traditional examination, after review and approval by the appropriate department head and the dean. No examination (except for laboratory sections) may be held at a time other than that specified in the general schedule except with the advance approval of the provost.
A course instructor may, due to highly unusual circumstances, petition for a change in the examination schedule. The instructor must submit the request in writing to his o her chair no later than the last day of late registration for that term, and it must be cleared by the chair and the appropriate dean before consideration by the provost. If the petition is approved, the course instructor assumes responsibility for making special arrangements to give the examination to any student who has a schedule conflict as a result of the change.

Chairs (i.e., heads of instructional units) must give permission for faculty members to use nontraditional examinations, such as a portfolio of a semester's work, final project, or a take-home examination. The chair should submit to the appropriate dean an annual summary of the exceptions that were granted. For multidisciplinary and cotaught courses, permission to give a nontraditional examination must be granted solely by the chair of the instructional unit in which the course is based. Even when faculty members have permission to administer nontraditonal final examinations, the scheduled examination period must be utilized.

All regular final examinations must be held in Chapel Hill. Students who are absent from an examination receive a course grade of AB (absent), which is equivalent to F (zero quality points), or FA (absent and failing regardless of performance on the final examination). When students are unable, for reasons clearly beyond their control, to take a final examination at the scheduled time, they can be excused only by the director of Campus Health Services (who can authorize the registrar to issue an "official permit to take final examination") or their academic dean (who can issue an "examination excuse"). An absence may be excused for severe health problems leading to the student's placement on the Infirmary List, for serious personal or family problems, for religious observances required by the student's faith, or for a scheduling conflict involving multiple examinations. In cases of illness, personal or family emergency, or religious observance, additional documentation may be required by the dean.

For any University undergraduate courses offered entirely online or via other distance modalities, exams will be offered and must be completed during the scheduled final examination period, but requirements concerning the time of day and place of the exam will be appropriate to the course's mode of delivery. Self-paced courses are exempt from both the time and place requirements of the exam policy and the requirement that exams be held during the scheduled final examination period.

Students may be excused for a final exam for religious observances required by their faith. Primary holy days for religious observances are noted on a Web-based interfaith calendar site: www. interfaithcalendar.org. Students must be given the opportunity to make up final exams missed due to an excused absence for a religious observance. Students are responsible for providing the course instructor and the dean a written request for an excused absence from a final exam for a religious observance no later than the last day of classes.

- Campus Health Services. Students who are seriously ill during the time of their final examination(s) (including complications related to pregnancy) should consult Campus Health Services or Counseling and Psychological Services about having their names entered on the Infirmary List. In some cases, outpatient treatment can also result in a student's name being entered on the Infirmary List. Students on the Infirmary List may obtain an official permit from the Office of the University Registrar to take the final examination to remove a grade of AB. They must make arrangements with their course instructor to take the final examination and provide the instructor with their official permit. If students are treated at Campus Health Services or Counseling and Psychological Services but do not appear on the Infirmary List, they should see the dean of their college as soon as possible.
- Academic Dean. If students know in advance that they must miss one or more final examinations because of illness, religious observance, or other serious problems, they should notify in writing both the course instructor and the dean of the school in which they are enrolled no later than the last day of classes. If this is not possible, they should see their dean as soon after the fact as possible. For students in the College of Arts and Sciences, only the associate dean for advising (or designee) is authorized to issue examination excuses for reasons other than three exams in 24 hours or two exams at the same time. For other students, only the dean of the school in which the student is enrolled has that authority. The dean may require documentation of a student's religious observance, illness, or problems.
Assuming that a student did not take a final examination for one of the reasons previously cited, the dean will issue an official examination excuse, which the student must present to the course instructor when arrangements are made for a suitable time to take the final examination.
A student who has three final examinations scheduled by the Office of the University Registrar within a 24 -hour period or two scheduled at the same time may request to his or her dean's office for permission to have one of the scheduled examinations rescheduled. In the event that one of the scheduled examinations is a common final examination for a multiple-section course, that examination is the one to be rescheduled.

Students who have secured an examination excuse or an official permit and who transmit the document to the instructor or the instructor's chair or dean must be granted permission to take the exam at an alternate time, although students will need to arrange a mutually convenient time with the instructor. Except when the provost has provided an exception in writing, the exam will be taken at a time subsequent to the regularly scheduled exam, though no later than the end of the following semester.

The final examination in any course may be taken only by regularly enrolled members of the class whose registration has been certified and by students certified to be eligible to take a special examination in that course. The certifying authority is the Office of the University Registrar.

Each student is required to sign a full and explicit Honor Code pledge certifying that he or she has neither given nor received aid during the examination.

## Academic Course Load

## Fall and Spring Semesters

To meet the minimum graduation requirement of 120 academic hours within the eight-semester limit, students should average 15 hours each semester. However, four-hour foreign language courses and four-hour laboratory science courses often account for course loads of 16 to 18 hours. Students may not enroll in more than 18 academic hours unless they have earned a 3.000 grade point average in the preceding regular semester and have a cumulative 2.500 grade point average. Exceptions require the approval of the student's dean. With approval of their dean, seniors meeting graduation requirements during their final semester in residence may enroll in up to 21 academic hours if they have a cumulative and preceding semester grade point average of 2.000 .

The minimum course load for a single semester is 12 academic hours. Students may not go below the 12 -academic-hour minimum without permission of their dean. All students should discuss semester enrollment of fewer than 15 academic hours with their advisor because such enrollments may affect academic eligibility and the ability to complete all degree requirements in the required eight semesters. PHYA courses are not considered academic hours and will not count toward the 12 -hour minimum enrollment.

The approved maximum course load for students in a part-time program is eight credit hours in a fall, spring, or summer term.

## Summer School

The summer term begins with the first day of Maymester and continues through the last day of the Summer Session II. Administered by Summer School, summer courses are offered in two sessions (Summer Session I and Summer Session II), with a Maymester period overlapping the first three weeks of Summer Session I. For UNC-Chapel Hill students, credit hours and grades count the same as in fall or spring terms. For visiting students, transfer of grades or credit is determined by their home institution.

The typical full course load is two courses, usually six credit hours. However, students may enroll in up to eight credit hours each in Summer Session I and in Summer Session II to allow for a four-credit course or an extra one-credit laboratory or physical activity course. Students with a 2.000 cumulative grade point average may enroll in a maximum of nine hours during a summer session with the approval of their dean. It is recommended that, if students enroll in a Maymester course, they not enroll in a second Maymester or Summer Session I class.

## Carolina Courses Online

There are limits on the number of online courses that may be taken in a term and how they may apply to degree requirements. For full details, see the section "Distance-Learning Courses."

## Fifty Percent Tuition Surcharge

Undergraduate students seeking a baccalaureate degree at UNCChapel Hill are subject to a 50 percent tuition surcharge in some circumstances, as required by Section 9.10 (b), G.S. 116-143.7 (a). No surcharge will be imposed on any student who exceeds the degree credit hour limits within the equivalent of four academic years of regular term enrollment, or within five years of regular term enrollment in a degree program officially designated by the Board of Governors as a five-year program. For detailed information, please see the Web site for the Office of the University Registrar at registrar.unc.edu/registration/registration-guide/fifty-percent-tuitionsurcharge.

## Students Subject to the Surcharge

The surcharge should be imposed for students who exceed eight or more terms in residence on all counted credit hours in excess of the threshold defined below for each of the following three categories of undergraduates:
A. For students earning a first baccalaureate degree in a program that requires no more than 128 credit hours, the surcharge shall be applied to all counted credit hours in excess of 140 .
B. For students earning a first baccalaureate degree in a Boardapproved program that requires more than 128 counted credit hours, the surcharge shall be applied to all credit hours that exceed 110 percent of the credit hours required for the degree. Such programs include those that have been officially designated by the Board of Governors as five-year programs, as well as those involving double majors or dual bachelor's/master's degrees.
C. For students earning a baccalaureate degree other than their first, the surcharge shall be applied to all counted credit hours that exceed 110 percent of the minimum additional credit hours needed to earn the additional baccalaureate degree.

## Grading System

## Permanent Letter Grades

A letter-grade and plus/minus system for evaluating academic performance is employed for all undergraduates. Each letter grade corresponds to a number of grade points. Each letter-graded course receives a numerical value of quality points (quality points equal grade points times semester credit hours per course) to use in determining a student's average (per credit hour) in a particular term and to find a student's cumulative grade point average (per credit hour).
$\mathrm{A}=4.0$
B- $=2.7$
D $+=1.3$
A- $=3.7$
$\mathrm{C}+=2.3$
$\mathrm{D}=1.0$
$B+=3.3$
$\mathrm{C}=2.0$
$\mathrm{F}=0.0$
$B=3.0$
C- $=1.7$

To determine the grade point average for a term, first determine the total quality points earned in the term by multiplying the number of grade points awarded for each course by the course's assigned number of semester credit hours and adding the resulting quality points earned for each course in the term. Then divide the total quality points earned in the term by the number of semester credit hours attempted (for letter grades) in the term.

| Example |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | ---: |
| Course | Grade | Grade <br> Points | x | Credit <br> Hours | $=$ | Quality <br> Points |
| Course A | C+ | 2.3 | x | 3.0 | $=$ | 6.90 |
| Course B | B- | 2.7 | x | 3.0 | $=$ | 8.10 |
| Course C | B | 3.0 | x | 4.0 | $=$ | 12.00 |
| Course D | C- | 1.7 | x | 3.0 | $=$ | 5.10 |
| Course E | A- | 3.7 | x | 1.0 | $=$ | 3.70 |
| Course F | F | 0.0 | x | 1.0 | $=$ | 0.00 |
| Course G | A | 4.0 | x | 3.0 | $=$ | 12.00 |
|  |  |  |  |  |  |  |
| Total quality points earned: |  |  |  | 47.80 |  |  |
| Total graded hours: |  |  |  |  | 18.0 |  |
| Term grade point average: |  | 47.80 | $\div 18.0=2.656$ |  |  |  |

## Permanent grades are defined as follows:

A Mastery of course content at the highest level of attainment that can reasonably be expected of students at a given stage of development. The A grade states clearly that the student has shown such outstanding promise in the aspect of the discipline under study that he/she may be strongly encouraged to continue.
B Strong performance demonstrating a high level of attainment for a student at a given stage of development. The B grade states that the student has shown solid promise in the aspect of the discipline under study.
C A totally acceptable performance demonstrating an adequate level of attainment for a student at a given stage of development. The C grade states that while not yet showing any unusual promise, the student may continue to study in the discipline with reasonable hope of intellectual development.
D A marginal performance in the required exercises demonstrating a minimal passing level of attainment for a student at a given stage of development. The D grade states that the student has given no evidence of prospective growth in the discipline; an accumulation of D grades should be taken to mean that the student would be well advised not to continue in the academic field.
F For whatever reasons, an unacceptable performance. The F grade indicates that the student's performance in the required exercises has revealed almost no understanding of the course content. A grade of F should warrant questioning whether the student may suitably register for further study in the discipline before remedial work is undertaken.

Grades earned and semester hours attempted at other institutions are not included in the calculation of the University grade point average.

Records of progress are kept by this institution on all students. Students have two primary methods to gain access to term grades: - Using a browser to access ConnectCarolina.

- Making a request in person at the Office of the University Registrar. Students should call the Office of the University Registrar at (919) 962-0495 if they have questions about grade reporting services.


## Temporary Grades (IN and AB) and FA Grades

Any student who ceases to attend a class without officially being dropped may receive a temporary grade of AB or IN or a permanent grade of FA.

Students who do not complete all requirements in a course by the end of the semester, but who could pass the course if they did, receive a temporary grade of IN (incomplete) or AB (absent from the final exam) in place of a permanent letter grade. Grades of IN and $A B$ carry the value of an $F$ grade (zero quality points) and are used in the computation of semester and cumulative grade point averages. Students who do not complete the course requirements within a specified period of time are assigned permanent $\mathrm{F}^{*}$ grades on their academic transcripts by the Office of the University Registrar.

The instructor must report the grade of AB for any student who did not take the final examination and who, by taking the final examination, could pass the course. This AB grade carries the value of an F in computing the student's cumulative and semester grade point average, and later converts to an $\mathrm{F}^{*}$ unless the student arranges to take the final examination before the last class day of the next scheduled semester (fall or spring). If the student cannot pass the course regardless of a final examination performance, the instructor must report the grade FA. The grade of FA (cannot pass the class) is a permanent failing grade. A grade of F may be assigned instead of a temporary grade or a grade of FA when a final examination is not required in the course.

The grade IN may only be assigned by an instructor to a student who took the final examination in a course but did not complete some other course requirement (including signing the honor pledge) and who, by virtue of completing that missing work, might pass the course. An IN carries the value of an F (zero quality points) in computing a student's cumulative and semester grade point average. Unless removed within eight weeks of the beginning of the regularly scheduled semester (fall or spring) following its assignment, an IN converts to an $\mathrm{F}^{*}$.
When submitting an AB or IN , an instructor must enter the grade on the instructor's grade roster and must also complete a temporary grade assignment form supplied by the Office of the University Registrar and available online at registrar.sites.unc.edu/ files/2012/03/CCM3_031444.pdf. The purpose of this form is to establish a record of what arrangements, if any, have been made between the student and instructor to clear the AB or IN .
Absence from a final examination may be officially excused only by the student's dean or the director of Campus Health Services or Counseling and Psychological Services. Please see "Final Examinations" for information about final examination excuses.

## Important Rules and Procedures Pertaining to AB and IN Grades

The decision to report an IN grade is solely the responsibility of the course instructor; however, a student may present proper justification for the instructor's consideration.
Temporary grades should be cleared by completing the work outstanding, preferably no later than the start of the following semester. The deadline for clearing a temporary grade of $A B$ is the last class day of the next regularly scheduled semester (fall or spring) after the AB grade is awarded. A temporary grade of IN must
be cleared within the first eight weeks of the regularly scheduled semester (fall or spring) after the IN grade is awarded.
If students intend to remove IN or excused AB grades, they should not officially enroll in the course(s) during the next semester or summer session. If recommended by the course instructor, a student may attend by officially auditing a part of that instructor's section of the course or another instructor's section of the same course in which the temporary grade was awarded.
If a student enrolls in a course in which a temporary grade has been previously received, the second enrollment is taken as evidence that the student could not or is not permitted to remove the temporary grade. This results in replacing the temporary grade by $\mathrm{F}^{*}$ after the deadline for removing the temporary grade. The grade earned during the second enrollment is also reported on the student's academic transcript and is used along with the $\mathrm{F}^{*}$ grade in the computation of a cumulative grade point average.

## Other Grades and Notations

A notation of BE (By-Examination) is entered in the grade column of academic transcripts if students are awarded credit for a course as a result of evaluation by departmental, Advanced Placement, International Baccalaureate, or SAT II Subject Test examinations. BE credit confers credit hours and can be used to fulfill General Education requirements. For first-time, first-year students entering UNC-Chapel Hill in fall 2009 or thereafter, no more than two courses (six to eight credit hours) of BE credit can be applied to a major and no more than one course (three to four credit hours) of BE credit can be applied to a minor in the College of Arts and Sciences. BE credit may not be used to satisfy the requirement that students earn at least 12 or 18 hours of C or better grades in courses making up the minor or major respectively.
A notation of NG (no grade) is not used by individual instructors but rather is assigned by the Office of the University Registrar when a permanent grade is pending a judicial review by the Honor Court.
A notation of PL (placement) is entered in the grade column of academic transcripts if students are awarded exemption for a course as a result of an evaluation that would ordinarily place them in a succeeding course. PL does not confer credit hours.
There are some courses for which only a grade of PS (pass) or F (fail) can be awarded. For all other courses, a grade of PS (pass) indicates a grade of C- or better in a course taken on a Pass/ $\mathrm{D}+/ \mathrm{D} /$ Fail basis. The rules governing the use of the Pass/D+/D/ Fail option are presented later in this section.

A grade of SP (satisfactory progress) may be used in the first course of a departmental undergraduate honors program. The honors program runs through two semesters, and a final grade is not reported until completion of the second course. When the final grade is reported, the previously assigned SP grade must be changed to the appropriate permanent letter grade by an official grade change form. Credit hours are awarded for the first honors course only after a letter grade replaces the SP grade. An SP grade is not computed in the grade point average.
A notation of W (withdrawn) is entered in the grade column of academic transcripts if students are permitted by their school to drop a course after the eighth week of classes or proportional equivalent for summer terms and other nonstandard enrollment
periods. This notation is automatically entered unless the student's academic dean specifies otherwise.

When a course is dropped between the second and eighth week of classes, a grade of WC (withdrawal by choice) shall be recorded and used internally for tracking and reporting purposes. For external purposes, the WC grade is equivalent to the W grade. Once declared, a WC grade cannot be rescinded except when a student withdraws from an entire semester due to extenuating circumstances.

A notation of XF is entered to indicate that a student has not passed a course as the result of an Honor Court violation. The grade of XF can be replaced by a final grade of F if the student follows prescribed steps to remediate the violation.

A blank space or a grade of NR (not reported) is shown in the grade column when the instructor has not submitted the official grade for the student.

## Repeating Course Enrollments

Students who have received passing grades in courses may not enroll in the same courses at a later time without the approval of their academic dean. If a student proceeds with such an enrollment without securing permission, only the credit from the course with the highest grade (or if the grades are the same, the latter attempt) will be counted toward the fulfillment of the University's minimum graduation requirement of 120 academic hours. The grades of both courses, however, will be computed in the student's cumulative grade point average.

A second enrollment in a course for which a student has received a grade less than C through a previous enrollment at the University will be approved by an academic dean at the request of the student if any of the following apply:

- The course is specifically required by the student's academic major and is a prerequisite to other courses required in the major;
- At least a grade of C (2.000) must be earned in a course specifically required in the student's academic major to satisfy graduation requirements in the academic major;
- Several years have elapsed since a student's initial enrollment in a course and a current, satisfactory knowledge of the course material is either required or advisable.
In some circumstances, permission may be granted to repeat a specific course regardless of the grade earned during the initial enrollment.

If a student is permitted to repeat a course in which a passing grade previously has been earned, only the credit from the course with the highest grade (or if the grades are the same, the latter attempt) will be counted toward the fulfillment of the University's minimum graduation requirement of 120 academic hours. The grades of both courses, however, will be computed in the student's cumulative grade point average.

For the purposes of receiving financial aid, hours for repeated courses will only be considered a part of the total upon which awards are based if 1) the student is repeating a course previously failed, or 2) the course is the first repeat of a prior course in which a passing grade was received.

Certain University courses (e.g., applied music, special studies, undergraduate research, etc.) may be taken more than once for credit and are so designated in the ConnectCarolina course catalog.

A particular physical education activity (PHYA) course may be taken more than once, so long as a different level of the same course (beginning, intermediate, and advanced) is taken during each separate enrollment. PHYA courses do not award credit hours, but the grade is factored into the cumulative grade point average. Students may enroll in no more than one lifetime fitness (LFIT) course, and only one LFIT course will count toward graduation.

## Grades Earned at Other Institutions

With the exception of courses taken via interinstitutional registration (see "Interinstitutional Registration"), grades earned and semester hours attempted at other institutions are not included in the computation of a grade point average at the University. A grade point average earned at another university may not be used to restore academic eligibility; however, academic hours earned at another university may be used to restore academic eligibility if the student is lacking only credit hours and has a satisfactory grade point average. Special rules regarding transfer courses apply; see "Transfer of Credit" and "Academic Eligibility."

## Grade Appeals

The grades of H, HP, P, LP, L, A, A-, B+, B, B-, C+, C, C-, D+, $\mathrm{D}, \mathrm{PS}, \mathrm{F}, \mathrm{FA}, \mathrm{F}^{*}$, and numerical grades in the Law School are considered permanent grades. Once reported, the instructor's grade report may not be changed except under certain conditions. For a grade change to be considered, it must be based upon one or more of the following grounds and upon allegation that the ground or grounds cited influenced the grade assignment to the student's detriment:

- Arithmetic or clerical error
- Arbitrariness, possibly including discrimination or harassment based on the race, color, gender, national origin, age, religion, creed, disability, veteran's status, sexual orientation, gender identity, or gender expression of the student
- Personal malice
- Student conduct cognizable under the Instrument of Student Judicial Governance
A grade appeal must be made no later than the last day of classes for the succeeding fall or spring semester.


## - Grade Appeals Correcting a Clerical or Arithmetical Error.

An instructor who has reported an incorrect grade for a student because of an error in calculating the grade, or in entering it on the official grade roster, may change the grade to one of the other letter grades, provided this change is made no later than the last day of classes of the succeeding fall or spring semester. Grade changes are submitted online using the Grade Change Request process, with electronic approvals required by the instructor, the department chair, and student's dean's office.

- Other Grade Appeals. Any student who protests a course grade shall first attempt to resolve this disagreement with the instructor concerned. (As explained in the preceding paragraph, an instructor may change a permanent grade only when a clerical or arithmetical error is involved.) Failing to reach a satisfactory resolution, the student may appeal the grade in accordance with the procedures outlined below. Such appeal must be made no later than the last day of classes of the succeeding fall or spring semester.

Students should present the appeal in writing to the dean of their school (students in the College of Arts and Sciences must submit an online form through the Academic Advising Program). The dean will refer the appeal to the administrative board of his/ her school, which will meet to consider whether the student has offered sufficient grounds for referring the appeal to the chair of the department concerned. If the administrative board determines that further review by the academic department is appropriate, the department chair will then appoint a committee to consider the appeal and will make a recommendation to the administrative board based on the committee's findings. The administrative board will make the final decision, and no change of grade will be made except as a result of the decision by the board. The chair will report such decision to change the grade to the Office of the University Registrar.

## Pass/D+/D/Fail Option

The Pass/D+/D/Fail option provides students an opportunity to enroll in an additional course (beyond the usual load of five academic courses) or to reduce their concerns about competing with prospective majors in a course in which they have considerable interest. Students who declare a course on the Pass/D+/D/Fail option will receive the grade of PS (pass) when a letter grade of A through C - is recorded on the official grade roster, a $\mathrm{D}+$ or D when a letter grade of $\mathrm{D}+$ or D is recorded, or an F when the course is failed. For the purpose of computing a grade point average, a PS grade does not count as hours attempted; therefore, a PS grade does not affect a student's grade point average. However, grades of D+, D , or F under the Pass/D+/D/Fail option count as hours attempted and are treated in the same manner as $\mathrm{D}+, \mathrm{D}$, and F grades earned in any other course.

Course content and requirements are the same for Pass/ $\mathrm{D}+/ \mathrm{D} /$ Fail registrants as for regular registrants. The minimum performance for a PS grade is equivalent to the minimum performance for the letter grade of C-

## Regulations Governing the Pass/D+/D/Fail Option

The following regulations govern the use of the Pass/D+/D/Fail option:
A. Students must take at least nine academic hours for regular letter-grade credit in the semester in which other hours are declared Pass/D $+/ \mathrm{D} /$ Fail.
B. No more than four credit hours (e.g., one three-hour academic course and a physical education activity course) may be taken on the Pass/D+/D/Fail grading system during a single semester.
C. A maximum of 16 hours of Pass/D+/D/Fail credit may be taken in a student's undergraduate career.
D. Not to be counted in the limits specified in B and C above are up to seven hours taken in courses for which ONLY PS or F grades are assigned.
E. The following courses may not be declared Pass/D+/D/Fail: - Courses used to satisfy General Education requirements (with the exception of lifetime fitness courses and some experiential education courses that are only offered as Pass/Fail courses). A course that is approved as a General Education requirement may be declared Pass/D+/D/Fail, but the course may not be used to satisfy a General Education requirement if a grade of

PS is awarded; however, if a grade of $\mathrm{D}+$ or D is awarded the course may be used to fulfill a General Education requirement.

- Courses in a student's major or minor department or curriculum (or cross-listed with those departments or curricula), even if used as an elective. However, students who change their major (or minor) may count in the new major (or minor) one course previously completed with the grade PS.
- Courses specifically required by the major or minor, including
foreign language courses and any additional required courses
(but see the note below)
- Summer School courses
- Carolina Courses Online
- An honors seminar or honors course
- Courses taken via interinstitutional enrollment
- First-year seminars

Note: Prerequisites to courses specifically required for the major or minor may be taken Pass/D+/D/Fail unless a specific grade is required in the prerequisite course.

## Pass/D+/D/Fail Declaration Procedure

To declare a course on the Pass/D+/D/Fail grading system, a student must complete the Pass/D+/D/Fail course declaration form. It is obtained from the academic advisor or dean's office. Students should discuss the advisability of taking a course on the Pass/D+/D/ Fail grading system with their advisor before committing themselves to a formal declaration.

The period for making Pass/D+/D/Fail declarations begins on the fifth day of classes of each semester and concludes at the end of the eighth week of classes. Pass/D+/D/Fail declaration forms may not be submitted after the eighth week of classes.

## Academic Eligibility

To promote sufficient progress toward timely degree completion, the University requires that students meet certain academic eligibility standards throughout their undergraduate career. The "Academic Standing" status determined by these standards indicates eligibility for continued enrollment at UNC-Chapel Hill. Students must review their academic status in ConnectCarolina at the end of each enrolled term. Specific academic eligibility standards will also be posted to the online Undergraduate Bulletin (www.unc.edu/ ugradbulletin) when they are available.

## Appeals

Students may, under extraordinary circumstances, present an appeal in writing (or online for students in the College of Arts and Sciences) to the dean of their school (for students in the College of Arts and Sciences, this is the associate dean for advising). The dean will refer the appeal to the administrative board for his/her school.

## Calculation of Transferred Semesters Based on the Number of Transferred Credit Hours

Several academic procedures, including the determination of academic eligibility, depend on the tally of semesters that students have completed. A student is allowed a maximum of eight fall or spring semesters of full-time enrollment at the University; therefore, when credit hours are transferred, a calculation must be made as to the number of semesters the student is regarded as having used up.

This calculation is based on the number of credit hours accepted by UNC-Chapel Hill for transfer, not on the number of semesters in which the student was enrolled at other colleges. Excluded from this calculation are transfer hours awarded for courses taken concurrent with high school.

Students are regarded as having used up one semester for every full multiple of 15.0 semester credit hours accepted for transfer. When credits are transferred from a college that operates on the quarter-term system, one quarter-term credit hour equals two-thirds of a semester credit hour.

See "Transfer Candidates" in the "Undergraduate Admissions" section of the Bulletin for additional information.

The same formula is applied to credit hours that a student earns while enrolled in a part-time program of study at UNC-Chapel Hill, with 90 hours regarded as six semesters and 105 hours regarded as seven semesters. Note: Hours earned in any UNC-Chapel Hill summer term are not included in this formula.

The formula also applies to transfer credit hours awarded for any courses taken at other institutions during a fall or spring semester (but not during summer terms) after a student matriculates at UNC-Chapel Hill.

## Academic Eligibility Standards for Students Enrolled in Part-Time Programs of Study

Unique academic eligibility standards apply to students pursuing part-time enrollment. For details, consult the Part-Time Classroom Studies program.

Once they have attempted nine or more credit hours in UNCChapel Hill courses, students enrolled in a part-time program of study (administered by the Friday Center for Continuing Education) must maintain a minimum cumulative UNC-Chapel Hill grade point average of 2.000 in order to remain eligible to enroll in subsequent semesters.

Students who earn 15 or more semester credit hours for courses taken in fall or spring terms while enrolled in a part-time program of study will be regarded as having used up one or more of the eight full-time fall and spring semesters in which degree-seeking students are allowed to enroll.

## Restoration of Academic Eligibility

Certain procedures are required of students who wish to restore their academic eligibility. Information can be obtained from the student's academic advisor or dean. Additional information will also be posted to the online bulletin (www.unc.edu/ugradbulletin) when it is available. Students failing to meet the minimum cumulative grade point average of 2.000 may attempt to restore or retain their academic eligibility by the following means:

- Taking courses through the Carolina Courses Online program of Internet courses that follow the semester schedule at UNCChapel Hill (information is available at fridaycenter.unc.edu/ $\mathrm{cp} / \mathrm{cco} / \mathrm{index} . \mathrm{htm}$ ). See limits below under "Distance-Learning Courses"; or
- Removing excused AB or IN grades.

Students satisfying the minimum cumulative UNC-Chapel Hill grade point average of 2.000 , but failing to satisfy the requirement for cumulative semester hours passed, may use one or more of the above procedures in attempting to retain or restore academic
eligibility. To satisfy the requirement for cumulative hours passed, students also may use semester hours of approved transfer credit from another institution. Students wishing to use transfer credit for this purpose should obtain approval from the Office of Undergraduate Admissions and their academic dean or advisor before enrolling in these courses. Not all courses are acceptable for transfer credit. To receive credit hours for a course taken at another institution, a student must earn a grade of C- or better in the course; however, grades earned at another institution are not included in a student's UNC-Chapel Hill grade point average.

In addition, students should understand the following regulations concerning restoration of academic eligibility:

- If students earn 15 or more transfer semester credit hours for courses taken at other institutions cumulatively over the fall or spring semesters before applying for readmission to the University, a calculation will be made as to how many semesters the student is regarded as having completed, based on the number of hours accepted for transfer credit. The resulting tally of total semesters completed will determine requirements for restoring academic eligibility.
- Students who are academically ineligible or who have pending academic ineligibility because of their cumulative grade point average should consult their academic dean if they are considering taking classes at another institution. Grades do not transfer, and credit hours accumulated through enrollment in fall and spring semesters at other schools can affect the number of remaining semesters that students have left to complete their degree requirements at UNC-Chapel Hill.
- Students who are declared academically ineligible, who attend another institution (summer, fall, or spring), and who apply for readmission must have at least a $2.000(\mathrm{C})$ average in work at the other institution.
- Academically ineligible students who have a housing assignment or contract for the following semester should either cancel their application/contract or notify the University's Department of Housing and Residential Education of their intention to restore academic eligibility before the following semester begins.
Students who are inactive during a semester because of ineligibility (or other reasons) must apply for readmission before registering for a full-time term. See "Readmission Standards" below.


## Removing AB or IN Grades

For information about completing courses with grades of AB (absent from the final examination) or IN (incomplete), see the grading system information above, immediately preceding this section on academic eligibility.

## Distance-Learning Courses

A revised policy governing the use of distance-learning courses became effective July 1, 2014. The regulations apply to all new and continuing full-time and part-time degree-seeking students, and they refer to Carolina Courses Online (CCO), Summer School, and other for-credit UNC-Chapel Hill courses offered completely via similar modalities. The regulations do not apply to coursework taken prior to matriculation as degree-seeking students.

The following policies apply to distance-learning courses:

1. The maximum number of credit hours, all of which must be
designated UNC-Chapel Hill, that can be counted toward an undergraduate degree in the College of Arts and Sciences is 24. There can be no exceptions to this upper limit.
2. First-semester, first-year students may not enroll in for-credit online courses unless unusual circumstances prevail, nor may first-year students take an online course in the summer prior to matriculation.
3. Full-time undergraduate students may enroll in a maximum of one for-credit online course (currently CCO) per regular semester (after the first semester, if they are a first-year student) and a maximum of two for-credit online courses per summer.
4. Degree-seeking students who are not enrolled may take a maximum of two for-credit online courses in a regular semester or summer.
5. No more than two for-credit online courses in any one department, curriculum, or professional school may count toward a major or minor in the College of Arts and Sciences.
6. Self-Paced courses cannot count toward a degree in the College of Arts and Sciences, other than in exceptional circumstances.
7. It is the responsibility of the Senior Associate Dean for Undergraduate Education, in consultation with the Associate Dean and Director of the Academic Advising Program, to determine whether students in unusual circumstances warrant an exception to these policies.

## Carolina Courses Online

Carolina Courses Online is a distance-education program that offers courses over the Internet. Class attendance is not required, but courses follow the semester schedule. The courses are administered through the Friday Center for Continuing Education. To enroll, contact the Friday Center at (919) 962-1134 or visit its Web page at fridaycenter.unc.edu. Certain restrictions may apply.
Students should consult the dean's office of their school for details.

## Readmission Standards

After their first enrollment at UNC-Chapel Hill, students who withdraw from or do not enroll in one or more fall or spring semesters must apply for readmission in order to return to courses on the UNC-Chapel Hill campus in a subsequent fall, spring, or summer term.

To be readmitted to a fall or spring semester, a student must have a 2.000 cumulative UNC-Chapel Hill grade point average, a cumulative ratio of completed-to-attempted credit hours of at least two thirds, and the following cumulative number of academic semester credit hours passed:

- 9 academic hours to enter a second semester
- 24 academic hours to enter a third semester
- 36 academic hours to enter a fourth semester
- 51 academic hours to enter a fifth semester
- 63 academic hours to enter a sixth semester
- 78 academic hours to enter a seventh semester
- 93 academic hours to enter an eighth semester
- Special permission of the dean to enter a ninth semester If a student who earned the status of probation either withdraws from or does not enroll in that probationary semester, the student may employ that probationary status, if needed, when next applying for readmission to a fall or spring semester. By contrast,
probationary status granted by an appeals committee is valid only for the specific term for which it is granted.


## Nontraditional Readmission

The University's policy for traditional readmission as an undergraduate requires former students to fulfill certain minimum requirements. These requirements include a specified cumulative grade point average and number of academic hours passed based on their total number of semesters in residence. However, the University recognizes that individuals can gain personal and intellectual maturity over time. In such cases, the University may choose to evaluate applicants for readmission on the basis of their current academic promise rather than their earlier academic performance.

Under this policy, the University will review applicants who have not been enrolled full time in a formal educational program for at least five years and who, by their special life experiences, might be considered nontraditional applicants. Readmission to the General College or the College of Arts and Sciences under this policy requires the approval of the associate dean for advising or the appeals committee of the college. Readmission to a professional school under this policy requires the approval of the professional school to which the student is seeking readmission.
Advising and degree-granting bodies within the University will monitor the performances of all individuals admitted under this policy. This monitoring will provide up-to-date guidance and counseling and ensure that each person readmitted fulfills the requirements for continued enrollment as specified in the letter from the student's dean's office. Students who fail to meet these requirements and who lose their academic eligibility must then meet traditional readmission requirements before they will be permitted to continue their enrollment at the University. A nontraditional readmission to the University is granted only once.

## Withdrawal

Students withdrawing from the University should submit an official withdrawal request through their ConnectCarolina Student Center to start the process (see sections on medical and academic withdrawal below) before the end of classes during a semester or summer session. Students considering withdrawal should contact their dean's office, Campus Health Services, or Counseling and Psychological Services for additional information. Official withdrawal from the University is required if a student wishes to drop all classes after a semester begins. An official withdrawal may facilitate readmission in a future term. Leaving the University without completing the official withdrawal process results in the assignment of an IN or AB course grade that are computed as an F grade in establishing grade point averages and academic eligibility. Students who do not withdraw officially will be responsible for the tuition and fee payments associated with the course(s) in which they are enrolled.

## Medical Withdrawal

If a student decides to withdraw for reasons of illness, either physical or psychological, the student should contact Campus Health Services or Counseling and Psychological Services, whether the treatment was received there or elsewhere. If a medical
withdrawal is authorized, the official withdrawal will be handled through the Office of the Director of Campus Health Services or Counseling and Psychological Services. A medical withdrawal is effected without grades and without a semester in residence.

## Administrative Withdrawal

A student who is withdrawn for disciplinary purposes must comply with the specific requirements or conditions outlined by the adjudicating body (e.g., Honor Court, Emergency Evaluation and Action Committee, etc.) prior to readmission. Unless specified by the adjudicating body, the term(s) in which disciplinary suspension is active shall not be calculated in the four academic year degree credit hour equivalency. Preclearance from the adjudicating body may be required in certain cases.

## Academic Withdrawal from All Courses

If a student decides to withdraw for reasons other than health related, or if a withdrawal cannot be authorized through Campus Health Services or Counseling and Psychological Services, the student should submit an official withdrawal request through the ConnectCarolina Student Center. Grades are required from instructors once the drop deadline has passed. In determining an undergraduate student's eligibility for readmission the following conditions apply:

- Students who officially withdraw from the University are assigned a semester in residence if their withdrawal is initiated before the end of classes during a fall or spring semester and if it is accompanied by the recording of six or more academic hours of F grades for that semester's work (grades recorded after the drop deadline). This means that the F grades and no others will be computed in the semester and cumulative grade point average.
- Withdrawal from a summer session is not counted as a semester in residence. Failing grades are recorded, however, if the student is reported as below passing in five or more academic hours (grades recorded after the drop deadline). Students enrolled as summer session visitors from schools outside UNC-Chapel Hill must withdraw through the Office of the Dean of Summer School.
- If a student completes an official withdrawal or is withdrawn administratively for any reason from a fall or spring semester, tuition and fees will be prorated over a period of nine weeks at a rate of one-tenth of the semester's bill, after deducting an administrative charge. The last date for credit on a student's financial account for withdrawal is nine weeks after registration. If a student completes an official drop from a summer class within the first three days of classes for the session, tuition and fees will be prorated.
- If a student withdraws from the University during a semester and receives financial aid funds prior to the date of withdrawal, a portion of that money will be returned to the aid program(s). The repayment will be calculated by the Office of Scholarships and Student Aid when the official withdrawal is noted within the ConnectCarolina system.


## Retroactive Withdrawal

Students may request a retroactive withdrawal from a semester or summer session under extraordinary circumstances. Such requests must be made in writing to the appeals committee of the college or school in which the student is currently enrolled. The decision
of that appeals committee is final. If the retroactive withdrawal is approved, the effective date of this action is always the last day of classes in the term or session. No refunds are ever provided when a retroactive withdrawal from a semester or summer session is approved.

## Graduation

To qualify for an undergraduate degree, a student must successfully complete at least 120 academic semester hours (requirements are higher than this minimum in some bachelor of science degree curricula) and must have a 2.000 average on all work attempted at the University of North Carolina at Chapel Hill.

A minimum of 45 academic credit hours must be earned from UNC-Chapel Hill courses, and at least 24 of the last 30 academic credit hours applied to the degree requirements must be earned from UNC-Chapel Hill courses. These may include credits from study abroad programs sponsored by the University, up to 24 credit hours earned through Carolina Courses Online, and in exceptional circumstances as approved by the dean's office, Self-Paced Courses offered by UNC-Chapel Hill. For more information about degree requirements, see the "Academic Affairs" section of this bulletin.

Beginning with the first day of registration for the term for which students expect to graduate, they should file an application for graduation online in ConnectCarolina or in person in the office of the dean. For students in the College of Arts and Sciences, this is the office of the Academic Advising Program. A student who has not filed an application for graduation on or before the announced deadlines for fall or spring graduation will not be included in the graduation program.

Students must pay tuition, fees, and other obligations owed the University before receiving a diploma.

## Graduation Requirements and Tar Heel Tracker

For students in the College of Arts and Sciences, total graduation requirements are determined by advisors in the Academic Advising Program (Steele Building) in conjunction with ConnectCarolina’s
Tar Heel Tracker degree-audit system. For students admitted to a professional school (education, journalism, nursing, information and library science, public health, business, dentistry), total graduation requirements are determined by advisors in their school in conjunction with ConnectCarolina's Tar Heel Tracker.

## Transcripts of Record

A statement of official academic record includes all significant recorded information concerning the student's admission, classification, and scholarship. No partial or incomplete scholastic record will be given.

The student's transcript notes his or her academic eligibility status. A statement of honorable dismissal will not be granted to students whose conduct and character would not entitle them to remain enrolled at the University or whose transcripts contain a notation of any probation, suspension, or other temporary restriction imposed for unsatisfactory conduct and still in force when the statement is made.

The University does not release an official transcript unless tuition, fees, and other obligations due the University have been
paid. Students may order a transcript electronically through the link in their ConnectCarolina Student Center. This process provides an electronic authorization that allows the Office of the University Registrar to release the transcript at the student's request. Students may inspect their academic records at the Office of the University Registrar, Student and Academic Services Building North. For more information on how to request a transcript see registrar.unc.edu/ academic-services/transcripts-certifications/transcript-services.

## Veterans Educational Benefits

Students who expect to use their veterans' educational benefits must contact the Veterans Services Assistant in the Office of the University Registrar, located in the Student and Academic Services Building North. Students must maintain satisfactory academic progress to be eligible for VA educational benefits. Students who are not eligible at the end of the term will not be eligible for veteran's educational benefits in subsequent terms until they regain their eligibility. For further information, please visit registrar.unc.edu/ academic-services/veteran-affairs, or call (919) 962-9864.

## Loan Deferments and Certification/ Verification of Enrollment Status

The Office of the University Registrar provides confirmation of student enrollment data to financial institutions, organizations, or agencies requiring proof of registration. Students can order an enrollment certification online through their ConnectCarolina Student Center. For additional information about ordering a certification online, please go to registrar.unc.edu/academic-services/transcripts-certifications/enrollment-certification or call (919) 962-3954.

## Student Affairs

Winston B. Crisp, Vice Chancellor for Student Affairs<br>Christopher Payne, Associate Vice Chancellor and<br>Senior Operating Officer<br>Bettina C. Shuford, Associate Vice Chancellor<br>Jonathan Sauls, Dean of Students

## Vision Statement

Student Affairs at UNC-Chapel Hill believes that every student can achieve success through full access to and inclusion in a wide range of academic, student life, and campus learning experiences.

## Mission Statement

Student Affairs serves the University of North Carolina at Chapel Hill in collaboration with academic programs by providing transformational opportunities for students in the areas of student life, health and wellness, leadership and service, and diversity.

We promote student success, access, and inclusion by cultivating and leveraging partnerships with faculty, staff, and families as well as local, state, national, and global organizations. We challenge and enable our students to become compassionate and responsible citizens and leaders by fostering an accessible, inclusive, culturally diverse living and learning campus environment.
Statement on Excellence: Excellence is embedded in the Carolina experience. Through excellence in student service, support, and engagement, we foster excellence in our Carolina students. To support the success of students at Carolina, Student Affairs has identified Areas of Excellence that will serve to guide planning efforts into the foreseeable future.

Student Affairs will achieve excellence by

- Providing quality student learning experiences
- Promoting inclusive and supportive campus environments
- Engaging with students and other internal and external constituents
- Fostering a dynamic and positive workplace

The importance of the learning process is paramount at the University of North Carolina at Chapel Hill. Student Affairs provides many services and programs that encourage and support the learning that takes place beyond the classroom. These departments and programs aim to assist students in integrating the various aspects of their lives so as to promote learning, selfawareness, self-determination, and broadened perspectives on the world. Student Affairs departments and programs afford students the opportunity to gain knowledge and develop skills to improve performance inside and outside the classroom; to enhance leadership potential; to find opportunities to serve fellow students and the community; to explore, plan, and prepare for a career; to plan for an active and rewarding life; to develop citizenship; and to improve interpersonal and life skills.

The Office of the Vice Chancellor, located at the north end, first floor of Carr Building, coordinates Student Affairs programs and provides guidance and leadership for its departments. The office also acts in a consulting role for faculty, administrators,
and students who wish to raise issues that concern the University community, with a particular focus on student needs. Members of the Office of the Vice Chancellor also serve on many University committees to represent various constituencies. Contact the office at (919) 966-4045, CB\# 5000, e-mail dsa@unc.edu, or visit the Web site at studentaffairs.unc.edu.

Information on the departments and programs in Student Affairs is presented below.

## Programs and Services

Carolina Leadership Development's vision for Carolina students is a campus thriving in a "culture of leadership," meaning that all students have access to opportunities actively to explore and develop their own unique leadership potential; seek to recognize multiple forms and manifestations of leadership in themselves, their peers, and their community; and experience leadership through both academic and cocurricular endeavors.
The North Carolina Fellows Program, founded in 1968, is a three-and-a-half-year, cohort leadership development program designed to support and accelerate the development of undergraduate students. One of two such programs in the state, it seeks to instill in students a strong sense of responsibility toward those whom they serve and a greater degree of ethical congruence. Students participate in educational retreats, an academic course, monthly seminars with community leaders, internships, and community service projects. Each fall semester, all first-year undergraduates at Carolina are invited to apply to the program.

Shortly after selection in the spring semester of their first year, participants engage in a weekend-long retreat. During the following fall semester, members partake in the Sophomore Seminar, a three hour-credit course. Classes organize weekend-long retreats during their junior and senior years in order to revisit themes addressed in the Sophomore Seminar and reflect on group and individual selfdevelopment. Seniors also take a one-credit capstone course during their spring semester. Throughout their sophomore, junior, and senior years, program members are expected to participate in several other activities: Summer Entertainment Discussions, held in the first weeks of the fall semester, and Monthly Seminars, held several times during each semester.

For more information, contact John Mendoza Brodeur at brodeur@email.unc.edu.

The ACC Leadership Symposium is a three-day leadership conference aimed at engaging students with peers across the Atlantic Coast Conference. For more information about the 2016 conference, contact Carolina Leadership Development, CB\# 5210, 3505 Frank Porter Graham Student Union, (919) 962-7724, brodeur@email.unc.edu.
Carolina United is a five-day summer program that takes place the week before classes start in August. The purpose of the program is to create a safe environment for students to candidly discuss issues of diversity and multiculturalism, and some of the issues that inhere in society. Carolina United also addresses the broader definitions
of diversity-the "diversity of viewpoints," determined by students' unique experiences, personalities, and perspectives. Students attend sessions on topics such as affirmative action, interfaith dialogue, conflict resolution, and more. Students also learn how to create and implement programs that will continue the mission of Carolina United once they get back to campus. Interspersed between the sessions are small group meetings in which students have time to break into their discussion groups to go deeper into the issues and share their experiences.

Rising sophomores, juniors, and seniors looking to challenge themselves and pursue growth through dynamic dialogue are encouraged to apply. Carolina United takes place a week and a half before the first day of classes in the fall semester and is free for UNC students.

The LeaderShape Institute is a six-day experience that is offered during spring break. Students focus on leading with integrity and solidifying a vision and passion for the future while maintaining a healthy disregard for the impossible. For more information, contact Kate Kryder at kryder@email.unc.edu.
Carolina Leadership Development staff also work with student organizations and individuals seeking to increase their insight into leadership-related issues. An important focus of the department is an expansion of services to a wider cross-section of students, with an emphasis on leadership as a mechanism for positive social change.

Additionally, two academic courses are offered: EDUC 317 Dynamics of Effective Leadership (one credit, Pass/Fail) and EDUC 316 Advanced Leadership Development Seminar (three credits, graded). For more information about any of these programs or courses, please contact Carolina Leadership Development, CB\# 5210, 3505 Frank Porter Graham Student Union, (919) 962-7724, brodeur@email.unc.edu, or visit the Web site at carolinaunion.unc. edu/leadership.

Accessibility Resources \& Service (formerly Department of Disability Services) supports the University's commitment to an accessible environment. In consultation with faculty members, staff, and students, the department works to identify and eliminate barriers that limit a student's ability independently to meet the numerous demands of University life.

Individual needs are addressed on a case-by-case basis through the provision of reasonable accommodations that allow the University to maintain the integrity of its programs and services. The following are examples of services available to students (undergraduate, graduate, and professional, full- and part-time):

## Academics

- Accessibility to printed materials (textbooks, course packs, library resources), Braille (embossed or electronic), large print, electronic text (multiple formats)
- Communication access (sign language interpreters, cued-speech transliterators, assistive listening devices [ALD], digital/video recordings)
- Examinations (extended time, alternative input [computers])
- Technology (software for laptop accessibility, screen readers, voiceactivated speech recognition, screen enlargers)
- Class notes
- Physical access to classrooms


## Campus Life

With the goal of creating an accessible environment, Accessibility Resources \& Service works closely with programs, offices, and departments throughout the University, including Housing and Residential Education, Parking and Transportation, Facilities Services, Athletics, and Academic Affairs.

## Eligibility

To address individual needs effectively, in most instances documentation describing current functional abilities will be required. The department is also prepared to assist individuals with temporary injuries or medical conditions that limit access to the University environment.

For more information about Accessibility Resources \& Service, please visit the Web site at accessibility.unc.edu. The office is located in the Student Academic Services Building (Suite 2126) between the Rams Head Center and Morrison Residence Hall. Office hours are 8:00 a.m. to 5:00 p.m. Monday through Friday. The staff can be contacted by telephone at (919) 962-8300 (V) (TTY-711 [NC RELAY]) or by e-mail at accessibility@unc.edu.

Campus Health Services (CHS), located next to Kenan Stadium in the James A. Taylor Building, provides a broad range of health care services including primary care, orthopedics, obstetrics and gynecology, nutrition services, dermatology, travel information and immunization, and allergy management. For convenience, inhouse laboratory, radiology, pharmacy, and physical therapy services also are available. CHS also provides counseling and psychological services; please see the Counseling and Psychological Services section for greater detail about services offered.
Eligibility. Any student who has paid the campus health fee for the current semester or summer session is eligible for health care at CHS.

Health Fee. Currently, the fee covers the cost of most professional services (there is no charge for office visits) provided by CHS physicians, nurse practitioners, physician's assistants, nurses, physical therapists, and registered dieticians. The health fee also provides reduced charges for prescription drugs, miscellaneous supplies, laboratory tests, X-rays, medical procedures, and specialty services. Spouses of students are eligible to receive the same services as students by paying the campus health fee at CHS and demonstrating appropriate insurance coverage.

Hours. Hours of operation vary according to the academic calendar. Hours of operation during the academic year are 8:00 a.m. to 6:00 p.m. Monday through Friday. Students are typically seen on an appointment basis from 8:00 a.m. to 5:00 p.m. Acute care services are provided between 4:00 p.m. and 6:00 p.m. Monday through Friday and from 8:00 a.m. to 5:00 p.m. on Saturday and Sunday during the fall and spring semesters. Weekend acute care services are considered premium services and there is an associated visit charge. Hours of operation in the summer are 8:00 a.m. to 5:00 p.m. Monday through Friday. If CHS is closed, students have access to a nurse advice line through UNC Healthlink, and there is always a CHS physician on call. Call (919) 966-2281 to verify hours of operation, schedule an appointment, or to speak with the Healthlink nurse when CHS is closed.

Immunizations. North Carolina law mandates that all new students at the University document the completion of immunization requirements. Failure to comply may result in cancellation of registration 30 days after classes begin. Vaccines are offered at Campus Health Services at reasonable rates for students who need to complete their immunization requirement.
Mandatory Health Insurance. The University requires proof of health insurance as a condition of enrollment. The University offers a group health insurance plan, including major medical benefits to single and married students, their spouses/partners, and children.

For additional information about CHS, visit campushealth.unc.edu.

Counseling and Psychological Services (CAPS), a department of Campus Health Services, is located on the third floor of the James A. Taylor Building.

The CAPS staff is strongly committed to addressing the mental health needs of a diverse student body through timely access to consultation and connection to clinically appropriate services. CAPS affirms that people of every background are to be treated with respect and dignity. The professional ethics and standards of the multidisciplinary staff at CAPS set a framework for understanding how facets of identity (e.g., gender, ethnicity, race, sexual orientation, gender identity/expression, age, physical and mental abilities, religious beliefs, and socioeconomic background) impact life experience. The CAPS approach to mental health integrates physical, emotional, academic, spiritual, social, and cultural well-being. Counseling and Psychological Services include individual, couples, and group therapy, urgent consultation and crisis intervention, and medication evaluation/management. The CAPS staff consists of licensed psychologists, psychiatrists, clinical social workers, psychology practicum students, interns, and administrative support personnel.

Counseling and Psychological Services can be reached Monday through Friday from 8:00 a.m. to 5:00 p.m. at (919) 966-3658. CAPS invites initial evaluations without an appointment Monday through Friday from 9:00 a.m. to noon and 1:00 p.m. to 4:00 p.m. Students who have a psychological crisis should call (919) 966-3658 immediately. If the crisis occurs after hours, call Campus Health Services at (919) 966-2281. For more information, please visit campushealth.unc.edu/caps.
Student Wellness seeks to enhance the individual and collective health of the community through a wide range of programs, services, and resources. Through partnerships with other campus departments, community agencies, student organizations, and peer mentors, we work to develop and advocate for a campus and community environment that creates, emphasizes, and supports healthy choices and positive decision making regarding health, safety, and wellness.

Student Wellness promotes wellness as a journey rather than an outcome, and believes that students' health choices, as well as the culture of the community around them, involve a dynamic and multifaceted integration of eight dimensions of wellness: physical, emotional, spiritual, social, cultural, environmental, intellectual, and financial.. Using these dimensions, Student Wellness provides integrative programs and services related to a variety of health topic areas, including healthy relationships and sexual health; stress
management; sleep hygiene; alcohol and other substance education, interventions, and recovery supports; and violence prevention.

Student Wellness provides these programs and services on an individual, group, and larger campus community level.

Student Wellness Services is located on the second floor of the Taylor Campus Health Services Building and can be reached Monday through Friday from 8:00 a.m. to 5:00 p.m. at (919) 962WELL. For more information, please visit studentwellness.unc.edu.
Campus Recreation offers amenities for all fitness and recreation wants, needs, and desires of the UNC population. It provides a diverse and intentional recreational program in a safe, inclusive, and accessible environment which enhances the social, mental, and physical well-being of the entire University community. Campus Recreation enjoys a unique dual reporting relationship with the Department of Exercise and Sport Science (EXSS) and its rich history and commitment to a healthy and active lifestyle, and with Student Affairs, which represents the Carolina spirit of student development and learning outside the classroom.

## Facilities

Campus Recreation offers a variety of facilities to satisfy the wants and needs of all UNC students, faculty members, and staff. The two fitness centers, the Student Recreation Center and Rams Head Recreation Center, offer cardiovascular and weight training equipment, as well as an indoor track, locker rooms, and group fitness studios. Basketball, squash, and racquetball courts, along with equipment for check-out, can be found throughout Fetzer Hall and Woollen Gym. These facilities also feature a cycle studio, climbing walls, and multipurpose rooms that can function for practice and instruction of a variety of fitness types. Both an indoor and an outdoor pool are located near the heart of campus. North and South Campus feature recreation complexes and fields for playing basketball, volleyball, tennis, and any other sport. The Outdoor Education Center, located off Country Club Road, is also a great facility for experiencing how recreation and the outdoors can go hand-in-hand.

## Intramural Sports

Intramural Sports offers opportunities for students to compete against their peers in a friendly and structured environment.

## Sport Clubs

A sport club is a University-recognized student organization formed by individuals with a common interest in a sport. Its primary goal is to promote and develop interest in a particular sport and recruit new members. Clubs may be instructional, recreational, and/or competitive.

## Fitness

Fitness is housed in the Student Recreation Center (SRC) and Rams Head Recreation Center (RHRC). Both facilities offer a wide variety of cardiovascular equipment, including many stationary bikes, stair climbers, treadmills, and cross-trainers/elliptical machines.

Over the years, Fitness and Counseling and Wellness Services (of Campus Health Services) have teamed together to enhance student wellness through greater collaborative programming, such as Powerfully Pink (a breast cancer awareness program), Women's

Health and Fitness Day, the Farmer's Market, Fit Wellness into Your Day, and the Get Fit from Head to Heel Challenge.

The Campus $\mathbf{Y}$ is an extraordinarily vibrant, student-driven organization, promoting social justice and social innovation locally, nationally, and internationally. Over more than a century and a half of service, it has incubated such essential campus institutions as Student Stores, Career Services, Intramural Athletics, and New Student Orientation. It has also provided the incubation space and resources for launching fully independent nonprofit organizations such as Nourish International, the Student Environmental Action Coalition, and the Student Coalition for Action in Literacy Education. Over the course of a typical year, approximately 2,000 UNC-Chapel Hill students channel their idealism, passion, and sweat equity into a diverse array of service and advocacy initiatives, including but not limited to public health, youth development, education, human rights, micro-finance, food security, and environmental advocacy. The Campus Y is led by the student executive board and the chairs of all 30 committees and is supported by a professional staff of three full-time employees. Students are encouraged to visit the Campus Y offices in the YMCA Building, adjacent to South Building, to learn about these opportunities and campus, community, youth, and global social justice issues.
Carolina Union is the term used for both the Frank Porter Graham Student Union Building and the University department that serves students in many areas of their cocurricular lives. Governed by a board of directors consisting of students and faculty, the Carolina Union's role is to unify the campus community by providing programs, services, and facilities.

Cultural, educational, and social programs are planned and implemented by the Carolina Union Activities Board (CUAB). CUAB provides valuable leadership experiences for those involved, selecting a president and committee leaders each spring. Students are encouraged to stop by the CUAB office in Suite 3109 of the Union to find out how they can join the committees that plan a wide variety of events (e.g., films, lectures, forums, art exhibits, and concerts) presented throughout the year.

The Frank Porter Graham Student Union Building houses several student media organizations, including Blue and White, Yackety Yack, WXYC, and STV. The offices of officially recognized student organizations such as Student Government, the Graduate and Professional Student Federation, the Black Student Movement, the Carolina Athletic Association, and the Residence Hall Association are also located in the Union.

Official University recognition for student organizations is provided through the Student Activities and Student Organizations, located in Suite 2501 of the Union. The Office of Events Management, Suite 3105, schedules meeting rooms and event spaces in the Union, as well as in other campus facilities for activities of officially recognized student organizations and University departments.

The Union is an important gathering place for the University community. It offers event spaces, collaborative work spaces, and meeting rooms as well as comfortable lounges and an art gallery. Many activities take place in the Great Hall for large gatherings. There are also big-screen TVs, Alpine Bagels, Wendy's, and vending
machines for food and entertainment. The Carolina Union provides information services, marketing and design, production services, and the box office. Wireless online access is available throughout most areas of the building. The Carolina Union is where the campus community comes together-the place to meet friends, to relax, to learn, to have fun, and to get involved.
The Office of the Dean of Students provides support and assistance to the University of North Carolina at Chapel Hill community, empowering students to succeed in navigating the University environment. Its four pillars-Care, Collaborate, Celebrate, and Empower-inform its programs, services, and initiatives. The office often serves as a beginning point of contact for students, faculty members, staff, families, and community constituencies regarding various student concerns. It supports student academic, personal, and professional development through a combination of individual initiatives, innovative outreach programs, and cocurricular opportunities, as well as policy development and oversight. The Office of the Dean of Students is located in the Student Academic Services Building North (SASB North), 450 Ridge Road, Suite 1106, and can be reached by telephone at (919) 966-4042.

## Fraternity and Sorority Life and Community Involvement

(OFSL-CI) provides services, programs, and assistance to the 56 fraternities and sororities that make up the Chapel Hill Greek community as well as students who are transitioning or who have transitioned to off-campus living. The office's mission is to enhance the academic experience, holistic development, and civic contribution of students by providing effective services and developmental opportunities that enrich the Carolina experience. OFSL-CI advocates for the fraternal movement by educating, advising, and empowering fraternities and sororities and their members to live according to their organizational values and contribute to the University and greater community. The groups reach these goals by maintaining above-average grades, participating in community service, raising funds for charities, being involved in other student organizations, and nurturing a small-group, supportive environment that makes all of this possible. Being Greek at Carolina is a popular option, as 18 percent of undergraduate students are members of fraternities and sororities. The office promotes authentic relationships between students and their neighbors by encouraging them to be active and responsible members of the communities in which they live. For more information, call the Office of Fraternity and Sorority Life and Community Involvement, located at 2100 Granville Towers South, (919) 962-8298, e-mail greeks@unc.edu, or visit the Web site at ofslci.unc.edu.

Housing and Residential Education strives for student success, self-awareness, and satisfaction in the residential experience by creating inclusive communities that enhance the intellectual climate, promote student learning and citizenship, and provide students opportunities for involvement and leadership. Students are encouraged to embrace the "Carolina Way" and work towards leaving their "Heel Print" on the larger University by connecting with resources, modeling the way, and making a difference while they are Carolina students. By getting involved, students develop an identity with the larger University community, quickly develop
social networks, and find opportunities for intellectual, spiritual, physical, and occupational growth.

Housing and Residential Education is an integral part of the academic and social community at UNC-Chapel Hill. It is committed to providing an environment conducive to the educational, psychological, and social development of residents. It strives to build a community that balances respect for the individual as well as the rights and interests of the whole community. All members of the residence hall and apartment communityresidents, staff, and visitors-are expected to act in a manner that demonstrates respect and consideration for those around them.
Housing and Residential Education offers a variety of academic success and engagement initiatives to help student staff and oncampus residents develop healthy academic habits and support systems that lead to student success. These initiatives include living-learning communities, academic advising in the residence halls, transitional programming for first-year students, faculty engagement programs such as Meals with Heels and Scholar in Residence, individual community programming on academic success, and an experiential education course, EDUC 318 Peer Leadership in the University Environment.

This holistic approach complements classroom experiences and lays the foundation for students to become better prepared to succeed in life beyond college.

## The Lesbian, Gay, Bisexual, Transgender, and Queer (LGBTQ)

Center works to foster a safe, inclusive environment for UNCChapel Hill community members of all sexualities, gender identities, and gender expressions.

The LGBTQ Center, located in the Student Academic Services North Building, Suite 3226, offers social and educational programs, confidential peer support and discussion groups, drop-in support hours, and a resource library with more than 1,000 holdings. The center also coordinates the Safe Zone program and has a wealth of information about local organizations and resources. Web site: lgbtq.unc.edu.
New Student and Carolina Parent Programs' mission is to provide new undergraduate students the information and activities needed to transition smoothly to the University of North Carolina at Chapel Hill, and to promote an ongoing relationship between the University and the parents and families of all Carolina students in support of their success at Carolina. The core values are

- Learning: Facilitate the student academic experience
- Student success: Provide support through transitions
- Inclusivity: Cultivate an inclusive campus community
- Collaboration: Foster community connections with internal and external partners
- Communication: Communicate expectations, services, and resources
- Leadership: Promote leadership and engagement opportunities To fulfill this mission, several programs and services are offered, such as New Student Orientation programs (first-year students, transfer students, and their families), Summer Send-Offs, Week of Welcome, Tar Heel Beginnings, New Student Convocation, Carolina Summer Reading Program, Tar Heel Transfers student organization, Tau Sigma honor society, T-LINKS mentoring, new student and parent monthly e-mails, new student and parent Web
site, Family Weekend, Carolina Parent and Family Handbook, Parent Clubs, Carolina Parents Association, and Carolina Parents Council. For more information, call (919) 962-8304, e-mail newstudents@unc.edu, or visit nscpp.unc.edu.
University Career Services (UCS) provides information, career counseling and advising, interest assessment, and career-related programs and services to help students learn about various careers and how to prepare for them, make career decisions, acquire job/ internship search skills, interact with potential employers, and apply for graduate and professional schools.

Services include workshops on career planning, résumé writing, interviewing, networking, internship and job seeking; résumé mailing to employers; individual career counseling; on-campus interviewing; career assessments; full- and part-time job and internship vacancies online (Careerolina); a Web-based alumni networking database (Alumni Advisor Network); a reference file service (Interfolio); preprofessional advising; and many print and electronic resources. Additional resources and programs include occupational and employer information, career panels and fairs, networking nights, and law school exploration day. Some services are limited to students in a UNC-Chapel Hill degree or certification program who are within two semesters of graduation. University Career Services is located in 219 Hanes Hall. Telephone (919) 962-6507; e-mail ucs@unc.edu; Web site: careers.unc.edu.

## Cocurricular Involvement

Undergraduate students encounter many experiences outside the classroom that contribute to personal and skills development. Involvement in cocurricular activities is one such experience. Through meeting and working with others in cocurricular activities, students gain self-understanding, develop relationships, establish personal values and beliefs, and further enhance their abilities and intellect. Each year the University extends official recognition to approximately 600 cocurricular organizations formed by students. These organizations include but are not limited to academic/preprofessional, cultural, international, honorary societies and service groups, music and performance groups, publications and media, religious groups, fraternities and sororities, sports and recreation clubs, student government, and special interest groups. This variety allows each student to select areas of particular interest, yet there are no limitations, as students may create new organizations if they have additional interests.

Opportunities exist to gain leadership experience and skills by serving as officers of these organizations. Training in leadership development is offered to members of recognized organizations through the Carolina Union's Office of Carolina Leadership Development, Suite 3505, Frank Porter Graham Student Union. Teaching of program planning, event management, and organizational development is available through the Carolina Union's Office of Student Activities and Student Organizations, Suite 2501, Frank Porter Graham Student Union. There are also opportunities for involvement in community service and related organizations on the campus, such as the Campus Y, APPLES, and the Carolina Union Activities Board. Involvement in these organizations provides students with the potential for personal and professional skills development.

Students interested in learning more about how to get involved and about the opportunities available are encouraged to visit the Associate Director for Student Activities and Student Organizations, 2501 Frank Porter Graham Student Union, e-mail activities_organizations@email.unc.edu.

## Recognition of Cocurricular Student Organizations

The University requires that cocurricular student organizations complete the official University recognition process each academic year. This process is designed to ensure that student organizations affiliated with the University comply with University policies, including the University's Official Recognition of Student Organizations Nondiscrimination Policy (see policies.unc.edu/ policies/student-org-dondiscrim). Official recognition provides student groups access to the following benefits: the privilege of applying for use (through reservation) of specified University facilities, property, services, or equipment pursuant to the Policy on Use of University Facilities; use of the University's name in the organization's title, so long as University sponsorship or endorsement is not implied or stated; the privilege of applying for funding from the student activity fee, which is legislatively apportioned by the Student Congress; and the assistance of University staff. Applying each year additionally ensures that active students are aware of University policies and provides the University community with current information concerning Universityrecognized student organizations.

Official University Recognition Agreement forms are available from the Student Organization Resource Center, 2501 Frank Porter Graham Student Union. Once the agreement form has been read and signed by the student who serves as the primary contact and by the organization's advisor, the application process is completed in a meeting with the associate director for student activities and student organizations.

All information in and attached to the application is considered public information upon the granting of recognition.

## The Office of Student Conduct

This office works with the undergraduate and graduate and professional school student-led honor systems. The office works together with students, faculty members, and staff to promote community expectations, personal responsibility, and accountability, supporting the student leadership as they adjudicate alleged violations of the University's Honor Code.

## Honor Code

The Honor Code is the heart of integrity at Carolina. In brief, the Honor Code states that all students shall "refrain from lying, cheating, or stealing," but the Honor Code imparts much more. It is the guiding force behind the responsible exercise of freedom, the foundation of student self-governance at UNC-Chapel Hill. By abiding by the Honor Code, students can be assured that their individual rights and academic work will be respected.

Each student's acceptance of enrollment in the University presupposes his or her commitment to the Honor Code and to the principles of self-regulation on which their continued viability rests.

## Mutual Responsibilities of the Faculty and Students

Academic work is a joint enterprise involving faculty and students. Both have a fundamental investment in the enterprise and both must share responsibility for ensuring its integrity. In relation to the Honor Code, therefore, specific responsibilities of the faculty which parallel the responsibilities of the students have been formally adopted by the Faculty Council.

## Responsibilities of the Faculty

I. Awareness: To assure that communitywide expectations regarding academic integrity are understood and communicated, and that students are held accountable for conforming their conduct to such expectations.
II. Communicating Expectations and Administering Examinations: To assist students in complying with their responsibilities relating to academic integrity, faculty members, teaching assistants, and other instructional personnel should
A. Use good judgment in setting and communicating clear ground rules for academic work conducted under their supervision.
B. Require students to sign the honor pledge as a condition of submitting academic assignments.
C. Take steps to prevent unauthorized access to examinations during development, duplication, and administration.
D. Avoid reusing prior examinations in whole or in part to the extent possible.
E. Take all reasonable steps consistent with physical classroom conditions to reduce the risk of cheating during the administration of examinations
F. Maintain proper security during the administration of examinations, including as appropriate overseeing distribution and collection of examinations and proctoring the examination session.
III. Oversight: In the event of student misconduct that appears to violate the requirements of the Honor Code, faculty members, teaching assistants, and other instructional personnel should
A. Report to the appropriate Student Attorney General any instance in which the instructor has reasonable basis to conclude that a student under the faculty member's supervision has engaged in academic dishonesty or substantially assisted another to do so in connection with academically related work.
B. In the instructor's discretion, notify the student of the instructor's intention to report the suspected academic dishonesty and permit the student to provide relevant further information if the student chooses to do so.
C. Refrain from taking unilateral punitive action as to a student rather than reporting conduct in suspected violation of the Honor Code.
D. Cooperate with representatives of the Honor System in conducting necessary investigation, providing testimony or other evidence, recommending appropriate sanctions, or otherwise bringing the matter to prompt conclusion.
IV. Involvement: To bring to bear requisite faculty judgment regarding the nature and importance of academic integrity, and to nourish a strong campuswide understanding and commitment to associated intellectual and personal values,
faculty members, teaching assistants, and other instructional personnel should
A. Explore issues of integrity in connection with instructional activities where relevant and appropriate.
B. Encourage their academic units to take matters of academic integrity seriously, become informed regarding related problems and advisable means of preventing problems from arising, and provide requisite training and support to instructional personnel.
C. Participate upon request as part of educational initiatives, faculty advisory panels, and University Hearing Boards designed to create, nurture, and enforce high standards of academic integrity within the University community.

## Responsibilities of Students

In order to ensure effective functioning of an Honor System worthy of respect in this institution, students are expected to
I. Conduct all academic work within the letter and spirit of the Honor Code, which prohibits the giving or receiving of unauthorized aid in all academic processes.
II. Consult with faculty and other sources to clarify the meaning of plagiarism, to learn the recognized techniques of proper attribution of sources used in the preparation of written work, and to identify allowable resource materials or aids to be used during examination or in completion of any graded work.
III. Sign a pledge on all graded academic work certifying that no unauthorized assistance has been received or given in the completion of the work.
IV. Comply with faculty regulations designed to reduce the possibility of cheating-such as removing unauthorized materials or aids from the room and protecting one's own examination paper from the view of others.
V. Maintain the confidentiality of examinations by divulging no information concerning an examination, directly or indirectly, to another student yet to write that same examination.
VI. Treat all members of the University community with respect and fairness.
VII. Report any instance in which reasonable grounds exist to believe that a student has given or received unauthorized aid in graded work or in other respects violated the Honor Code. Such report should be made to the Office of the Student Attorney General, the Office of the Dean of Students, or other appropriate officer or official of their college or school.
VIII. Cooperate with the Office of the Student Attorney General and the defense counsel in the investigation and hearing of any incident of alleged violation, including the giving of testimony when called upon.

## Procedure for Reporting

Members of the University community who wish to report possible violations of the Honor Code should contact the Office of Student Conduct at (919) 962-0805 or fill out the online form found at studentconduct.unc.edu/report-violation. The Office of Student Conduct will review the report and refer it to the appropriate Student Attorney General for action.

## Student Government

The by-laws of the Board of Trustees of the University invest in the chancellor of the University "the duty . . . to exercise full authority in the regulation of student conduct and in matters of student discipline" At the same time the chancellor has delegated authority to exercise disciplinary and administrative functions in student life to agencies of student government. Within the context of this delegated authority and responsibility, the student body at the University has been self-governing for decades.

Student government at Carolina is more than 100 years old, and hundreds of students are involved in the various branches every year. From serving on the Board of Trustees to the appropriation, oversight, and authority of student fees, from instituting governmental service to enforcing the Honor Code, student government affects the life of every student every day.

The entire framework of student government's activities rests on its ability to maintain the foundation of administrator-student relations. The University should serve as an advisor, not as a supervisor, to the student body. In order to enjoy this freedom, students at Carolina must be willing to take a certain amount of responsibility to develop their own community and community values. Student government serves to maintain this freedom and the advisory, not supervisory, relationship.

In 1876 the Honor System officially ended all vestiges of the monitorial system; in 1904 a judicial body, the University Council, was established; in 1938 the Student Legislature was established; and in 1946 a written constitution was approved. In 1968 the coeducational Honor Court was formed out of the Men's Court and Women's Court to hear all Honor Code cases. The Instrument of Student Judicial Governance was ratified and put into operation in 1974 and was significantly revised in 2003.

Student government at UNC-Chapel Hill approximates the federal system of government with its three branches: an executive branch, a legislative branch, and a judicial branch.
A. The Executive Branch: This group serves as the official voice of the student body to the University and broader community, including the town of Chapel Hill and the state of North Carolina. Heading the executive branch is the student body president, assisted by the vice president, the president of the Graduate and Professional Student Federation, student body treasurer, student body secretary, the chief of staff, and the senior advisor. As determined by and reflective of the needs of the student body, the president structures his/her cabinet and committees and makes appointments to a wide range of University committees that address those needs and other concerns as they arise during the year. These committees usually include hardship parking, elections board, University services, information technology, student life, minority affairs, first-year focus council, and public service.
B. Legislative Branch: Student Congress is unicameral, consisting of 41 representatives elected by the student body, with the student body president and the student body treasurer serving as nonvoting ex officio members. The speaker of the Student Congress is elected from among the 41 representatives. Graduate and professional students and on- and off-campus undergraduates are proportionally represented in the Congress.

Congress handles considerable legislation and, as one of its primary responsibilities, oversees the student activity fees budget and other student fee areas. Established by student and University committees before approval by the Board of Trustees, a predetermined amount of the fees paid by each student provides the source of funds for Student Congress's annual allocation and subsequent appropriations budgets. These funds are allocated to petitioning student organizations that have received official University recognition. The student body can petition for changes in the student activities fee at any time.

Student Congress representatives are elected in the spring for one-year terms, and each member serves on one of three standing committees: finance, rules and judiciary, and student affairs. A fourth committee, ethics, is composed of senior members of the Congress.
C. Judicial Branch: There are two major areas that comprise the judicial branch; the first is responsible for the Instrument of Student Judicial Governance, and the second is responsible for resolving issues related to the Student Code (congress.unc.edu/ student-code).
The Honor Court hears all cases involving potential violations of the Honor Code. There are separate courts for undergraduate students, graduate students, and students in the Schools of Law, Medicine, Dentistry, Pharmacy, and Business.
The Honor Court is organized as follows:

- Office of the Student Attorneys General: The appropriate (undergraduate or graduate) student attorney general investigates all potential violations of the Honor Code. Staff members also present cases to the Honor Court and assist students accused of violating the Honor Code.
- University Hearings Board: These boards are made up of faculty, staff, and students. The University Hearings Board generally hears appeals of Honor Court cases.
- Students interested in serving on the Honor Court or the student attorney general's staff should contact the Honor System Office at (919) 966-4084 for information about how to apply.
- Student Supreme Court: This court adjudicates all issues of student constitutional law to be decided under the Student Code. This body most closely fills the traditional judicial branch of government and consists largely of students with previous experience in student government, mediation, and/or law.


## Facilities and Services

## Ackland Art Museum

The Ackland Art Museum, at 101 South Columbia Street, just off East Franklin Street, has an internationally known permanent collection of over 17,000 works of art ranging from antiquities to contemporary pieces. The Ackland has North Carolina's premier collections of Asian art and works of art on paper (drawings, prints, and photographs), as well as significant collections of European masterworks, 20th-century and contemporary art, African art, and North Carolina pottery. The Ackland organizes more than a dozen special exhibitions and hundreds of public programs every year. Learn more by visiting the museum's Web site: www.ackland.org.

More than 10,000 of the Ackland's 55,000 annual visitors are University students who use the Ackland to support their academic work in courses across the curriculum. To find out more about the creative learning opportunities the Ackland offers or to schedule class sessions at the museum, call the museum's assistant for academic programs at (919) 962-3342 (voice) or (919) 962-0837 (TTY). Students with an interest in fine arts and public service are encouraged to become involved in Student Friends of the Ackland Art Museum, a student organization that hosts private cultural, professional, and social events planned by and for Student Friends of the Ackland.

## Campus Safety

The UNC Department of Public Safety is committed to creating and maintaining an environment where students, employees, and visitors to campus can feel safe in this vital community. Through its philosophy of community-oriented policing (COP), the department strives to employ professionalism, problem solving, and innovative strategies to remain one of the premier public safety agencies in the nation.

The Department of Public Safety needs your help in achieving its high standards of excellence. Visit the department's Web site at www.dps.unc.edu.

Familiarize yourself with security resources such as the campuswide network of emergency call boxes, Smart911, and UNC Mobile's Rave Guardian services, self-defense instruction, other crime prevention classes, and much more.

In addition, the University has the capacity to send emergency warnings by text message to students, faculty, and staff through its Alert Carolina initiative. An emergency alert system siren will sound during an immediate life-threatening situation, such as an armed and dangerous person in the area, a major chemical spill or hazard, or a tornado. The entire University community is encouraged to educate itself regarding UNC's emergency communications resources and to register cell phones for this method of communication by visiting the Alert Carolina Web site at alertcarolina.unc.edu.

Other initiatives by the UNC Department of Public Safety include a continued emphasis on bike patrols and the operation of a community response unit, consisting of the department's successful larceny reduction unit and its highly visible motorcycle unit. Main
administrative offices are in the Public Safety Building atop Hardin Drive off Manning Drive (adjacent to Morrison Residence Hall).

Download the free Rave Guardian safety app to check in with family, friends, UNC Public Safety, or others you trust to help you stay safe both on and off campus. For more information on this app, visit raveguardian.unc.edu, where you can set a safety timer, manage and send messages to designated "guardians," and contact Public Safety for help or send text tips or photos if you see anything suspicious. You can also set up a Smart911 safety profile, which contains information such as address details (home and school), medical conditions, and more.

UNC-Chapel Hill students and staff can learn how to respond in an active shooter scenario by attending a "Shots Fired" training presentation offered by UNC officers. Additionally, new videos offer tools to help prevent violence on campus, and a larceny reduction video has now been produced especially for UNCChapel Hill.

The department hopes that the information presented through contact with its officers and through its Web site will help the University partner with it in the mission of protecting North Carolina's future.

For more information visit the Department of Public Safety during regular business hours (weekdays 7:30 a.m. to 5:00 p.m.), in the Public Safety Building via Hardin Drive (just off Manning Drive) on south campus. For more information on safety and security at UNC-Chapel Hill, log onto the Department of Public Safety's Web site at dps.unc.edu. You may also "like" the department on Facebook (UNC Department of Public Safety) or choose to follow us on Twitter (@UNCDPS). Concerns may be addressed at the following campus telephone numbers:

- General Information (919) 962-3951, 3952
- Police Emergencies 911
- Police Nonemergencies (919) 962-8100


## Cultural Activities

Carolina's students, faculty, and staff participate in and attend a variety of cultural activities. Here is a sampling:

The Department of Music sponsors concerts and lectures by faculty members, guest artists, student ensembles, and visiting scholars. Special events include the William S. Newman Concert Series, opera productions, the Annual Jazz Festival, and the biennial Festival on the Hill. A number of ensembles (orchestras, choirs, bands) are open to all students, while nonmajor courses on all aspects of classical and popular music are a prized part of the general curriculum. For further details, see music.unc.edu.

The Department of English and Comparative Literature sponsors a yearlong program of public lectures and readings by students, teachers, and local writers. There are frequent public lectures and readings by visiting scholars and writers. When new books are published by local writers and faculty members, receptions and autograph parties are held in the student bookstore.

## Information Technology Services

We know how important technology is to everyday life and to your success at Carolina. Information Technology Services (ITS) at UNC-Chapel Hill offers many services and resources to help you stay connected while at college. Read more at its.unc.edu.

## ConnectCarolina

ConnectCarolina is a central, online application that students use for several administrative functions, including registering for classes, receiving financial aid awards, paying tuition bills, viewing academic records, and updating personal information.
Access ConnectCarolina at connectcarolina.unc.edu.
For tips on using ConnectCarolina, see the Office of the University Registrar's Web site (registrar.unc.edu) and the Student Account Services Web site (cashier.unc.edu).

Students can grant parents or others access to pay bills and view some student information. Read more about that at connectcarolina.unc.edu/more-student-links/how-to-set-up-proxies-and-authorized-users/index.html. Keep in mind that it is a violation of University policy to share your Onyen and password with others (even parents).

## ITS Response Center (also known as the ITS Help Desk)

UNC-Chapel Hill offers students free technical support for computer, Internet, software, and other technical issues. Students can contact the ITS Response Center using one of several convenient methods:

Write to help.unc.edu to submit a help request or view step-bystep guides, documentation, and frequently asked IT questions

- Call (919) 962-HELP (4357) or toll-free (within the United States) at (866) 962-4457
- Chat via help.unc.edu/chat
- Like on Facebook at facebook.com/unchelpdesk
- Follow on Twitter at twitter.com/unchelpdesk

Visit the Robert B. House Undergraduate Library basement or the first floor of the Student and Academic Services Building South (SASB South)

## ONYEN and Password

All enrolled UNC-Chapel Hill students must have an Onyen, a login ID known at Carolina as the "Only Name You'll Ever Need." Students use their Onyen and password to access online campus services, including e-mail and ConnectCarolina. To create an Onyen, change your Onyen password (expires every 90 days), or to subscribe to online services, visit onyen.unc.edu.

## E-mail (HeelMail)

Because the University uses UNC-Chapel Hill e-mail addresses for official communications to students, every student must have a University e-mail account. HeelMail is the student e-mail system at the University and offers many features and services:

- Single sign-on using your Onyen and password (just like ConnectCarolina and Sakai)
- Sync e-mail on your mobile device
- Integrated calendar with the Exchange e-mail used by faculty, advisors, and staff, allowing students to schedule meetings easily
- Windows live messenger service


## Tar Heel Tracker

Students who entered Carolina in fall 2009 or later have access to Tar Heel Tracker, a useful online tool for checking your progress towards graduation. Tar Heel Tracker is a live-updating report with the capacity to evaluate your coursework against the applicable General Education, major, and other degree requirements needed for your undergraduate degree.

## Security

You may not think your computer has anything a hacker would want, but everyone on the University network has one priceless commodity: connectivity. A hacker can use your Internet connection to engage in various illegal activities and possibly destroy the everyday information on your computer that is often precious and irreplaceable to you. Just as you would never leave your residence hall or apartment without locking the door behind you, you should never leave your computer unsecured.

It is critical that you take steps to protect your computer from intrusions. Not doing so could result in the loss of your personal information and Internet connectivity. Find out what you should do here: its.unc.edu/security/safe-computing-tips.

If you think you may have a security issue, contact (919) 962-HELP or e-mail security@unc.edu.

## ResNET (Residential Networking, Education, and Technology)

The ResNET program, one of the largest in the nation, employs students who live in residence halls as computing consultants who provide on-site support and educational activities to their classmates. ResNET is also in charge of providing high-speed wired and Wi-Fi (wireless) networking. Learn more about ResNET and its services at its.unc.edu/resnet.

## Cable TV (ResTV)

The Department of Housing and Residential Education and ITS provide University residence halls with connections to the ResTV system, with more than 100 channels of HD informational, educational, and entertainment programming. All costs are included in basic room rental. Learn more about ResTV at help. unc.edu/6544.

## Computer Labs

ITS Labs partners with campus groups to provide computer study areas in Davis Library, Robert B. House Undergraduate Library, Health Sciences Library, and Student Academic Services Building South. These locations include computer stations, seating for laptop users, and/or group collaborative study areas. CCI Pharos print stations are also available. All fee-paying students are given a print allotment each semester that is available through their OneCard. A list of CCI Pharos print locations and other information is available at its.unc.edu/service/cci-printing.

## Training

ITS provides access to multiple training platforms to help users across the campus community gain and improve their technology skills. Students can explore the in-person and online technology training options available to them by visiting its.unc.edu/services/ training.

## Software

ITS Software Acquisition provides access to software for students at UNC-Chapel Hill. This includes licensed software (which is often free but may have a fee) and free shareware software. For more information, visit software.unc.edu.

## Computer Purchase and Repair

You may purchase a Lenovo or Apple laptop through the University's Carolina Computing Initiative (CCI)(see cci.unc. edu). If you buy your computer through CCI, you may drop off computers at the ITS Response Centers in the Undergraduate Library or SASB South for repairs authorized by Lenovo and Apple. If you have another type of computer (Dell, Gateway, etc.), the ITS Response Center can typically assist you with software repairs.

## Sakai

Your courses may utilize the collaboration and learning environment called Sakai. Core tools include announcements, e-mail/messages, syllabus, and course documents/resources. ITS Teaching and Learning provides technical support for Sakai. Find it and more information at sakai.unc.edu.

## Web Site Services

Students can easily create and manage Web sites using the WordPress-based system supported by ITS Digital Services and the Office of Arts and Sciences Information Services (OASIS). Learn more about this self-serve Web publishing solution at web.unc.edu.

## University Operators

The University Operators provide general campus-related information, offer directory assistance, and route calls to campus departments, schools, and centers at UNC-Chapel Hill. They can be contacted at (919) 962-2211 during normal business hours.

## The Library System

The UNC-Chapel Hill Library system is one of the premier libraries in the South. Everyone is welcome to use all campus libraries, including the House Undergraduate Library, Davis Library, the Wilson Special Collections Library, the Health Sciences Library, and numerous libraries with various subject specialties. The libraries' Web page (library.unc.edu) provides access to an extensive array of scholarly research materials including e-journals, e-books, citation guides, and online research assistance through e-mail, chat, and text messaging services.

The Robert B. House Undergraduate Library serves as an intellectual crossroads for students, faculty, and the community. The library features quiet individual and collaborative group study space, state-of-the-art design and media labs, a large ITS computer lab, and the ITS Response Center (ITRC). The library is open 24 hours a day Sunday through Thursday. Hours vary according to department on weekends, holidays, and intersessions.

## Morehead Planetarium and Science Center

The Morehead Building, home to one of the largest planetariums in the United States, is located on the north end of the University campus. The Morehead Building and its grounds, complete with the 68 -foot GlaxoSmithKline Fulldome Theater, scientific exhibits, gift shop, observatory with 24 -inch reflecting telescope, visitors' center, Genevieve B. Morehead Art Gallery, rotunda, and rose garden with a massive sundial, were built for students and the people of North Carolina.

Public star shows, which run weekends and summer weekdays at the planetarium, explore the latest topics in astronomy and space science. (See www.moreheadplanetarium.org for the current show schedule.) Morehead educators host "Carolina Skies," a popular live-narrated show. Weekend matinees give children a chance to explore the stars through shows such as "Magic Tree House ${ }^{\circledR}$ Space Mission." Many planetarium productions are Morehead originals, produced on the UNC-Chapel Hill campus.

In addition to planetarium shows, Morehead offers live science demonstration shows on its Science Stage. Changing exhibits showcasing University research in the sciences are featured in the Lower Exhibit Gallery. The planetarium engages the entire community through noncredit classes for adults and children, summer camps, guest speakers, special programs, public skywatching sessions, and memberships at a variety of levels.

The Morehead Building and its planetarium were gifts of industrialist John Motley Morehead III (1870-1965), class of 1891, whose mission of science education and outreach to the general public is realized through the planetarium's programs. Since 1949 the planetarium has been a giant classroom for students, teachers, school groups, senior citizens, youth groups, and the general public. An early contributor to the American space program, the Morehead Planetarium provided training for United States astronauts from the Mercury, Gemini, Apollo, Skylab, Apollo-Soyuz, and early Space Shuttle programs. The Morehead Building serves as the University's academic front door: The Morehead-Cain Foundation and the UNC-Chapel Hill Visitors' Center are housed within the building, while the UNC Department of Physics and Astronomy operates the Morehead Observatory at the building's east end. The domed State Dining Room within the building serves a variety of special event functions.

Beyond the Morehead Building's walls, Morehead Planetarium and Science Center provides science outreach to North Carolina schools through several educational programs. The DESTINY Traveling Science Learning Program serves precollege teachers through professional development workshops and school visits from its mobile laboratories. The PLANETS Portable Planetarium Program delivers astronomy programs to elementary schools throughout the state using an inflatable dome and mobile projection system.

In 2010 Morehead Planetarium and Science Center founded the North Carolina Science Festival, a statewide initiative that engages nearly 240,000 North Carolinians in science activities each year. Morehead coordinates the efforts of dozens of museums, parks, universities, and other institutions throughout the state to present 500 events during the festival. The North Carolina Science Festival is the first statewide science festival in the United States.

## North Carolina Botanical Garden

The North Carolina Botanical Garden is a center for the study, display, interpretation, and conservation of plants and of the natural areas of which these plants are a part. Garden staff members administer several sites, including the 75 -acre display gardens and nature trails, Coker Arboretum and Battle Park in the heart of the campus, and the 367 -acre Mason Farm Biological Reserve.

The garden's main visitor site, including its state-of-the-art sustainable Education Center, display gardens, and nature trails, is located near the intersection of Manning Drive and Fordham Boulevard (U.S. 15-501 Bypass) on the UNC-Chapel Hill campus (the visitor parking lot is accessed via Old Mason Farm Road, which intersects Fordham Boulevard one block east of Manning Drive). The garden emphasizes the botany, ecology, and horticultural uses of southeastern native plants and maintains natural habitat gardens representing North Carolina's coastal plain, piedmont, and mountains. Other collections include perennial displays, rare and aquatic plants, a garden of flowering plant families, an extensive carnivorous plant display, an accessible gardening demonstration area, and the award-winning Mercer Reeves Hubbard Herb Garden.

The historic Coker Arboretum, founded in 1903, is revered by students, faculty, alumni, and other visitors. The five-acre arboretum in the heart of the UNC campus features a collection of native and exotic trees, shrubs, and herbaceous plants growing amid lawns intersected by brick and natural paths. The Campus-toGarden trail through the Coker Pinetum provides a walking route from campus to the Education Center and gardens.

The Botanical Garden sites constitute an outdoor laboratory and classroom that support University teaching and research. Student internships are available as well. The garden's public classes, workshops, tours, and lectures serve a wide audience, from schoolchildren to adult learners of all ages and abilities. Opportunities for nonformal learning and quiet recreation are available year round. The UNC Herbarium, which became a part of the Botanical Garden in 2000, houses more than 800,000 pressed plant specimens, the largest such collection in the southeastern United States. The herbarium serves faculty, students, and researchers across the nation and worldwide, both on site and through the loan of specimens by mail and through Internet searches of its database. Admission to all Botanical Garden sites is free. University students, faculty, and staff are welcome and encouraged to use Botanical Garden sites for education, research, recreation, and contemplation. They are welcome, as well, to become members of the Botanical Garden Foundation, Inc., the garden's membership support organization. Call (919) 962-0522 for student, individual, and family rates. Members receive the garden's quarterly newsletter, and discounts on class registration fees and invitations to special member events. Information about the Botanical Garden's programs and properties can be found on the Web at www.ncbg.unc.edu.

## Physical Education and Athletics

Physical education and recreational sports facilities include Woollen and Fetzer gymnasiums, multiple outdoor fields, indoor and outdoor pools, Finley Golf Course, the Student Recreation Center, tennis courts, and other facilities. Varsity athletic teams compete at Carmichael Arena, Boshamer Baseball Stadium, Henry Stadium, Kenan Stadium, Koury Natatorium, Fetzer Field, the Dean E. Smith Center, and other modern venues.

## PlayMakers Repertory Company and Department of Dramatic Art Performances

## PlayMakers Repertory Company, located on the UNC-Chapel

 Hill campus and associated with the Department of Dramatic Art, is a nonprofit professional theatre serving audiences in the Chapel Hill and Triangle areas, as well as the University community. Each year professional guest directors, designers, and actors work with the resident acting company of faculty members, graduate students, and resident designers and production personnel to produce a season of six mainstage productions in the 499-seat Paul Green Theatre as well as three productions in the $\mathrm{PRC}^{2}$ series in the 280seat Elizabeth Price Kenan Theatre. The performance season runs throughout the academic year and features a mix of classic and contemporary plays. As part of its relationship to the community, PlayMakers also has several education and outreach programs serving young people and adults and frequently partners with other departments and organizations on the UNC-Chapel Hill campus.Undergraduate students have the opportunity to work with resident and guest artists in every aspect of professional theatre: administration, stage management, box office, costumes, properties, set construction, lighting, sound, assistants to the directors, and acting (in appropriate roles). Auditions are held regularly for productions with PlayMakers Repertory Company when roles are available to undergraduate students.

The Department of Dramatic Art produces a fully staged, faculty-directed play each semester and sponsors a variety of other productions such as student-directed work both in a smaller classroom environment and full productions in the Elizabeth Price Kenan Theatre. The department provides showcase venues for new student writing, including readings, fully produced plays, and the Samuel Selden Playwriting Contest.
The student-produced Lab! Theatre is housed in the department and performs in the Elizabeth Price Kenan Theatre in the Center for Dramatic Art. The emphasis in the Lab! Theatre is on the acting and directing experience.

## Carolina Performing Arts

Carolina Performing Arts is the official performing arts presenter of the University of North Carolina at Chapel Hill. Located in the heart of Carolina's historic campus at Memorial Hall on Cameron Avenue, Carolina Performing Arts presents approximately 40 performances throughout the academic year.

Performances feature the very best of the performing arts: internationally renowned classical recitalists and orchestras, dance and chamber ensembles, jazz, folk and world music, opera, and
theater. Dedicated to making the arts accessible to students, Carolina Performing Arts offers a limited number of $\$ 10$ student tickets to all performances.
Established in 2005, Carolina Performing Arts strives to nurture artistic innovation and the development of new works on and off campus; to challenge and inspire audiences with powerful and transformative performances; and to integrate the arts into the life of the University, embracing its mission of teaching, research, and public service.
For event listings, tickets, and more information, visit www. carolinaperformingarts.org or call (919) 843-3333.

## Radio Stations

WUNC (FM) has been licensed to the University of North Carolina at Chapel Hill since 1952. In 1976 the station was recognized as a full-service public radio station by the Corporation for Public Broadcasting and became a member of National Public Radio. WUNC operates as a noncommercial educational station, partially supported by listener contributions, with 100,000 watts of power at 91.5 FM . The station offers educational and cultural programming as a public service to the community and provides training opportunities for students under the direction of its professional staff. Find out more about the station at www.wunc.org.

WXYC 89.3 FM is a 400 -watt progressive music station broadcasting from UNC-Chapel Hill's Student Union. Founded in 1977, the station is run primarily by students, who make up the majority of the 140-person staff. WXYC is on the air 24 hours a day, 365 days a year and has long been recognized as a programming innovator by the community and by the music industry.

Block programming at WXYC is limited, with an emphasis instead on an eclectic mix of music. This includes regular rotation of new releases from local, national, and international acts, plus music drawn from throughout the 20th and 21st centuries. WXYC's playlists include rock, jazz, blues, reggae, hip-hop, techno, soul, country, and traditional artists from a broad range of cultures. The station's programming also includes news, talk, and sports shows; the emphasis is on variety and a balanced mix of the familiar, new, and unusual. In 1994 WXYC became the first radio station in the world to continuously rebroadcast its live signal over the Internet. Listen and find out more about the station at www.wxyc.org.

## Religious Activities

## Campus Ministers' Association

The Campus Ministers' Association at UNC-Chapel Hill seeks to work cooperatively, respecting and learning from the distinctive and enduring legacies of different religious communities and developing interfaith educational programs that emphasize common values. Cooperative Baptist, Episcopal, Greek Orthodox, Lutheran, Muslim Student Association, North Carolina Hillel, Presbyterian, Roman Catholic, and United Methodist are members. Contact information for these groups is as follows:

## Cooperative Baptist

"The Co-Op" (Cooperative Baptist Student Fellowship)
Campus Minister:
Ashley Mangrum
ashley.mangrum@cbfnc.org
(254) 749-4676
unccsf.web.unc.edu

## Episcopal

Episcopal Campus Ministry
(ECM) at Chapel of the Cross
304 E. Franklin Street
(next to Morehead Planetarium) Chaplain:
The Rev. Tambria E. Lee
(919) 929-2193
tlee@thechapelofthecross.org
www.unc.edu/ecm

## Greek Orthodox

Orthodox Christian Fellowship
414 Summerwalk Circle
Chapel Hill, NC 27517
www.orthodoxunc.com

## Islamic

Muslim Student Association
Advisor: Arif Sheikh
(919) 966-5105
arif_sheikh@med.unc.edu
uncmsa@gmail.com
www.uncmsa.org

## Jewish

North Carolina Hillel
210 W. Cameron Avenue
Executive Director: Ari Gauss
Assistant Director:
Michelle Brownstein Horowitz
(919) 942-4057
mbhorowitz@ncillel.org

## Lutheran

Lutheran Campus Ministry
300 E. Rosemary Street
Campus Minister:
Rev. Mark Coulter
(919) 942-2677
prmark@holytrinitychapelhill.org
www.holytrinitychapelhill.org

## Presbyterian (USA)

Presbyterian Campus Ministry
110 Henderson Street
Campus Minister:
Rev. John Rogers
(919) 967-2311
jrogers@upcch.org
www.uncpem.com

## Roman Catholic

Newman Catholic
Student Center Parish
218 Pittsboro Street
Pastor and Campus Minister:
Rev. John Gillespie
Associate Campus Minister:
Paul Stage
(919) 929-3730
pstage@newman-chapelhill.org www.newman-chapelhill.org

## United Methodist

Wesley Campus Ministry
157 East Franklin Street, Suite 1 Campus Minister:
Rev. Amanda Dean
(919) 942-2152
amanda@uncwesley.org
www.uncwesley.org

## Evangelical Campus Ministries Association

The Evangelical Campus Ministries Association (ECM) is an organization of leaders from various evangelical Christian groups who gather regularly for mutual support, discussions of campus life and ministry, and sharing of information. For more information about ECM, please contact Jordan Maroon (jordan.maroon@gmail. com). The members of ECM are listed below.

## Campus Christian Fellowship

Dean Owens
P.O. Box 758

Chapel Hill, NC 27514
(919) 360-6563
deano@live.unc.edu
ccf-unc.org

CRU-Campus Crusade for Christ
Miles O'Neill
4621 Myra Glen Place
Durham, NC 27707
(919) 933-7331
miles.oneill@cru.org
unccornerstone.org

Campus Outreach
Grant Miller
(919) 621-2862
grant.miller@campusoutreach.org coraleigh.org
$\begin{array}{ll}\text { Chi Alpha Christian Fellowship } & \text { InterVarsity Christian } \\ \text { Joe Newell } & \text { Fellowship }\end{array}$
6102 Coronado Lane
Durham, NC 27713
(919) 452-9539
joexaunc@gmail.com
www.xa-unc.com
International Friends
Jim Herman
(919) 824-7780
jherman7@bellsouth.net
Every Nation Campus
Ministries
Jason McDaniel
(252) 525-0387
jason.mcdaniel@everynation.org ancencm.com

## Office of Communications and Public Affairs

The Office of Communications and Public Affairs is the official media relations agency for the University. Its primary role is to keep the people of North Carolina, the nation, and the world informed about the University's teaching, research, and public service activities.
The office is located in the Whitehead Building, on the corner of McCauley and Columbia Streets. Mailing address: 101 McCauley Street, Chapel Hill, NC 27514. Media personnel can call (919) 445-8555 24 hours a day, seven days a week, with media inquiries. Email inquiries should be sent to mediarelations@unc.edu.

## Finances and Financial Aid

## Student Finances

## Living Expenses

Expenses for the 2014-2015 academic year (two semesters) were approximately $\$ 24,120.00$ for an in-state student and $\$ 50,938.00$ for an out-of-state student. These expenses are listed separately below.

Tuition and fees are assessed on a semester basis. Billing statements will be available online through the ConnectCarolina Student Center. Students and authorized users will receive a courtesy e-mail notification after statements are available. Students are responsible for accessing their statements online and paying them on time. Any past due charges will result in a hold on registration and transcripts. Students must pay past due balances from prior terms before they will be allowed to register for future semesters. Students registering after the last billing date must either prepay tuition and fees or provide documented eligibility of financial aid to the Office of Student Accounts and University Receivables.
It is extremely important for students to refer to the online Registration Guide, which is produced by the Office of the University Registrar (see especially "Pay your bill" at registrar. unc.edu/registration/registration-guide), prior to each semester or summer session and to follow instructions concerning payment/ deferment due dates to avoid registration cancellation.

## Payment Methods

For up-to-date information on payment options, please visit finance.unc.edu/student-accounts-and-university-receivables/ student-account-services/payment-options-and-access.html.

Expenses for an undergraduate student for the 2014-2015 academic year included

|  | NC Resident | Nonresident |
| :--- | :--- | :--- |
| Tuition and Fees | $\$ 8,374.00$ | $\$ 33,624.00$ |
| Books and Supplies | $\$ 1,484.00$ | $\$ 1,484.00$ |
| Residence Hall <br> (average double room rate) | $\$ 5,928.00$ | $\$ 5,928.00$ |
| Board | $\$ 4,664.00$ | $\$ 4,664.00$ |
| Personal Expenses | $\$ 1,388.00$ | $\$ 1,388.00$ |
| Travel | $\$ 848.00$ | $\$ 2,416.00$ |
| Health Insurance | $\$ 1,376.00$ | $\$ 1,376.00$ |

For the most up-to-date information, please visit www.studentaid.unc.edu.

Mandatory student fees are detailed on the Web at finance.unc. edu/student-accounts-and-university-receivables/student-account-services/tuition-and-fees.html\#about. In addition to these fees, incoming student, special laboratory, and designated program fees
also may be charged. The returned check fee is $\$ 25$, and the late registration fee is $\$ 20$.

Each student is responsible for payment of his or her University charges. If a third party will be paying the charges, the Office of Student Accounts and University Receivables must receive an authorization from the third party well in advance so that arrangements can be made, if possible, for a separate invoice to be sent to the proper agency or organization in order to ensure timely payment.

Students who are expecting to receive financial aid or scholarship funds should bring with them sufficient funds (cash or travelers' checks) to take care of living expenses for approximately 15 days. This should provide sufficient time for financial aid or scholarship funds to be made available.

The last day to reduce a course load for credit on a student's financial account is two weeks from the first day of classes for each semester. Dropping the only course requires official withdrawal.

In case of withdrawal from the University, tuition and fees will be prorated according to the withdrawal refund calendar posted on finance.unc.edu/university-controller/student-account-services/ student-billing.html under "Important Dates." The last date for credit on a student's financial account for withdrawal is nine weeks after the first day of classes for the fall and spring semesters.

## Adjustment of Tuition

If a student withdraws from the University, tuition and fees will be prorated according to the withdrawal refund schedule posted under "Important Dates" on the Web at finance.unc.edu/university-controller/student-account-services/student-billing.html. If a student drops the only course he or she is taking, this constitutes a withdrawal from the University.

## Fifty Percent Tuition Surcharge

As required by Section 9.10 (b), General Statutes 116-143.7 (a), students who take more than 140 degree credit hours to complete a baccalaureate degree in a four-year program or more than 110 percent of the credit hours necessary to complete a baccalaureate degree in any program officially designated by the University of North Carolina Board of Governors as a five-year program, are to be assessed a 50 percent tuition surcharge beginning fall 2010. For further explanation of how the degree credit hours are determined, visit the Web site registrar.unc.edu/registration/registration-guide.

## Direct Deposit of Financial Aid Funds

For students who are receiving financial aid in excess of tuition, fees, housing, and meal plan costs, the Office of Student Accounts and University Receivables will deposit excess funds from the account to either a checking or savings account at the student's bank. Students must complete the direct deposit consent through the ConnectCarolina Student Center as soon as possible. It takes seven days to validate the bank account information. Students also must promptly update their direct deposit information if there are any changes to their banking information.

## Scholarships and Financial Aid

studentaid.unc.edu
aidinfo@unc.edu
The University has a long-standing commitment to keeping Carolina affordable. A combination of low tuition and strong financial aid helps put Carolina within reach for all admitted students, regardless of financial circumstances.

Students and families are expected to contribute to educational costs to the extent that they are able. Scholarships, grants, loans, and work-study opportunities are awarded by the Office of Scholarships and Student Aid to help meet the difference between the cost of attendance and the amount a student or family can afford to pay.

Scholarship and financial aid funds come from federal, state, University, and private sources. Each type of funding comes with a particular set of rules and restrictions; award policies are set by federal and state laws, donor wishes, and guidelines established by the University Committee on Scholarships, Awards, and Student Aid.

Simply apply for aid, as described below, and the University will make the most generous aid offer that a student's eligibility and available resources will allow.

Detailed information on scholarships and student aid can be found at studentaid.unc.edu. Students and parents are also welcome to e-mail aidinfo@unc.edu for questions and guidance.

## Applying for Financial Aid

Financial aid funds are limited, and the most helpful types of aidincluding University scholarships, campus jobs, and low-interest loans-are awarded first to students who apply by March 1.

If tax and income figures are not available by the March 1 deadline, applicants should make their best estimate. They can make corrections later.

To apply for financial aid, students should

1. Complete the Free Application for Federal Student Aid (FAFSA) by March 1. UNC's school code is 002974, and the FAFSA is available at fafsa.ed.gov.
2. Complete the CSS PROFILE by March 1. UNC's school code is 5816, and the PROFILE is available at student.collegeboard. org/profile.
3. Monitor their UNC e-mail and regularly check connectcarolina. unc.edu for updates.
If additional information is needed, applicants will be notified by e-mail. The sooner they respond and complete the application process, the more likely funding is available. Applying for aid is an annual process and must be completed prior to each academic year of enrollment.

## Priority Deadline

The FAFSA and CSS PROFILE should be submitted by March 1 each year. Late forms are accepted, but aid is distributed on a firstcome, first-served basis. Entering students should apply for student aid as soon as possible, even before notification of admission.
Students must reapply by March 1 each year during their time at Carolina.

## Award Decisions

An entering undergraduate student who applies on time can expect to receive an aid offer sometime in April. Returning undergraduate students who meet the March 1 filing date are usually notified in early May. Both entering and returning graduate and professional students are usually informed of aid decisions in May. Students who apply after March 1 will be notified as quickly as resources allow. Awards for late-filing students may not arrive until after the enrollment period has begun.

## Types of Need-Based Financial Aid

Financial aid consists of scholarships, grants, and work-study, which do not have to be repaid, and loans, which require repayment. Aid awards will include as much scholarship or grant aid as possible, with remaining need usually met by the offer of a loan, a work-study job, or both. Graduate and professional students will receive loans and/or work to meet any eligibility remaining after awards from individual schools or departments. Students will always have the opportunity to reduce or decline loans when accepting an aid offer.

## Eligibility for Need-Based Financial Aid

To be eligible for financial aid, a student must be enrolled and making satisfactory academic progress in a degree or eligible certificate program. Information about the Satisfactory Academic Progress Policy can be found at studentaid.unc.edu/sap. Once all requirements of the degree are met, students may no longer receive financial aid. The student must not be in default on a loan previously received for college expenses nor owe a refund on a scholarship, grant, or loan from an earlier enrollment period. Both resident and nonresident students are eligible for financial aid, though different institutional policies may apply.

## The Carolina Covenant

The Carolina Covenant is available to eligible undergraduates whose family income falls at or below 200 percent of the federal poverty level and have limited family assets. Covenant Scholars have the opportunity to graduate from Carolina debt-free through a combination of grants and work-study. Covenant Scholars also have access to faculty and staff mentors, enrichment activities, and other personal support services. No special application is necessary; eligible students will be notified after applying for financial aid. Details are at carolinacovenant.unc.edu.

## Federal Aid Programs

Eligibility rules for federal student aid are set by Congress. The formula examines the income and assets of the student and family, household size, the number of people in college, taxes paid, and other relevant factors. Scholarships and awards from private sources are also considered as part of the federal aid eligibility formula.

The Federal Pell Grant Program provides assistance to needy undergraduate students. A Pell Grant will automatically be included as part of an eligible student's financial aid package.

More detailed information is available at studentaid.ed.gov.

## University Scholarships and Grants

Undergraduate students are considered for UNC-funded scholarships and grants, which do not have to be repaid, based on a detailed analysis of family financial circumstances. This may
include home equity, other income, and family assets that may not have been considered in the calculation of federal aid. Institutional scholarship and grant funds are often combined with federal aid to provide a total package of financial aid.

The University also offers scholarship funding to enroll certain students with exceptional financial need who are likely to contribute to the intellectual experience and diversity of the undergraduate student body, as well as funds to assist eligible students who are residents of North Carolina and members of an Indian tribe recognized by the state or the federal government. No separate application is required; students will be considered based on their aid application and UNC admissions application.

## Merit Scholarships

Each year the University offers a limited number of merit scholarships to entering first-year students. These competitive scholarship programs recognize academic achievement, leadership qualities, commitment to service, and potential for success at the University. Most of these awards are based entirely on merit; some consider a combination of financial need and academic merit.

Because Carolina is a highly selective university, competition for merit scholarships is strong. Only a very limited number of merit scholarships are awarded each year. In addition to impressive academic achievements, scholarship winners excel in extracurricular activities and demonstrate strong leadership skills.

There is no separate application for academic scholarships (except for the Morehead-Cain and the Robertson, which are administered by private foundations; information can be found at moreheadcain.org and robertsonscholars.org). Selection is based on the information provided in a student's admission application. Merit scholarship finalists will be notified in early January (for early admissions applicants) and late February (for regular deadline applicants).

More information about the University's merit scholarshipsincluding the Johnston, Pogue, Carolina, and Colonel Robinson programs-can be found at scholarsprogram.unc.edu.

## Work-Study Employment

A limited number of work-study jobs are available to help exceptionally needy students earn a portion of their University expenses. Most of these jobs are on campus, with a small number in local community service agencies. Undergraduate work-study jobs require an average of 10 to 12 hours per week and pay more than the federal minimum wage. Graduate students may be assigned work-study assistantships, with teaching and research responsibilities in their departments or schools. Eligible students can apply for a variety of work-study jobs to match their skills and interests. No separate application is needed to qualify; simply apply for financial aid by March 1.

## Need-Based Loans

The University administers a number of student loan programs, both federal and institutional, which provide low-interest, long-term loans to undergraduate, graduate, and professional students who are eligible for aid. Most financial aid packages to undergraduate students include loan offers, and the majority of aid to graduate and professional students is in the form of loans.

Repayment of most loans begins six months after the student ceases to be enrolled at least half time.

Federal Perkins loans can be deferred and/or partially cancelled if the borrower is fulfilling certain categories of public service, such as teaching, military service, or service in the Peace Corps. Visit studentaid.unc.edu to learn more about Perkins Loans.

After a student applies for aid, the Office of Scholarships and Student Aid determines which type of loan is most appropriate based on student need and the funds available. More information on loan programs can be found at studentaid.unc.edu/types-of-aid/loans.

Students always have the opportunity to reduce or decline loans when accepting a financial aid offer. Contact aidinfo@unc.edu with any questions.

## Non-Need-Based Loans

Students not eligible for need-based aid, or requiring funds beyond available aid, may apply for non-need-based federal loans. Unlike need-based loans, these programs carry higher interest rates, and interest is generally not deferred. Federal Direct Unsubsidized Loans are available, subject to certain borrowing limits. Overall loan limits for dependent undergraduate students from Federal Direct Unsubsidized Loans and Direct Subsidized Loans are \$5,500 for first-year students, $\$ 6,500$ for sophomores, and $\$ 7,500$ for juniors, seniors, and fifth-year students. Independent undergraduate students may borrow up to $\$ 9,500$ for the first year, $\$ 10,500$ for the second year, and $\$ 12,500$ for the third and subsequent years. Graduate and professional students may receive up to $\$ 20,500$ per year. Federal Direct Unsubsidized and Subsidized Loans have an origination fee of 1.073 percent, deducted from each loan disbursement. Those interested in Federal Direct Unsubsidized Loans should contact the Office of Scholarships and Student Aid.

Parents of undergraduate students who do not receive needbased aid, or who need additional assistance, may apply for Federal Direct Parent PLUS Loans. The interest rate on Parent PLUS Loans is 7.21 percent; an origination fee of 4.292 percent is charged. Repayment begins within 60 days after the last disbursement of the loan. More information is at studentloans.gov.

## Laptop Grants

All Carolina students are required to have a laptop computer. The University offers grants to cover the cost for qualifying first-year students who apply for financial aid. Students will receive these grants in the form of a credit at Student Stores, which sells a variety of laptop computers.

## Questions and Assistance

Financial aid counselors are ready to help and can answer any questions about UNC Chapel Hill's programs. Visit studentaid.unc. edu or e-mail aidinfo@unc.edu to get in touch.

## UNC-Chapel Hill Regulations and Policies

The personal conduct of the University student is subject to the moral and legal restraints found in any law-abiding community. Additionally, the Honor Code is a positive force for good citizenship. University regulations are not specifications for acceptable conduct or detailed lists of offenses subject to penal action. They are intended to provide information about systematic procedures and equitable decisions in many situations involving individual students and officers of the University.

## Alcoholic Beverages

Possession and use of alcoholic beverages is substantially regulated by federal, state, and local laws and ordinances. Within this legal framework, the University's Policy on Student Possession and Consumption of Alcoholic Beverages in Facilities of the University of North Carolina at Chapel Hill sets out the conditions under which alcoholic beverages may be used on University property.

According to North Carolina law

- Generally, persons 21 or older may purchase or consume alcoholic beverages and may possess alcoholic beverages at their homes or temporary residences.
- It is against the law for any person under 21 to purchase or possess any alcoholic beverage.
- It is against the law for anyone to sell or give any alcoholic beverage to a person under 21 or to aid or abet such a person in selling, purchasing, or possessing any alcoholic beverage.
- No alcoholic beverages may be sold by any person, organization, or corporation on a college campus except as permitted by North Carolina General Statutes, Sect. 18B-1006 (a).
According to Chapel Hill ordinance, it is against the law for anyone to possess any open container of alcohol on streets, sidewalks, alleys, or any other property owned or controlled by the Town of Chapel Hill.

In addition to following the law, the University's Policy on Student Possession and Consumption of Alcoholic Beverages in Facilities of the University of North Carolina at Chapel Hill sets out special rules about alcohol for students and student organizations. The Office of the Dean of Students will provide copies of the policy and assistance in understanding its full implications. The text of the policy can be accessed on the Web at www.unc.edu/campus/ policies/studentalcohol.html.

Under the policy

- Alcohol may not be served, consumed, or sold in any University facility or open space except as provided in the University's Guidelines for Serving Alcohol at University-Sponsored Events. The guidelines are available on the Web at policy.sites.unc.edu/ files/2013/03/alcohol.pdf.
- Common source containers of alcohol (e.g., kegs) are not permitted on campus.
- Students and their guests age 21 and older may possess and consume alcoholic beverages in individual campus residence hall rooms or apartments on campus, but not in the common areas of a campus residence hall.
- No student activity fees or other University-collected fees may be used to purchase alcohol.
- No other funds of an officially recognized student group deposited or administered through the Student Activities Fund Office may be used to purchase alcohol.
- Student groups are not prohibited from having events off campus at which individual group members age 21 or older bring or buy their own alcoholic beverages.
Students who violate the policy face mandatory alcohol education, housing sanctions (for violations arising in University housing), and sanctions, including written reprimand, restitution, counseling/ referral, and/or educational or community service activities. Student groups who violate the policy face sanctions of written reprimand, restitution, mandatory educational programs or community service, and/or loss of University recognition. Behavior that violates the Code of Student Conduct, state, or federal laws may also be referred to the Office of Student Conduct, the Emergency Evaluation and Action Committee, and/or state and federal authorities.


## Code of the University of North Carolina (1975)

Section 502D(3)—Subject to any policies or regulations of the Board of Governors or of the Board of Trustees, it shall be the duty of the chancellor to exercise full authority in the regulation of student affairs and student conduct and discipline. In the discharge of this duty, delegation of such authority may be made by the chancellor to faculty committees and to administrative or other officers of the institution, or to agencies of student government, in such manner and to such extent as may by the chancellor be deemed necessary and expedient. In the discharge of the chancellor's duty with respect to matters of student discipline, it shall be the duty of the chancellor to secure to every student the right to due process. Appeals from these disciplinary decisions are allowable only on the following grounds: 1) a violation of due process, or 2) a material deviation from Substantive and Procedural Standards adopted by the Board of Governors.

Where the sanction is suspension or expulsion, an appeal may be made to the Board of Trustees. No appeal to the president is permitted. When the sanction is expulsion, the final campus decision is appealable to the Board of Governors.

## Commercial Activities

Selling or soliciting by any person (private citizen, employee, or student), firm, or corporation on the campus of the University is prohibited except as provided for in the Policy on Use of University Facilities for Noncommercial and Commercial Purposes. The policy can be accessed online at www.unc.edu/campus/policies/ facility_use.html.

## Emergency Disciplinary Action

Occasionally, emergency situations arise in connection with an applicant's and/or current student's behavior. These incidents may require a faster response than the University's student judicial system can provide. To address these situations and to support the University's obligation to provide a safe campus, the chancellor established the Emergency Evaluation and Action Committee. The emergency action taken varies based on the nature and severity of the allegations and can include, but is not limited to, denial of admission and/or separation from the University.

Students whose cases may require action by the committee fall into five categories:

- An applicant for admission or readmission to the University who has been convicted of a crime involving assaultive or felonious behavior, who has a record of violent behavior, or who has a record of academic dishonesty or disciplinary rule violations elsewhere;
- A student whose behavior, on or off campus, is such that his/her presence in the University, in the judgment of the Committee, poses a serious threat of disruption of the academic process or a continuing danger to other members of the University community or University property;
- A student or applicant for admission who has been arrested and charged with a serious crime of a violent or dangerous nature, or a serious crime that involved placing another person in fear of imminent physical injury or danger, where, in the judgment of the Committee, if the student is found guilty, his/her presence in the University would pose a serious threat of disruption of the academic process or a continuing danger to other members of the University community or University property;
- A student, charged by the University with a violation of policies concerning illegal drugs, whose continued presence within the University community would, if the charges are true, constitute a clear and immediate danger to the health or welfare of other members of the University community; or
- A student whose behavior on or off campus is such that, in the judgment of the Committee, he/she poses a danger to himself/ herself.
Additional information on the committee and its procedures is available from Student Affairs through the Office of the Dean of Students. The text of the committee's policy and procedures is on the Web at policy.sites.unc.edu/files/2013/04/EEAC.pdf.


## Housing and Residential Education

For policies and procedures related to living on campus, visit the Housing and Residential Education Web site at housing.unc.edu/ current-residents/housing-contract/community-living-standards.html

## Transportation and Parking

## Parking

Every student at UNC-Chapel Hill who parks an automobile during the week in University parking areas is required by UNC Transportation \& Parking to obtain and display a parking permit. Parking permit holders must park only in specific zones as indicated on their parking permits. Please note the signs at the entrances to
each lot which detail the hours of enforcement for that parking area.
Motor vehicle parking permits may be applied for during online registration procedures at UNC Transportation \& Parking offices in the Public Safety Building. Vehicles found parked illegally may be cited by Transportation \& Parking's Parking Control Division, and subsequent violations may result in further citations, immobilization ("booting"), or towing of the vehicle. Citations may be appealed through UNC Transportation \& Parking's Appeals Office within 10 calendar days upon receipt of the citation. Citations can be appealed in person during office hours Monday through Friday from 7:30 a.m. to 5:00 p.m., online at move.unc.edu, or by regular mail.

The Parking Control Division operates MAP, the cost-free Motorist Assistance Program. If a vehicle requires a jump start or if the keys are locked inside the vehicle, motorists may call for assistance at (919) 962-8006 (weekdays 7:00 a.m. to 9:00 p.m.). During all other times (and on University holidays), the UNC Police Department should be contacted for motorist assistance at (919) 962-8100.

## The Commuter Alternative Program

The Commuter Alternative Program (CAP, online at move.unc. edu/CAP) is an initiative with the goal of reducing campus traffic congestion and parking demand through the promotion and management of viable alternatives to single-occupancy vehicle use at UNC-Chapel Hill. It is designed to reward campus community members for the use of bicycling, walking, transit, and ridesharing. CAP is only available to off-campus students who do not have a parking permit. CAP has a listserv, giveaways, prizes, discounts from local merchants, and daily benefits in relation to alternative transportation programs. For more information or to request a brochure, call UNC Transportation \& Parking at (919) 962-3951 or visit the Web site at dps.unc.edu/CAP.

## Alternatives to Parking

GoTriangle.org provides excellent information on student transportation alternatives. GoTriangle is designed to give students all the information needed to ride the bus, ride with friends, or bike to great destinations throughout the Triangle. The site includes a Transit Trip Planner to popular destinations; schedules for Triangle Transit, Durham Area Transit Authority (DATA), Capital Area Transit (CAT), and Chapel Hill Transit; information about Triangle Transit's express bus to Raleigh; bike safety information and city bike maps; information on student carpool options; and a calculator tool that calculates how much an individual can save by using alternative transportation.

## Local and Regional Transit

The University, Chapel Hill, and Carrboro work together to provide the fare-free Chapel Hill Transit system. No exchange of money, coupons, or display of a bus pass is needed when boarding a Chapel Hill Transit bus. Campus U route and RU (Reverse U) shuttles run in continuous loops from 7:00 a.m. to 8:00 p.m., serving nearly every area on campus.

Commuting students can use any of the town park and ride lots, or they can join the Commuter Alternative Program and gain access to additional lots. All park and ride lots require a permit, which may be purchased at move.unc.edu/cap/park-ride. Chapel Hill Transit provides free and quick service to and from campus to the lots.

Student CAP participants receive one one-day pass per semester allowing free parking in park and ride lots or in S11 zoned lots on south campus. In addition, in the case of an emergency, UNCChapel Hill's Emergency Ride Back service is available to provide transportation to the park-and-ride lots or any location within Carrboro or Chapel Hill municipal boundaries. Visit move.unc. edu/p2pfor more information.

Regional transit to and from RDU, Raleigh, Durham, and other nearby cities is available through Triangle Transit. Included in the full complement of regional service is express service from Raleigh to UNC-Chapel Hill and from Hillsborough to UNC-Chapel Hill. Triangle Transit also provides free park and ride lots around the area. For more route information, call Triangle Transit at (919) 485-RIDE or visit triangletransit.org.

## Point-to-Point

Point-to-Point (P2P, online at move.unc.edu/p2p) transportation offers fare-free, fixed-route service aboard the P2P Express minibuses, operating on a continuous loop around campus during evening hours, 7:00 p.m. until 3:00 a.m., seven nights a week when residence halls are open during fall and spring academic semesters. Students must show their UNC OneCard to board the P2P Express. After dark, a demand-response van can be accessed by students in areas that are not served by the P2P Express route.

P2P also offers fare-free, demand-response transportation service to disabled students and students going to or from Campus Health Services 24 hours a day.

## Safe Ride

A student-run program called "Safe Ride" aims to provide increased mobility between 11:15 p.m. and 2:30 a.m. on weekend evenings. Although it shares part of the name, this is a different program from the P2P Library Safe Ride Shuttle. There are three Safe Ride bus routes operating on Thursday, Friday, and Saturday nights. They provide service between campus and many private student housing developments, as well as other off-campus destinations after Chapel Hill Transit service ends for the evening. For more information, phone Chapel Hill Transit at (919) 969-4900, or visit chtransit.org.

## UNC Bicycle Registration

The Department of Public Safety requires bicycle registration for bicycles stored or traveling on campus. The program serves as a deterrent to crime, aids in the identification of lost or stolen bicycles, and enables the department to plan for improved bicycle parking facilities around campus in the future. All students who register their bikes will receive a 50 -percent-off coupon for a u-lock from UNC Student Stores. Forms for the free bicycle registration are available at dps.unc.edu/services/bicycle-registration or the Department of Public Safety. Cyclists who live more than two miles from the Bell Tower may join the Commuter Alternative Program.

## Zimride Rideshare Matching

Zimride is an easy way to share the seats in your car or catch a ride. The UNC-Chapel Hill private Zimride community allows you to find friends, classmates, and coworkers going the same way you are. Zimride helps you offer or request rides for commutes, road trips, and popular events. If you have a car, split costs by offering rides.

If you don't have a car, find rides where you need to go. For more information, visit zimride.unc.edu.

## Zipcar

In 2004 UNC-Chapel Hill introduced Zipcar, the world's largest provider of cars on demand by the hour or day. Since then, students, faculty members, and staff from UNC-Chapel Hill have been taking advantage of this car-sharing program by self-reserving Zipcars on campus, 24 hours a day, seven days a week, though online and mobile devices.
Students can join Zipcar for $\$ 35$ a year ( $\$ 10$ off for the first year) and will gain access to UNC-Chapel Hill's Zipcars starting at $\$ 7.50$ /hour and $\$ 69 /$ day. Gas, insurance, and 180 miles per day are included, along with reserved parking spots and 24-hour roadside assistance. New subscribers will receive $\$ 35$ in free driving to use during the first month. Full details are available at www.zipcar.com/ unc.

## For More Information

Visit UNC Transportation \& Parking during regular business hours (weekdays 7:30 a.m. to 5:00 p.m.) in the Public Safety Building via Hardin Drive (just off Manning Drive) on south campus. For more information on parking and transportation at UNC-Chapel Hill, log onto UNC Transportation \& Parking's Web site at move. unc.edu. You may also "like" the department on Facebook (UNC Transportation \& Parking) or choose to follow us on Twitter (@ MoveUNC). Concerns may be addressed at the following campus telephone numbers:

- General Information (919) 962-3951, 3952
- Parking Control (919) 962-8006
- Accounts Receivable (919) 962-6073
- Parking Appeals (919) 962-3953
- Visitor Pay Operations Parking (919) 966-4424
- Point-to-Point Shuttle Dispatcher (919) 962-7867
(962-"P-TO-P")
- Commuter Alternative Program (919) 843-4414

Students with temporary physical handicaps or other hardships requiring special consideration should contact Accessibility Resources \& Service for complete information on transportation options. Visit accessibility.unc.edu for more information.

# The University of North Carolina Seventeen Constituent Institutions 

## The UNC System

## History of the University

In North Carolina all the public educational institutions that grant baccalaureate degrees are part of the University of North Carolina. The University of North Carolina at Chapel Hill is one of the constituent institutions of the multicampus state university.
The University of North Carolina, chartered by the North Carolina General Assembly in 1789, was the first public university in the United States to open its doors and the only one to graduate students in the 18th century. The first class was admitted in Chapel Hill in 1795 . For the next 136 years the only campus of the University of North Carolina was at Chapel Hill.

In 1877 the North Carolina General Assembly began sponsoring additional institutions of higher education, diverse in origin and purpose. Five were historically black institutions, and another was founded to educate Native Americans. Several were created to prepare teachers for the public schools. Others had a technological emphasis. One is a training school for performing artists.

In 1931 the North Carolina General Assembly redefined the University of North Carolina to include three state-supported institutions: the campus at Chapel Hill (now the University of North Carolina at Chapel Hill), North Carolina State College of Agriculture and Engineering at Raleigh (now North Carolina State University), and the North Carolina College for Women (Woman's College) at Greensboro (now the University of North Carolina at Greensboro). The new multicampus University operated with one board of trustees and one president. By 1969 three additional campuses had joined the University through legislative action: the University of North Carolina at Charlotte, the University of North Carolina at Asheville, and the University of North Carolina at Wilmington.

In 1971 the General Assembly passed legislation bringing into the University of North Carolina the state's 10 remaining public senior institutions, each of which had until then been legally separate: Appalachian State University, East Carolina University, Elizabeth City State University, Fayetteville State University, North Carolina Agricultural and Technical State University, North Carolina Central University, North Carolina School of the Arts, Pembroke State University, Western Carolina University, and Winston-Salem State University. This action created a 16-campus University. In 1985 the North Carolina School of Science and Mathematics, a residential high school for gifted students, was declared an affiliated school of the University, and it became the 17th constituent institution.

The UNC Board of Governors is the policy-making body legally charged with "the general determination, control, supervision, management, and governance of all affairs of the constituent institutions." It elects the president, who administers the University. The 32 voting members of the board are elected by the North Carolina General Assembly for four-year terms. Former board chairs and board members who are former governors of North Carolina may continue to serve for limited periods as nonvoting members emeriti. The president of the UNC Association of Student

Governments, or that student's designee, is also a nonvoting member.
Each of the 17 institutions is headed by a chancellor, who is chosen by the Board of Governors on the president's nomination and is responsible to the president. Each institution has a board of trustees, consisting of eight members elected by the Board of Governors, four appointed by the governor, and the president of the student body, who serves ex officio. (The North Carolina School of the Arts has two additional ex officio members.) Each board of trustees holds extensive powers over academic and other operations of its institution on delegation from the Board of Governors.

## General Administration

www.northcarolina.edu/leadership/ga.htm
Thomas W. Ross, J.D.
President
Kevin M. FitzGerald, M.P.A.
Chief of Staff
Ann Lemmon
Secretary of the University
Leslie Boney, B.A.
Vice President for International, Community, and Economic Engagement
Matthew Brody, M.S.
Vice President for Human Resources
Christopher Brown, Ph.D.
Vice President for Research and Graduate Education
Alisa Chapman, Ed.D.
Vice President for Academic and University Programs
Joanna Carey Cleveland, J.D.
Vice President for Legal Affairs
Karrie Dixon, Ph.D.
Vice President for Academic and Student Success
Junius J. Gonzales, M.B.A.
Senior Vice President for Academic Affairs
John Leydon, M.B.A.
Vice President for Information Resources and Chief Information Officer
Timothy Minor, M.P.A.
Vice President for University Advancement
Drew Moretz, B.A.
Vice President for Government Relations
Charles Perusse, M.P.A.
Senior Vice President and Chief Operating Officer
Jonathan Pruitt, M.P.A.
Vice President for Finance
Matthew Rascoff, M.B.A.
Vice President for Technology-Based Learning and Innovation

Kimrey Rhinehardt, B.A.
Vice President for Federal Relations
Lynne Sanders, B.A.
Vice President for Compliance and Audit Services
Thomas Shanahan, J.D.
Senior Vice President and General Counsel
Katharine Stewart, Ph.D.
Vice President for Academic Planning and Quality
Joni B. Worthington, M.A.
Vice President for Communications

## The University of North Carolina Board of Governors

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| Secretary jpuncbog@gmail.com | Steven B. Long <br> longsbzc@gmail.com |
| Roger Aiken rogeraiken60@gmail.com (828) 258-0546 | (919) 835-4683 <br> Joan G. MacNeill <br> macneill85@gmail.com |
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## Appendix

## Equity in Athletics Disclosure Act

Information compiled under the federal Equity in Athletics Disclosure Act is available on request from the Office of the Director of Athletics.

## Expulsion

A student who has been expelled from an institution in the University of North Carolina system may not be admitted to another UNC System school unless the institution that originally expelled the student rescinds that expulsion.

## Fireworks, Firearms, and Other Weapons

It is a felony, punishable by fine and/or imprisonment, to possess or carry, openly or concealed, any gun, rifle, pistol, or other firearm of any kind, or any dynamite cartridge, bomb, grenade, mine, or powerful explosive on any University campus, in any Universityowned or operated facility, or at a curricular or extracurricular activity sponsored by the University. Such conduct also may constitute a violation of the Honor Code.

It is a Class 1 misdemeanor, punishable by fine and/or imprisonment, to possess or carry any BB gun, stun gun, air rifle, air pistol, bowie knife, dirk, dagger, slingshot, leaded cane, switchblade knife, blackjack, metallic knuckles, razors and razor blades (except for personal shaving), fireworks, or any sharp-pointed or edged instrument (except instructional supplies, unaltered nail files, and clips and tools used solely for preparation of food, instruction, and maintenance) upon any University campus or in any University-owned or operated facility. Such conduct may also constitute a violation of the Honor Code.

## Immunization Requirement

Effective July 1, 1986, North Carolina state law requires that no person shall attend a college or university in North Carolina unless a certificate of immunization indicating that the person has received the immunizations required by the law is presented to the college or university on or before the first day of matriculation.

If a student's UNC-Chapel Hill Medical History Form containing the certificate of immunization is not in the possession of the UNC-Chapel Hill Campus Health Service 10 days prior to the registration date, the University shall present a notice of deficiency to the student in question. He or she shall have 30 calendar days from the first day of attendance to obtain the required immunizations. Those persons who have not complied with the immunization requirements by the end of 30 calendar days will be administratively withdrawn from the University.

## Policy on Illegal Drugs

## Introduction

The Board of Trustees of the University of North Carolina at Chapel Hill, in conformity with the direction of the Board of Governors of the University of North Carolina, hereby adopts this Policy on Illegal Drugs, effective August 24, 1988. It is applicable to all students, faculty members, administrators, and other employees.

## Education, Counseling, and Rehabilitation

A. The University of North Carolina at Chapel Hill has established and maintains a program of education designed to help all members of the University community avoid involvement with illegal drugs. This educational program emphasizes these subjects:

- The incompatibility of the use or sale of illegal drugs with the goals of the University;
- The legal consequences of involvement with illegal drugs;
- The medical implications of the use of illegal drugs; and
- The ways in which illegal drugs jeopardize an individual's present accomplishments and future opportunities.
B. The University of North Carolina at Chapel Hill provides information about drug counseling and rehabilitation services available to members of the University community through campus-based programs and through community-based organizations. Persons who voluntarily avail themselves of University services are hereby assured that applicable professional standards of confidentiality will be observed.


## Enforcement and Penalties

A. The University of North Carolina at Chapel Hill shall take all actions necessary, consistent with state and federal law and applicable University policy, to eliminate illegal drugs from the University community. The University's Policy on Illegal Drugs is publicized in catalogs and other materials prepared for all enrolled and prospective students and in materials distributed to faculty members, administrators, and other employees.
B. Students, faculty members, administrators, and other employees are responsible, as citizens, for knowing about and complying with the provisions of North Carolina law that make it a crime to possess, sell, deliver, or manufacture those drugs designated collectively as controlled substances in Article 5 of Chapter 90 of the North Carolina General Statutes. Any member of the University community who violates that law is subject both to prosecution and punishment by the civil authorities and to disciplinary proceedings by the University. It is not "double jeopardy" for both the civil authorities and the University to proceed against and punish a person for the same specified conduct. The University will initiate its own disciplinary proceeding against a student, faculty member, administrator, or other employee when the alleged conduct is deemed to affect the interests of the University.
C. Penalties will be imposed by the University in accordance with procedural safeguards applicable to disciplinary actions against students, faculty members, administrators, and other employees, as required by Section 3 of the Trustee Policies and Regulations Governing Academic Tenure in the University of North Carolina at Chapel Hill; by Section III. D. of the Employment Policies for EPA Non-Faculty Employees of the University of North Carolina at Chapel Hill; by regulations of the State Personnel Commission, and the Disciplinary Procedure of the Staff Personnel Administration Guides (Human Resources Manual for SPA Employees); by the Instrument of Student Judicial Governance, and by all other applicable provisions of the policies and procedures of the University of North Carolina at Chapel Hill.
D. The penalties to be imposed by the University may range from written warnings with probationary status to expulsions from enrollment and discharges from employment. However, the following minimum penalties shall be imposed for the particular offenses described.

## Trafficking in Illegal Drugs

A. For the illegal manufacture, sale, or delivery, or possession with intent to manufacture, sell, or deliver, of any controlled substance identified in Schedule I, North Carolina General Statutes 90-89, or Schedule II, North Carolina General Statutes 90-90 (including, but not limited to, heroin, mescaline, lysergic acid diethylamide, opium, cocaine, amphetamine, methaqualine), any student shall be expelled and any faculty member, administrator, or other employee shall be discharged.
B. For a first offense involving the illegal manufacture, sale, or delivery, or possession with intent to manufacture, sell, or deliver, of any controlled substance identified in Schedules III through VI, North Carolina General Statutes 90-91 through 90-94, (including, but not limited to, marijuana, anabolic steroids, pentobarbital, codeine), the minimum penalty shall be suspension from enrollment or from employment for a period of at least one semester or its equivalent. (Employees subject to the State Personnel Act are governed by regulations of the State Personnel Commission. Because the minimum penalty specified in this section and required by the Board of Governors exceeds the maximum period of suspension without pay that is permitted by State Personnel Commission regulations, the penalty for a first offense for employees subject to the State Personnel Act is discharge.) For a second offense, any student shall be expelled and any faculty member, administrator, or other employee shall be discharged.

## Illegal Possession of Drugs

A. For a first offense involving the illegal possession of any controlled substance identified in Schedule I, North Carolina General Statutes 90-89, or Schedule II, North Carolina General Statutes 90-90, the minimum penalty shall be suspension from enrollment or from employment for a period of at least one semester or its equivalent. (Employees subject to the State Personnel Act are governed by regulations of the State Personnel Commission. Because the minimum penalty specified in this section and required by the Board of Governors exceeds the maximum period of suspension without pay that is permitted
by State Personnel Commission regulations, the penalty for a first offense for employees subject to the State Personnel Act is discharge.)
B. For a first offense involving the illegal possession of any controlled substance identified in Schedules III through VI, North Carolina General Statutes 90-91 through 90-94, the minimum penalty shall be probation, for a period to be determined on a case-bycase basis. A person on probation must agree to participate in a drug education and counseling program, consent to regular drug testing, and accept such other conditions and restrictions, including a program of community service, as the Chancellor or the Chancellor's designee deems appropriate. Refusal or failure to abide by the terms of probation shall result in suspension from enrollment or from employment for any unexpired balance of the prescribed period of probation. (If this balance for an employee subject to the State Personnel Act exceeds one week, that employee shall be discharged.)
C. For second or other subsequent offenses involving the illegal possession of controlled substances, progressively more severe penalties shall be imposed, including expulsion of students and discharge of faculty members, administrators, or other employees.
D. Suspension Pending Final Disposition. When a student, faculty member, administrator, or other employee has been charged by the University with a violation of policies concerning illegal drugs, he or she may be suspended from enrollment or employment before initiation or completion of regular disciplinary proceedings if, assuming the truth of the charges, the Chancellor, or in the Chancellor's absence, the Chancellor's designee, concludes that the person's continued presence within the University Community would constitute a clear and immediate danger to the health or welfare of other members of the University community; provided, that if such a suspension is imposed, an appropriate hearing of the charges against the suspended person shall be held as promptly as possible thereafter.

## Implementation and Reporting

Annually, the Chancellor shall submit to the Board of Trustees a report on campus activities related to illegal drugs for the preceding year. The report shall include, as a minimum, the following information:

1. A listing of the major educational activities conducted during the year
2. A report on any illegal drug-related incidents, including any sanctions imposed
3. An assessment by the Chancellor of the effectiveness of the campus program
4. Any proposed changes in the Policy on Illegal Drugs

A copy of the report shall be provided to the President, who shall confer with the Chancellor about the effectiveness of campus programs.

## Military Tuition Benefit

The information in this section comes from two sources: 1) North Carolina General Statutes, Sect. 116-143.3; and 2) A Manual to Assist the Public Higher Education Institutions of North Carolina in the Matter of State Residence (the Manual). Please refer to the Manual at registrar.sites.unc.edu/files/2012/06/Residence_Manual_

Aug_2010.pdf for specific policy information regarding the military tuition benefit.

Certain members of the Armed Services and their dependent relatives who are not residents for tuition purposes may become eligible to be charged the in-state tuition rate under North Carolina General Statutes Section 116-143.3, the military tuition benefit provision. Any person seeking the military tuition benefit must qualify for admission to UNC-Chapel Hill and must file an application for the benefit with his or her admissions office. The burden of proving eligibility for the military tuition benefit lies with the applicant. Because of the time involved in securing the necessary affidavits from the appropriate military authorities, prospective applicants for the military tuition benefit are urged to secure application forms from their admissions offices and begin the application process several weeks before the first day of classes of the term for which they seek the benefit. The application deadlines are posted on the Office of the University Registrar's Web site at registrar.unc.edu/academic-services/residency/important-dates.

Eligibility of Members of the Armed Services. To be eligible for this military tuition benefit, the individual must be on active duty and a member of the United States Air Force, Army, Coast Guard, Marine Corps, Navy, North Carolina National Guard, or a reserve component of one of these services and must be abiding in North Carolina incident to active military duty.
Eligibility of Dependent Relatives of Service Members. If the service member meets the conditions set forth above, his or her dependent relatives may be eligible to pay the in-state tuition rate if they share the service member's North Carolina abode, if they have complied with the requirements of the Selective Service System (if applicable), and if they qualify as military dependents of the service member.

Special exceptions apply to military personnel and their dependents if the military person is reassigned outside of North Carolina or retires in North Carolina. Please consult the Manual at registrar.sites.unc.edu/files/2012/06/Residence_Manual_Aug_2010. pdf for specific policy information.
Appeals of Eligibility Determinations of Admissions Officers. A student appeal of an eligibility determination made by any admissions officer must be in writing and signed by the student and must be filed by the student with that officer within 15 working days after the student receives notice of the eligibility determination. The appeal is transmitted to the Residence Appeals Board by that officer. The student is notified of the date set for consideration of the appeal, and, on request by the student, is afforded an opportunity to appear and be heard by the Board.

Any student desiring to appeal a determination of the Residence Appeals Board must give notice in writing of that fact to the chair of the Residence Appeals Board within 10 days of receipt of the Board's decision. The chair will promptly process the appeal for transmittal to the State Residence Committee.

## Tuition Waiver for Family Members of Deceased or Disabled Emergency Workers

The information in this section comes from three sources: 1) North Carolina General Statutes, Section 115B-1 et seq.; 2) University
of North Carolina Administrative Memorandum No. 377, dated November 17, 1997; and 3) University of North Carolina Administrative Memorandum No. 385, dated August 6, 1998. Certain family members of emergency workers killed or permanently disabled in the line of duty may become eligible for tuition-free enrollment. The statute sets out the following requirements that must be met before the waiver can be obtained:

- The deceased or disabled emergency worker (firefighter, volunteer firefighter, law enforcement officer, or rescue squad member) must have been a North Carolina legal resident (domiciliary), in active service or training for active service at the time of death or disability occurring in the line of duty;
- The emergency worker's death or disability must have occurred on or after October 1, 1997;
- The emergency worker must have been employed by the State of North Carolina or any of its departments, agencies, or institutions, or a county, city, town, or other political subdivision of the State of North Carolina;
- The applicant for the tuition waiver must be either a child or a widow or widower (who has not remarried) of a deceased emergency worker killed in the line of duty, or a spouse or a child (between the ages of 17 and 23; but not yet 24) of an emergency worker who became permanently and totally disabled as a result of a traumatic injury sustained in the line of duty as an emergency worker;
- The applicant must qualify academically for admission to UNCChapel Hill, must meet all the requirements of the statute and implementing University regulations, and there must be space available in the course(s) for which he or she intends to register;
- The completed application, with all supporting documents, must be submitted to the proper admissions office no later than the first day of class of the term for which the waiver is sought. If the applicant is under 18 years of age, a parent must also sign; and
- The time period for pursuing a baccalaureate degree is up to 54 months.
The following documents are required as proof of eligibility for this tuition waiver:

To prove permanent and total disability of an emergency worker:

- Documentation of the permanent and total disability from the North Carolina Industrial Commission


## To prove cause of death of an emergency worker:

- Certification of the cause of death from the Department of State Treasurer; or
- The appropriate city or county law enforcement agency that employed the deceased; or
- The administrative agency for the fire department or fire protection district funded under the Department of State Auditor; or
- The administrative agency having jurisdiction over any paid firefighters of all counties and cities

To prove the parent/child relationship:

- Applicant's birth certificate or legal adoption papers

To prove the marital relationship:

- Applicant's marriage certificate

The Manual is available online at registrar.sites.unc.edu/ files/2012/06/Residence_Manual_Aug_2010.pdf.

Appeals of eligibility determinations of admissions offices must be in writing and signed by the applicant and must be filed by the applicant with that admissions officer within 15 working days after the applicant receives notice of the eligibility determination. The appeal is submitted to the Residence Appeals Board by that officer. The applicant is notified of the date set for consideration of the appeal, and, on request by the applicant, is afforded an opportunity to appear and be heard by the Board.

Any applicant desiring to appeal a determination of the Residence Appeals Board must give written notice of that fact to the chair of the Residence Status Committee within 10 days of receipt of the committee's decision. The chair will promptly process the appeal for transmittal to the State Residence Committee.

## Residence Status for Tuition Purposes

The information in this section comes from two sources: 1) North Carolina General Statutes, Sect. 116-143.1, and 2) A Manual to Assist the Public Higher Education Institutions of North Carolina in the Matter of State Residence, adopted by UNC in August 2010.

The following sections summarize important aspects of the residency law. A complete explanation of the statute and the procedures under the statute is contained in A Manual to Assist the Public Higher Education Institutions of North Carolina in the Matter of State Residence (the Manual). The Manual is available online at registrar.sites.unc.edu/files/2012/06/Residence_Manual_Aug_ 2010.pdf.

Every applicant for admission is required to make a statement of his or her length of residence in North Carolina. A person who qualifies as a resident for tuition purposes under North Carolina law pays a lower rate of tuition than a nonresident. To qualify for in-state tuition, a legal resident must have been domiciled in North Carolina for at least 12 months immediately prior to the beginning of the term for which classification as a resident for tuition purposes is sought. The student must also establish that his or her presence in the state during such 12-month period was for purposes of maintaining a bona fide domicile rather than for purposes of maintaining a mere temporary residence incident to enrollment in an institution of higher education. "Domicile" means one's permanent home of indefinite duration, as distinguished from a temporary place of abode. Domicile is synonymous with legal residence and is established by being physically present in a place with the concurrent intent to make that place a domicile. To determine intent, the University evaluates an individual's objectively verifiable conduct as an indicator of his or her state of mind.

## Procedural Information

General. A student admitted to initial enrollment in an institution (or permitted to reenroll following an absence that involved a formal withdrawal from enrollment) is classified by the admitting institution either as a resident or as a nonresident for tuition purposes prior to actual matriculation. In the absence of a current and final determination of the student's residence prior to matriculation, the student is classified as a nonresident for tuition purposes. The institution will thereafter reach a final determination of the student's residence status. Unless a person supplies enough information to allow the admissions officer to classify him or her as a resident for tuition purposes, the person will be classified a nonresident
for tuition purposes. A residence classification once assigned (and confirmed pursuant to any appellate process invoked) may be changed thereafter (with a corresponding change in billing rates) only at the beginning of a term.

Transfer Students. When a student transfers from one North Carolina public institution of higher education to another, he or she is required to be treated as a new student by the institution to which he or she is transferring and must be assigned an initial residence classification for tuition purposes. The residence classification of a student by one institution is not binding on another institution. The North Carolina institutions of higher education will assist each other by supplying residency information and classification records concerning a student to another classifying institution upon request. A student or prospective student who wants the University to consider his or her "resident" classification by another North Carolina public higher education institution must include, with his or her application for resident status, copies of all the information that was before the other institution at the time that institution classified the student a resident for tuition purposes.

Responsibility of Students. Any student who is uncertain about the accuracy of his or her current residence classification for tuition purposes is responsible for securing a ruling by completing an application for resident status by applicable deadlines and filing it with the admissions officer. The student who subsequently becomes eligible for a change in classification, whether from out-of-state to in-state or the reverse, is responsible for immediately informing the Office of Admissions in writing of his or her new status. Failure to give complete and correct information regarding residence constitutes grounds for disciplinary action. The institution will not assume responsibility for initiating such an inquiry independently.
Application Process. A person may apply for resident status by visiting his or her admissions office or by going online to registrar. unc.edu/academic-services/residency/application-forms. Also available on the Web site is the Manual, which sets forth the requirements of the statute. Applicants for admission who claim eligibility for the in-state tuition rate will complete a brief questionnaire as a part of the online admissions application. If a person has not been living in North Carolina for at least five consecutive years, he or she will be required to complete a more detailed residency application. Enrolled students seeking a reclassification from nonresident to resident status are required to complete a residency application.

When to File an Application. All applications for resident status must be filed with the proper office of admissions during the filing period posted at registrar.unc.edu/academic-services/residency/ important-dates. The University follows the application guidelines of the State Residence Committee. The deadline to submit an application along with all supporting documentation cannot be later than the 10th business day of the term for which the applicant is seeking residency for tuition. Deadlines are posted on the Office of the University Registrar's Web site at registrar.unc.edu/academic-services/residency/important-dates. Applications not filed by the posted deadlines are not processed and will be returned to the student applicant. Appeals that do not comply with institutional procedures and deadlines are subject to dismissal.

The burden of proof remains the responsibility of the applicant. A preponderance of evidence that the applicant is a bona fide
domiciliary for tuition purposes may be established by providing tangible evidence to support relevant conduct of legal residence and its duration. This evidence is required at the time of application. The institution will not assume responsibility for initiating such an inquiry independently.

Evidence of North Carolina domicile for tuition purposes includes actions that would normally be characteristics and expected of any permanent resident. A variety of evidence is considered when evaluating requests for in-state tuition status; however, no single factor or combination of factors may be considered conclusive evidence of domicile. Please consult the Manual for illustrative lists of the kinds of information and conduct that may be considered as evidence in determining domicile; including financial dependency and independency.

When a student receives a request for additional documentation as evidence, he or she must supply the requested information no later than 10 business days after receipt of the request. Failure to supply the requested information within the specified time limit will result in a continuation of the student's nonresident classification unless good cause is shown for such failure.

The admissions office may require an applicant for admission to file a residency application or respond to a request for more information more quickly when residence status is a factor in the admissions decision.

For more details about the residency application process and other important information about the resident status for tuition purposes statute, visit registrar.unc.edu/academic-services/residency.
Fraudulent Applications. If a student is classified a resident for tuition purposes after submitting falsified residency information or after knowingly withholding residency information, the student's application for in-state tuition status is fraudulent. The institution may reexamine any application suspected of being fraudulent and, if warranted, will change the student's residence status retroactively to the beginning of the term for which the student originally made the fraudulent application. If this occurs, the student must pay the out-of-state tuition differential for all the enrolled terms intervening between the fraudulent application and its discovery. Further, knowing falsification of responses on a resident status application may subject the applicant to disciplinary action, including dismissal from the institution.

## Burden of Proof and Statutory Prima Facie Evidence. A

 person has the burden of establishing facts that justify his or her classification as a resident for tuition purposes. The balancing of all the evidence must produce a preponderance of evidence supporting the assertion of in-state residence. Under the statute, proof of resident status is controlled initially by one of two evidentiary beginning points which are stated in terms of prima facie evidence.A. Even if the person is an adult, if his or her parents (or courtappointed guardian in the case of some minors) are not legal residents of North Carolina, this is prima facie evidence that the person is not a legal resident of North Carolina unless he or she has lived in this state the five consecutive years prior to enrolling or reregistering. To overcome this prima facie showing of nonresident, a person must produce evidence that he or she is a North Carolina domiciliary despite the parents' nonresident status.
B. Conversely, if the person's parents are domiciliaries of North Carolina under the statute, this fact constitutes prima facie evidence that the person is a domiciliary of North Carolina. This prima facie showing may also be overcome by other evidence to the contrary. If a person has neither living parents nor legal guardian, the prescribed prima facie evidence rule cannot and does not apply.

Erroneous Notices Concerning Classification. If a student who has been found to be a nonresident for tuition purposes receives an erroneous written notice from an institutional officer identifying the student as a resident for tuition purposes, the student is not responsible for paying the out-of-state tuition differential for any enrolled term beginning before the classifying institution notifies the student that the prior notice was erroneous.

Grace Period. If a student has been properly classified as a North Carolina resident for tuition purposes and, thereafter, his or her state of legal residence changes while he or she is enrolled in a North Carolina public institution of higher education, the statute provides for a grace period during which the student is allowed to pay tuition at the in-state rate despite the fact that the student is no longer a North Carolina legal resident. This grace period extends for a minimum of 12 months from the date of change in legal residence, and if the 12-month period ends during a semester or academic term in which the student is enrolled, the grace period extends also to the end of that semester or academic term.

Reacquisition of Resident Tuition Status. The prescribed 12 -month period of legal residence may be shortened if the person seeking to be classified as a resident for tuition purposes was formerly classified a North Carolina resident for tuition purposes, abandoned North Carolina domicile, and reestablished North Carolina domicile within 12 months after abandoning it. Interested persons should consult their admissions offices for a detailed explanation of the conditions which must be met to qualify under this section.
Appeals. A student appeal of a classification decision made by any admissions officer must be in writing and signed by the student and must be filed by the student with that officer within 15 working days after the student receives notice of the classification decision. The appeal is transmitted to the Residence Appeals Board by that officer, who does not vote in that committee on the disposition of such appeal. The student is notified of the date set for consideration of the appeal, and on request of the student, he or she is afforded the opportunity to appear and be heard by the appeals board. Any student desiring to appeal a decision of the Residence Appeals Board must give notice in writing of that fact (within 10 days of receipt of the Board's decision) to the chair of the Residence Appeals Board, and the chair promptly processes the appeal for transmittal to the State Residence Committee.
Applications not filed by the posted deadlines are not processed and will be returned to the student applicant. Appeals that do not comply with institutional procedures and deadlines are subject to dismissal.

Tuition Payment. It is the responsibility of the student to pay tuition at the rate charged and billed while an appeal is pending. In effect, the student who is classified a nonresident at the time of tuition billing pays the nonresident rate. Conversely, if a student is classified as a resident at the time of billing, he or she pays the resident rate. Any necessary adjustments in the rate paid will be made at the conclusion of the appeal.

## Application of the Law to Specific Situations

Aliens. Aliens who are permanent residents of the United States, or who hold a visa that will permit eventual permanent residence in the United States, are subject to the same considerations with respect to determination of legal residence as citizens. An alien abiding in the United States under a visa conditioned at least in part upon intent not to abandon a foreign domicile cannot be classified a resident. An alien abiding in the United States under a visa issued for a purpose that is so restricted as to be fundamentally incompatible with an assertion by the alien of bona fide intent to establish a legal residence cannot be classified a resident.
Possession of certain other immigration documents may also allow an alien to be considered for in-state tuition status. For more details, aliens should consult their admissions offices and the Manual. Aliens must file a Residence Status Supplemental Form in addition to the forms normally required of applicants for resident status for tuition purposes. Aliens should also provide a copy of the front and back of the document(s) that they claim allow them to remain in the United States and establish a legal residence. More information concerning alien resident status for tuition purposes information and supplemental applications may be found online at registrar.unc.edu/ academic-services/residency.

Married Persons. The North Carolina resident status for tuition purposes statute provides a special provision for legal residents who are married. This provision is called the "spouse-pair" provision.
The domicile of a married person, irrespective of sex, is determined by reference to all relevant evidence of domiciliary intent. No person is precluded, solely by reason of marriage to a person domiciled outside of North Carolina, from establishing or maintaining legal residence in North Carolina. No person is deemed, solely by reason of marriage to a person domiciled in North Carolina, to have established or maintained a legal residence in North Carolina. The fact of marriage and the place of the domicile of the student's spouse are deemed relevant evidence to be considered in ascertaining domiciliary intent.

If a person otherwise can demonstrate compliance with the fundamental statutory requirement that he or she be a legal resident of North Carolina before the beginning of the term for which resident status is sought, the second statutory requirement relating to duration of residence may be satisfied derivatively, in less than 12 months, by reference to the length of the legal residence of the person's spouse, if the spouse has been a legal resident of the state for the requisite 12 -month period.

If a person believes that he or she qualifies for the marital status provision, special application procedures must be followed. A separate supplemental spousal residency application should be filed at the same time as the residency form is submitted. Residency applications of persons who are married and claiming the North Carolina "spouse-pair" provision are not to be submitted to the
admissions office. They should be filed with the Office of the University Registrar. Applications for residency and the spouse-pair provision are available online at registrar.unc.edu/academic-services/ residency/application-forms.

Military Personnel. The domicile of a person employed by the federal government, Department of Defense, is not necessarily affected by assignment in or reassignment out of North Carolina. Such a person may establish domicile by the usual requirements of residential act plus intent. No person loses his or her in-state resident status solely by serving in the armed forces outside of the state of North Carolina. See the section entitled "Military Tuition Benefit" for other benefits provided to military personnel and their dependents.

Minors. A minor is any person who has not reached the age of 18 years. Under the common law, a minor child whose parents are not divorced or legally separated is presumed to have the domicile of his or her father. This presumption may be rebutted if a preponderance of the evidence indicates that the mother and father have separate domiciles and that, under the circumstances, the child can fairly be said to derive his or her domicile from the mother. If the father is deceased, the domicile of the minor is that of the surviving mother. If the parents are divorced or legally separated, the domicile of the minor is that of the parent having custody by virtue of a court order; or, if no custody has been granted by virtue of court order, the domicile of the minor is that of the parent with whom he or she lives; or, if the minor lives with neither parent, in the absence of a custody award, the domicile of the minor is presumed to remain that of the father. If the minor lives for part of the year with each parent, in the absence of a custody award, the minor's domicile is presumed to remain that of the father. If the minor has lived in North Carolina for five years as set forth above in "Burden of Proof and Statutory Prima Facie Evidence," Subsection A, the common law presumptions do not absolutely control on the issue of the minor's domicile, but they continue to be very strong evidence thereof.

In determining residence status for tuition purposes, there are three exceptions to the above provisions:

- If a minor's parents are divorced, separated, or otherwise living apart and one parent is a legal resident of North Carolina, during the time period when that parent is entitled to claim, and does claim, the minor as a dependent on the North Carolina individual income tax return, the minor is deemed to be a legal resident of North Carolina for tuition purposes, notwithstanding any judicially determined custody award with respect to the minor.
- If immediately prior to his or her 18th birthday a person would have been deemed a North Carolina legal resident under this provision but he or she achieves majority before enrolling in a North Carolina institution of higher education, that person will not lose the benefit of this provision if the following conditions are met:
A. Upon achieving majority the person must act, as much as possible, in a manner consistent with bona fide legal residence in North Carolina; and
B. The person must begin enrollment at a North Carolina institution of higher education not later than the fall academic term next following completion of education prerequisite to admission at the institution.
- If immediately prior to beginning an enrolled term the minor has lived in North Carolina for five or more consecutive years in the home of an adult relative (other than a parent) who is a legal resident of North Carolina, and if the adult relative during those years has functioned as a de facto guardian of the minor, then the minor is considered a legal resident of North Carolina for tuition purposes. If a minor qualified for resident status for tuition purposes under this provision immediately prior to his or her 18th birthday, then, upon becoming 18 , he or she will be deemed a legal resident of North Carolina of at least 12 months' duration. Even though a person is a minor, under certain circumstances the person may be treated by the law as being sufficiently independent from his or her parents as to enjoy a species of adulthood for legal purposes. If the minor marries or obtains a judicial decree of emancipation under North Carolina General Statutes Section 7A-717, et seq., he or she is emancipated. The consequence, for present purposes, of such emancipation is that the affected person is presumed to be capable of establishing a domicile independent of that of the parents; it remains for that person to demonstrate that a separate domicile has, in fact, been established.
Prisoners. There are special provisions concerning domicile of prisoners. For more information, persons to whom these provisions may apply should consult the Manual.
Property and Taxes. Ownership of property in or payment of taxes to the State of North Carolina apart from legal residence will not qualify one for the in-state tuition rate; homeownership alone does not necessarily qualify one for the tuition benefit.

Students or prospective students who believe that they are entitled to be classified residents for tuition purposes should be aware that the processing of requests and appeals can take a considerable amount of time. One should not apply until they have met the minimum requirements of having an established 12-month domicile along with physical presence.

The University follows the application guidelines of the State Residence Committee. Applications not received by the applicable deadlines are not accepted for consideration. The deadline to submit an application along with all supporting documentation cannot be later than the 10th business day of the term for which the applicant is seeking residency for tuition. Deadlines are posted on the Office of the University Registrar's Web site at registrar.unc. edu/academic-services/residency/important-dates.

## Benefit for UNC Employees and Related Persons

Full-time, permanent employees of UNC who are legal residents of North Carolina may qualify for the in-state tuition rate even if they do not meet the 12 -month requirement.

This provision includes spouses and dependent children of the employee. The employee must be full-time, permanent, and a legal resident of North Carolina. Further, if it is a child who seeks to qualify, the child must be a dependent (as defined by tax dependency laws). Finally, if the person qualifies for this benefit, there is no limit on the number or type of courses for which the classification will apply.

Please consult the Manual at registrar.sites.unc.edu/files/2012/06/ Residence_Manual_Aug_2010.pdf to learn more about the benefit. Application information may be obtained by visiting the Office of the University Registrar's Web site at registrar.unc.edu.

## Student Right-to-Know Act

Pursuant to the federal Student Right-to-Know Act, we report that, in 2014-2015, the completion or graduation rate for undergraduates who entered the University of North Carolina at Chapel Hill in 2008 on a full-time basis was 90 percent.

## Students' Education Records at the University of North Carolina General Administration: Annual Notification of Rights

Certain personally identifiable information about students ("education records") may be maintained at the University of North Carolina General Administration, which serves the Board of Governors of the University system. This student information may be the same as, or derivative of, information maintained by a constituent institution of the University; or it may be additional information. Whatever their origins, education records maintained at General Administration are subject to the federal Family Educational Rights and Privacy Act of 1974 (FERPA). FERPA provides that a student may inspect his or her education records. If the student finds the records to be inaccurate, misleading, or otherwise in violation of the student's privacy rights, the student may request amendment to the record. FERPA also provides that a student's personally identifiable information may not be released to someone else unless 1) the student has given a proper consent for disclosure or 2) provisions of FERPA or federal regulations issued pursuant to FERPA permit the information to be released without the student's consent.
A student may file with the United States Department of Education a complaint concerning failure of General Administration or an institution to comply with FERPA.

The policies of the University of North Carolina General Administration concerning FERPA may be inspected in the office at each constituent institution designated to maintain the FERPA policies of the institution. Policies of General Administration may also be accessed in the office of the secretary of the University of North Carolina, General Administration, 910 Raleigh Road, Chapel Hill, NC.

Further details about FERPA and FERPA procedures at General Administration are to be found in the referenced policies. Questions about the policies may be directed to the Division of Legal Affairs, The University of North Carolina General Administration, Annex Building, 910 Raleigh Road, Chapel Hill, North Carolina (mailing address Post Office Box 2688, Chapel Hill, NC 27515-2688; telephone: [919] 962-4588).

## Family Educational Rights and Privacy Act

As a general rule, under the federal Family Educational Rights and Privacy Act ("FERPA"), personally identifiable information may not be released from a student's education records without his or her prior written consent. Exceptions to this rule are set out in the FERPA regulations and the FERPA policy of the University of North Carolina at Chapel Hill. A few of the exceptions are listed below; the others may be found in the University's FERPA policy and accompanying federal regulations.

The University will disclose personally identifiable information from a student's education records to officials of another institution in which the student seeks or intends to enroll, or where the student is already enrolled if the disclosure is for purposes related to the student's enrollment or transfer. The University will also disclose personally identifiable information from a student's education records to officials of another institution in which a currently enrolled UNC-Chapel Hill student is contemporaneously enrolled. It is the policy of the University of North Carolina at Chapel Hill to forward education records upon request to officials of other institutions in these situations without notifying the student of such transfer of records.
If the University takes disciplinary action against a student for conduct that posed a significant risk to the safety or well-being of the student, other students, or members of the University community, the University may disclose information about that disciplinary action to officials of other schools who have been determined to have a legitimate educational interest in the student's behavior. It is the policy of the University of North Carolina at Chapel Hill to disclose this type of disciplinary information to such officials of other schools without notifying the student that the information has been disclosed.

If the University, pursuant to campus disciplinary procedures, finds that a student has committed a violation of the Honor Code that constitutes a crime of violence or a nonforcible sex offense, the University, upon request, discloses the following information: the student's name, the rule or policy that was violated, any essential findings supporting the conclusion that the violation was committed, the disciplinary sanction imposed, the date the sanction was imposed, and the duration of the sanction. The University will release information from a student's education records to school officials who have a legitimate educational interest in the information. The term "school official" includes, but is not limited to, teachers; officials; employees (including employees of the UNC-Chapel Hill Department of Public Safety); contractors of UNC-Chapel Hill to whom the University has outsourced institutional services or functions (for example, the National Student Clearinghouse, Sakai, entities providing practical or clinical training for students, and other similar or dissimilar contractors); UNC-Chapel Hill students who are functioning in an official University capacity (for example, members of the Honor Court); and employees of the General Administration of the University of North Carolina system. Disclosures may only be made to these individuals and entities if they have a "legitimate educational interest" in the information. They are deemed to have a "legitimate educational interest" in the information if it is in the educational interest of the student in question for the individuals and entities to have the information, or if it is necessary or desirable for them to obtain the information in order to carry out their official duties or their contractual obligations to the University and/or to implement the policies of the University of North Carolina.

The University makes public certain information that has been designated as "directory information" unless the student has notified the Office of the University Registrar to restrict the release of this information. The University considers the following to be "directory information": the student's name; address (local and grade/billing addresses); student e-mail address; telephone listing
(local and grade/billing telephone numbers); date and place of birth; county, state, and/or United States territory from which the student entered the University; major field of study; class (first year, senior, etc.); enrollment status (full-time, half-time, or parttime); Person ID Number (PID); anticipated graduation date; participation in officially recognized activities and sports; weight and height of members of athletic teams; dates of attendance; degrees and awards received; and the most recent previous educational agency or institution attended by the student. The University also maintains an online directory that includes faculty, staff, and students. Some professional and graduate student groups publish directories of students in their departments or schools.

Students who do not want any of their directory information to be made public must come in person to the records area of the Office of the University Registrar (Suite 3100, SASB North) and fill out a Requesting FERPA Privacy Flag on Student's Record, NonDisclosure of Information form. Students completing this form will receive counseling about the effects of placing a FERPA privacy flag on their records. Students who are not within commuting distance of the campus may contact the records area at (919) 962-0495 for further instructions.

Students who choose this option will not be able to receive any information about their records by telephone. Instead, they must come in person and show a photo ID, or send a written request acknowledging that they have placed a restriction on their record but require specific information.

Once set, a FERPA privacy flag will remain on a student's record until the student removes it. To remove a FERPA privacy flag, the student must come in person to the registration area of the Office of the University Registrar (Suite 3100, SASB North) and fill out a Requesting Removal of a Previously Set FERPA Privacy Flag from a Student's Record, Remove Previously Set Restrictions on Release of Information form. Students who are not within commuting distance of the campus may contact the registration area at (919) 962-9851 for further instructions.

Students who wish to block certain information from the directory but do not wish to place a FERPA privacy flag on their records may do this through the portal my.unc.edu in the "Updating Personal Information" section. Checking the "Public" box next to an address or phone number causes that item to be included in the directory. Removing the checkmark from the "Public" box causes the item not to be included in the directory. Students who have questions about restricting information from the directory may contact the registration area at (919) 962-9851.

In order to assure that new students have a meaningful opportunity to request that their directory information not be made public, it is the policy of the University that it will not release directory information about entering undergraduate students until after the last day for late registration for the fall semester.

Receipt of an approved master's thesis or doctoral dissertation in The Graduate School is tantamount to publication, and the thesis or dissertation will be available to the public. Honors theses are also made available to the public through the University Library. Other student papers may be put in campus libraries or otherwise made public in accordance with individual course or program requirements.

FERPA also gives a student the right to inspect his or her education records and to request amendment of those records if they are inaccurate, misleading, or otherwise in violation of the student's privacy rights. To inspect his or her education records, a student must file a written request with the individual who has custody of the records that the student wishes to inspect. To request amendment of his or her records, a student first discusses the matter informally with the records custodian, and if the custodian does not agree to amend the records, he or she will inform the student of applicable appeal rights. Enrolled students may file an appeal with the Student Grievance Committee. Students also have the right to file a complaint with the United States Department of Education alleging that the University has not complied with FERPA.

Questions about FERPA should be addressed to the Office of University Counsel (CB\# 9105). The University's FERPA policy and the text of the federal FERPA regulations are available on the Web at www.unc.edu/campus/policies/ferpa.pdf.

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