

# University of Minnesota

# Fall 1986 Commencement

May-December Graduate School Candidates for Degrees

# **Board** of Regents

The Honorable Wendell R. Anderson, Wayzata

The Honorable Charles H. Casey, D.V.M., West Concord

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The Honorable David M. Lebedoff, Minneapolis

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The Honorable Wenda W. Moore, Minneapolis

The Honorable David K. Roe, St. Paul

The Honorable Stanley D. Sahlstrom, Crookston

The Honorable Mary T. Schertler, St. Paul

# Administrative Officers

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This book was prepared by University Relations. Additional copies are available from University Relations, 6 Morrill Hall, 100 Church St. S.E., University of Minnesota, Minnesota, Minnesota 55455.

THE BOARD OF REGENTS requests that the following Northrop Memorial Auditorium procedure be adhered to: Smoking is confined to the outer lobby on the main floor, to the gallery lobbies, and to the lounge rooms.

# Your University

The University of Minnesota, ranked among the nation's top ten public universities, reflects the commitment to education of a state that is only 21st in population. It is almost alone among universities in the United States in its combination of three characteristics: an international research university, a land-grant institution with a strong tradition of education and public service, and a metropolitan academic community.

The Twin Cities campus, its largest campus, is made up of 18 colleges and offers the full range of academic and professional degrees. A comprehensive campus in Duluth offers undergraduate and graduate programs. The Morris campus offers a four-year liberal arts program. Two-year technical colleges in Crookston and Waseca provide paraprofessional and technical education, primarily in agriculture-related fields. Through the Minnesota Extension Service, the University is present in each of Minnesota's 87 counties.

The University is the primary center in Minnesota (and parts of the surrounding region) for instruction and research in the health sciences, law, engineering, agriculture, and forestry: it offers all of the graduate-level programs in these fields. In all the arts and sciences and in teacher preparation the University is the only doctorate-granting institution in the state.

When the University was founded as a preparatory school in 1851, Minnesota had been a territory for just two years, and statehood was still seven years away. The school was built on not much more than the pioneers' faith in education. The University struggled financially in its early years and was forced to close during the Civil War. It reopened in 1867.

Two students received bachelor of arts degrees at the first commencement in June 1873. Since then, the University has granted a total of 397,390 degrees. Students earn undergraduate and graduate degrees in more than 250 fields of study.

The Duluth campus joined the University in 1947, the Morris campus opened in 1960, the Crookston campus in 1966, and the Waseca campus in 1971.

The University is now one of the largest in the United States. Enrollment in fall 1986 was 56,443 on all five campuses. Enrollment was 45,006 on the Twin Cities campus, 7,301 at Duluth, 1,774 at Morris, 1,149 at Waseca, and 1,213 at Crookston.

University alumni include four Nobel Prize winners, the former chief justice of the United States, two former vice presidents, the heads of Fortune 500 companies, pioneers in medicine, civil rights leaders, top journalists, and men and women who have achieved distinction in every field.

Alumni and their families and friends are always welcome at the University. Alumni are invited to continue their relationship with the University through the Minnesota Alumni Association and its college groups.

The University of Minnesota is committed to the policy that all persons shall have equal access to its programs, facilities, and employment without regard to race, religion, color, sex, national origin, handicap, age, veteran status, or sexual orientation.

# Candidates for Degrees

The following students have applied for graduation. The month of graduation is noted at the end of each student's listing for those who have completed graduation requirements. "Graduation Pending" is noted for students who had not completed graduation requirements at the time the book was compiled. Degrees are listed alphabetically.

# **GRADUATE SCHOOL**

# **Doctor of Education**

# Gary Donald Geroy

B.S.Ág. '73, Ohio State Úniversíty; M. Ed. '84, University of Minnesota. Major: Vocational Education. Minor: Supporting Program. Project: Education for Work: An Integration of Vocational Education and Employer Sponsored Training in Minnesota. Major Adviser: Prof. E.A. Persons. June Graduate.

#### Janet Rose Grochowski, Manitowoc, Wis

B.S. '71, University of Wisconsin, Madison; M.Ed. '76, University of Minnesota. Major: Vocational Education. Minor: Supporting Program. Project: Stressors, Strains, Coping and Social Supports of the Young Adult During the Initial Adaptation to College. Major Adviser: Prof. R.G. Thomas. June Graduate.

# Mitchell Edward Kusy, Jr.,

#### Minneapolis

B.A. magna cum laude '73, Providence College; M.S.S.W. '74, University of Wisconsin; M.A. '84, University of Minnesota. Major: Vocational Education. Minor: Supporting Program. Project: The Effects of Types of Training Evaluation on Support of Training Among Corporate Managers. Major Adviser: Prof. R.A. Swanson. July Graduate.

# Leonard Scott Litowitz, West Orange,

B.S. '82, Montclair State College; M. Ed. '83, Bowling Green State University. Major: Industrial Education. Minor: Supporting Program. Project: The Development, Implementation, and Evaluation of An Energy and Power Unit of Instruction Junior High School Industrial Arts/Technology Education Programs. Major Advisers: Profs. K.F. Zuga and D.C. Bjorkquist. July Graduate.

# Joanne Mary Wandrei, Minnetonka

B.A. '74, Metropolitan State University; M.A. '78, College of St. Thomas. Major: Vocational Education. Minor: Supporting Program. Project: Minnesota Partnership: Vocational Education and Health-Related Industries. Major Adviser: Prof. G.I. Swanson. July Graduate.

# Jeanne Ellen Weber, Minneapolis

B.A. '78, University of Northern Colorado; M.Ed. '79, Bowling Green State University. Major: Industrial Education. Minor: Supporting Program. Project: The Identification and Validation of Technical Concepts in the Communication Industry. Major Adviser: Prof. D.C. Bjorkquist. October Graduate.

# Duane Marlo Zwiers, Cambridge

B.C.E. '57, M.S.C.E. '58, University of Minnesota. Major: Industrial Education. Minor: Supporting Program. Project: Civil Technology Work Samples for Hearing Impaired Students. Major Advisers: Profs. D.C. Bjorkquist and S.J. Miletich. July Graduate.

# **Doctor of Musical Arts**

## Patricia Dawn Backhaus, Waukesha, Wis.

B.A. '81, Carroll College; M.M. '83, University of Minnesota. Major: Music. Major Adviser: Prof. D.B. Baldwin. Graduation Pending.

# Larry Griffin, Portsmouth, Va.

B.Music cum laude '79, Virginia State College; M.M. '84, University of Minnesota. Major: Music. Minor: Supporting Program. Major Adviser: Prof. D.B. Baldwin. July Graduate.

### Daniel James McKenzie, Virginia

B.S. '78, Bemidji State University; M.M. '80, Wichita State University. Major: Music. Minor: Supporting Program. Major Adviser: Prof. Lawrence Weller. June Graduate.

# Timothy Arends Schmidt, Forest City, Iowa

B.A. with honors '70, Ohio University; M.M. with high honors '72, New England Conservatory of Music. Major: Music. Minor: Supporting Program. Major Adviser: Prof. B.D. Weiser. May Graduate.

# Gerard Bertil Sundberg, Columbia Heights

B.A. '73, Bethel College: M.F.A. '77, University of Minnesota. Major: Music. Minor: Supporting Program. Major Adviser: Prof. D.C. Ware. June Grad-

# Doctor of Philosophy

# Sabah Najib Abdal-Raheem, Baghdad,

Iraq B.S. '77, M.S. '77, University of Baghdad, Major: Where Supporting Program, Thesis: Twenty-Four-Hour Growth Hormone Profiles and Effects of Growth Hormone-Releasing Factors on Growth Hormone Secretion in Steer Calves. Major Adviser: Prof. J.E. Wheaton. August Gradu-

# Beth R.J. Abdella, Columbia Heights

B.A. magna cum laude '82, St. Olaf College. Major: Chemistry. Minor: Supporting Program. Thesis: Redox Chemistry of the Anthracycline Antitumor Antibiotics. Major Adviser: Prof. J.F. Fisher. September Graduate.

## Yasuvuki Abe, Hachinohe, Japan

B.S. '80, Yamagata University. Major: Physics. Minor: Supporting Program. Thesis: Studies of a Turbulent Plasma Environment Near an Electron Beam-Emitting Rocket in the Polar Ionosphere Using Electric Probes: Echo 6. Major Adviser: Prof. J.R. Winckler. May Graduate.

# Dorothy Louise Abts, Cottage Grove

B.S. '58, College of Saint Teresa; M.B.A. '79, University of Minnesota. Major: Educational Administration. Minor: Supporting Program. Thesis: An Evaluation of the Factors Involved in the Introduction and Use of Microcomputers in Administrative Offices. Major Advisor: Prof. V. L. Hendrix. Graduation Pending.

# Chul Hwan Ahn, Seoul, Korea

B.S.E. '76, Seoul National University; M.S. '81, Kansas State University. Major: Statistics. Minor: Supporting Program. Thesis: Diagnostics for Heteroscedasticity in Mixed Linear Model. Major Adviser: Prof. S. Weisberg. September Graduate.

# Azhr Hassan Al-Haboby, Baghdad,

Iraq B.S. '75, M.S. '77, University of Baghdad. Major: Animal Physiology. Minor: Supporting Program. Thesis: Influence of Neonatal Hemiorchidectomy on Bovine Testicular Development and Plasma Hormone Levels. Major Adviser: Prof. B.G. Crabo. July Graduate.

# David Mark Anderson

B. Math. '78, M.S. '82, University of Minnesota. Major: Chemical Engineering. Minor: Mathematics. Thesis: Studies in the Microstructure of Microemulsion. Major Advisers: Profs. H.T. Davis and L.E. Scriven. June Graduate.

# Dennis Michael Anderson,

#### Minneapolis

B.A. '75. University of Minnesota. Major: Physical Education. Minor: Supporting Program. Thesis: A Study Comparing Effects of Microcomputer Enhanced Versus Non-Microcomputer Enhanced Curricula on Health Related Knowledge and Behaviors of Fourth and Fifth Grade Students. Major Adviser: Prof. R.H. Needle. September Graduate.

## Gordon Lee Anderson, Andover

B.A. '70, Southern California College; B.A. '80, M.A. '81, University of Portland. Major: Ancient Studies. Thesis: The Legal Basis for the Treatment of Christianity, 30-312 C.E. Major Adviser: Prof. R.F. Spencer, Graduation Pending.

# Joyce Giegerich Anderson, Edina

B.S.N. with high distinction '74, M.S. '76, University of Minnesota. Major: Educational Psychology. Minor: Supporting Program. Thesis: The Relationship of Sex-Valued Personality Characteristics to Self-Acceptance and Acceptance of Loss in Adult-Onset Physical Disability. Major Adviser: Prof. A.R. Anderson. June Graduate.

#### Stephen John Antonello, St. Paul

B.A. 77, University of Minnesota; M.S. 79, Eastern Kentucky University. Major: Educational Administration. Minor: Supporting Program. Thesis: Development of a Psychometric Instrument to Compare Stress in Families of Handicapped and Normal Secondary School Children. Major Adviser: Prof. N.C. Nickerson. July Graduate.

# Deborah Ann Appleman, St. Paul

B.S. with high distinction '73, M.A. '81, University of Minnesota. Major: Education. Minor: Supporting Program. Thesis: The Effect of Heuristically-Based Assignments on Adolescent Response to Literature. Major Advisers: Profs. R.W. Beach and J.A. Mackey. August Graduate.

# Thomas William Atwater, Baltimore, Md.

B.S. '81, University of Maryland. Major: Physics. Minor: Supporting Program. Thesis: Collisions of Relativistic Cosmic Ray Nuclei with Emulsion. Major Adviser: Prof. P.S. Freier. Graduation Pending.

#### Stowe Neal Badenoch

B.A. '64, University of Minnesota. Major: Vocational Education. Minor: Supporting Program. Thesis: Personality Type, Learning Style Preference, and Strategies for Delivering Training to a Select Group of Store Managers. Major Adviser: Prof. R.D. Ashmun. Graduation Pending.

# Peter John Bedker, Geneva

B.S. with distinction '81, M.S. '83, University of Minnesota. Major: Plant Pathology. Minor: Ecology. Thesis: An Assessment of the Pathogenicity of the Pine Wood Nematode, Bursaphelenchus Xylophilus, in the North Central United States. Major Adviser: Prof. R.A. Blanchette. July Graduate.

#### Brian Paul Beecken

B.A. with highest honor '80, Elmhurst College; M.S. '84, University of Minnesota. Major: Physics. Minor: Supporting Program. Thesis: Critical Flow of Superfluid 4He Through a Small Orifice. Major Adviser: Prof. William Zimmermann, Jr. June Graduate.

# Alice Bell

A.B. '45, Earlham College; M.A. '46, University of Wisconsin. Major: English. Minor: Supporting Program. Thesis: Through the Professor's Window: Reading Willa Cather's Novel Demeuble. Major Adviser: Prof. K.R. Bales. June Graduate.

# David Neil Bengston

B.S. magna cum laude '80, M.S. '83, University of Minnesota. Major: Forestry. Minor: Supporting Program. Thesis: Research Capacity in Developing Countries: An Evaluation of Public Forestry Research Institutions. Major Adviser: Prof. H.M. Gregerson. August Graduate.

# John Wesley Bennett

B.S. '58, Southern University, Baton Rouge; M.A. '77, University of Minnesota. Major: Educational Administration. Minor: Supporting Program. Thesis: A Study of the Consequences of Evaluation/Accreditation of Selected North Central Association Elementary Schools in Minnesota. Major Adviser: Prof. R.T. Lambert. June Graduate.

#### Susan Marie Berdahl

B.M. '70, University of Iowa; M.M. '72, University of Miami. Major: Music. Minor: Supporting Program. Thesis: The First Hundred Years of the Bochm Flute in the United States, 1845-1945: A Biographical Dictionary of American Bochm Flute Makers. Major Adviser: Prof. Johannes Riedel. June Graduate.

# Bernice E. Berns, St. Cloud

B.A. '71, College of Saint Teresa; M.S. '74, M.S. '77, St. Cloud State University. Major: Educational Administration. Minor: Supporting Program. Thesis: The Relationship Between Teacher Perception of Change and Teacher Morale. Major Adviser: Prof. N.C. Nickerson. May Graduate.

#### Nadine Sue Bezuk, Ambridge, Pa.

B.S. '76, University of Pittsburgh; M.A. '84, University of Minnesota. Major: Education. Minor: Supporting Program. Thesis: Variables Affecting Seventh Grade Students' Performance and Solution Strategies on Proportional Reasoning Word Problems. Major Adviser: Prof. T.R. Post. July Graduate.

#### Mitsue Hironaka Bicudo

Bach. '68, Universidade Federal Rural do Rio Grande do Sul; M.S. '71, Purdu University. Major: Nutrition. Minor: Supporting Program. Thesis: Dietary Effect on Physiological Alterations During Lactose and Castor Oil-Induced Diarrhea. Major Adviser: Prof. P.B. Swan. July Graduate.

## Pedro Luiz Bicudo, Vicosa, Brazil

Vet. '66, Universidade Rural do Brasil, Escola Nacional de Veterinaria; Mestre '80, Universidade Federal de Minas Gerais. Major: Veterinary Medicine. Minor: Supporting Program. Thesis: Nitrate Poisoning in Cattle: Investigation of Possible Inhibitors of Nitrate Reduction in Vitro and in Vivo in Cattle. Major Adviser: Prof. C.M. Stowe. August Graduate.

# Sue Ann Bidstrup, Cambridge, Mass.

B.S.Ch. E. '81, Massachusetts Institute of Technology. Major: Chemical Engineering. Minor: Supporting Program. Thesis: Structure-Property Relations for Model Epoxy Networks. Major Adviser: Prof. C. W. Macosko. June Graduate.

# Gerald Charles Blazey, Brookings, S.D.

B.S. '80, South Dakota State University. Major: Physics. Minor: Supporting Program. Thesis: Experimental Observations of Exclusive Hadronic Interactions at High Momentum Transfer. Major Adviser: Prof. E.A. Peterson. September Graduate.

# David Edward Blockstein, Madison, Wis

B.S. '78, University of Wisconsin; M.S. '82, University of Minnesota. Major: Ecology. Minor: Supporting Program. Thesis: Reproductive Behavior and Parental Investment of Mourning Doves (Zenaida Macroura). Major Adviser: Prof. H.B. Tordoff, June Graduate.

# Margaret Louise Blohm, Schenectady, N.Y.

B.A. magna cum laude '81, Russell Sage College. Major: Chemistry. Minor: Internal. Thesis: Synthesis and Reactivity of Buthenium Carbonyl Nitrido Clusters. Major Adviser: Prof. W.L. Gladfelter. May Graduate.

#### Debra Ann Blomster, Little Canada B.A. cum laude '81, University of Minnesota. Major: Microbiology. Minor: Supporting Program. Thesis: Localization of Immunobiological Sites on Toxic Shock Syndrome Toxin-1. Major Adviser: Prof. P.M. Schlievert. October Graduate.

Richard Ray Bonczek, Hobart, Ind. B.S. with highest distinction '76, Purdue University; M.S. '81, University of Minnesota. Major: Animal Science. Minor: Animal Physiology. Thesis: Correlated Response to Selection for High Milk Yield in Holstein Dairy Cattle: Average Daily Concentrations of Plasma Prolactin, Thyroxine, Insulin, and Growth Hormone at Two Stages of Lactation. Major Adviser: Prof. C.W. Young, July Graduate.

# Lakhdar Boukerrou, Constantine, Algeria

Ing. Appl. '74, Institut de Technologie Agricole de Mostaganem; M. S. '84, University of Minnesota. Major: Plant Breeding. Minor: Supporting Program. Thesis: Biomass Yield and Breeding for High Grain Yield in Barley (Hordeum vulgare L.) Major Adviser: Prof. D. C. Rasmusson. June Graduate.

# Ann Marion Brearley, Ames, Iowa B.A. summa cum laude '81, St. Olaf College. Major: Chemistry. Minor: Supporting Program. Thesis: An Investigation of Dynamic Solvent Effects on Ultrafast Reaction Kinetics in Solution. Major Adviser: Prof. P.F. Barbara. October Graduate.

# Mary Catherine Breitenbucher

B.A. summa cum laude '77, University of Minnesota. Major: Educational Psychology. Minor: Supporting Program. Thesis: The Effects of Maternal Age Upon Quality of Child Care. Major Adviser: Prof. Byron Egeland. June Graduate.

#### Frank William Brocato, St. Paul

B.M. cum laude '76, University of Cincinnati; M.F.A. '78, University of Minnesota. Major: Music. Minor: Supporting Program. Thesis: The Vernacular Chant of Saint Meinrad Archabbey. Major Adviser: Prof. S.K. McClary, Graduation Pending.

# Lisa Julie Brown-Ewing, New Brighton

B.S.E. '75, Southern Illinois University; M.S. '82, University of Minnesota. Major: Biophysical Sciences. Minor: Supporting Program. Thesis: The Development of an Early Detection and Intervention Criterion for Cystic Fibrosis Patient Clinical Status Based on Home Monitoring Data. Major Adviser: Prof. S.M. Finkelstein. June Graduate.

# Sarah Ann Bryant-Bertail, St. Paul

B.S. '65, Bemidji State University; M.A. '81, University of Minnesota. Major: Comparative Literature. Minor: Supporting Program. Thesis: Scene in Performance: Spatio-Temporality and Representation in Modern Theater. Major Adviser: Prof. Wladvslaw Godzich. August Graduate.

#### Kris Ann Buleroft

B.A. cum laude '74, Pacific Lutheran University; M.Ed. '78, Eastern Washington State College. Major: Sociology. Minor: Supporting Program. Thesis: Senior Center Participation: Levels of Attendance and Nature of Use. Major Adviser: Prof. T.R. Anderson. Iune Graduate.

#### James F. Burke, Menomonie, Wis.

B.A. '70, Dartmouth College; M.Ed. '75, Temple University: M.S. '82, Utah State University. Major: Education. Minor: Supporting Program. Thesis: A Computer- Assisted System for Managing and Evaluating Tourism Marketing Programs. Major Adviser: Prof. John Schultz. July Graduate.

# Martin James Burton, Manchester, England

B.V.S. 83, University of Bristol, M.S. 86, University of Minnesota. Major: Theriogenology. Minor: Supporting Program. Thesis: Uterine Motility Patterns in Periparturient Dairy Cattle. Major Adviser: Prof. R. Zemjanis. Graduation Pending.

## Chongwon Byun, Korea

B.S.E. 77, Seoul National University. Major: Materials Science and Engineering. Minor: Supporting Program. Thesis: A Study of the Magnetic and Structural Properties of RF-Sputtered CoCr Films for Perpendicular Magnetic Recording. Major Advisers: Profs. J.M. Sivertsen and J. H. Judy. Graduation Pending.

# Robert Louis Callecod, Maple Plain

A.B. '61, Knox College; M.Land Arch. '74, University of Illinois. Major: Education. Minor: Supporting Program. Thesis: Effects of Motives and Decision-Making on Attribute Preferences in a Ski Touring Environment. Major Adviser: Prof. John Schultz. May Graduate.

## Paul David Capel, Bedford, Ohio

B.A. '79, Evangel College; M.S.C.E. '83, University of Minnesota. Major: Civil Engineering. Minor: Supporting Program. Thesis: Distributions and Diagenesis of Chlorinated Hydrocarbons in Sediments. Major Adviser: Prof. S.J. Eisenreich. Inly Gradnate.

# Maria Pastuszek Cardle, West Chester, Pa.

B.A. '81, University of Notre Dame; M.A. '84, University of Minnesota. Major: Child Psychology. Minor: Supporting Program. Thesis: Behavioral Patterns Associated with Success and Failure in Problem Solving Among Preschoolers and the Relationship of Early Play and Problem Solving Behaviors to Later Intelligence. Major Advisers: Profs. H.D. Pick and Byron Egeland. May Graduate.

# Gordon William Carlson, St. Paul

B.A. '65, Bethel College; M.A. '69, University of Minnesota. Major: History. Minor: Supporting Program. Thesis: Russian Protestants and American Evangelicals Since the Death of Stalin: Patterns of Interaction and Response. Major Adviser: Prof. T.G. Stavrou. July Graduate.

# Steven Lewis Carlton-Ford, Lake Worth, Fla.

B.S. '74, Cornell University; M.A. '80, University of Alabama. Major: Sociology. Minor: Supporting Program. Thesis: The Effects of Ritual and Charisma: The Creation of Collective Effervescence and the Support of Psychic Strength. Major Adviser: Prof. R.G. Simmons. August Graduate.

# Cheryl N. Carmin, Glenside, Pa.

B.S. '74, Hahnemann Medical College and Hospital. Major: Educational Psychology. Minor: Supporting Program. Thesis: Threat to Self-Esteem and Counselee Response to Help: An Investigation of Self-Help, Help-Secking, and Rejection of Help Behaviors. Major Adviser: Prof. Henry Borow. July

# Glenn Thomas Carroll, Youngstown, Ohio

B.S. 79, Ohio State University. Major: Chemistry. Minor: Supporting Program. Thesis: The Photoinduced Addition of Nucleophiles to Bicyclo[1.1.0]Butanes. Major Adviser: Prof. P.G. Gassman. October Graduate.

# Ann Marie Casey, St. Paul

B.S. '74, Iowa State University; M.A. '75, Ohio State University. Major: Educational Psychology. Minor: Supporting Program. Thesis: A Comparison of LD and MMH Students Using Curriculum-Based Achievement Measures. Major Adviser: Prof. J. E. Ysseldyke. June Graduate.

## Ali Chafai Elalaoui, Sefrou, Morocco

Dipl.Agron. '76, Ing.Agron. '78, Institute of Agricultural and Veterinary Medicine Hassan II. Major: Agronomy. Minor: Supporting Program. Thesis: Contribution of Nonsurviving Tillers to the Growth of Barley (Hordeum Vulgare L.). Major Adviser: Prof. S.R. Simmons. Graduation Pending.

#### Joseph Man Chan, Hong Kong

B.S. 76, University of Minnesota; M.Ph. '81, Chinese University of Hong Kong. Major: Mass Communication. Minor: Supporting Program. Thesis: Shifting Journalistic Paradigms: Mass Media and Political Transition in Hong Kong. Major Adviser: Prof. P.J. Tichenor. August Graduate.

# Jik Hyun Chang, Korea

B.S. '72, M.S. '77, Seoul National University. Major: Computer and Information Sciences. Minor: Mathematics. Thesis: Systolic Systems: Algorithms and Complexity. Major Adviser: Prof. O. H. Ibarra. August Graduate.

# Kou-Chuan Chang

B.S.E. '79, National Taiwan University: M.S. '84, University of Minnesota. Major: Computer and Information Sciences. Minor: Supporting Program. Thesis: On Via Minimization and Layer Assignment Problems. Major Advisers: Profs. D.H. Du and O.H. Ibarra. June Graduate.

# Yl Chang, Taipei, Taiwan

B.S. '77, National Tsing Hua University. Major: Metallurgy and Materials Science. Minor: Supporting Program. Thesis: Synthesis of Silicon Nitride Ultra Fine Powders in Thermal Plasmas. Major Advisers: Profs. W.W. Gerberich and Emil Pfender. July Graduate.

# Yueh-Ing Chang

B.S.Ag. '78, National Taiwan University; M.S. '82, University of Minnesota. Major: Food Science. Minor: Supporting Program. Thesis: Resolution, Quantitation and Reaction of Chiral Flavor Compounds. Major Adviser: Prof. G.A. Reineccius. May Graduate.

# Kenneth Sherwood Chapman, Ames,

B.A. magna cum laude '80, University of California, Los Angeles. Major: Economics. Minor: Supporting Program. Thesis: A Theory of Product Warranties. Major Adviser: Prof. H.D. Mohring. September Graduate.

## Margaret Charity Charmoli, Mountain Iron

B.A. magna cum laude '74, Macalester College; M.A. '79, University of Minnesota. Major: Psychology. Minor: Educational Psychology. Thesis: Incest in Relation to Sexual Problems. Abusive Relationships, Self-Destructive Behavior. and Sexual Orientation: A Psychological Study of Women. Major Adviser: Prof. G.T. Athelstan. Graduation Pending.

Chung-Hsu Chen, Tainan, Taiwan B.S. '80. National Taiwan Normal University. Major: Physics. Minor: Supporting Program. Thesis: Characterization and Modeling of Ion-Implanted GaAs FETs. Major Adviser: Prof. M.S. Shur. Graduation Pending.

Stephen Linn Chew, Dallas, Tex. B.A. with highest honors '78. University of Texas, Austin. Major: Psychology. Minor: Supporting Program. Thesis: The Use of Traffic Sounds by Blind Pedestrians. Major Adviser: Prof. H.L. Pick. August Graduate.

# Hwai Derg Chiang, Yong Peng, Malaysia

B.S. with honors '76, University of London; M.S.M.E. '78, University of Minnesota. Major: Mechanical Engineering. Minor: Supporting Program. Thesis: Natural Convection Mass Transfer Along an Inclined Surface and Within an Inclined Enclosure Using an Electrochemical Technique. Major Adviser: Prof. R.J. Goldstein. Graduation Pending.

# Redouane ChoukrAllah, Casablanca, Morocco

Dipl. Agron. Gen. '76, Ing. Agron. '78, Institute of Agriculture and Veterinary Medicine Hassan II. Major: Horticulture. Minor: Plant Physiology. Thesis: The Effect of Calcium on Lycoperscon Esculentum Sensitivity to Sodium Chloride. Major Adviser: Prof. P.E. Read. October Graduate.

Dean Lee Christensen, Champlin B.S. '71, M.S.Ed. '74, Wisconsin State University. Major: Education. Minor: Supporting Program. Thesis: An Intelligent Learning System Using Cognitive Science Theory and Artificial Intelligence Methods. Major Adviser: Prof. R.D. Tennyson. Iuly Graduate.

# Scott Robert Christianson, Sioux Falls, S.D.

B.A. summa cum laude '77, Augustana College; M.A. '78, University of Nebraska, Lincoln. Major: English. Minor: Supporting Program. Thesis: Through the Corridors of Time: Critical Perspectives on T.S. Eliot and W.H. Auden. Major Adviser: Prof. L.H. Unger. August Graduate.

# Mario Cianflone, Shakopee

B.A. '70, B.S. '73, M.A. '74, University of Minnesota, Major: Education. Minor: Supporting Program. Thesis: The Timbral Discrimination Skills of Preschoolers, 2nd Graders, and 6th Graders. Major Adviser: Prof. A.F. Caswell, June Graduate.

# Timothy Edward Cichocki, Boston, Wass.

B.S.E.E. cum laude '71, University of Toledo. Major: Electrical Engineering. Minor: Mathematics. Thesis: A Sensor-Efficient Algorithm for Wideband Array-Processing. Major Adviser: Prof. M. Kaveh. October Graduate.

#### Sharon A. Clay, Milwaukee, Wis.

B.S. '77, University of Wisconsin, Madison; M.S. '82, University of Idaho. Major: Agronomy. Minor: Supporting Program. Thesis: Interference and Control of Giant Burreed (Sparganium eurycarpum) in Wild Rice (Zizinia palustris). Major Adviser: Prof. E.A. Oelke. September Graduate.

#### Gary Lee Cleveland, Cloquet

B.A. '60, University of Minnesota; M.B.A. '82, University of Minnesota, Duluth, Major: Business Administration. Minor: Supporting Program. Thesis: Manufacturing Competence: The Link Between Production System and Business Strategy. Major Advisers: Profs. R.G. Schroeder and J.C. Anderson, July Graduate.

Eileen Jean Clifford, Brooklyn Center B.S. '72, M.A. '76, University of Minnesota. Major: Physical Education. Minor: Supporting Program. Thesis: The History and Impact of Selected Organizations on Health Education in the State of Minnesota. Major Adviser: Prof. E.M. Jaeger. Graduation Pending.

# Linda Ann Cohen, Minnetonka

B.A. honors '58, Wellesley College; M.A. '80, Harvard University; M.A. '85, University of Minnesota. Major: Educational Psychology. Minor: Supporting Program. Thesis: Birth Order and Learning Styles: An Examination of the Relationship Between Birth Order and Middle School Students' Preferred Learning Style Profile. Major Adviser: Prof. A.R. Anderson. May Graduate.

Philippe Cohen, Los Angeles, Calif. B.A. '75, Pitzer College. Major: Geography. Minor: Supporting Program. Thesis: The Technology of Information Use and Land Use Management - The Shoreland Management Program and the Minnesota Land Management Information System. Major Adviser: Prof. Y.F. Tuan. July Graduate.

Robin Gayle Cooper, Elmhurst, Ill. B.S. '73, University of Illinois, Major: Psychology. Minor: Supporting Program. Thesis: Occupational Stress in Police Work. Major Adviser: Prof. V.M. Schletzer. June Graduate.

#### **Jeffrey Scott Coultas**

B.A. '73, B.S. '77, M.S. '79, University of Wisconsin. Major: Agronomy. Minor: Supporting Program. Thesis: Growth and Development of Wild Proso Millet (Panicum Miliaceum L.) in Three Cropping Systems and Natural Infestations. Major Adviser: Prof. Richard Behrens. October Graduate.

# Joseph Richard Coveney, St. Louis,

B.S. '77, State University of New York, Buffalo. Major: Pharmacology. Minor: Supporting Program. Thesis: Dispositional Factors Related to Stress and the Behavioral Action of Phencyclidine in Rats. Major Advisers: Profs. G.L. Wilcox and S.B. Sparber. Graduation Pending.

#### Kathleen Ann Cramer

A.B. '71, Syracuse University; M.A. '84, University of Minnesota. Major: Education. Minor: Supporting Program. Thesis: Teacher Guidance, Cognitive Restructuring Ability and Mathematics Tasks: An Aptitude Treatment Interaction Study. Major Adviser: Prof. R.L. Jackson. July Graduate.

# Lucinda Cummings

B.A. summa cum laude '79, University of Minnesota. Major: Psychology. Minor: Supporting Program. Thesis: Developmental Treatment of Childhood Social Isolation. Major Advisers: Profs. P.C. Kendall and J.N. Butcher. June Graduate.

#### Anne Estelle Daigle

B.S. Pharm. '80, University of Connecticut. Major: Epidemiology. Minor: Supporting Program. Thesis: Epidemiologic Study of Etiologic Factors in Ewing's Sarcoma. Major Advisers: Profs. J.S. Mandel and L.M. Schuman. June Graduate.

# Sylvie Suzanne D'Allaire, Montreal, Canada

D.V.M. '80, Universite de Montreal. Major: Veterinary Medicine. Minor: Supporting Program. Thesis: Factors Associated with Culling in Swine Breeding Herds. Major Adviser: Prof. A.D. Leman. Graduation Pending.

#### Gayle Vicki Davidson

B.S. '71, Oregon College of Education; M.A. '82, University of Minnesota. Major: Education. Minor: Supporting Program. Thesis: The Effects of Training Learners To Generate Examples on Concept Acquisition. Major Adviser: Prof. C.A. Carrier. Graduation Pending.

# E. Radford Decker, Minneapolis

B.A. '76, Luther College. Major: Pĥysiology. Minor: Supporting Program. Thesis: Hydrogen Ion Conductance Through the Gramicidin Channel: The Role of Aqueous Diffusion. Major Adviser: Prof. D.G. Levitt. August Graduate.

# Kathleen Mary DeDeyn, Mason City,

B.A. with high honors '78, University of Northern Iowa; M.S. '79, University of Arizona. Major: Physical Education. Minor: Supporting Program. Thesis: Error Identification Comparison Between Three Modes of Viewing a Skill. Major Adviser: Prof. L.J. Stoner. July Graduate.

# Robert Allen Denemark, Milwaukee, Wis.

B.A. with distinction '78, Purdue University. Major: Political Science. Minor: Supporting Program. Thesis: State Strength in the Periphery of the Capitalist World-System: A Focused Comparative Critical Case Study Analysis. Major Adviser: Prof. R.D. Duvall. Graduation Pending.

# Françoise Denis

Lic. Agreg. '64, Universite Catholique de Louvain; M.A. '78, University of Minnesota. Major: French. Minor: Supporting Program. Thesis: Les Retombees D'une Concordance: Raoul de Cambrai. Major Adviser: Prof. F. R. Akchurst. June Graduate.

# Jerome Dehn DeNuccio, New Brighton

B.S. '71, Wisconsin State University, Stevens Point; M.A. '82, University of Minnesota. Major: English. Minor: Supporting Program. Thesis: "A Testimony of My Innocency": The Literary Dimensions of Robert Keayne's Last Will and Testament, 1653. Major Adviser: Prof. E.M. Griffin. July Gradnate.

## James Matthew DePuydt

B. Math. with distinction '81, University of Minnesota. Major: Physics. Minor: Supporting Program. Thesis: A Calorimetric Study of Reentrance in Single Crystals of Erbium Rhodium Boride. Major Adviser: Prof. E. D. Dahlberg. September Graduate.

## Bill Derksen, Winnipeg, Manitoba

B.A. '66, University of Saskatchewan; M.A. '69, University of Minnesota. Major: Music. Minor: Philosophy. Thesis: David and Saul, A Music Drama. Major Adviser: Prof. E.N. Stokes. May Graduate.

# David Kenneth Dinklage, Boston,

B.A. cum laude '79, Harvard College. Major: Psychology. Minor: Supporting Program. Thesis: Post-Traumatic Stress Disorder in Vietnam Veterans Seeking Psychiatric Treatment. Major Adviser: Prof. P.S. Meehl. July Graduatc.

# Christina Maria DiPietro, Charleston,

B.S. high honors '79, University of Illinois, Major: Food Science, Minor: Supporting Program. Thesis: Heat Stability and Occurrence of the Kunitz and Bowman-Birk Soybean Protease Inhibitors in Soybean Products: Quantitation with Enzymatic and Immunochemical Techniques. Major Adviser: Prof. I.E. Liener, Graduation Pending.

## Peter Richard Donahue, Minneapolis

B.A. 78, Carleton College, Major: Cell and Developmental Biology. Minor: Supporting Program. Thesis: H2A.2: A Drosphila Melanogaster Histone Located in Polytene Chromosome Interbands. Major Adviser: Prof. Martin Blumenfeld. August Graduate.

# Virgil Lawrence Dorsey, Waukegan, Ill.

B.A. '59, University of Illinois, M.A. '76, University of Illinois, Chicago Circle, Major: English, Minor: American Studies. Thesis: The Sacred Center and the Wilderness: A Critical Study of Tennyson's Idylls of the King, Major Adviser: Prof. W.A. Madden, September Graduate.

# Kathy Dudley-Webster, Lompoc, Calif.

D. Pharm. '78, University of the Pacific. Major: Medicinal Chemistry. Minor: Supporting Program. Thesis: Mechanisms of Glutathione S-Transferases Catalyzed Conjugation of S-Methylstyrene Oxides. Major Adviser: Prof. M.M. AbdelMonem. Graduation Pending.

#### Rong Ruey Duh

B.Com. '76, M.Com. '78, National Chengchi University. Major: Business Administration. Minor: Supporting Program. Thesis: Economic Man as an Intuitive Bayesian: An Experimental Study. Major Adviser: Prof. Shvam Sunder. August Graduate.

## Ann Hill Duin, Burnsville

B.A. '77, Luther College; M.A. '83, University of Minnesota. Major: Education. Minor: Supporting Program. Thesis: The Effects of Intensive Vocabulary Instruction on Expository Writing. Major Adviser: Prof. M.F. Graves. August Graduate.

#### David Morse Eagle

B.A. honors '76, University of Montana; M.A. '83, University of Minnesota. Major: Economics. Minor: Supporting Program. Thesis: Federal-Funds-Rate Volatility and the Reserve-Maintenance Period. Major Adviser: Prof. Neil Wallace. August Graduate.

# Abdesselam Eddebbarh, Rabat,

Dipl.Ing.Agron. '78, Institut Agronomique et Veterinaire Hassan II. Major: Animal Science. Minor: Supporting Program. Thesis: Study and Modeling of Dairy Cattle Production Systems in Four Areas of Morocco. Major Adviser: Prof. C.W. Young. July Graduate.

#### Hassan Elattir, Agadir, Morocco

Dipl.Agron.Gen.'73, Dipl.Ing.Agron.'75, Institut Agronomique et Veterinaire Hassan II. Major: Horticulture. Minor: Plant Physiology. Thesis: Studies on Cell and Plant Responses to Water Stress and Drought Acclimation in Lycopersicon Esculentum. Major Adviser: Prof. Eduard Stadelmann. Graduation Pending.

# Patricia Kay Elder, Minneapolis

B.S. with high distinction '73, M.A. '82, University of Minnesota. Major: Education. Minor: Supporting Program. Thesis: Alternative Decision Making Strategies in Economic Education: A Comparison of Two Approaches in Intermediate Classrooms. Major Advisers: Profs. J.J. Cogan and B.R. Dalgaard. September Graduate.

## Hasan Ali ElHuni, Tripoli, Libya

B.S. '78, University of Al Fatch; M.S.E.É. '83, University of Minnesota. Major: Electrical Engineering. Minor: Computer and Information Sciences. Thesis: Techniques for Design and Testing of Iterative and Systolic Arrays. Major Adviser: Prof. L.L. Kinney. June Graduate.

# Bonita Colleen Eliason, St. Peter

B.A. '72, Gustavus Adolphus College; M.S. '77, University of Minnesota. Major: Zoology. Minor: Supporting Program. Thesis: Mating System, Parental Care, and Reproductive Success in the Blackpoll Warbler (Dendroica Striata). Major Adviser: Prof. D.W. Warner. September Graduate.

## Thomas Gerard Endres, Northfield

B.S. '82, St. Cloud State University. Major: Speech-Communication. Minor: Supporting Program. Thesis: A Dramatistic Analysis of Unmarried Mothers: Toward a Typology of Rhetorical Visions. Major Adviser: Prof. E.G. Bormann. Graduation Pending.

Joshua E. Enueme, Udhedhe, Nigeria B.S. '77, University of Maryland, M.S. '79, Virginia Polytechnic Institute and State University. Major: Animal Science. Minor: Supporting Program. Thesis: The Use of Peat as a Dietary Component and Bedding Material for Food-Producing Animals. Major Adviser: Prof. P.E. Waibel. Graduation Pending.

## David Andrew Erdahl, Hopkins

B.S. with distinction '74, University of Minnesota. Major: Animal Physiology. Minor: Supporting Program. Thesis: Preservation of Spermatozoa and Ova from Freshwater Fish. Major Adviser: Prof. E.F. Graham. October Graduate.

#### Claudia Jean Evarts-Kittock

B.A. '74, Gustavus Adolphus College; M.A. '77, University of Minnesota. Major: Education. Minor: Supporting Program. Thesis: Perceptions of Teachers, Students, and an Observer in Selected Choral Classrooms. Major Adviser: Prof. E.M. Turrentine. July Graduate.

#### Paul L. Fackler

B.A. '78, Colby College. Major: Agricultural Economics. Minor: Economics. Thesis: The Informational Content of Options Premiums. Major Adviser: Prof. R.P. King. Graduation Pending.

#### William Whitney Farr

B.S. highest honors '75, University of California, Davis, M.A.Math. '81, University of California, Los Angeles. Major: Chemical Engineering. Minor: Supporting Program. Thesis: Mathematical Modelling: Dynamics and Multiplicity. Major Adviser: Prof. Rutherford Aris. September Graduate.

# Gerard Farrell, Dublin, Ireland

B.E. '70, M.E. '80, M.Eng.Sc. '80, National University of Ireland, Galway. Major: Civil Engineering. Minor: Supporting Program. Thesis: Buoyancy Induced Plunging Flow Into Reservoirs and Coastal Regions. Major Adviser: Prof. H.G. Stefan. May Graduate.

# Miles Aubrey Finn, Baltimore, Md.

B.A. magna cum laude '78, Franklin and Marshall College. Major: Physics. Minor: Supporting Program. Thesis: Quantum Jumps and Branching from the 1P1 Level in Barium I. Major Adviser: Prof. G.W. Greenless. Graduation Pending.

## Edmund Fleck, Wegberg, West Germany

Dipl. '80, Rheinisch-Westfalische Technische Hochschule Aachen. Major: Mechanical Engineering. Minor: Supporting Program. Thesis: Velocity and Temperature Measurements in Thermal Plasma Jets. Major Adviser: Prof. Emil Pfender. Iune Graduate.

## Mark David Foster, Columbus, Ind.

B.S.Ch.E. magna cum laude '81, Washington University. Major: Chemical Engineering. Minor: Supporting Program. Thesis: Small Angle X-ray Scattering Investigation of Pore Structure Change in Gas-Solid Reactions. Major Adviser: Prof. K.F. Jensen. Graduation Pending.

#### Lynne Diane Franklin, Dallas, Tex.

B.A. '77, University of Colorado; M.S. '79, Southern Methodist University. Major: Psychology. Minor: Supporting Program. Thesis: The Perception and Production of Syllable-Initial Fricatives in Normal and Articulation-Delayed Preschool Children. Major Advisers: Profs. P.A. Broen and H.L. Pick. Graduation Pending.

# Perley Jean Frazier, White Bear Lake B.A. '61, M.P.H. '68, University of Minnesota. Major: Mass Communication. Minor: Supporting Pro-

gram. Thesis: Community Conflict and the Structure and Social Distribution of Public Opinion. Major Adviser: Prof. P. J. Tichenor. July Graduate.

# Roberto Fernando Freitas, Belo Horizonte, Brazil

Eng. Quim. '78, Universidade Federal de Minas Gerais. Major: Chemical Engineering. Minor: Supporting Program. Thesis: Extraction with and Phase Behavior of Temperature-Sensitive Gels. Major Adviser: Prof. E. L. Cussler. October Graduate.

# David Edward Freund, Fond du Lac, Wis.

B.S. '78, University of Wisconsin; M.S. '82, University of Minnesota. Major: Entomology. Minor: Supporting Program. Thesis: The Effect of Four Pollination Treatments on Some Seed and Oil Yield Characteristics of Oilseed Sunflower. Major Adviser: Prof. Basil Furgala. June Graduate.

#### Walter W. Funmaker

B.A. '67, California State College, Los Angeles; M.A. '74, University of Minnesota. Major: Anthropology. Minor: Supporting Program. Thesis: The Winnebago Bear Subclan: A Defended Culture. Major Adviser: Prof. J.M. Ingham. Graduation Pending.

#### Frederic R. Furuya

B.S. '77, Brown University. Major: Chemistry. Minor: Supporting Program. Thesis: Synthesis and Characterization of Transition Metal Carbonyl Clusters. Major Adviser: Prof. W.L. Gladfelter. May Graduate.

# Kari Ellen Gade

M.S. '79, Moorhead State University. Major: Germanic Philology. Thesis: Skaldic Compostion in the Drottkvaett Meter. Major Adviser: Prof. Anatoly Liberman. June Graduate.

# Hany M. Gado, Cairo, Egypt

B.S. '76, M.S. '80, Ain Shams University. Major: Animal Science. Minor: Supporting Program. Thesis: Influence of Ionophores on Nutrient Utilization in Ruminants. Major Adviser: Prof. R.D. Goodrich. Graduation Pending.

# Abraham Gafni, Jerusalem, Israel

B.S. '73, M.S. '79, Hebrew University, Major: Forestry, Minor: Supporting Program, Thesis: Field Tracing Approach To Determine Flow Velocity and Hydraulic Conductivity of Saturated Peat Soils, Major Adviser: Prof. K.N. Brooks, Graduation Pending.

#### Rafael Galvan

M.S. '81, University of Houston. Major: Chemical Engineering. Minor: Supporting Program. Thesis: Modeling of Heterogeneous Ziegler-Natta (CO)Polymerization of alpha-Olefins. Major Adviser: Prof. M.V. Tirrell. May Graduate.

# Aparna Bandopadhyaya Ganguli, Calcutta, India

B.S. '62, University of Calcutta: M.S. '66, University of Burdwan; B.S. '80, University of Minnesota. Major: Education. Minor: Mathematics. Thesis: The Effect of the Microcomputer as a Demonstration Tool on the Achievement and Attitude of College Students Enrolled in an Intermediate Algebra Course. Major Adviser: Prof. P.A. House. July Graduate.

# Rosa Esther Garcia-Peltoniemi, Minneapolis

B.A. with highest honors '76, University of Texas, Austin. Major: Psychology. Minor: Supporting Program. Thesis: Intermorbid Personality Functioning in the Affective Disorders: A Study of Unipolar and Bipolar Depressive Women. Major Advisers: Profs. J.N. Butcher and S.D. Hollon. May Graduate.

# Nicola Garofalo, San Severo, Italy

Laur. '78. University of Bologna. Major: Mathematics. Minor: Supporting Program. Thesis: Unique Continuation Theorems for Second Order Elliptic Equations. Major Adviser: Prof. E.B. Fabes. Graduation Pending.

## Patrick Michael Garry, Fairmont

B.A. magna cum laude '78, St. John's University; M.A. '79, University of Minnesota. Major: History. Minor: Law. Thesis: The First Amendment and Freedom of the Press: A Renewed Approach to the Marketplace of Ideas Concept. Major Adviser: Prof. P.L. Murphy. July Graduate.

# Gayle Hubmer Gaskill, Minneapolis

B.S. magna cum laude '66, Mankato State College; M.A. '70, University of Nebraska. Major: English. Minor: Supporting Program. Thesis: The Temple and the Liturgy: The Poetry of George Herbert and the Book of Common Prayer. Major Adviser: Prof. T.S. Clayton. June Graduate.

# JoAnn Gasparino, Muncie, Ind.

B.A. '73, M.A. '75, Ball State University. Major: Educational Psychology. Minor: Psychology. Thesis: Sex Differences and the Effect of Physiological and Cognitive Factors in the Attribution of Emotion. Major Advisers: Profs. M.L. Snoke and Ellen Berscheid. August Graduate.

#### Stevin Gehrke, Brookings, S.D.

B. S. Ch. E. '80, Kansas State University; M. S. Ch. E. '83, University of Minnesota. Major: Chemical Engineering. Minor: Chemistry. Thesis: Kinetics of Gel Volume Change and Its Interaction with Solutes. Major Adviser: Prof. E. L. Cussler. September Graduate.

#### Richard Anker Germundsen, Champlin

B.S. 71, Mankato State College; M.A. 73, American University. Major: Education. Minor: Supporting Program. Thesis: The Impact of Selected Effective Teaching Techniques and a Microcomputer-Assisted Performance Feedback System on Student Attitudes. Major Adviser: Prof. A.D. Glenn. July Graduate.

# Rebecca Jean Goldburg, Pittsburgh,

A.B. with honors '80, Princeton University; M.S. '85, University of Minnesota, Major: Ecology. Mi-

nor: Statistics. Thesis: Goldenrod, Grasshoppers, and the Distribution of Epicauta Pennsylvanica (Colcoptera: Meloidae). Major Adviser: Prof. P.A. Morrow. September Graduate.

## Tzvika Goldenberg

B.A. '78, Haifa University; M. Ed. '80, University of Pittsburgh. Major: Education. Minor: Supporting Program. Thesis: Transition Between Short-Term Memory and Long-Term Memory in Learning Paired Associates Using Computer-Based Drills. Major Adviser: Prof. R.D. Tennyson. Graduation Pending.

# Barry Samual Goldstein, Tacoma, Wash.

B.A. cum laude '75, Queens College; M.S. '80, University of Minnesota. Major: Geology. Minor: Supporting Program. Thesis: Stratigraphy, Sedimentology, and Late-Quaternary History of the Wadena Drumlin Region, Central Minnesota. Major Adviser: Prof. H.E. Wright. August Gradutte.

# Mark Murray Goodman, Minneapolis

B.A. '71, Emory University. Major: Educational Psychology. Minor: Supporting Program. Thesis: Cotherapists' Status and Initial Perception of Team's Attractiveness. Major Adviser: Prof. W.F. Shaffer. Iune Graduate.

# Jan V. Goodsitt, Madison, Wis.

B.A. '80, University of Wisconsin; M.A. '84, University of Minnesota. Major: Child Psychology. Minor: Supporting Program. Thesis: The Unitization of Syllabic Sequences by Language Learning Infants. Major Advisers: Profs. J.L. Morgan and A. Yonas. October Graduate.

# Steven Craig Gordon, Worthington

B.A. cum laude <sup>5</sup>76, St. Olaf College; M.S. <sup>7</sup>78, University of Minnesota. Major: Environmental Health. Minor: Supporting Program. Thesis: Effects of Sulfur Dioxide and (BI)Sulfite on Chemical and Functional Properties of Pulmonary Surfactant In Vitro. Major Advisers: Profs. D.E. Barber and J.B. Stevens. July Graduate.

# Donald Edward Green, McAlester, Okla.

B.A. '78, M.S. '79, University of Oklahoma, Norman. Major: Sociology. Minor: Supporting Program. Thesis: The Social Control of the Drinking Driver. Major Adviser: Prof. C.M. Kruttschnitt. Iune Graduate

# Judith Mary Green

B.A. with honor '70, Michigan State University. Major: Philosophy. Minor: Supporting Program. Thesis: Community, Dignity, and Equality: Foundations for a Feasible Egalitarian Ideal. Major Adviser: Prof. R.E. Sartorius. Graduation Pending.

# Mark Anthony Greip, St. Paul

B.S. '81, University of Minnesota. Major: Biochemistry. Minor: Chemistry. Thesis: The Binding and Activation Properties of Human Blood Coagulation Factor XII. Major Adviser: Prof. G. L. Nelsestuen. July Graduate.

# Stephen Michael Griffith, San Francisco, Calif.

B.S. '80, M.S. '83, Utah State University. Major: Plant Physiology. Minor: Supporting Program. Thesis: Characteristics of in Vitro Sugar Transport into the Developing Maize Endosperm and Embryo. Major Advisers: Profs. R.J. Jones and M.L. Brenner. June Graduate.

# Frederick Karl Grittner, St. Paul

B.A. with high honor '71, Hamline University; J.D. '76, M.A. '81, University of Minnesota. Major: American Studies. Thesis: White Slavery: Myth, Ideology, and American Law. Major Adviser: Prof. P.L. Murphy. Graduation Pending.

# Alton Francis Grun

B.A. '63, Whitworth College; M.A. '80, University of Minnesota. Major: Educational Psychology. Minor: Supporting Program. Thesis: An Analysis of Learning Styles and Academic Achievement Based on Experiential Learning Theory, Conceptual Level Theory, and Right-Left Brain Hemisphere Theory. Major Adviser: Prof. Geoffrey Maruyama. August Graduate.

# Xue Min Gu, Shanghai, China

Dipl. '68, Huadong Teachers College. Major: Mechanics. Minor: Supporting Program. Thesis: Nonlinear Surface Waves of a Fluid in Rectangular Containers Subjected to Vertical Periodic Excitations. Major Adviser: Prof. P.R. Sethna. October Graduate.

# Jama Awaleh Gulaid, Kenya

B.A. '79, Trinity College; M.P.H. '82, University of Minnesota. Major: Social and Administrative Pharmacy. Minor: Epidemiology. Thesis: Factors Affecting the Use of Safety Caps in Households with Young Children, Major Advisers: Profs. A.I. Wertheimer and R.S. Hadsall. Graduation Pending.

# Steven Joseph Guldan, Sleepy Eye

B.S. '81, Mankato State University; M.S. '84, University of Minnesota, Major: Agronomy. Minor: Supporting Program, Thesis: Factors Affecting Amino Acid Nutrition in Developing Soybean Seeds, Major Adviser: Prof. W.A. Brun. June Graduate.

# Yeong Lae Ha, Seoul, Korea

B.S.Ag. '73, M.S.Ag. '79, Gyeongsang National University. Major: Food Science. Minor: Supporting Program. Thesis: Alpha-Tocopherol Oxidation Mediated by the Superoxide Anion (O<sub>2</sub>). Major Adviser: Prof. A.S. Csallany. May Graduate.

# Steven C. Hackett, Sauk Rapids

B.A. '78, St. Cloud State University. Major: Chemistry. Minor: Supporting Program. Thesis: The Preparation and Utility of the Ketene O-Methyl, S-Phenylacetal Moiety: An Application to the Partial Synthesis of d,l-Quadrone and a Formal Total Synthesis of d,l-Mesembrine. Major Adviser: Prof. T.S. Livinghouse. September Graduate.

# Gregg Allen Hadley, Pendleton, Ind. B.S. '75 Purdue University: M.S. '79 University

B.S. 75, Purdue University; M.S. 79, University of Iowa. Major: Microbiology. Minor: Supporting Program. Thesis: Tissue-Restricted Alloantigens and Autoantigens of the Mouse Epidermis. Major Adviser: Prof. D. Steinmuller. October Graduate.

# Michael J. Hafich

B.S.E.E. '75, M.S.E.E. '78, University of Minnesota. Major: Electrical Engineering. Minor: Physics. Thesis: Al/n+Ge/n+Si Heterojunction Ohmic Contacts. Major Adviser: Prof. G.Y. Robinson. July Graduate.

# Margaret A. Haggstrom, Austin, Tex.

B.A. with honors '68, M.A. '74, University of Texas, Austin. Major: French. Minor: Portuguese. Thesis: A Structural and Sociological Reevaluation of the Eighteenth-Century Drame. Major Adviser: Prof. J.L. Waldauer. August Graduate.

#### Joyce Breitweiser Hall, Milwaukee, Wis

B.S. '79, University of Wisconsin. Eau Claire. Major: Chemistry. Minor: Supporting Program. Thesis: The Effect of Electron-Withdrawing Substituents on Neighboring Group Participation by Double Bonds. Major Adviser: Prof. P.G. Gassman. October Graduate.

Scott Alan Halverson, Baldwin, Wis. B.S. '75, M.S.Ed. '78, University of Wisconsin, River Falls. Major: Educational Administration. Minor: Supporting Program. Thesis: The Effects of Campaign Management on the Success/Failure of School Facility Bond Issues. Major Adviser: Prof. V.D. Mueller. June Graduate.

Kimm Jon Hamann, Rock Valley, Iowa B.A. magna cum laude '76, Augustana College; M.S. '78, University of Minnesota. Major: Zoology. Minor: Supporting Program. Thesis: In vitro Aspects of Immunity to Developing Larvae of Ascaris Suum. Major Adviser: Prof. B.E. Stromberg. July Graduate.

Amera H. Hamra, Baghdad, Iraq

B.S. '75, M.S. '78, University of Baghdad. Major: Animal Science. Minor: Supporting Program. Thesis: Evaluation of Different Progesterone-Releasing Devices and Gonadotropin-Releasing Hormone for the Induction of Estrus and Ovulation in Seasonally Anestrous Sheep. Major Adviser: Prof. J. E. Wheaton. July Graduate.

#### Paul James Hanson, Austin

B.A. summa cum laude '81, St. Cloud State University; M.S. '83, University of Minnesota. Major: Forestry. Minor: Supporting Program. Thesis: Studies of Quercus Rubra L. Seedling Dry Matter Accumulation, Morphological Development, and Carbon Dioxide Exchange Under Controlled Conditions. Major Adviser: Prof. E.I. Sucoff, July Graduate.

Martha Ellen Hardesty, Lauderdale B.A. magna cum laude '70, Brescia College; M.A. '71, University of Dayton. Major: Speech-Communication. Minor: Supporting Program. Thesis: Language, Culture and Romaji Reform: A Communications Policy Failure of the Allied Occupation of Japan. Major Adviser: Prof. D.R. Browne. July Graduate.

#### Karen Marie Harmon, Fort Atkinson, Wis

B.S. '81, University of Wisconsin. Major: Food Science. Minor: Supporting Program. Thesis: Linkage of Bacteriocin-Producing Ability to Plasmid DNA in Streptococcus Lactis Subsp. Diacetylactis Strain WM4. Major Adviser: Prof. L. L. McKay. Graduation Pending.

#### Frans Mardi Hartanto, Bandung, Indonesia

Sard. '64, Institute Teknologi Bandung. Major: Industrial Relations. Minor: Supporting Program. Thesis: A Comparison of American and Indonesian Follower's Preferences for Initiation of Structure and Consideration: A Follower Perspective of Leader Behavior. Major Adviser: Prof. R. D. Arvey. October Graduate.

# Neil Robert Hartman, Rochester

B.S. Pharm. '78, University of Michigan. Major: Pharmacology. Minor: Supporting Program. Thesis: The Structure and Activity of Cyclosporine Metabolites. Major Adviser: Prof. W.S. Brimijoin. October Graduate.

#### Karen Kay Hasse, Chanhassen

B.A. summa cum laude '73, M.A. '80, University of Minnesota. Major: Family Social Science. Minor: Supporting Program. Thesis: Therapist Factors, Employment Conditions, and Employment Setting Associated with Therapist Resistance in Response to Perceived Family Resistance. Major Adviser: Prof. P.G. Boss. Graduation Pending.

# Marcia Roof Hathaway

B.S. '77, Ohio State University. Major: Animal Science. Minor: Animal Physiology. Thesis: Effect of Feed Additives and Nutritional Regimes on the Growth Stimulating Activity of Swine Serum in Muscle Cell Culture. Major Adviser: Prof. W.R. Davton. August Graduate.

#### Bruce Allan Hay

B.S. '81, Brown University. Major: Chemistry. Minor: Supporting Program. Thesis: Synthesis and Electron Transfer Photochemistry of Bridged Bicyclobutanes. Major Adviser: Prof. P.G. Gassman. June Graduate.

#### Patrick Milo Haves, Corville, Ariz.

B.S.Ag. with high distinction '80, University of Arizona; M.S. '82, Oregon State University. Major: Plant Breeding. Minor: Supporting Program. Thesis: Selection for Tiller Synchrony in Wild Rice (Zizania palustris L.). Major Adviser: Prof. R.E. Stucker. May Graduate.

# David James Healy, St. Paul

B.A. with high honors '75, Bethel College; M.A. '79, University of Minnesota, Major: American Studies. Thesis: The Cultural Diffusion of the Concept of Calling and its Impact on Protestant Clergy. Major Adviser; Prof. D.O. Born. Graduation Pending.

# Susan Elizabeth Heckler, Anoka

B.A. '78, University of Minnesota. Major: Business Administration. Minor: Supporting Program. Thesis: Processing of Advertisements: The Role of Thematic Relationships in the Comprehension and Memory of Verbal and Visual Information. Major Adviser: Prof. R.A. Hansen. Graduation Pending.

# Steve Heitzeg, Kiester

B.A. '82, Gustavus Adolphus College; M.A. '84, University of Minnesota. Major: Music. Minor: Supporting Program. Thesis: Nine Surrealist Studies (After Salvador Dali) for Orchestra. Major Adviser: Prof. D.J. Argento. May Graduate.

#### Christopher Paul Henze, Eagan

B.E.E. '81, M.S.E.E. '84, University of Minnesota. Major: Electrical Engineering. Minor: Physics. Thesis: Quantized Duty Ratio Control in Switch-Mode Power Converters. Major Adviser: Prof. Narendra Mohan. May Graduate.

#### Sheila Hollern Herbert, Minneapolis

B.A. summa cum laude '77, University of Minnesota. Major: Educational Psychology. Minor: Supporting Program. Thesis: An Empirical Examination of Constantine's Unified Process Theory. Major Adviser: Prof. A.R. Anderson. July Graduate.

#### Jorge Enrigue Hernandez

Prof. Estado Ingles '75, Universidad Nacional; M.A. '78, University of Minnesota. Major: Education. Minor: Supporting Program. Thesis: The Socio-Cultural Content of English as a Foreign Language Used in Costa Rican Public Secondary Schools: Relationship to National Educational Goals and Development Process. Major Adviser: Prof. D.L. Lange. June Graduate.

# Carl George Herndl, Belmont, N.C.

B.A. '77, University of North Carolina. Major: English. Minor: Philosophy. Thesis: Maid/Made in the Image: Solitary Women in Wordsworth's Early Poetry. Major Adviser: Prof. Norman Fruman. June Graduate.

# Barbara Lee Hertel, Shoreview

B.S. with high distinction '69, M.A. '79, University of Minnesota. Major: Education. Minor: Supporting Program. Thesis: A Comparison of Children Learning Science With Parent Versus Peer Partners. Major Adviser: Prof. E.D. Gennaro. May Graduate.

# Carol Collins Heupel, Waseca

B.S.N. '76, M.P.H. '78, University of Minnesota. Major: Educational Administration. Minor: Supporting Program. Thesis: Selection Policy for Nursing Licensure. Major Adviser: Prof. W.M. Ammentorp. Graduation Pending.

# Alexander Wayne Hietala

B.E.E. with high distinction '80, M.S.E.E. '83, University of Minnesota. Major: Electrical Engineering. Minor: Supporting Program. Thesis: Iron Terbium Boron Thin Films for Surface Acoustic Wave Devices. Major Adviser: Prof. W.P. Robbins. June Graduate.

# Chih-Hsiang Derek Ho

B.S. '75, National Central University; M.S. '84, University of Minnesota, Major: Statistics. Minor: Mathematics. Thesis: One-Sided Sequential Stopping Boundaries for Clinical Trials: Classical and Bayesian Approaches. Major Adviser: Prof. D.A. Berry. June Graduate.

# In Sung Hoang

B.S.Ag. 73, M.S.Ag. '80, Seoul National University. Major: Plant Pathology. Minor: Supporting Program. Thesis: The Dynamics of Stem Rust Epidemics and Wheat Growth in Multivars. Major Advisers: Profs. P.S. Teng and A.P. Roelfs. August Graduate

#### M. Michele Hogan, Elv

M.A. magna cum laude '74, College of St. Scholastica. Major: Pathobiology. Minor: Genetics. Thesis: In vitro Analyses of Induced Immunity Against a Murine Syngeneic Tumor. Major Adviser: Prof. I.W. Eaton. June Graduate.

# Carol Elizabeth Holm, Tulsa, Okla.

B.A. '56, Carthage College; M.A. '75, University of Minnesota. Major: Psychology. Minor: Supporting Program. Thesis: The Validation of a Form of the Minnesota Importance Questionnaire: Developed for Hearing Impaired Populations with Limited Reading Skills. Major Adviser: Prof. R.V. Dawis. August Graduate.

# Ronald Alan Hoverstad

B.A. '74, Augsburg College; M.B.A. '81, St. Cloud State University. Major: Business Administration. Minor: Supporting Program. Thesis: The Effects of Vividly Presented Information on Low and High Involvement Information Processing. Major Advisers: Profs. Ivan Ross and B.J. Loken. June Graduate.

# Beth Alayne Howard-Pitney, Tualatin,

B.A. '78, Stephens College. Major: Psychology. Minor: Supporting Program. Thesis: Protection Motivation Theory and Self-Persuasion: Assessing the Effects of Health Threat Communications on Intentions and Behavior, Major Adviser: Prof. Ellen Berscheid. June Graduate.

## William Von Hugie

B.S. '81, M.S. '83, Utah State University. Major: Plant Breeding. Minor: Supporting Program. Thesis: Genotypic Interaction of Northern Soybeans to Row Spacings. Major Adviser: Prof. J.H. Orf. June Graduate.

# Jennie Hansen Hulse, St. Paul

B.A. '77, Carleton College; M.S. '79 University of Warwick. Major: Mathematics. Minor: Supporting Program. Thesis: A Functional Central Limit Theorem for Random Permutations and Random Mappings. Major Adviser: Prof. B.E. Fristedt. August Graduate.

# Jungihn Hyun, Seoul, Korea

B.S.Ag. '71, M.S.Ag. '74, Seoul National University. Major: Forestry. Minor: Supporting Program. Thesis: Analysis of Water Flow Under Different Ram Face Configurations in Compression Drying. Major Adviser: Prof. J.G. Haygreen. Graduation Pending.

Marlynne Beth Ingram, Fargo, N.D. B.S. with distinction '81, University of Iowa. Major: Economics. Minor: Supporting Program. Thesis: Equilibrium Modelling of Asset Prices: Rationality Versus Rules of Thumb. Major Adviser: Prof. C.A. Sims. September Graduate.

# Sirkka Liisa Jarvenpaa, Harjunpaa, Finland

B.S.B.A. magna cum laude '81, Bowling Green State University; M.B.A. '82, University of Minnesota. Major: Business Administration. Minor: Supporting Program. Thesis: In Investigation of the Effects of Choice Tasks and Graphics on Information Processing Strategies and Decision Making Performance. Major Advisers: Profs. G.W. Dickson and Gerardine DeSanctis. September Graduate

# Gail Ann Jensen, Milford, Conn.

B.A. '75, Southern Connecticut State College; M.S. '77, Iowa State University. Major: Economics. Minor: Supporting Program. Thesis: Employer Choice of Health Insurance Benefits. Major Adviser: Prof. R.D. Feldman. June Graduate.

# Brian James Johnson, Marshall

B.A. '82, Gustavus Adolphus College. Major: Chemistry. Minor: Supporting Program. Thesis: Synthesis, Characterization, and Chemistry of Heterometallic Compounds Containing Transition Metals with Gold or Silver and Metal Complexes of the PPNN Ligand. Major Adviser: Prof. L.H. Pignolet. Graduation Pending.

# Karen Fleckenstein Johnson, Minneapolis

A.B. '72, Grinnell College; M.S. '76, University of Minnesota. Major: History of Science and Technology. Minor: Supporting Program. Thesis: Maria Goeppert Mayer and the Development of the Nuclear Shell Model. Major Adviser: Prof. R.H. Stuewer. July Graduate.

#### Kenneth Biorn Johnson, St. Paul

B.S. with high distinction '79, University of Minnesota; M.S. '82, Oregon State University. Major: Plant Pathology. Minor: Supporting Program. Thesis: Systems Analysis and Modelling of Yield Loss in Potato Caused by Interacting Populations of Early Blight, Verticillium Wilt, and the Potato Leafhopper. Major Adviser: Prof. P.S. Teng. June Graduate.

# Ahmed Kabbali, Meknes, Morocco

Dipl.Agron.Gen. '74, Ingen. Agro. '76, Institut of Agriculture and Veterinary Medicine. Major: Animal Science. Minor: Supporting Program. Thesis: Study on Compensatory Growth in Native Morrocan Breeds of Sheep. Major Adviser: Prof. C. E. Allen. Graduation Pending.

# Sandra Ann Kaiser Kapoor,

#### Minneapolis

B.S. '74, South Dakota State University; M.P.H. '76, University of Minnesota. Major: Education. Minor: Supporting Program. Thesis: Effects of an Educational Intervention on the Significant Others of Bulimics. Major Adviser: Prof. R.G. Thomas. Iuly Graduate.

#### Kailash Chandra Karki, India

B. Tech '80, G.B. Pant University of Agriculture and Technology; M.E. '82, Indian Institute of Science, Bangalore Major: Mechanical Engineering. Minor: Supporting Program. Thesis: A Calculation Procedure for Viscous Flows at All Speeds in Complex Geometries. Major Adviser: Prof. S.V. Patankar. July Graduate.

# Sharon Lou Kemp, St. Paul

B.S. '59, University of Wisconsin, Madison; M.A. '78, University of Minnesota. Major: Anthropology. Minor: Supporting Program. Thesis: Wives, Mothers and Bullocks: Models of Rural Indian Women. Major Adviser: Prof. S.F. Gudeman. June Graduate.

# Daniel Worden Kidder, Minnetonka

B.S. with distinction '79, University of Minnesota; M.S. '82, North Dakota State University. Major: Agronomy. Minor: Supporting Program. Thesis: Behavior of 14C-Haloxyfop-Methyl as Influenced by Plant Water Stress. Major Adviser: Prof. Richard Behrens. July Graduate.

# Choon Bok Kim, Seoul, Korea

B.S.E. '76, Seoul National University; M.S.E.E. '82, University of Minnesota. Major: Electrical Engineering. Minor: Computer and Information Sciences. Thesis: Switch Floor Plans for Restructurable VLSI/WSI. Major Adviser: Prof. R.Y. Kain. Graduation Pending.

# Chung Jik Kim, Seoul, Korea

B.S.E. 69, Seoul National University; M.S.C.E. 82, University of Minnesota. Major: Civil Engineering. Minor: Supporting Program. Thesis: Chlorinated Organics Removal from Contaminated Soil and Groundwater by Microorganisms. Major Adviser: Prof. W.J. Maier. August Graduate.

# Hyun Jin Kim, Seoul, Korea

B.S.E. '77, Seoul National University; M.S.Aero.E. '83, University of Minnesota. Major: Aerospace Engineering. Minor: Supporting Program. Thesis: An Experimental Investigation on the Flow Around a Circular Cylinder in the First Critical Subregion. Major Advisers: Profs. T.A. Wilson and H. Higuchi. Graduation Pending.

# Minjae Kim, Seoul, Korea

B.A. '72, Yonsei University: M.A. '74, Chungnam National University; M.A. '80, University of Minnesota. Major: History. Minor: Supporting Program. Thesis: The Legislation of the Earlier Parliaments of Honry VIII, 1509-1515. Major Adviser: Prof. S.E. Lehmberg. July Graduate.

#### David J. Klein

B.S. magna cum laude '74, Beloit College; M.D. '77, Yeshiva University. Major: Biochemistry. Minor: Supporting Program. Thesis: Structural Characterization and Metabolism of Isolated Glomerular Heparan- and Dermatan-Sulfate Proteoglycans from Normal Rats, with Comparisons Made to Those from Streptozotocin-Induced Diabetics. Major Adviser: Prof. T.R. Oegema. June Graduate.

#### Peter Kosso

B.S. with high distinction '78, University of Nevada; M.S. '81, Montana State University. Major: Philosophy. Minor: Physics. Thesis: Observability and Observation in Physical Science. Major Adviser: Prof. P.S. Kitcher. June Graduate.

#### Patricia Kovel-Jarboe, Minneapolis

B.G.S. '72, University of Michigan; M.S. '74, Simmons College; M.A. '80, University of Minneosta. Major: Speech-Communication. Minor: Supporting Program. Thesis: An Analysis of Organizational Culture During Change. Major Adviser: Prof. E.G. Bormann. Graduation Pending.

# Sandra Mae Kraskin, New York City, N.Y.

B.S. with high distinction '66, M.F.A. '69, M.A. '76, University of Minnesota. Major: Art History. Minor: Supporting Program. Thesis: Llya Bolotowsky: A Study of His Painting and an Examination of His Relationship To the Development of Abstract Art in the United States. Major Adviser: Prof. S. Simon. Graduation Pending.

# Margaret R. Kriss, Wellesley, Mass.

B.A. summa cum laude '79, University of Pennsylvania. Major: Psychology. Minor: Supporting Program. Thesis: Children of Depressed Mothers: Psychiatric Status, Adjustment, and Coping Behaviors. Major Adviser: Prof. S.D. Hollon. Graduation Pending.

#### Donna Marie Kulakowski, Minneapolis

B.A. '74, Simmons College. Major: Psychology. Minor: Supporting Program. Thesis: Life History Correlates of Vocational Interests and Vocational Needs. Major Adviser: Prof. R.V. Dawis. August Graduate.

## Teruo Kurai

B.S. '76, Tohoku University. Major: Physics. Minor: Supporting Program. Thesis: Solutions in Albelian and Non-Albelian Gauge Theory. Major Adviser: Prof. Hiroshi Suura. May Graduate.

#### Hitoshi Kuwamura, Japan

B.E. '75, M.E. '77, University of Tokyo. Major: Civil Engineering. Minor: Supporting Program. Thesis: Reliability Analysis of Steel Building Structures Under Earthquakes. Major Adviser: Prof. T.V. Galambos. May Graduate.

# Somdeb Lahiri, Calcutta, India

B.S. honors '78, University of Calcutta; M. Stat. '81, Indian Statistical Institute. Major: Economics. Minor: Mathematics. Thesis: Analysis of Infinite Horizon Dynamic Economies. Major Adviser: Prof. J.S. Jordan. August Graduate.

# Steven Eugene Lammlein, Rolla, Mo.

A.B. with honors '78, University of Missouri. Major: Bsychology. Minor: Supporting Program. Thesis: Proposal and Evaluation of a Model for Job Knowledge Testing. Major Adviser: Prof. M.D. Dunnette. June Graduate.

#### Andrea Susan Larsen, Minneapolis

B.A. with high honor '73, M.S.W. '75, Michigan State University. Major: Family Social Science. Minor: Supporting Program. Thesis: Predicting Early Marital Adjustment: A Follow-Up Study Using Prepare and Enrich. Major Adviser: Prof. D. H. Olson. May Graduate.

# Neil Allyn Larsen, Cambridge, Mass.

B.A. '74, Reed College. Major: Comparative Literature. Minor: Supporting Program. Thesis: Modernism and Hegemony: Critical Notes on Adorno, Manet, Rulfo, and Marx. Major Advisers: Profs. Wladyslaw Godzich and R.W. Sousa. September Graduate.

# Carol Korbel LeBreck, River Falls, Wis.

B.S. '66, Wisconsin State College, River Falls; M.S. '67, University of Wisconsin. Major: Physical Education. Minor: Supporting Program. Thesis: Development of a Motor Creativity Test for Elementary School Children (K-3). Major Adviser: Prof. J.J. Plack. July Graduate.

# Bong-Soo Lee, Seoul, Korea

B.Econ. '75, Seoul National University; M.A. '80, Washington State University. Major: Economics. Mimor: Supporting Program. Thesis: Inflation, Stock Returns and Interest Rates. Major Adviser: Prof. C.A. Sims. September Graduate.

Debra Metzger Lee, Corvallis, Ore. B.S. '81, Oregon State University; M.S. '83, University of Minnesota. Major: Plant Breeding. Minor: Supporting Program. Thesis: Kernel Number in Barley: Inheritance and Role in Yield Improvement. Major Adviser: Prof. D.C. Rasmusson. June Graduate.

#### Michael Lee, Sewaren, N.I.

B.S. '81, Rutgers; M.S. '84, University of Minnesota. Major: Plant Breeding. Minor: Supporting Program. Thesis: Agronomic Evaluation of Inbred Lines Derived from Tissue Cultures of Maize. Major Adviser: Prof. J.L. Gcadelmann. August Graduate.

# Jane Valorie Leland, Buffalo, N.Y.

B.S. '80, Cornell University. Major: Food Science. Minor: Supporting Program. Thesis: Relating Sensory and Gas Chromatographic Data from Off-Flavored Milks Using Multivariate Statistical Methods. Major Adviser: Prof. G.A. Reineccius. Graduation Pending.

#### Margarita Rosa Levin

B.A. summa cum laude '73, City College. Major: Philosophy. Minor: Supporting Program. Thesis: The New Empiricism in the Philosophy of Mathematics. Major Adviser: Prof. W.H. Hanson. June Graduate.

Douglas Bruce Light, Armonk, N.Y. A.B. '78, Colby College, Major: Physiology. Minor: Supporting Program. Thesis: Potassium-Selective Ion Channels in a Simian Virus Transformed Hamster Pancreatic Beta-Cell Line. Major Adviser: Prof. D.G. Levitt. June Graduate.

# Chang-Jin Lim, Korea

B.S. '75, Yonsei University; M.S. '77, Korea Advanced Institute of Science. Major: Biochemistry. Minor: Supporting Program. Thesis: Cloning and Characterization of the Thioredoxin Genes in Prokaryotic Organisms. Major Adviser: Prof. J.A. Fuchs. June Graduate.

## Eleyon Caiado Rocha Lima, Goias, Go, Brazil

Bach. '76, Pontificia Universidade Catolica do Rio de Janeiro. Major: Economics. Minor: Supporting Program. Thesis: Inconvertibility and the Unofficial or Parallel Market for Foreign Currency. Major Adviser: Prof. N. Wallace. October Graduate.

#### Chao-Hung Lin

B.S. '75, Chung Cheng Institute of Technology; M.S. '79, National Tsing Hua University. Major: Aerospace Engineering, Minor: Supporting Program. Thesis: Composite Damping in Tension Members. Major Adviser: Prof. Robert Plunkett. September Graduate.

Jong Kai Lin, Hsing-Ying, Taiwan B.S.E. 76. National Cheng Kung University; M.S. 82, University of Minnesota. Major: Materials Science and Engineering. Minor: Supporting Program. Thesis: The Formation and Characterization of RF Reactively Sputtered Iron Oxide Thin Films as Magnetic Recording Media. Major Adviser: Prof. J.M. Sivertsen. October Graduate.

#### Li-Shin Lin

B.S. '77, Tatung Institute of Technology. Major: Computer and Information Sciences. Minor: Supporting Program. Thesis: Placement and Routing for Structured Standard Cell Chips. Major Advisers: Profs. S.K. Sahni and E.B. Shragowitz. June Graduate.

# Harvey David Linder

B.A. cum laude '72, Duke University. Major: Psychology. Minor: Supporting Program. Thesis: A Contextual Life Events Interview as a Measure of Stress: A Comparison of Questionnaire-Based Versus Interview-Based Stress Indices. Major Adviser: Prof. Norman Garmezy. May Graduate.

## Rosemary June Link

B.A. '71, University of Southhampton; Postgrad. Dipl. in Applied Social Studies '77, University of London. Major: Social Work. Minor: Supporting Program. Thesis: The Formative Influence of Host Settings on Social Work: A Cross-National Study of Social Work Services to Schools Between an Urban Midwest Area, USA and South London, UK. Major Adviser: Prof. N.F. Bracht. August Graduate.

Laeeq A. Lodhi, Faisalabad, Pakistan D.V.M. '76, University of Agriculture Faisalabad; M.S. '82, University of Minnesota. Major: Theriogenology. Minor: Supporting Program. Thesis: Prepubertal Development of Bovine Testes with Particular Reference to Growth Hormone. Major Adviser: Prof. B.G. Crabo. Graduation Pending.

# Michael Bruce Loewy, Los Angeles, Calif.

B.A. cum laude '79, University of California, San Diego, Major: Economics. Minor: Supporting Program. Thesis: An Overlapping Generations Model with Endogenous Policy. Major Adviser: Prof. Neil Wallace. September Graduate.

#### Jau-Shin Lou

M.B. '79, National Taiwan University; M.S. '84, University of Minnesota. Major: Physiology. Minor: Supporting Program. Thesis: The Responses of Simultaneously Recorded Purkinje Cells to the Perturbations of the Step Cycle in the Walking Ferret: A Study Using a New Analytical Method—The Real Time Postsynaptic Response (RTPR). Major Adviser: Prof. J.R. Bloedel. June Graduate.

#### Qi Lu

Major: Computer and Information Sciences. Minor: Supporting Program. Thesis: Rapid Prototyping for Large Ada Software System Design. Major Advisers: Profs. W.D. Munro and V.A. Berzins. Inne Graduate.

David Arthur Lundberg, Minneapolis B.A. magna cum laude '69, University of Minnesota. Major: Psychology. Minor: Supporting Program. Thesis: Quality Circle Effectiveness: Positive and Negative Outcomes and Why They Occur. Major Adviser: Prof. J. P. Campbell. Graduation Pending

#### Deane Myron Lundell, Vasa

B.A. '52, Gustavus Adolphus College; M.A. '73, University of Minnesota. Major: American Studies. Thesis: The Character of Historical Experience as Cyclical Flux and Teleological Irony: With a Contemporary Focus on the Political and Theological Writings of Reinhold Niebuhr. Major Advisers: Profs. D.W. Noble and M.Q. Sibley. May Graduate.

# J. Ward MacArthur, Minneapolis

B.S. high distinction '74, M.S. '76, University of Rhode Island. Major: Mechanical Engineering. Minor: Supporting Program. Thesis: Development and Implementation of Robust Direct Finite Difference Methods for the Solution of Strongly Coupled Eliptic Transport Equations. Major Adviser: Prof. S.V. Patankar. June Graduate.

# Frank Joseph Macdonald

B.M.E. summa cum laude '79, Catholic University of America; M.S.M.E. '82, University of Minnesota. Major: Mechanical Engineering. Minor: Metallurgy and Materials Science. Thesis: High Temperature Electrolysis: Zinc From Zinc Oxide Using a Solar Furnace. Major Adviser: Prof. E.A. Fletcher. August Graduate.

# Kathleen Pfarr Macy

B.A. '70, College of St. Benedict; M.A. '82, University of Minnesota. Major: Educational Administration. Minor: Supporting Program. Thesis: An Empirical Study of the Organizational Structure and Coordination of Large and Small, Public and Non-Public High Schools in Minnesota. Major Adviser: Prof. N.C. Nickerson. August Graduate.

# Lynn Elise Madsen, Minneapolis

B.S. '79, University of California, Davis; M.A. '83, University of Minnesota. Major: Educational Psychology. Minor: Supporting Program. Thesis: Personal Power: The Concept of Power Within the Self Versus Power Over Others. Major Adviser: Prof. L.S. Hansen. June Graduate.

Mary Turner Maher, Mendota Heights B.A. with honor '74, Hamline University; M.S.Ed. '75, University of Wisconsin, River Falls. Major: Educational Administration. Minor: Supporting Program. Thesis: Leadership Styles and Beliefs in Education of Minnesota School Superintendents. Major Adviser: Prof. V.D. Mueller. June Graduate.

# Antonio Manresa, Cox, Spain

Lic. '76, Universidad Autonoma de Barcelona. Major: Economics. Minor: Supporting Program. Thesis: An Overlapping Generation Model with Exhaustible Resources. Major Adviser: Prof. Leonid Hurwicz. September Graduate.

# Rodolfo Ernesto Manuelli

Lic. '75, Universidad de Buenos Aires. Major: Economics. Minor: Supporting Program. Thesis: Topics in Intertemporal Economics. Major Adviser: Prof. E.C. Prescott. June Graduate.

#### Rosa Liliana Matzkin

B.S. '80, Technion-Israel Institute of Technology. Major: Economics. Minor: Supporting Program. Thesis: Mathematical and Statistical Inferences from Demand Data. Major Adviser: Prof. M.K. Richter. June Graduate.

# Robert Thomas McCormack, Valley Stream, N.Y.

B.S. '73, Wisconsin State University; M.S. '78, University of Minnesota. Major: Pathobiology. Minor: Supporting Program. Thesis: Structure/Function Studies of the Common Acute Lymphoblastic Leukemia Antigon (Calla/CDl0). Major Advisers: Profs. J.H. Kersey and T.W. Lebien. October Graduate.

# Marilyn A. McCubbin, Madison, Wis. B.S.Nur. '60, University of Nebraska; M.S. '80, University of Minnesota. Major: Family Social Science. Minor: Supporting Program. Thesis: Family Stress and Family Types: Chronic Illness in Children. Major Adviser: Prof. D. H. Olson. Gradua-

# Thomas Craig McKenna, St. Paul

tion Pending.

B.A. '66, Harvard University; M.A. '78, University of Minnesota. Major: Psychology. Minor: Supporting Program. Thesis: MMPI Assessment of Personality Factors in Alcoholism: 10 Year Stability of the Original vs. the Revised Versions of the MMPI. Major Adviser: Prof. J.N. Butcher. September Graduate.

# David Andrew McQueen, Stonewall, Manitoba

B.S. '76, University of Winnipeg: B.S.A. '78, M.S. '81, University of Manitoba. Major: Plant Pathology. Minor: Genetics. Thesis: A Characterization of Streptomyces Scabies and Its Interaction with the Potato Tuber. Major Adviser: Prof. N.A. Anderson. Graduation Pending.

Michael James Meurer, Durham, N.C. B.S. Econ. '80, B.S. '80, Massachusetts Institute of Technology. Major: Economics. Minor: Supporting Program. Thesis: Patent Licensing and Litigation. Major Adviser: Prof. E.C. Prescott. October Graduate

# Janice Anderson Meyer, Elmore

B.A. '73, M.A. '74, University of Minnesota, Major: Speech-Communication. Minor: Supporting Program. Thesis: A Study of the Management of Intercultural Communication Conflict Under Time Restraints Between Customer Contact Employees and Customers in Asian Airlines. Major Adviser: Prof. D. R. Browne. July Graduate.

# James Duane Miller, Jr.

B.S. '78. University of Illinois. Major: Mineralogy and Petrology. Minor: Supporting Program. Thesis: The Geology and Petrology of Anorthositic Rocks in the Duluth Complex, Snowbank Lake Quadrangle, Northeastern Minnesota. Major Adviser: Prof. P.W. Weiblen. May Graduate.

Brajendra Mishra, Darbhanga, India

B.Tech. '81, Indian Institute of Technology: M.S. '83, University of Minnesota. Major: Mineral Engincering. Minor: Supporting Program. Thesis: Susceptibility of Inconel X-750 to Stress Corrosion Cracking. Major Adviser: Prof. J. J. Moore. August Graduate.

#### Edwin David Moore

B.S. '77, University of Toronto. Major: Pharmacology. Minor: Physiology. Thesis: Properties of Aequoria Relevant to Its Use in the Measurement of Intracellular [Ca2 + ] in Skeletal Muscle Fibers. Major Adviser: Prof. J.R. Blinks. September Gradnate.

# Barbara Elizabeth Moriarty, Chapel Hill, N.C.

B.S. Chem. '80, University of North Carolina, Chapel Hill. Major: Chemistry. Minor: Supporting Program. Thesis: An Electrochemical Study of Ions Immobilized Within Nafion Polymer Films. Major Adviser: Prof. J. F. Evans. August Graduate.

# Holly Jane Morris, Minneapolis

B.A. '73, Kent State University: M.A. '77, University of Minnesota. Major: Ancient Studies. Thesis: An Economic Model of the Late Mycenaean Kingdom of Pylos. Major Advisers: Profs. P.M. Raup and S. Aschenbrenner. Graduation Pending.

#### Eufrossine Motti, Athens, Greece

B.A. '79, M.A. '84, University of Minnesota, Major: Child Psychology, Minor: Supporting Program. Thesis: Relationships of Preschool Teachers with Children of Varying Developmental Histories. Major Adviser: Prof. L.A. Sroufe. Graduation Pending.

# John Robert Mulhausen

B.A. cum laude '78, St. Olaf College; M.S. '80, University of Minnesota. Major: Environmental Health. Minor: Supporting Program. Thesis: Aspergillus and Other Human Respiratory Disease Agents in Turkey Confinement Houses. Major Advisers: Profs. D.E. Barber and C.E. McJilton. June Graduate.

# Kathryn Annette Murphy,

# Minneapolis

B.A. '72, M.Â. '75, Colorado State University. Major: French. Minor: Supporting Program. Thesis: The Interjection/Exclamation of Hai Las in the Roman de Flamenca. Major Adviser: Prof. F.R. Akehurst. August Graduate.

# Steven Allen Murphy, Coon Rapids

B.E.E. with distinction '80, University of Minnesota; M.S. with honors '83, Johns Hopkins University. Major: Electrical Engineering. Minor: Mathematics. Thesis: A Strategy for Hierarchical Error Correction in Smart Memories. Major Adviser: Prof. A.A. Tuszynski. Graduation Pending.

# Fredrick Muthoka Mutisya, Nairobi,

#### Kenya

B.S.Ag. '81, University of Nairobi. Major: Plant Breeding. Minor: Supporting Program. Thesis: Source Traits for the Genetic Improvement of Early Maturing Exotic Maize. Major Adviser: Prof. J.L. Geadelmann, June Graduate.

## Robert James Myers

B.Ag.Ec. honors '79, University of New England. Major: Agricultural Economics. Minor: Economics. Thesis: Economic Inefficiency Under Uncertainty and the Effects of Ideal Risk Markets in U.S. Agriculture. Major Adviser: Prof. C.F. Runge. June Graduate.

# Surendra Nahar

B.Tech. '82, Indian Institute of Technology; M.S. '85, University of Minnesota. Major: Computer and Information Sciences. Minor: Electrical Engineering. Thesis: Algorithms for VLS1 Cad. Major Adviser: Prof. S.K. Sahni. June Graduate.

Jose Fernando Naveda, Toluca, Mexico Ing. '75, Institute Tecnologico de Estudios Superiores de Monterrey. Major: Computer and Information Sciences. Minor: Supporting Program. Thesis: On the Routing Problem for Printed Circuit Boards. Major Advisers: Profs. O. H. Ibarra and D. H. Du. July Graduate.

Cherilyn Nelle Nelson, Fargo, N.D. B.S. with high honor '68, M.A. '70, Michigan State University. Major: Home Economics. Minor: Supporting Program. Thesis: A Methodology for Examing Ancient Textiles and Its Application to VI-XIX Century Textiles From Akhmim, Egypt. Major Adviser: Prof. R.F. Johnson. August Graduate.

Richard W. Nelson, Pittsburgh, Pa. B.A. '70, Capital University; M.A. '73, Ph.D '75, Ohio State University. Major: History. Minor: Social and Philosophical Foundations of Education. Thesis: Two Machiavellian Moments in Twentieth-Century American Political Culture. Major Adviser: Prof. D.W. Noble. Graduation Pending.

Tamara Lee Nelson, Kalamazoo, Mich. B.A. with high distinction '76, University of Michigan. Major: Psychology. Minor: Supporting Program. Thesis: A Multivariate Analysis of Myers' and Briggs Personality Types in Terms of Vocational Interests. Major Adviser: Prof. J.C. Hansen. Graduation Pending.

#### Susan Lee Neuhausen

B.S. with honor '78, M.S. '83, Michigan State University. Major: Plant Breeding. Minor: Supporting Program. Thesis: Screening and Selection for Enhanced Dinitrogen Fixation in Soybean (Glycine Max (L.) Merrill) of Maturity Groups O and OO. Major Advisers: Profs. P.H. Graham and J.H. Orf. Iune Graduate.

# Adrian Arthur Niemi, Tower

B.A. summa cum laude '71, Concordia College; M.A. '73, Indiana University. Major: Educational Administration. Minor: Supporting Program. Thesis: An Analysis of Variables That Predict Iron Range High School Seniors' Decisions To Attend Local Community Colleges. Major Adviser: Prof. W.M. Ammentorp. Graduation Pending.

# Kevin John Niemi, Crystal

B.A. '78, Macalester College. Major: Plant Physiology. Minor: Supporting Program. Thesis: Structural and Functional Changes in the Spinach Thylakoid Membrane During Cold Acclimation and Freeze Injury. Major Adviser: Prof. J.V. Carter. Graduation Pending.

# Miroslav Nikolic

B.Phys. with distinction '77, University of Minnesota. Major: Physics. Minor: Supporting Program. Thesis: Spontaneous Symmetry Breaking and Pseudo-Goldstone Bosons in Curved Space-Time. Major Adviser: Prof. Serge Rudaz. June Graduate.

# Lynn Workman Nodland, Edina

B.A. '78, M.A. '83, University of Minnesota. Major: Educational Psychology. Minor: Supporting Program. Thesis: The Relationship of Psychosocial Variables with Cardiac Rehabilitation: A Psychophysiological Model. Major Adviser: Prof. G.M. Maruyama. Graduation Pending.

# Soledad Nunez, Madrid, Spain

Lic. '79, Universidad Complutense de Madrid. Major: Economics. Minor: Supporting Program. Thesis: Unemployment in Some OECD Countries: Estimating and Modeling the Effects of the Proportion of Population with Education. Major Adviser: Prof. C.A. Sims. June Graduate.

# Gustavo Adolfo Nunez-Testa, Caracas, Venezuela

Ing. Mec. '81, Universidad Simon Bolivar; M.S.M.E. '84, University of Minnesota. Major: Mechanical Engineering. Minor: Supporting Program. Thesis: Evaporation in the Presence of Isothermal and Non-Isothermal Natural Convection. Major Adviser: Prof. E.M. Sparrow. July Graduate.

# Hannah Arlene Ofsthun, Minneapolis

B.S.Ed. '55, Minot State Teachers College; M.A. '81, University of Minnesota. Major: Educational Psychology. Minor: Supporting Program. Thesis: Developing Professional Responsibleness in Counseling Psychology Students: A Teaching-Model Evaluation Study. Major Adviser: Prof. W.W. Tennyson. June Graduate.

## Mohamed R. Ohadi

M.S. '80, Southern Illinois University, Carbondale. Major: Mechanical Engineering. Minor: Supporting Program. Thesis: Turbulent Swirl Affected Heat Transfer and Pressure Drop Characteristics in a Straight Tube Situated Downstream of a Bend. Major Adviser: Prof. E.M. Sparrow. August Graduate.

# David Sean O'Hanley, Wollaston, Mass.

B.S. cum laude '80, Bridgewater State College. Major: Geology. Minor: Supporting Program. Thesis: The Origin and the Mechanical Properties of Asbestos. Major Adviser: Prof. T.Z. Zoltai. June Graduate.

# Judy Ann Ohannesian, St. Paul

B.S. 76, Michigan State University. Major: Agricultural Economics. Minor: Economics. Thesis: A Risk Programming Model of Grain Pricing Strategies for a Southwestern Minnesota Farm. Major Advisers: Profs. F.J. Benson and V.R. Eidman. September Graduate.

# William Hubert Ojala, Great Falls, Mont.

B.S. summa cum laude '77, College of Great Falls. Major: Chemistry. Minor: Supporting Program. Thesis: Solid-State Structures and Properties of Some Organic Strict Isosteres. Major Adviser: Prof. J.Z. Gougoutas. June Graduate.

# Thomas Howard Oliphant,

Youngstown, Ohio

B.S. magna cum laude '76, Kent State University; M.S. '79, University of Minnesota. Major: Biometry and Health Information Systems. Minor: Statistics. Thesis: Sequential Analysis of Clinical Trials Using the Cox Proportional Hazards Regression Approach for Covariate Adjustment. Major Adviser: Prof. E.A. Johnson. June Graduate.

Stephen Bradley Olsen, Mounds View B.A. '71, University of Minnesota: M.S. '74, Iowa State University. Major: Educational Psychology. Minor: Supporting Program. Thesis: The Differential Effect of Reinforcement Contingencies upon Task Performance of Children Rated Either High or Low in Self-Control. Major Adviser: Prof. S.L. Deno. July Graduate.

# Clark David Olson, Phoenix, Ariz.

B.A. '79, Iowa State University: M.S. '81, University of Utah. Major: Speech-Communication. Minor: Supporting Program. Thesis: A Case Study Analysis of Credentialing in Small Groups. Major Adviser: Prof. E.G. Bormann. Graduation Pending.

Vicki Lynn Olson, Minneapolis

B.S. with high distinction '71. M.A. '78, University of Minnesota. Major: Education. Minor: Supporting Program. Thesis: The Effects of Revision Instruction and Peer Response Groups on the Revision Behaviors. Quality of Writing and Attitude Toward Writing of Sixth Grade Students. Major Advisers: Profs. R. Dykstra and D.L. Monson. Graduation Pending.

#### Sharon Kay Ostwald

B.S. '64, Wheaton College; M.S. '76, University of Minnesota. Major: Education. Minor: Supporting Program. Thesis: An Experimental Study of the Effect of Educational Strategies on Employees' Health Practices, Attitudes and Health Status. Major Adviser: Prof. H.Y. Williams. June Graduate.

#### Said Ouattar, Morocco

Dipl. Ingen. Agron. '75, Institut Agronomique et Veterinaire Hassan II. Major: Agronomy. Minor: Supporting Program. Thesis: Adaptation of Corn (Zea Mays L.) Kernel Development to Conditions of Drought and Thermal Stress. Major Advisers: Profs. R.K. Crookston and R.J. Jones. October Graduate.

Mohamed Oussible, Rabat, Morocco D'Agron Gen. '75, Agron Eng Dipl. '77, Institut Agronomique Hassan II. Major: Agronomy. Minor: Supporting Program. Thesis: The Effect of Subsurface Compaction on the Nitrogen Uptake, Growth and Yield of Wheat (Triticum. aestivum L.). Major Adviser: Prof. R.K. Crookston. September Graduate.

# Lorraine Beverly Palkert

B.A. '61, College of St. Catherine; M.A. '70, University of Minnesota. Major: Education. Minor: Supporting Program. Thesis: A Delphic Perspective on the Reactions of Teachers to Prospective Future Occurrences and Their Probable Impact on K-12 Education in Minnesota. Major Adviser: Prof. A.M. Harkins. August Graduate.

Unto Erkki Pallonen, Kuopio, Finland B.A. '72, University of Jyvaskyla: M. Soc. Sci '78, University of Helsinki. Major: Physiological Hygiene. Minor: Supporting Program. Thesis: Prevention of Smoking Onset Among an East Finland Adolescent Population. Major Adviser: Prof. H.W. Blackburn. June Graduate.

# Carol Ann Paradise, Minneapolis

B.A. '77, Wright State University. Major: Psychology. Minor: Supporting Program. Thesis: Description and Analysis of the Performance Rating Process in an Organizational Context with Implications for Present Approaches to the Study of Performance Rating. Major Adviser: Prof. J.P. Campbell. June Graduate.

Philip Pardey, Adelaide, Australia

B.Ag. S. '75. B. Écon. '79, M.Ag. S. '79, University of Adelaide. Major: Agricultural and Applied Economics. Minor: Economics. Thesis: Public Sector Production of Agricultural Knowledge. Major Adviser: Prof. W. L. Peterson. August Graduate.

Carlton W. Parks, Jr., New York, N.Y. B.A. '76, M.A. '79, City College, City University, New York. Major: Child Psychology. Minor: Supporting Program. Thesis: Dimensions of Thought in Adulthood as a Function of Age, Sex. Position and Task Complexity. Major Adviser: Prof. M.A. Perlmutter. September Graduate.

# Michael Hale Pauly

B.S. '80, Oregon State University; M.S. '83, University of Minnesota. Major: Plant Breeding. Minor: Supporting Program. Thesis: Parameters of Nitrogen Utilization in Hard Red Spring Wheat. Major Adviser: Prof. R.H. Busch. August Graduate.

# Adam Henry Pawlikiewicz, Todz, Poland

Major: Electrical Engineering, Minor: Physics, Thesis: Flicker Noise in Solid State Devices, Major Adviser: Prof. Aldert van der Ziel, August Graduate.

Elizabeth Ann Pawlitschek, Glenwood B.A. '70, College of St. Catherine; M.A. '76, University of Minnesota. Major: Educational Administration. Minor: Supporting Program. Thesis: A Comparison of Unlicensed to Licensed Building-Level Public School Administrators: Their Roles and Effectiveness. Major Adviser: Prof. N.C. Nickerson. May Graduate.

# John Persico, Jr., St. Paul

B.S. cum laude '75, Rhode Island College; M.S. '79, University Wisconsin, Stout. Major: Education. Minor: Supporting Program. Thesis: Levels of Conflict, Worker Performance, Individual Conflict Styles, Type of Work, Organizational Characteristics and the External Environment of the Organization. Major Adviser: Prof. G.N. McLean. Graduation Pending.

# Tore Tingvold Petersen, Trondheim, Norway

M.A. <sup>7</sup>79, University of Minnesota. Major: History. Minor: Supporting Program. Thesis: "The Special Relationship That Never Was": American Policy Towards Britian France, 1953-1959. Major Adviser: Prof. K. J. Brauer. Graduation Pending.

## Gwendolyn Peyton, St. Paul

B.A. '76, Augsberg College; M.A. '79, College of St. Thomas. Major: Educational Administration. Minor: Supporting Program. Thesis: Perceived Essential Qualities of Teachers of the Gifted and Non-Gifted Student. Major Adviser: Prof. R.T. Lambert. Graduation Pending.

# Maurice Leonard Phipps, Bolsover, England

M.S. '83, Mankato State University. Major: Education. Minor: Supporting Program. Thesis: An Assessment of a Systematic Approach to Teaching Outdoor Leadership in Expedition Settings. Major Adviser: Prof. L. H. McAvoy. June Graduate.

#### Robert C. Pianta, Minneapolis

B.S. summa cum laude '78, M.A. '78, University of Connecticut. Major: Psychology. Minor: Supporting Program. Thesis: The Longitudinal Effects of Maternal Life Stress on the Devlopmental Outcomes of First Grade Children in a High Risk Sample. Major Adviser: Prof. Byron Egeland. June Graduate.

# Thomas George Plymate, Shelbyville, Ind.

B.S. '76, M.A. '78, Indiana University. Major: Geology. Minor: Supporting Program. Thesis: Equations of State for the Polymorphs of Sn and Fe2SiO4 Determined by in situ Energy-Dispersive X-Ray Diffraction in a Heated Diamond-Anvil Pressure Cell. Major Adviser: Prof. J. H. Stout, August Graduate

# Emmanuel Olufemi Pomary, Nigeria

Dipl. '75, Patrice Lumumba People's Friendship University. Major: Entomology. Minor: Supporting Program. Thesis: Evaluation and Inheritance of Resistance to Colorado Potato Beetle, Leptinotarsa Decemlineata, in Some Wild Potato Solanum Species. Major Adviser: Prof. E.B. Badeliffe. July Creduste

# David Anthony Ponick, Eau Claire,

B.S. '64, M.S.T. '69, Wisconsin State College, Eau Claire, Major: Education. Minor: Supporting Program. Thesis: Animation Used as a Logical Organizer in Visualization for Concept Learning, Major Adviser: Prof. J.E. Stochl. September Graduate.

# Gail Carol Potechin, Ottawa, Ontario, Canada

B.S. '79, University of Western Ontario; M S. '82, Emerson College. Major: Communication Disorders. Minor: Supporting Program. Thesis: The Relationship Between the Cohesive Structure of Spoken and Written Language in School Age Children. Major Adviser: Prof. P.A. Broen. Graduation Pending.

# Maureen Catherine Prenn, Pittsburgh,

B.A. '74, M.A.T. '80, University of Pittsburgh. Major: Education. Minor: Supporting Program. Thesis: Effects of the Extended Use of Previews on Students' Comphrehension of Expository Passages. Major Adviser: Prof. M.F. Graves. Graduation Pending.

# Luigi Preziosi, Napoli, Italy

Laur. '84, University of Naples. Major: Mechanics. Minor: Mathematics. Thesis: Selected Topics in the Mechanics of Two Fluids and Viscoelastic Media. Major Adviser: Prof. D.D. Joseph. Graduation Panding.

# Paula Tompkins Pribble, St. Cloud

B.A. with distinction '78, M.A. '80, University of Kansas. Major: Speech-Communication. Minor: Supporting Program. Thesis: A Critical Study of Rhetoric in Employee Orientation Programs: Becoming An Employec. Major Adviser: Prof. R.L. Scott. Graduation Pending.

## David Lee Price, Minneapolis

B.S. '78, State University College, Brockport. Major: Physics. Minor: Supporting Program. Thesis: Metal-Electrolyte Surfaces. Major Adviser: Prof. J.W. Halley. October Graduate.

# Mary C. Pruitt, Minneapolis

B.A. <sup>'</sup>67, Bethany College; M.A. <sup>'</sup>70, Hunter College of the City University, New York, Major: American Studies. Thesis: "Women Unite!" The Modern Women's Movement in Minnesota. Major Adviser: Prof. G.G. Yates. Graduation Pending.

# Amitabh Saran Raturi, India

B.Tech. '80, Indian Institute of Technology, Kanpur; Postgrad. Dipl. Mgmt. '81, Indian Institute of Management, Ahmedabad. Major: Business Administration. Minor: Supporting Program. Thesis: A Study of Capacity Constrained Scheduling Procedures for Material Requirements Planning Systems. Major Adviser: Prof. A.V. Hill. July Graduate.

# Paul Hudson Reasoner, Columbia Heights

B.A. with high honors '75, Bethel College: M.A. '81, Sophia University; M.A. '82, University of Minnesota. Major. Philosophy. Minor: Supporting Frogram. Thesis: Japanese Poetry. Objectivity in Aesthetics. and the Aesthetic. Major Advisers: Profs. M.M. Eaton and D.E. Lewis. Graduation Pending.

Dee Ann Reimer, North Newton, Kan. B.A. highest distinction '77, Bethel College: M.A. '82, University of Minnesota. Major: Psychology. Minor: Supporting Program. Thesis: Measuring Interest Diversity: An Exploration of the Characteristics of Widespread Vocational Interests. Major Adviser: Prof. J.C. Hansen. October Graduate.

Phyllis Anne Reisman, Brooklyn, N.Y. B.A. magna cum laude 77, Brooklyn College: M.A. 79, University of Iowa. Major: Spanish. Minor: Supporting Program. Thesis: National Literary Identity in Contemporary Angolan Prose Fiction. Major Adviser: Prof. R.G. Hamilton. August Graduate.

# Gail Elizabeth Richards, Orono

B.A. cum laude '61, Randolph-Macon Woman's College. Major: Educational Psychology. Minor: Supporting Program. Thesis: Selective and Sustained Attention in Learning-Disabled and Non-Learning-Disabled Children. Major Advisers: Profs. J.E. Ysseldyke and S.J. Samueis. May Graduate.

Sara Jane Risch, Rhinelander, Wis.

B.S. with distinction '79, University of Minnesota; M.S. '81, University of Georgia, Major: Food Science, Minor: Supporting Program. Thesis: Isolation and Identification of Migrants from Polyester Trays: Regulatory and Flavor Concerns. Major Adviser: Prof. G.A. Reineccius. Graduation Pending.

#### Alberto Miguel Rivera-Gutierrez

B.A. summa cum laude '72, M.A. '78, University of Minnesota. Major: Anthropology. Minor: Supporting Program. Thesis: Material Life and Social Metaphor: Change and Local Models Among the Wayuu Indians of Colombia and Venezuela. Major Adviser: Prof. S.F. Gudeman. June Graduate.

Jeanette C. Roberts, Tunkhannock, Pa. B.S. '75, Albright College. Major: Medicinal Chemistry. Minor: Supporting Program. Thesis: Thiazolidine Prodrugs of L-Cysteine and D-Penicillamine as Protective Agents Against Hepatotoxic Xenobiotic Metabolites. Major Adviser: Prof. H.T. Nagasawa. July Graduate.

#### William John Rossi, St. Paul

B.A. '72, M.A. '79, University of Missouri. Major: English. Minor: Supporting Program. Thesis: 'Laboratory of the Artist': Henry Thoreau's Literary and Scientific Use of the Journal, 1848-1853. Major Adviser: Prof. W.P. Glick. August Graduate.

# Eric P. Rudd, Lincoln, Neb.

B.S. '77, University of Nebraska, Lincoln; M.S.E.E. '82, University of Minnesota. Major: Electrical Engineering. Minor: Computer and Information Science. Thesis: A Program for the High-Frequency Analysis of Switched-Capacitor Networks. Major Adviser: Prof. Rolf Schaumann. Inly Graduate.

# Roberto Ruiz, Mexico City, Mexico

B.S. cum laude '79, University of California, Los Angeles; M.S.M.E. '81, University of Minnesota. Major: Mechanical Engineering. Minor: Supporting Program. Thesis: Natural Convection Heat Transfer in Partially Enclosed Configurations. Major Adviser: Prof. E.M. Sparrow. August Graduate.

# Fouzia Saeed, Islamabad, Pakistan

B.S. '82, M.S. '84, University of Minnesota, Major: Education, Minor: Supporting Program, Thesis: Social Consequences of Overseas Education: Readjustment of Returning Pakistani Scholars, Major Advisers: Profs. J. McClelland and G.H. Copa, Graduation Pending.

#### Kenichi Sakakibara, Japan

B.Econ. '77, M.Econ. '79, Hitotsubashi University. Major: Economics. Minor: Supporting Program. Thesis: Expectations and the Non-Neutrality of Money: A Legal Restriction Theory of Business Cycles. Major Adviser: Prof. Neil Wallace. May Graduate

### Lisa Mary Salati, Pennyslvania, Pa.

B.S. with honors '78, University of Delaware; M.S. '82, University of Minnesota. Major: Nutrition. Minor: Cell and Developmental Biology. Thesis: Regulation of Acetyl-CoA Carboxylase and Sterol Carrier Protein by Hormones and Fatty Acids. Major Advisers: Profs. M.E. Dempsey and S.D. Clarke. October Graduate.

# Hideki Sano, Japan

B.Educ. 76, M.Educ. 78, University of Tsukuba. Major: Educational Psychology. Minor: Psychology. Thesis: Aptitude Test Performance Comparison Between American and Japanese Junior High School Students. Major Adviser: Prof. J.C. Merwin. August Graduate.

# Ina Sarcevic, Sarajevo, Yugoslavia

B.S. '81, University of Sarajevo. Major: Physics. Minor: Supporting Program. Thesis: Multiplicity Distributions and Kno Scaling in the Parton Branching Model. Major Adviser: Prof. S.G. Gasiorowicz. July Graduate.

# Thomas Franklin Scherer

B.Ag.E. '78, M.S.Ag.E. '81, University of Minnesota. Major: Agricultural Engineering. Minor: Civil Engineering. Thesis: Canopy-Air Temperature Differences as Affected by Soil Textural Class and Growing Season. Major Adviser: Prof. A.M. Flikke. July Graduate.

#### James Andrew Schmitz

B.A. summa cum laude '78, Boston College, Major: Economics. Minor: Supporting Program. Thesis: Topics in the Theory on Innovation. Major Adviser: Prof. E.C. Prescott. July Graduate.

Carole Marie Schneider, Algona, Iowa B.S. '72, Briar Cliff College; M.S. '83, Iowa State University. Major: Physical Education. Minor: Supporting Program. Thesis: Biochemical and Immunological Analyses of Creatine Kinase Isoenzymes from Human Heart and Skeletal Mascle. Major Advisers: Profs. F.S. Apple and G.A. Stull. Inly Graduate.

Ronald David Schrimpf, Lake City B.E.E. with distinction '81, M.S.E.E. '84, University of Minnesota. Major: Electrical Engineering. Minor: Physics. Thesis: Prototype-Device Fabrication and Modeling for All-Semiconductor Three-Dimensional Integrated Circuits. Major Adviser: Prof. R.M. Warner, Jr. July Graduate.

# Alayne Laura Schroll, Saranac Lake, N.Y.

B.A. cum laude '78, Russell Sage College. Major: Chemistry. Minor: Supporting Program. Thesis: Novel Organosulfur Chemistry and Its Application to Peptide Synthesis: I. Preparations of Symmetrical and Mixed Carbamoyl and Amino Polysulfanes. II. A New Protecting Group for the Sulfhydryl Function of Cysteine. Major Adviser: Prof. George Barany. August Graduate.

Judy Ann Schuck, Eden Prairie B.S. '61, B.S. '63, M.A. '68, University of Minnesota. Major: Educational Psychology. Minor: Supporting Program. Thesis: The Effect of Visual and Aural Presentation of Factual Material on Learning Among Reading and Non-Reading Disabled Community College Students. Major Adviser: Prof.

# Stephen Gregg Schwarz, Rochester,

B.E. Balow. July Graduate.

N.Y.
B.S. '77, Clarkson College of Technology; M.S. '79,
University of Minnesota. Major: Mechanical Engineering. Minor: Supporting Program. Thesis: Film
Cooling of Curved Surfaces. Major Adviser: Prof.
R.I. Goldstein. Graduation Pending.

# Laurel Jane Scott, Siren, Wis.

B.F.A. 67, M.A. '75, University of Wisconsin, Superior. Major: Education. Minor: Supporting Program. Thesis: A Comparative Study of Personality, Values, and Background Characteristics of Artistically Talented, Academically Talented, and Average 11th and 12th Crade Students. Major Adviser: Prof. M. K. DiBlasio. October Graduate.

# Edmund Gerard Seebauer, Bloomington, Ill.

B.S. summa cum laude '83, University of Illinois. Major: Chemical Engineering. Minor: Supporting Program. Thesis: Laser-Induced Desorption of Gases from Reactive Metal Surfaces. Major Adviser: Prof. L.D. Schmidt, Graduation Pending.

# Nitin A. Shah, Ahmedabad, India

B. Tech '77, Indian Institute of Technology; M.S. '83, University of Minnesota. Major: Mineral Engineering. Minor: Metallurgy and Materials Science. Thesis: A Study of Solidification and Segregation in Fe-C-Ni-Cr Alloy. Major Adviser: Prof. J. J. Moore. September Graduate.

# Lester Sheng-wei Shen, Lakewood,

B.S. '77, Haverford; M.S.M.E. '79, Georgia Institute of Technology. Major: Mechanical Engineering. Minor: Supporting Program. Thesis: An Investigation of Transient, Two-Dimensional Coupled Heat and Moisture Flow in Soils. Major Adviser: Prof. J.W. Ramsey, August Graduate.

# Sherin Ahmed Sherif, Alexandria, Egypt

B.S. 75, Alexandria University. Major: Agricultural Economics. Minor: Economics. Thesis: Optimization of Groundwater Allocation for the Anoka Sand-Plain Aquifer in East Central Minnesota. Major Adviser: Prof. K.W. Easter. August Graduate.

#### Gloria Bulan Shier, New Brighton

B.S. '56, University of Santo Tomas; M.A. '68, University of Illinois. Major: Education. Minor: Supporting Program. Thesis: Correlates of Proportional Reasoning Among Adolescents in the Philippines. Major Adviser: Prof. T.R. Post. August Graduate.

# Shuhei Shiozawa, Tokyo, Japan

B.A. '78, M.A. '80, Keio University. Major: Economics. Minor: Supporting Program. Thesis: Existence of Competitive Equilibria in Overlapping Generations Models. Major Adviser: Prof. M.K. Richter. Graduation Pending.

# Jeffry Alan Simpson, De Kalb, Ill.

B.A. 81, Universitý of Illinois Major: Psychology. Minor: Supporting Program. Thesis: The Dissolution of Romantic Relationships: Factors Involved in Enclationship Stability, Factors Involved in Emotional Distress. Major Advisers: Profs. Ellen Berscheid and Mark Snyder. July Graduate.

# Daniel Allen Singleton, Senacaville, Ohio

B.S. highest honors '81, Case Western Reserve University, Major: Chemistry, Minor: Supporting Program. Thesis: The Cationic Diels-Alder Reaction, Major Adviser: Prof. P.G. Gassman, September Graduate.

## Joanne Agnes Smieja

B.A. summa cum laude '82, College of St. Thomas. Major: Chemistry. Minor: Supporting Program. Thesis: Synthesis, Characterization, and Reactivity of Metal Carbonyl Clusters Containing Small Nitrogeneous Ligands. Major Adviser: Prof. W. L. Gladfelter. Graduation Pending.

#### William Thomas Smorczewski

B.S. magna cum laude '76, University of Massachusetts. Major: Microbiology. Minor: Supporting Program. Thesis: The Numbers. Activities and Diversity of Ammonia and Nitrate Oxidizing Bacteria in the Sediment of Lake Calhoun. Major Adviser: Prof. E.L. Schmidt. May Graduate.

#### Shirlev Stave, Atlanta, Ga.

B.A. summa cum laude '74, Concordia College, Major: English, Minor: Supporting Program, Thesis: Between Two Worlds: Heroines in Hardy's Fiction, Major Adviser: Prof. W.A. Madden, Graduation Pending.

# Rozeanne Steckler, Gordon Grove, Calif.

B.S. '82, University of California, Irvine. Major: Chemistry. Minor: Supporting Program. Thesis: The Design of Potential Energy Surfaces for Chemical Reactions. Major Adviser: Prof. D.G. Truhlar. September Graduate.

# Harold Joseph Steiger, Minneapolis

B.A. '69, M.A. '73, University of Chicago, Major: Educational Psychology, Minor: Supporting Program. Thesis: The Effects of a Group Based Wilderness Adventure Program on the Moral Reasoning, Socio-Moral Attitudes, and Self Esteem of Adolescents. Major Adviser: Prof. J.R. Rest. August Graduate.

Robert Warner Sterner, Minneapolis B.S. '80, University of Illinois. Major: Ecology. Minor: Supporting Program. Thesis: Nutrients, Algae and Zooplankton: A Mechanistic Consideration of Direct and Indirect Effects. Major Adviser: Prof. G.D. Tilman. September Graduate.

Stacey Hueftle Stockdill, Eustis, Neb. A.B. '77, University of Nebraska. Lincoln: M.A. '81, University of Minnesota. Major: Educational Psychology. Minor: Speech-Communication. Thesis: Evaluation Standards: A Study of Their Appropriateness in Business and Education. Major Adviser: Prof. W.W. Welch. August Graduate.

# Neil Phillip Stuber, Amherst, Ohio

B.S.Ch.E. cum laude '78. Ohio State University. Major: Chemical Engineering. Minor: Mathematics. Thesis: Studies of Continuous Methylmethacrylate Polymerization in a Twin-Screw Extruder. Major Adviser: Prof. M.V. Tirrell. Graduation Pending.

#### Peter Takac

Dipl. '82, Charles University; Dr.rer.nat. '84, University of Vienna. Major: Mathematics. Minor: Supporting Program. Thesis: A Trace Class Criterion and Elliptic Operators with Unbounded Coefficients on RN. Major Adviser: Prof. P.A. Rejto. August Graduate.

Mangara Tambunan, Bogor, Indonesia Sarj. '71. Bogor Agricultural University. Major: Agricultural Economics. Minor: Supporting Program. Thesis: Targeting Public Investment An Application to Recreational Planning in Minnesota. Major Adviser: Prof. P.M. Raup. Graduation Pendior.

# Ho Yin Tang, Hong Kong

B.S. cum laude '69, University of Houston; M.S. '71, University of Michigan, Major: History of Medicine and Biological Sciences, Minor: Supporting Program, Thesis: The Enigma of Hog Cholera: Controversies, Cause, and Control 1833-1917, Major Adviser: Prof. L.G. Wilson, August Graduate.

Susan M. Tarnowski, Eau Claire, Wis. B.S. '75, University of Minnesota, Duluth; M.A. '80, University of Minnesota. Major: Education. Minor: Supporting Program. Thesis: Effects of Single-Mode Versus Multiple-Mode Group Instruction on the Singing Accuracy of Preschool Children. Major Adviser: Prof. A.F. Caswell. July Graduate.

#### Margo Pauline Tech, Fridley

B.S. Ed. '70, University of North Dakota; M.A. '75, University of Minnesota. Major: Educational Administration. Minor: Supporting Program. Thesis: Suspected Child Abuse and Neglect Situations as Perceived by Elementary School Principals. Major Adviser: Prof. C. P. Hooker. August Graduate.

# James Ward Testa

B.S. cum laude '75, University of Alaska, Fairbanks; M.S. '82, University of Minnesota. Major: Ecology. Minor: Statistics. Thesis: Long Term Patterns in Life History Characteristics and Population Dynamics of Weddell Seals (Leptonychotes Weddelli) in McMurdo Sound, Antarctica. Major Adviser: Prof. D.B. Siniff. June Graduate.

# Linda Kay Thibodeau, Austin, Tex.

B.S. '75, M.A. '77, University of Texas, Austin. Major: Communication Disorders. Minor: Supporting Program. Thesis: Frequency Resolution and Speech Reception in Persons with Sensori-Neural Hearing Loss. Major Adviser: Prof. D.J. Van Tasell. July Graduate.

# Stephen Joseph Thoma, Cambridge, Mass

B.A. cum laude '77, University of Massachusetts, Amherst. Major: Educational Psychology. Minor: Supporting Program. Thesis: On Improving the Relationship Between Moral Judgment and External Criteria: The Utilizer and Nonutilizer Dimension. Major Advisers: Profs. J. R. Rest and M. L. Davison. June Graduate.

Allan Dale Thompson, Aberdeen, Md. B.S. with distinction '78, M.A. '82, University of Minnesota. Major: Educational Psychology. Minor: Psychology. Thesis: A Formative Evaluation of an Individualized Coaching Program for Business Managers and Professionals. Major Adviser: Prof. H. Borow. Graduation Pending.

Kenichi Tomita, Japan

B.S. '72, M.S. '74, Keio University. Major: Mechanical Engineering. Minor: Operations Research. Thesis: The Development of the Identifiability Gramian and Its Application in System Modeling and Identification. Major Adviser: Prof. D.A. Frohrib. May Graduate.

Wade Jeffrey Tornquist, Marshall B.S. '81, Southwest State University. Major: Chemistry. Minor: Supporting Program. Thesis: Infrared Spectra of Carbon Monoxide on Platinum. Major Adviser: Prof. A.J. Moscowitz. September

Joel William Toso, Minneapolis B.C.E. with distinction '81, M.S.C.E. '83, University of Minnesota. Major: Civil Engineering. Minor: Supporting Program. Thesis: The Magnitude and Extent of Extreme Pressure Fluctuations in the Hydraulic Jump. Major Adviser: Prof. C.E. Bowers. August Graduate.

Christopher Keith Tuggle, Stillwater B.A. cum laude '81, St. Cloud State University. Major: Biochemistry. Minor: Genetics. Thesis: Regulation of Ribonucleotide Reductase mRNA Synthesis in Escherichia coli. Major Adviser: Prof. J.A. Fuchs. Graduation Pending.

#### Hilmi Unlu

Dipl. '78, University of Istanbul; M.S.E.E. '84, University of Minnesota. Major: Electrical Engineering. Minor: Supporting Program. Thesis: The Theory of Heterojunctions. Major Adviser: Prof. A. Nussbaum. October Graduate.

Judith R. Urich, Englewood, Ohio B.S. '58, Iowa State University; M.S. '62, Kansas State University. Major: Family Social Sciences. Minor: Supporting Program. Thesis: Household Energy Behavior: Wood and Fossil-Fuels. Major Adviser: Prof. M.J. Hogan. Graduation Pending.

# Nora Sue Vig, Northfield

A.B. with distinction '62, University of Michigan; M.A. '67, University of Chicago. Major: Cell and Developmental Biology. Minor: Supporting Program. Thesis: The Heat Shock Response of Neurospora Crassa: Protein Synthesis, Thermotolerance, and Accumulation of Specific RNAs. Major Adviser: Prof. R.M. Brambl. June Graduate.

Douglas Rudy Vogel, Bozeman, Mont. B.S.E.E. '69, Montana State University; M.S. '72, University of California, Los Angeles. Major: Business Administration. Minor: Supporting Program. Thesis: An Experimental Investigation of the Persuasive Impact of Computer Generated Presentation Graphics. Major Adviser: Prof. G.W. Dickson. July Graduate.

#### Sabra Waldfogel, Minneapolis

A.B. cum laude '77, Radcliffe College; M.A. '82, University of Minnesota. Major: History. Minor: Supporting Program. Thesis: The Body Beautiful, The Body Hateful: Feminine Body Image and the Culture of Consumption in 20th-Century America. Major Adviser: Prof. R.R. Menard. July Graduate.

# Ann Thorson Walton

B.A. '58, M.A. '60, University of Denver. Major: Art History. Minor: Supporting Program. Thesis: The Swedish and Finnish Pavilions in the Exposition Universelle in Paris 1900. Major Adviser: Prof. M.J. Nelson. October Graduate.

Patricia Campbell Warner, St. Paul B.A. '58, University of Toronto; M.A. '82, University of Minnesota. Major: Design, Housing and Apparel. Minor: Supporting Program. Thesis: Clothing The American Woman for Sport and Physical Education, 1860 to 1940: Public and Private. Major Adviser: Prof. T.T. Blade. Graduation Pending.

Frank Benton Waterous, Minneapolis B.A. with distinction '76, M.A. '77, University of Pennsylvania; M.A. '80, University of Colorado. Major: Education. Minor: Supporting Program. Thesis: Creating the Anticipatory Engineer: Current Trends and Future Directions in Undergraduate Engineering Education. Major Adviser: Prof. A.M. Harkins. Graduation Pending.

# Sara Lynn Webb, St. Paul

B.S. summa cum laude '76, Macalester College; M.S. '83, University of Minnesota. Major: Ecology. Minor: Supporting Program. Thesis: Windstorms and the Dynamics of Two Northern Forests. Major Adviser: Prof. E.J. Cushing. August Graduate. Jean Louise Weber, St. Francis, Wis. B.S. '76, Carroll College; M.S. '80, University of Chicago. Major: Food Science. Minor: Nutrition. Thesis: The Water Binding Capacity of Fruit and Vegetable Fibers. Major Adviser: Prof. D.A. Savaiano. Graduation Pending.

# Myron L. Weber, Yeadon, Pa.

B.Ś. '66, Massachusetts Institute of Technology; M.A. '71, University of Minnesota. Major: Industrial Relations. Minor: Supporting Program. Thesis: The Influence of Payoff Functions and Risk Preference on the Riskiness of Corporate Decision-Making. Major Adviser: Prof. R.V. Dawis. August Graduate.

# Ananda P.N. Weerasinghe, Godakalana, Sri Lanka

B.S. '79, University of Colombo, Major: Mathematics, Minor: Supporting Program, Thesis: Some Properties of Stochastic Flows and Diffusions with Reflections, Major Adviser: Prof. Steven Orey. September Graduate.

# Mark Stevens Weinberg, Madison, Wis.

B.A. '69, Wilkes College; M.A. '73, State University College; M.F.A. '77, University of Minnesota. Major: Theatre Arts. Minor: Supporting Program. Thesis: Performance Generation: The History and Evolution of Collective Theatre in America. Major Adviser: Prof. C.M. Nolte. August Graduate.

Randy Steven Weinberg, Burnsville B. Math. '71, University of Minnesota; M. S. '73, Michigan State University. Major: Operations Research. Minor: Supporting Program. Thesis: A General Model of Conflict. Major Adviser: Prof. P. J. Starr. Graduation Pending.

# Richard Thomas Weirich, Westport, Conn.

B.A. 78, College of Wooster; M.S. '81, Virginia Polytechnic Institute and State University. Major: Physiology. Minor: Supporting Program. Thesis: An Analysis of the Interrelationship of Nuclear and Plasma Triiodothyronine in the Sea Lamprey Eel, Lake Trout and the Rat: Evolutionary Considerations. Major Adviser: Prof. J.H. Oppenheimer. July Graduate.

# James Charles Welsh, Canada

B.S.Gen. '68, Cert.Ed. '69, University of Manitoba; M.A. '76, University of Minnesota. Major: Education. Minor: Supporting Program. Thesis: Interactive Effect of Content Structure, Practice Item Sequence, and Process Learning Time on Rule Learning Using Computer-Based Instruction. Major Adviser: Prof. R.D. Tennyson. July Graduate.

# David Otto Wendler, New Ulm

B.S. '70, Dr. Martin Luther College; M.S.E. '80, University of Wisconsin, Oshkosh. Major: Educational Psychology. Minor: Supporting Program. Thesis: The Effect of Precuing on the Comprehension Instruction of Three Types of Teachers. Major Adviser: Prof. S.J. Samuels. May Graduate.

# Sylvia Ridlen Wenston, Underwood,

#### Iowa

B.A. '70, Creighton University; M.S.W. '76, University of Iowa. Major: Social Work. Minor: Supporting Program. Thesis: Variations in Marital Satisfaction and Life Changes Across the Menstrual Cycle. Major Adviser: Prof. N.F. Bracht. May Graduate

Mark Edmund Werness, West St. Paul B.A. '74, Carleton College; M.S. '80, University of Minnesota. Major: Biometry and Health Information Systems. Minor: Supporting Program. Thesis: Computer Assisted Analysis of Cilia Function: Experiments on Human Nasal Cilia. Major Adviser: Prof. R.K. Hobbie. Graduation Pending.

# David Paul West, Viroqua, Wis.

B.S. '78, University of Wisconsin, River Falls; M.S. '84, University of Minnesota. Major: Plant Breeding. Minor: Supporting Program. Thesis: The Developmental Basis of Quantitative Genetic Variation Revealed by the Maize Mutant, Polymitotic. Major Adviser: Prof. J.L. Geadelmann. August Graduate.

Sandra Baumann Westby, Fargo, N.D. B.S.Ed. '72, Black Hills State College; M.S. '75, North Dakota State University. Major: Educational Administration. Minor: Supporting Program. Thesis: Perceptions of the Implications of High Technology for Minnesota Schools. Major Adviser: Prof. V.D. Mueller. July Graduate.

# Mary Kathryn Whelan, Newark, N.Y. B.A. cum laude '77, Bryn Mawr College; M.A. '81, University of Minnesota. Major: Anthropology. Minor: Supporting Program. Thesis: The Archaeological Analysis of a 19th-Century Dakota Economy. Major Adviser: Prof. O.E. Johnson. Graduation Pending.

# Michael Ernest White, White Bear

B.S. '80, University of Minnesota. Major: Animal Science. Minor: Biochemistry. Thesis: Isolation of Swine Serum Factors That Influence Growth of Cultured Muscle Cells. Major Advisers: Profs. W.R. Dayton and C.E. Allen. August Graduate.

# Paul H. Wiener

B.A. '76, University of Minnesota. Major: Educational Psychology. Minor: Supporting Program. Thesis: Knowledge and Understanding: Two Level Educational Achievement Testing. Major Adviser: Prof. J.S. Terwilliger. June Graduate.

# Richard Herbert Wilkinson, Leeds, England

B.A. '75, Ambassador College; M.A. '84, University of Minnesota. Major: Ancient Studies. Thesis: Mesopotamian Coronation and Accession Rites in the Neo-Sumerian and Early Old-Babylonian Periods c. 2100-1800 B.C. Major Advisers: Profs. T.B. Jones and D. Reisman. September Graduate.

## Charles Hartger Winter, Kalamazoo, Mich

B.S. 82, Hope College. Major: Chemistry. Minor: Supporting Program. Thesis: Electronic and Structural Effects of Transition Metal Cyclopentadienyl Ring Substitution. Major Adviser: Prof. P.G. Gassman. July Graduate.

# Kara Felicia Witt, Portland, Ore.

B.A. '79, University of Washington. Major: Psychology. Minor: Supporting Program. Thesis: A New Perspective on Clinical Judgement: The Application of Empirical Findings to Treatment Decisions. Major Advisers: Profs. S.D. Hollon and Eugene Borgida. June Graduate.

# Mary Leigh Wolfe, Baltimore, Md.

B.S.Ag. cum laude '79, Virginia Polytechnic Institute and State University. Major: Agricultural Engineering. Minor: Supporting Program. Thesis: Predicting Infiltration into Tilled Soils Subject to Surface Sealing and Consolidation Using a Green-Ampt Model. Major Adviser: Prof. C.L. Larson. May Graduate.

# Jenny Ann Wolfert, Minneapolis

B.A. summa cum laude '76, University of North Dakota. Major: Psychology. Minor: Supporting Program. Thesis: Personality and Social Network Factors Related to Satisfaction with Social Support. Major Adviser: Prof. R.V. Dawis. October Graduate.

# Randall Douglas Wright

B.A. honors '79, University of Manitoba. Major: Economics. Minor: Supporting Program. Thesis: Labor Markets and Labor Contracts in an Overlapping Generations Model with Infinite Lived Employers. Major Adviser: Prof. Neil Wallace. August Graduate.

# Tzeyi Yen, Tainan, Taiwan

B.S.Ág. '77, National Taiwan University. Major: Agricultural Economics. Minor: Economics. Thesis: Stagewise Estimation of Complete Demand Systems with Limited Dependent Variables and NonLinear Constraints: An Application to the Dominican Household Consumption Data. Major Adviser: Prof. T.L. Roe. Graduation Pending.

# Janey Hey-joung Youngblom, Montclair, N.J.

B.A. '77, M.S. '78, Rutgers University. Major: Genetics. Minor: Supporting Program. Thesis: Dissection of the Metastatic Process in a Murine Fibrosarcoma System. Major Advisers: Profs. R.N. Shoffner and J.R. Shepard. Graduation Pending.

# Kuo-Long Yu, Taipei, Taiwan

B.S. Pharm. 79, Kaohsiung Medical College. Major: Medicinal Chemistry. Minor: Chemistry. Thesis: Conformationally Constrained Analogues of L-Prolyl-L-Leucylgycinamide. Major Adviser: Prof. R.L. Johnson. Graduation Pending.

#### Xiaonan Zhang, China

M.S.E.E. '83, University of Minnesota. Major: Electrical Engineering. Minor: Physics. Thesis: Low Frequency Noise in Semiconductor Devices. Major Adviser: Prof. Albert van der Ziel. May Graduate.

# Dean Allan Zoerink

B.S. '70, M.A. '73, University of Missouri. Major: Education. Minor: Supporting Program. Thesis: Leisure Attitudes of Orthopedically Disabled and Nondisabled Adult Men. Major Adviser: Prof. J. H. Schultz. June Graduate.

# Sara Jane Zoss, St. Paul

B.A. '74, University of Kansas, Lawrence; M.S. '78, University of Minnesota. Major: Environmental Health. Minor: Supporting Program. Thesis: The Effects of Trace Metals on the Operation of Rotating Biological Contactors. Major Adviser: Prof. C.P. Straub. June Graduate.

# **Doctor of Philosophy**

MAYO GRADUATE SCHOOL OF MEDICINE

# Jaroslava Halper

M.D. '80, University of Toronto. Major: Pathology. Minor: Supporting Program. Thesis: Identification, Purification and Characterization of an Apparently Novel Transforming Growth Factor. Major Adviser: Prof. H.L. Moses. May Graduate.

# Doctor of Philosophy in Otolaryngology

Mona Ibrahim Mourad, Alexandria,

Egypt

M.B.Ch.B. '75, Alexandria University; Masters '79 Ain Shams University. Major: Otolaryngology. Minor: Supporting Program. Thesis: Time-Dependent Factors in the Auditory Processing of the Elderly. Major Adviser: Prof. F.M. Lassman. September Graduate.

# **Doctor of Philosophy in Surgery**

Gary Allan Keller B.A. 72, M.D. 79, University of Vermont. Major: Surgery. Minor: Pathobiology. Thesis: Macrophage Rich Peritoneal Cell/Non-Parenchymal Liver Cell Mediated Modulation of Hepatocyte Protein Synthesis. Major Adviser: Prof. R.L. Simmons. July

# Master of Agricultural Engineering

Walter Clair Eshenaur, St. Paul

B. Ag. E. '82, University of Minnesota. Major: Agricultural Engineering. Minor: Related Fields. Project: A Theoretical Computer-Based Model for Use in Design of Hydraulic Ram Water Pumps. Major Advisers: Profs. D.C. Slack and F.G. Bergsrud. August Graduate.

# Master of Architecture

Martha Iean Abbott, St. Paul

A.B. '79, Stanford University. Major: Architecture. Thesis: Being and the Structure and Making of Place. Major Adviser: Prof. G.C. Rockcastle. June Graduate.

Dina Antun Bonefacic, Zagreb,

Yugoslavia

Dipl. '83, University of Zagreb. Major: Architecture. Thesis: Growing Up from Stone: A Metamorphoses of Landscape into a Habitable Settlement: A Case for Revival and Touristic Development of Small Communities on Yugoslav Coast. Major Adviser: Prof. R.D. Clemence. September Graduate.

Cheryl Anne Ciecko, Chicago, Ill. B.A. with high honors '83, University of Illinois,

Urbana, Major: Architecture, Thesis: A New American House: Cultural Change and the Human Condition in Architecture. Major Adviser: Prof. G.A. Dittmar. August Graduate

Paul Frederick Emmons, Stevens Point, Wis.

B.B.A. cum laude '79, University of Wisconsin, Eau Claire. Major: Architecture. Thesis: Self as the North Arrow: A Philosophy of Architecture with Designs on a Library. Major Adviser: Prof. V.L. Michelson. June Graduate.

Duwayne Ray Hameister, Sheboygan, Wis.

B.S. '83, University of Wisconsin, Milwaukee. Major: Architecture. Thesis: An Environmental Education Center. Major Adviser: Prof. L.S. Parker. September Graduate.

Yong-Seong Kim, Seoul, Korea

B.E. 82, Hong-Ik University. Major: Architecture. Thesis: Computer-Aided Hospital Design. Major Adviser: Prof. L.S. Parker. August Graduate

Michaela Maria Mahady

B.A. '73, Macalester College. Major: Architecture. Thesis: Ornament and Architecture. Major Adviser: Prof. J. G. Rauma. July Graduate.

Smaragda Sazotou, Athens, Greece B.A. '79, University of Minnesota. Major: Architecture. Thesis: Urban Housing, Singapore; Critique and Designs. Major Adviser: Prof. R. D. Clemence. July Graduate. Gunawan Sjahjady, Bogor, Indonesia B.A. '83, University of Minnesota. Major: Architecture. Thesis: On Classicism: Its Study and Application to the Multi-use Urban Area in Nicollet Island. Major Adviser: Prof. G.C. Rockcastle. Graduation Pending.

## **Master of Arts**

# William Michael Altman, Salt Lake City, Utah

B.A. cum laude '81, Colorado College. Major: Public Affairs. Major Adviser: Prof. N.N. Eustis. Graduation Pending.

Patricia R. Anderson, Minneapolis B.A. with distinction '79, University of Minnesota. Major: Industrial Relations. Minor: Related Fields. Major Adviser: Prof. M.A. Zaidi. August Graduate.

Steven Peter Andreasen, Richfield B.A. '84, Gustavus Adolphus. Major: Public Affairs. Major Adviser: Prof. A. Naftalin. Graduation Pending.

Paul Richard Andress, Minneapolis B.A. '79, St. Olaf College. Major: Educational Psychology. Minor: Related Fields. Major Adviser: Prof. L.S. Hansen. June Graduate.

# Mary Lou Antell, Bayport

B.S. with high distinction '76, University of Minnesota. Major: Educational Psychology. Minor: Related Fields. Major Adviser: Prof. F.H. Wood. Graduation Pending.

Thomas Dean Appel, Mountain Lake B.S. with high distinction '79, University of Minnesota. Major: Agricultural Education. Minor: Related Fields. Major Adviser: Prof. G.W. Leske. August Graduate.

Sharon Roberta Armus, Toledo, Ohio B.A. with distinction '80, University of Michigan. Major: Communication Disorders. Minor: Related Fields. Thesis: Aphasic and Non-Brain-Damaged Subjects' Knowledge of Scripts for Common Situations. Major Adviser: Prof. R.H. Brookshire. August Graduate.

James Michael Auchue, St. Paul B.S. '76, University of Wisconsin, Madison. Major: Recreation, Park, and Leisure Studies. Minor: Related Fields. Major Adviser: Prof. J. H. Schultz. June Graduate.

James Stephen Bailey, Apple Valley B.S.Ed. '68, Miami University. Major: Education. Minor: Related Fields. Major Adviser: Prof. C.R. Bruning. Graduation Pending. James Allen Becker, Jr., Minneapolis A.B. '84, Grinnell College. Major: Anthropology. Minor: Related Fields. Thesis: An Analysis of the Statistical Regression Technique for Estimating the Live Weight and Total Length of Fish with Particular Reference to Ictalurus nebulosis and Perca flavescens. Major Adviser: Prof. O.E. Johnson. May Graduate.

Walter Henry Bera, Minneapolis B.A. '80, University of Minnesota. Major: Educational Psychology. Minor: Related Fields. Major Adviser: Prof. M.L. Snoke. July Graduate.

# Louise Eidsmoe Agnes Bertsch, St. Paul

B.A. '65, College of St. Catherine. Major: Industrial Relations. Minor: Related Fields. Major Adviser: Prof. M.F. Bognanno. June Graduate.

Lois Goode Bileydi, Eden Prairie B.A. '75, University of Minnesota. Major: Library Science. Minor: Related Fields. Major Adviser: Prof. W.C. Simonton. August Graduate.

Barbara Lynn Block, Minneapolis B.A. '77, Carleton College. Major: Philosophy. Minor: Related Fields. Major Adviser: Prof. N.O. Dahl. September Graduate.

# Heidi Lori Boehlke, St. Paul

B.A. cum laude '78, Hamline University. Major: Design, Housing, and Apparel. Minor: Anthropology. Thesis: Ruth M. Kapinas, U.S. Patent 1,280,111, and Munsingwear's "Foundettes": A Study in Technological Change. Major Adviser: Prof. T.T. Blade. Graduation Pending.

William Brian Book, Coon Rapids B.S. with high distinction '78, University of Minnesota. Major: Education. Minor: Related Fields. Major Adviser: Prof. R.L. Schreiner. September Graduate

# Catherine Ann LaBrosse Borden, Eagan

B.S. '73, Winona State College. Major: Business Education. Minor: Related Fields. Major Adviser: Prof. G.N. McLean. October Graduate.

# Cynthia Louise Bradbury, Brooklyn Park

B.A. '84, University of Minnesota. Major: Industrial Relations. Minor: Related Fields. Major Adviser: Prof. J.G. Scoville. August Graduate.

# Kathleen Marie Bradley, Detroit, Mich.

B.A. with distinction '83, Wayne State University, Major: History. Minor: Related Fields. Major Adviser: Prof. P.L. Murphy. October Graduate.

# Charles Kevin Braun, Le Sueur

B.E.S. cum laude '80, St. Cloud State University. Major: Industrial Relations. Minor: Related Fields. Major Adviser: Prof. J. Flagler. Graduation Pending.

# Kimberly Hawkins Brockman, White Bear Lake

B.A. summa cum laude '83, Western Kentucky University. Major: Educational Psychology. Minor: Related Fields. Major Adviser: Prof. R.H. Bruininks. August Graduate.

# Mary Jo Rowell Browne, Golden Vallev

B.S. '55, Michigan State College, East Lansing. Major: Design, Housing, and Apparel. Minor: Related Fields. Major Adviser: Prof. E.M. Franklin. June Graduate.

#### Ionathan Budd, Minneapolis

B.A. '80, University of Wisconsin. Major: Public Affairs. Major Adviser: Prof. D.P. Geesaman. Graduation Pending.

#### Deborah Lynn Bundy

B.S.B. '82, University of Minnesota. Major: Industrial Relations. Minor: Related Fields. Major Adviser: Prof. R.D. Arvey. June Graduate.

#### Joanna Burkett, Amarillo, Tex.

B.G.S. '82, University of Minnesota. Major: Industrial Relations. Minor: Related Fields. Major Adviser: Prof. H.E. Miller. June Graduate.

#### Robert Arthur Bursaw, Coon Rapids B.A. '83, University of Minnesota. Major: Educational Psychology. Minor: Related Fields. Major Adviser: Prof. J.E. Ysseldyke. May Graduate.

Kathleen Ann Bykowski, Eden Prairie B.A. '83, University of South Dakota. Major: Communication Disorders. Minor: Related Fields. Thesis: Child Language Revisions as a Function of Listener Requests for Clarification During Conversational Episodes. Major Adviser: Prof. J.E. Reichle. September Graduate.

# J. Kevin Byrne, Minneapolis

B.A. '72, University of Santa Clara; M.F.A. '74, Cranbrook Academy of Arts. Major: Geography. Minor: Related Fields. Thesis: Designing Geography Lessons for Young People—1s There a Best Medium for Self-Paced Learning? Major Adviser: Prof. S.K. Andrews. July Graduate.

# Catherine Louise Campbell, Fargo,

B.A. summa cum laude '70, Concordia College. Major: Education. Minor: Related Fields. Major Adviser: Prof. R. Beach. Graduation Pending.

# Beth Diane Caplan, White Plains, N.Y.

B.A. cum laude '83, Carleton College. Major: Public Affairs. Major Adviser: Prof. B.J. Nelson. Graduation Pending.

# Jorge Hernan Cardenas, Bogota, Colombia

Ing. Ind. '83, Universidad de los Andes. Major: Economics. Minor: Related Fields. Major Adviser: Prof. E.M. Foster. August Graduate.

# Ellen Britton Carey

B.A. cum laude '76, Western Washington State College; M.A. '79, University of Northern Colorado. Major: Industrial Relations. Minor: Related Fields. Major Adviser: Prof. J.A. Fossum. August Graduate.

#### Beverly K. Carlson, St. Paul

B.A. '76, University of Minnesota. Major: Communication Disorders. Minor: Related Fields. Thesis: A Comparison of Three Procedures for Assessing Speech Proficiency in Speakers with Dysarthria. Major Adviser: Prof. R.P. McDermott. May Graduate.

## Gregory Paul Carlson, Minneapolis

B.A. cum laude '77, College of St. Thomas. Major: Industrial Relations. Minor: Related Fields. Major Adviser: Prof. D.A. Ahlburg. September Graduate.

# Lauren Enett King Carlson,

# Minneapolis

B.A. '83, University of Minnesota, Major: Anthropology, Minor: Public Affairs, Major Adviser: Prof. F.C. Miller, Graduation Pending.

# Ellen Mary Carroll, Wheaton, Ill.

B.A. '76, St. Mary's College. Major: American Studies. Major Adviser: Prof. G.G. Yates. October Graduate.

## Michael Donald Carsten, New Hope

B.A. '84, University of Minnesota, Duluth. Major: Industrial Relations. Minor: Related Fields. Major Adviser: Prof. H.E. Miller. August Graduate.

# Judy Marie Chartrand, Eau Claire,

B.A. summa cum laude '82, University of Wisconsin, Eau Claire. Major: Psychology. Minor: Related Fields. Major Adviser: Prof. D.D. Hendel. May Graduate.

# Judith May Chayer, Minneapolis

B.A. '79, University of Minnesota. Major: Speech-Communication. Minor: Related Fields. Thesis: A Pilot Study Examining How Employees Learn Organizational Norms Regarding Disclosure of Organizationally Private Information. Major Adviser: Prof. S.S. Petronio. August Graduate.

# Verna Corrine Corgan

B.A. '84, University of Minnesota. Major: Speech-Communication. Minor: Related Fields. Thesis: Ethical Issues in Legal Communication: Probation. Major Adviser: Prof. J. V. Jensen. August Graduate.

# John R. Cornwell, Minneapolis

B.S. '82, University of Minnesota. Major: Mass Communication. Minor: Related Fields. Major Adviser: Prof. P.J. Tichenor. Graduation Pending.

#### Louise Marie Correia

B.S. with distinction '83, University of Alberta. Major: Communication Disorders. Minor: Related Fields. Thesis: The Effects of Picture Content on Verbal Description by Aphasic and Nonaphasic Subjects. Major Adviser: Prof. R.H. Brookshire. Graduation Pending.

# Marie Christine Cotaz-Bertholet, Lyon, France

Lic. 83, Universite Jean Moulin (Lyon III). Major: English. Minor: Studio Arts. Major Adviser: Prof. C.M. Hancher. August Graduate.

# Robbin Dale Crabtree, Santa Barbara, Calif.

B.A. '82, University of California, Santa Barbara. Major: Speech-Communication. Minor: Related Fields. Major Advisor: Prof. J. Mayerle. Graduation Pending.

#### Nancy Ellen Crochiere, Newburyport, Mass

B.A. cum laude '80, Middlebury College. Major: English. Minor: Related Fields. Major Adviser: Prof. C.M. Hancher. June Graduate.

Antonio Ismael DaFonte, Venezuela B.S. '84, University of Minnesota, Major: Recreation, Park, and Leisure Studies. Minor: Related Fields. Major Adviser: Prof. L.H. McAvoy. June Graduate.

# Leah Ann DeMorest, Woodbury

B.S. '79, University of Wisconsin, River Falls. Major: Recreation, Park, and Leisure Studies. Minor: Related Fields. Major Adviser: Prof. J. H. Schultz. May Graduate.

# Patricia Margaret Devlin, Honolulu, Hawaii

B.A. '78, University of Hawaii, Manoa. Major: Educational Psychology. Minor: Related Fields. Major Adviser: Prof. D.R. Zander. Graduation Pending.

# Patience F. Dirkx, Marshfield, Wis.

B.S. '63, Marquette University. Major: Psychology. Minor: Related Fields. Major Adviser: Prof. R.V. Dawis. Graduation Pending.

## Laura Marie Dolby, Eugene, Ore.

B.A. '83, University of California, Santa Cruz. Major: Comparative Literature. Minor: Related Fields. Major Adviser: Prof. R.W. Sousa. Graduation Pending.

# Amy Grace Doll, St. Paul

B.A. with high distinction '77, University of Kentucky. Major: Geography. Minor: Related Fields. Thesis: Land Ownership Patterns in Central Appalachia: Impacts on Regional Resource Development and Land Use. Major Adviser: Prof. J.R. Borchert. July Graduate.

# Niva Dotan, Israel

Major: Educational Psychology. Minor: Related Fields. Major Adviser: Prof. Byron Egeland. May Graduate.

#### Nancy Ann Dowling

B.A. magna cum laude '80, University of Wisconsin, Eau Claire. Major: English. Minor: Related Fields. Major Adviser: Prof. C.M. Hancher. June Graduate.

## Janet Marie Drake

A.B. cum laude '83, Dartmouth College. Major: Geography. Minor: Related Fields. Thesis: A Minnesota Lake Clustering Based on Geochemical Variables. Major Adviser: Prof. D.A. Brown. Graduation Pending.

# Kevin Anthony Duchschere, Fargo, N.D.

B.A. summa cum laude '80, College of St. Thomas. Major: Mass Communication. Minor: Related Fields. Major Adviser: Prof. W.E. Emery. Graduation Pending.

## Julie Ann Duff, Elkader, Iowa

B.A. magna cum laude '79, Luther College. Major: Elementary Education. Minor: Related Fields. Major Adviser: Prof. D.L. Monson. July Graduate.

## Brian Marshall Duvick, Minneapolis

B.A. '81, University of Minnesota, Major: Classics, Minor: Related Fields, Major Adviser: Prof. G.A. Sheets, October Graduate.

#### Patricia Alice Eldred

B.A. '64, Mudelein College, Major: English, Minor: Related Fields, Major Adviser: Prof. C.M. Hancher, June Graduate.

## Julie Marie England, Minneapolis

B.A. '82, Boise State University. Major: Industrial Relations. Minor: Related Fields. Major Adviser: Prof. J.A. Fossum. June Graduate.

Claire Jenkins Erickson, Evanston, Ill. B.A. magna cum laude '77, St. Olaf College. Major: English. Minor: Related Fields. Major Adviser: Prof. C.M. Hancher. July Graduate.

Sandra Jane Fairbanks, Minneapolis B.A. '78, John Hopkins University. Major: Philosophy. Minor: Related Fields. Major Adviser: Prof.

N.O. Dahl. July Graduate.

# Lisa Lynne Faller, Pittsburgh

B.S. Ed. '84, Indiana University, Pennsylvania, Major: Communication Disorders. Minor: Related Fields. Thesis: Dichotic Identification of Complex Sounds. Major Adviser: Prof. C.E. Speaks. June Graduate

## Patricia Lee Fargo, Minneapolis

B.A. cum laude '78, Wells College. Major: Design, Housing and Apparel. Minor: Related Fields. Major Adviser: Prof. M.O. Bagley. Graduation Pending.

Harold Stewart Fleetham, Minneapolis B.S. '80, University of Minnesota. Major: Educational Administration. Minor: Related Fields. Major Adviser: Prof. G.F. Alkire. September Graduate.

# Susan Lee Gabel, Roseville

B.S. with distinction '74, University of Minnesota. Major: Music Education. Minor: Related Fields. Major Adviser: Prof. S. Schultz. Graduation Pending.

# Sheila Klaiber Garcia-Mendoza, St. Paul

A.B. with distinction '68, Smith College; M.A.T. '69, Yale University. Major: English as a Second Language. Minor: Related Fields. Major Adviser: Prof. J.K. Gundel. Graduation Pending.

Karl Gardarsson, Kopavogur, Iceland B.A. '84, University of Iceland. Major: Mass Communication. Minor: Related Fields. Major Adviser: Prof. I.E. Fang. July Graduate.

#### Uri Geberger, Haifa, Israel

B.S. cum laude '81, Technion-Israel Insitute of Technology. Major: Economics. Minor: Related Fields. Major Adviser: Prof. J.B. Slemrod. May Graduate.

## Christine Elizabeth Gotaas.

# Edmonton, Alberta, Canada

B.S.S.P. with distinction '83, University of Alberta. Major: Communication Disorders. Minor: Related Fields. Thesis: A Study of Vocal Fatigue in Teachers. Major Adviser: Prof. C.D. Starr. Graduation Pending.

Mary Beth Nash Gove, Bloomington B.S. '70, University of Minnesota. Major: Art Education. Minor: Related Fields. Major Adviser: Prof. M.K. DiBlasio. June Graduate.

# Linda Rae Grant, Eden Prairie

B.S. '81, University of Wisconsin, River Falls. Major: Education. Minor: Related Fields. Major Adviser: Prof. S.R. Trollip. September Graduate.

# Loa Kristin Gray, Fridley

B.A. 76, University of Minnesota, Major: Industrial Relations, Minor: Related Fields, Major Adviser: Prof. R. Azevedo, Graduation Pending.

Richard Patrick Greene, Lynn, Mass. B.A. '83, University of Massachusetts. Major: Geography. Minor: Planning. Thesis: Critical Density in Four American Cities: 1960-1980. Major Adviser: Prof. J.S. Adams. October Graduate.

# Sara Maltzman Greenstein,

## Minneapolis

B.A. '81, University of Oregon. Major: Psychology. Minor: Related Fields. Major Adviser: Prof. J.C. Hansen. May Graduate.

#### Carol Ann Griffith

B.S. '76, Utah State University. Major: Educational Psychology. Minor: Related Fields. Major Adviser: Prof. F.H. Wood. June Graduate.

# Larry Steven Guggisberg, Grand Rapids

B.S. '80, Bemidji State University. Major: Educational Administration. Minor: Related Fields. Major Adviser: Prof. C.H. Sederberg. Graduation Pending.

# Agusta Gunnarsdottir, Reykjavík, Iceland

B.A. '84, University of Iceland. Major: Psychology. Minor: Related Fields. Major Adviser: Prof. G.T. Athelstan, Graduation Pending.

# Karen Marie Gussiaas, Monticello

B.A. '81, Concordia College. Major: Home Economics Education. Minor: Related Fields. Major Adviser: Prof. J.E. Plihal. September Graduate.

Beverly Jane Halvorson, Minneapolis B.S. cum laude '79, Bemidji State University. Major: Elementary Education. Minor: Related Fields. Major Adviser: Prof. R. Schreiner. Graduation Pending.

Ann Beret Haugland, Minneapolis

B.A. '74, Carleton College. Major: Political Science. Minor: Related Fields. Major Adviser: Prof. W.H. Flanigan. August Graduate.

### Mitsuaki Hayase, Mizunami-shi, Gifu-ken, Japan

B.A. '73, M.A. '76, Kansai University of Foreign Studies. Major: Speech-Communication. Minor: Related Fields. Major Adviser: Prof. J.V. Jensen. September Graduate.

#### Laurel Anne Havcock

B.A. '70, Ohio Wesleyan University; M.A. '74, University of Minnesota. Major: Educational Psychology. Minor: Related Fields. Major Adviser: Prof. L.S. Hansen. May Graduate.

#### Ann Marie Hayden, Willmar

B.S.N. '82, University of Minnesota. Major: Industrial Relations. Minor: Related Fields. Major Adviser: Prof. P.L. Schumann. Graduation Pending.

John Jeffrey Hazlett, Kansas City, Mo. B.A. '80, Rockhurst College. Major: English. Minor: Related Fields. Major Adviser: Prof. C.M. Hancher. August Graduate.

#### Margaret B. Heck, Minnetonka

B.A. 67, St. Olaf College. Major: Educational Psychology. Major Adviser: Prof. B.E. Balow. September Graduate.

#### Dawn Jean Hedenberg, Duluth

B.A. '80, University of Minnesota. Major: Industrial Relations. Minor: Related Fields. Major Adviser: Prof. M.A. Zaidi. May Graduate.

#### Brigitte Paule Francoise Henau, Brussels, Belgium

Lic. '85, Catholic University, Louvain. Major: History. Minor: Related Fields. Major Adviser: Prof. R.R. Menard. August Graduate.

#### Patricia Ann Hencir, St. Paul

B.A. '45, College of St. Catherine. Major: English Minor: Related Fields. Major Adviser: Prof. C.M. Hancher. May Graduate.

#### David Eric Hildebrandt

B.A. '83, University of Minuesota. Major: Sociology. Minor: Related Fields. Major Adviser: Prof. J.P. Clark. August Graduate.

Jane Ellen Hildebrandt, St. Louis, Mo. B.A. '77, Drake University. Major: Communication Disorders. Minor: Related Fields. Thesis: Predictability of an Overall Rating of Judged Speech Adequacy in Conversational Speech with Articulation Measures Obtained from the Conversational Speech Samples of Children with Hearing Impairment. Major Adviser: Prof. R.P. McDermott. September Graduate.

Paul Duane Hodge, South St. Paul B.S. '68, Winona State College. Major: Industrial

Education. Minor: Related Fields. Major Adviser: Prof. S. J. Miletich. September Graduate.

James Steven Hodges, Malibu, Calif. B.Math. '79, University of Waterloo. Major: Public Affairs. Major Adviser: Prof. S.A. Hoenack. June Graduate.

#### David Arthur Hoehl, Shoreview

B.A. '76, Bethel College. Major: Music Education. Minor: Related Fields. Major Adviser: Prof. E.M. Turrentine. May Graduate.

#### Dorothy Delores Hoffman

B.S. with distinction '73, University of Minnesota. Major: Elementary Education. Minor: Related Fields. Major Adviser: Prof. J.J. Cogan. July Gradnate

#### Gregory Iav Hohlen, Elk River

B.A. cum laude '83, B.A. cum laude '83, Hamline University. Major: Public Affairs. Major Adviser: Prof. D.P. Geesaman. Graduation Pending.

#### Jeffrey William Holte, Northfield

B.S.E.Ed. '78, University of Wisconsin, River Falls. Major: Elementary Education. Minor: Related Fields. Major Adviser: Prof. R.L. Schreiner. Graduation Pending.

#### Sandra Lyn Horn

B.A. with honors '73, Bethel College. Major: Elementary Education. Major Adviser: Prof. J.J. Cogan. Graduation Pending.

Deborah Ann Hovander, Minneapolis B.A. '77, University of Minnesota. Major: Family Social Science. Minor: Related Fields. Major Adviser: Prof. P.C. Rosenblatt. June Graduate.

#### Kathleen Howe, Burnsville

B.A. '64, University of Wisconsin, Madison; B.S. '82, University of Minnesota. Major: Elementary Education. Minor: Related Fields. Major Adviser: Prof. J.J. Cogan. June Graduate.

#### Hai Yin Huang, China

Dipl. '75; Postgrad. Dipl. '81, Xiamen University, China. Major: Mass Communication. Minor: Related Fields. Thesis: Gatekeeping: A Structural Constraint in the International News Flow. Major Adviser: Prof. F.G. Kline. May Graduate.

#### Joanna May Huberty, Burnsville

B.S. with distinction '83, University of Minnesota. Major: Elementary Education. Minor: Related Fields. Major Adviser: Prof. H.S. Hansen. July Graduate.

#### Shannan Clare Hughes, Chatfield

B.A. '81, University of Minnesota. Major: History. Minor: Related Fields. Major Adviser: Prof. P.L. Murphy. July Graduate.

#### Patricia Ann Hurd, St. Paul

B.A. '80, St. John's University. Major: Political Science. Minor: Related Fields. Major Adviser: Prof. L.E. Shaw, Jr. July Graduate.

#### Eunmin Hyun

B.A. 78. M. HomeEc., Hyosung Women's University. Major: Family Social Science. Minor: Related Fields. Major Adviser: Prof. M.J. Hogan. Graduation Pending.

#### Mark Stephen Irion, Minneapolis

B.A. summa cum laude '83, St. John's University. Major: Public Affairs. Major Adviser: Prof. S.M. Fass. October Graduate.

#### Lynn Louise Iverson, Minneapolis

B.A. '72, B.S. '72, University of Minnesota. Major: Educational Administration. Minor: Related Fields. Major Adviser: Prof. N.C. Nickerson. May Graduate.

#### Brian Carter Jacks, Minneapolis

B.A. '83, University of Minnesota. Major: Arabic. Minor: Political Science. Major Advisers: Profs. S.S. Alvi and M.W. Sampson. June Graduate.

#### Wayne Henry Jacobson, Dexter

B.S. 82, University of Minnesota, Major: English as a Second Language, Minor: Related Fields, Major Adviser: Prof. J. K. Gundel, June Graduate.

#### Thomas Paul Jancarie

B.S.B. with distinction '83, University of Minnesota. Major: Industrial Relations. Minor: Related Fields. Major Adviser: Prof. J.A. Fossum. September Graduate.

#### Connie Lou Janke, Warroad

B.A. with honor '76, Hamline University. Major: Seconday Education. Minor: French. Major Adviser: Prof. H.L. Jorstad. Graduation Pending.

#### Danny Thomas Johnsen, Duluth

B.S. with distinction '73, University of Minnesota. Major: Education. Minor: Related Fields. Major Adviser: Prof. S.R. Trollip. Graduation Pending.

#### Patricia M. Johnson, Minneapolis

B.A. magna cum laude '82, University of Minnesota. Major: Educational Psychology. Minor: Related Fields. Major Adviser: Prof. B.E. Balow. September Graduate.

#### Debby Dale Jones, Minneapolis

B.A. magna cum laude '76, Carleton College. Major: Ancient Studies. Minor: Feminist Studies. Major Adviser: Prof. D.D. Reisman. July Graduate.

#### Kayiba Kadia, Zaire

Lic. '81, Universite Nationale de Zaire. Major: English as a Second Language. Minor: Related Fields. Major Adviser: Prof. E. E. Tarone. July Graduate.

### Daniel David Kallman, River Falls, Wis.

B.A. '80, Luther College, Major: Music, Minor: Related Fields. Thesis: A Spring Overture for Chamber Orchestra, Major Adviser: Prof. D.J. Argento. August Graduate.

#### Catherine Elizabeth Karkow,

#### Minneapolis

B.A. '68, University of Wisconsin, Madison; M.A. '76, New York University. Major: Art History. Minor: English. Major Adviser: Prof. N.W. Canedy. June Graduate.

#### Ann Claire Kavanaugh, Fargo, N.D.

B.A. 77, Yale University. Major: History. Minor: Related Fields. Thesis: John Fitz Gibbon, Earl of Clare: A Study in Politics and Personality. Major Adviser: Prof. J.L. Altholz. September Graduate.

#### Rebecca Lynne Keim, Minneapolis

A.B. '76, Mount Holyoke College. Major: Muscology. Minor: Related Fields. Major Adviser: Prof. Sidney Simon. June Graduate.

#### Mary Ellen Kelly, St. Paul

B.A. 65, College of St. Catherine. Major: Anthropology. Minor: Related Fields. Thesis: A Computerized Model for Mayan Hieroglyphic Analysis Using the Lintels of Yaxchilan. Major Adviser: Prof. R.F. Spencer. May Graduate.

### Marian Bonnie Kelterborn, Garden City, N.Y.

B.A. '66, State University Teacher's College, New York; M.S. '68, Yeshiva University; M.S. '71, Ph.D. '73, Rutgers State University. Major: Psychology. Minor: Educational Psychology. Major Adviser: Prof. Mark Snyder. May Graduate.

#### Ellen Jane Kennedy, Minneapolis

A.B. '69, University of Michigan, Ann Arbor; M.A. '71. M.A. Educ. '72, Northern Michigan University, Major: Sociology. Minor: Related Fields. Major Adviser: Prof. J. Galaskiewicz. October Graduate.

#### Eki Kim

B. Pub. Adm. '77, Sung Kyun Kwan University. Major: Public Affairs. Major Adviser: Prof. R.C. Einsweiler. July Graduate.

Sharon Kay Kirts, Columbus, Ind. B.A.S. '79, University of Minnesota. Major: Industrial Relations. Minor: Related Fields. Major Adviser: Prof. C.A. Williams. Graduation Pending.

Merilee Irene Klemp, Minneapolis

B.A. cum laude '75, Augsburg College. Major: Music. Minor: Related Fields. Thesis: "Six Solos for a German Flute, Violin, or Hautboy with a Thorough Bass," Opus XIII: A Performance Edition with Historical Commentary. Major Adviser: Prof. S. K. McClary. June Graduate.

Sue D. Edblad Klund, Anoka B.S. '74, St. Cloud State College. Major: Elementary Education. Minor: Related Fields. Major Adviser: Prof. B.M. Taylor. July Graduate.

### Susan Lorelei Knoebel, Glenwood City, Wis.

B.A. '84, University of Wisconsin. Major: English as a Second Language. Minor: Related Fields. Thesis: Hmong Production of Word-Final Obstruents in English as a Function of Language Transfer, Universal Tendencies, and Attention Paid to Speech. Major Adviser: Prof. E.E. Tarone. October Graduate

#### Kathryn Jean Kolarich

B.S. with distinction '73, University of Minnesota. Major: Elementary Education. Minor: Related Fields. Major Adviser: Prof. J.C. Manning. July Graduate

#### Cary Todd Komoto, Minneapolis

B.S. '83, University of Minneosta. Major: Geography. Minor: Related Fields. Thesis: Japanese American Residential Patterns in Los Angeles. Major Adviser: Prof. J. S. Adams. Graduation Pending.

Stephanie Jane Koplitz, Greeley, Colo. B.A. '82, Carleton College; B.S. '84, University of Minnesota. Major: Elementary Education. Minor: Related Fields. Major Adviser: Prof. D.L. Monson. August Graduate.

Krystyna B. Kornilowicz, Albany, N.Y. B.A. '80, M.A. '83, Syracuse University. Major: English as a Second Language. Minor: Related Fields. Major Adviser: Prof. J. K. Gundel. Graduation Pending.

Cynthia Karen Kosso, Minneapolis B.A. with highest honors '82, Montana State University. Major: History. Minor: Related Fields. Major Adviser: Prof. Thomas Kelly. September Graduate.

James Steven Koza, Stillwater B.A. '75, University of Minnesota; M. Div. '79, Luther Theological Seminary. Major: Family Social Science. Minor: Related Fields. Major Adviser: Prof. M.G. Gage. June Graduate.

#### Cynthia L. Krey, St. Paul

B.A. '74, Gustavus Adolphus College. Major: Education. Minor: Related Fields. Major Adviser: Prof. C.A. Carrier. July Graduate.

Friedrich J. Kustaa, Luderitz, Namibia B.A. '83, Gustavus Adolphus College. Major: History. Minor: Related Fields. Major Adviser: Prof. A.F. Isaacman. Graduation Pending.

Machell Mehrens Kvanli, St. Paul

B.A. '84, St. Olaf College. Major: Educational Psychology. Minor: Related Fields. Major Adviser: Prof. W.F. Shaffer. July Graduate.

### Christiana Louisa Langenberg,

#### Minneapolis

B.S. magna cum laude '80, University of Nebraska, Omaha. Major: English. Minor: Related Fields. Major Adviser: Prof. C.M. Hancher. June Graduate.

### Paul Wayne Langford, Bloomfield Hills, Mich.

A.B. with distinction '84, University of Michigan, Ann Arbor. Major: Educational Psychology. Minor: Related Fields. Major Adviser: Prof. D.W. Johnson. June Graduate.

#### James Alan Lany, Minneapolis

B.A. '73, Augsburg College; J.D. '77, William Mitchell College of Law. Major: Industrial Relations. Minor: Related Fields. Thesis: Post-Retirement Medical Benefits. Major Adviser: Prof. R.E. Azevedo. Graduation Pending.

Sveinar Ydstebo Larsen, Minneapolis B.S. '84, University of Minnesota. Major: Communication Disorders. Minor: Related Fields. Thesis: The Effect of a Sclf-Adaptive Filter on Speech Reception Thresholds in Noise for Hearing Impaired Subjects. Major Adviser: Prof. D.J. VanTasell. September Graduate.

#### Ian Graham Leask

B.A. '80, University of Minnesota. Major: English. Minor: Related Fields. Major Adviser: Prof. C.M. Hancher, June Graduate.

Clark Alfred Leeson, Hudson, Wis. B.S. '83, University of Wisconsin, River Falls. Major: English. Minor: Related Fields. Major Adviser: Prof. C.M. Hancher. September Graduate.

Camilla Ann Lehr, Appleton, Wis. B.A. magna cum laude '82, Hamline University. Major: Educational Psychology. Minor: Related Fields. Major Adviser: Prof. S.L. Lindborg. May Graduate

#### David Lee Lengas

B.S.B. '80, University of Minnesota. Major: Industrial Relations. Minor: Related Fields. Major Adviser: Prof. M.A. Zaidi. August Graduate.

#### Ann True Dwight Lewis

B.S. '56, University of Minnesota. Major: Speech-Communication. Minor: Related Fields. Major Adviser: Prof. G.L. Shapiro. Graduation Pending.

#### Yunn-Hwa Lii, Taipei, Taiwan

B.A. '83, National Kaoĥsiung Teachers' College. Major: Education. Minor: Related Fields. Major Adviser: Prof. C.A. Carrier. Graduation Pending.

#### Pamela Sue Lillehei, Bloomington

B.A. '70, Augsburg College. Major: Industrial Relations. Minor: Related Fields. Major Adviser: Prof. J.A. Fossum. June Graduate.

#### Sally Carol Lincoln

B.A. 78, Carleton College. Major: Mass Communication. Minor: Related Fields. Major Adviser: Prof. C.C. Lee. September Graduate.

#### Janet Moore Lindman, Minneapolis

B.A. cum laude '80, St. Olaf College. Major: History. Minor: Related Fields. Major Adviser: Prof. S.M. Evans. June Graduate.

### Pi Ying Liu, Beijing, People's Republic of China

B.S. '82, Shenyang Agricultural College. Major: Agricultural Education. Minor: Related Fields. Major Adviser: Prof. E.A. Persons. September Graduate.

#### Mary Roberta Losinski

B.A. cum laude '78, St. Norbert College, Major: Elementary Education, Minor: Related Fields, Major Adviser: Prof. R.L. Schreiner, September Graduate

#### Kristen K. Negelspach Lupin

B.S. '78, Guilford College. Major: Political Science. Minor: Related Fields. Major Adviser: Prof. M.W. Sampson. Graduation Pending.

#### Stephen Matthew Malone,

#### Minneapolis

B.A. '80, Oberlin College. Major: Child Psychology. Minor: Related Fields. Major Adviser: Prof. M.R. Gunnar. September Graduate.

### Colleen Jean Matan, Naugatuck,

B.A. cum laude '84, Connecticut College. Major: History. Minor: Related Fields. Major Adviser: Prof. D.W. Nobel. Graduation Pending.

#### Preeti Mathur

M.Com. Jour. '77, Osmania University. Major: Mass Communication. Minor: Related Fields. Major Adviser: Prof. R.G. Lindsay. July Graduate.

#### Margaret Ann Sathre Maxfield

B.A. summa cum laude '79, St. Olaf College. Major: Design, Housing, and Apparel. Minor: Related Fields. Major Adviser: Prof. M.O. Bagley. June Graduate.

#### Nancy Alecia McGregor, Ada

B.S. summa cum laude 77, Moorhead State University. Major: Educational Psychology. Minor: Related Fields. Major Adviser: Prof. B.E. Balow. May Graduate.

#### Pamela Celeste Wallien McKeown

B.A. '81, Marycrest College. Major: Home Economics Education. Minor: Related Fields. Major Adviser: Prof. J.E. Plihal. June Graduate.

#### Teresa Ann McManus, Eau Claire,

#### Wis

B.B.A. '79, University of Wisconsin, Eau Claire, Major: Industrial Belations. Minor: Related Fields. Major Adviser: Prof. P. L. Schumann. June Graduate

#### Jan R. McTavish

B.A. '73, University of British Columbia; M.A. '80, University of Toronto. Major: History. Minor: Related Fields. Thesis: The German Pharmaceutical Industry 1880-1920: A Case Study of Aspirin. Major Adviser: Prof. M.J. Maynes. August Graduate.

#### Linda Marie Mealey, Afton

B.A. '81, University of Minnesota. Major: Chinese. Minor: Related Fields. Major Adviser: Prof. T.D. Huters. June Graduate.

#### Julie Medbery, St. Paul

B.S. '66 with distinction, University of Minnesota, Major: English, Minor: Related Fields. Major Adviser: Prof. R.D. Solotaroff, Graduation Pending.

#### Hassan Melehy, Scotland, Conn.

B.A. '83, University of California, Santa Cruz. Major: Comparative Literature. Major Adviser: Prof. R.W. Sousa. Graduation Pending.

#### Diana Kav Menster

B.S. cum laude '77, University of Wisconsin, Eau Claire. Major: Recreation, Park, and Leisure Studies. Minor: Related Fields. Major Adviser: Prof. J.H. Schultz. June Graduate.

#### Ahmad Murad Merican, Air Itam, Penang, Malaysia

B.A. '85, University of Minnesota. Major: Mass Communication. Minor: Related Fields. Major Adviser: Prof. R.G. Lindsay. June Graduate.

#### Susan O. Michelman, Minneapolis

B.S.O.T. '71, Ohio State University. Major: Design, Housing, and Apparel. Minor: Museology. Thesis: Kalabari Male and Female Aesthetics: A Comparative Visual Analysis. Major Adviser: Prof. J.B. Eicher. Graduation Pending.

#### Dubravko Ivan Mihaljek, Zagreb, Yugoslavia

Dipl. '81, University of Zagreb. Major: Economics. Minor: Related Fields. Major Adviser: Prof. E.M. Foster. August Graduate.

#### Martha Elizabeth Milk, Cuba

B.A. with honors '71, Whittier College; M.P.H. '76, University of North Carolina, Chapel Hill. Major: Education. Minor: Related Fields. Major Adviser: Prof. R.A. Willie. September Graduate.

#### Kirk Joseph Millhone, St. Paul

B.A. '82, University of Minnesota. Major: Speech Communication. Minor: Related Fields. Thesis: A Justification for the Study of Followership by the Dyadic Communication Scholar. Major Adviser: Prof. G.L. Shapiro. May Graduate.

### Stephen Joseph Mitchell, South Portland, Me.

A.B. summa cum laude '84, Bowdoin College. Major: Mathematics. Minor: Statistics. Major Adviser: Prof. R.B. Moeckel. June Graduate.

#### Mindy Faith Mitnick, Minneapolis

B.A. cum laude '72, Bryn Mawr Collège. Major: Psychology. Minor: Related Fields. Major Advisers: Profs. J.N. Butcher and J.L. Tapp. July Gradu-

#### Lotfi M'Timet, Tunisia

Mait. '83, Universite de Tunis, Tunisia. Major: Mass Communication. Minor: Related Fields. Thesis: A Comparative Analysis of Mass Media Systems in the Maghrcb: Tunisia, Algeria, Morocco. Major Adviser: Prof. R. G. Lindsay. July Graduate.

#### Maria Eugenia Muniagurria, Goya, Argentina

Lic. Econ. '78, Universidad de Buenos Aires. Major: Economics. Minor: Related Fields. Major Adviser: Prof. E.C. Prescott. June Graduate.

#### Karen Joy Musolf, St. Louis Park

B.A. '59, University of South Dakota, Major: Speech-Communication, Minor: Related Fields, Major Adviser: Prof. J.V. Jensen, August Graduate.

Mark Christopher Muto, Bradford, Pa. B.S. '80, University of Pittsburgh. Major: Industrial Relations. Minor: Related Fields. Major Adviser: Prof. J.A. Fossum. October Graduate.

#### Mustafa Said Nahass, Taif, Saudi Arabia

B.S. '84, University of Minnesota, Major: Recreation, Park, and Leisure Studies. Minor: Related Fields. Major Adviser: Prof. L.H. McAvoy. June Graduate.

#### Jacques Nalabandian, Wright-Patterson Air Force Base,

B.A. '69, Brigham Young University; B.S. '75, Southern Utah State College. Major: Arabic. Minor: Related Fields. Major Adviser: Prof. Ewen Macmillan. June Graduate.

#### Shirley Ann Navratil, Minnetonka

B.A. cum laude '83, University of Minnesota. Major: Communication Disorders. Minor: Related Fields. Thesis: Effect of FM Frequency Response Setting on Functional Gain and SRT in Noise. Major Adviser: Prof. D. J. Van Tasell. June Graduate.

#### Mary Ellen Nerney

B.S. with high distinction '75, University of Minnesota. Major: Design, Housing, and Apparel. Minor: Art History. Major Adviser: Prof. E.D. Larkin. June Graduate.

#### Anita Louise Neumann, Shoreview

B.A. '79, University of Minnesota, Major: Public Affairs, Major Adviser: Prof. J.E. Jernberg, June Graduate.

#### Suleiman Abdallah Ngware

B.A. with honor '75, M.A. '80, University of Dar Es Salaam. Major: Agricultural Education. Minor: Related Fields. Major Adviser: Prof. E.A. Persons. July Graduate.

Lisa Marie Novotny, Eau Claire, Wis. B.A. '75, Wartburg College. Major: Industrial Relations. Minor: Related Fields. Major Adviser: Prof. P.L. Schumann, June Graduate.

Patricia Mary Odean, White Bear Lake B.A. '82, University of Minnesota. Major: English as a Second Language. Minor: Related Fields. Major Adviser: Prof. J. K. Gundel. June Graduate.

#### John Martin Olson, Maple Grove

B.S. with distinction '77', University of Minnesota. Major: Music Education. Minor: Related Fields. Major Adviser: Prof. S.W. Schultz. October Graduate.

#### Mark Mochama Omambia

B.S. '85, University of Minnesota. Major: Educational Administration. Minor: Related Fields. Major Adviser: Prof. V.L. Hendrix. July Graduate.

#### Michael Edward O'Neal, Minneapolis B.A. '71, University of Missouri. Major: Sociology. Minor: Related Fields. Major: Advisor: Prof. B.B.

Minor: Related Fields. Major Adviser: Prof. R.R. Aminzade. August Graduate.

#### Christine Oprecht, Zurich,

#### Switzerland

Lehr. Sekund. '80, Universitat Bern. Major: German. Minor: Related Fields. Major Adviser: Prof. W. F. Taraba. October Graduate.

#### Shannon Kay Orvalla, Minneapolis

B.A. magna cum laude '83, University of Wisconsin, Eau Claire. Major: Communication Disorders. Minor: Related Fields. Thesis: The Effects of Salience and Directness of Information on Discourse Comprehension by Aphasic and Nonaphasic Listeners. Major Adviser: Prof. R. H. Brookshire. Graduation Pending.

#### Julie Spear Ostergaard

B.A. '83, College of St. Catherine. Major: French. Minor: Educational Psychology. Major Adviser: Prof. J.E. Preckshot. July Graduate.

#### Robert William Ouren, Pine Island

B.A. magna cum laude '75, Winona State College. Major: Music Education. Minor: Related Fields. Major Adviser: Prof. S.W. Schultz. October Gradu-

### Lawrence Joseph Parker, New Town,

B.A. '79, Macalester College. Major: Public Affairs. Major Adviser: Prof. J.E. Jernberg. September Graduate.

#### Kenneth Anthony Patterson,

Dubuque, Iowa

B.A. '83, Cornell College. Major: Education. Minor: Related Fields. Major Adviser: Prof. T.E. Kellogg. Graduation Pending.

Carla Leporte Paulson, Bloomington B.A. '71, University of Minnesota. Major: Industrial Relations. Minor: Related Fields. Major Adviser: Prof. George Seltzer. July Graduate.

#### Alda Helen Wilkinson Peikert, Minneapolis

A.B. with distinction '63, Stanford University. Major: Public Affairs. Major Adviser: Prof. R.T. Kudrle. Graduation Pending.

#### Mary Beth Percy

B.A. cum laude '67, Carleton College, Major: Speech-Communication. Minor: Related Fields. Major Adviser: Prof. E.G. Bormann. May Gradu-

Ilangage Ranasinghe Perera, Sri Lanka B.A. '79, University of Kelaniya. Major: Agricultural Education. Minor: Related Fields. Major Adviser: Prof. G.W. Wardlow. Graduation Pending.

#### Judith Ann Persoon, St. Paul

B.A. '84, College of St. Teresa. Major: Communication Disorders. Minor: Related Fields. Thesis: Unsophisticated Listener Judgements for Hypernasal and Compensatory Patterns of Articulation in the Speech of Children and Adults. Major Adviser: Prof. K.T. Moller. September Graduate.

#### Laura Marie Piche-Cragoe, St. Paul

B.S. '84, University of Minnesota, Major: Communication Disorders. Minor: Related Fields. Thesis: Teaching Learners with Severe Handicaps to Produce Valid Requests. Major Adviser: Prof. J.E. Reichle. August Graduate.

#### Walter Francis Pimlott, Minneapolis B.A. '73, University of Iowa. Major: Theatre Arts

Minor: Related Fields. Major Adviser: Prof. G.W. Gadberry. May Graduate.

#### Alvin Robert Porte, Minneapolis

B.A. '77, Metropolitan State University, Major: Speech-Communication. Minor: Related Fields. Major Adviser: Prof. D.L. Rarick. August Gradu-

#### Teresa Elisa Pozzo, Santa Fe,

#### Argentina

Prof. Sec. '68, Universidad Nacional del Litoral. Major: History. Minor: Related Fields. Major Adviser: Prof. S.B. Schwartz, July Graduate.

#### Barbara F. Prince, Princeton

B.S. '70, Oral Roberts University; B.S. '77, University of Minnesota. Major: Business Education. Minor: Related Fields. Major Adviser: Prof. C.R. Hopkins. July Graduate.

#### Nathan Jon Rabe, Minneapolis

B.A. '83, University of Minnesota. Major: History. Minor: Related Fields. Major Adviser: Prof. David Kopf. Graduation Pending.

#### Padmini Shama Rao, India

M.S. '78, University of Bombay. Major: Educational Psychology. Minor: Related Fields. Major Adviser: Prof. M.C. Revnolds. Graduation Pend-

#### Jav Beck Rasmussen, Tallahassee, Fla. B.S. '75, Florida State University. Major: Educational Administration. Minor: Related Fields. Major Adviser: Prof. V.L. Hendrix. Graduation

Pending.

### Deborah Sue Regula, Minneapolis

B.A. '77, Marshall University. Major: Scandinavian. Minor: Related Fields. Major Adviser: Prof. K. Grimstad, October Graduate.

#### Monika Katharine Richardson, Minneapolis

B.S. '82, University of Minnesota, Major: Education. Minor: Related Fields. Major Adviser: Prof. J.C. Hearn. June Graduate.

#### Kimberly Marie Roden

B.A. '77, University of Minnesota. Major: Political Science. Minor: Public Affairs. Major Adviser: Prof. C.H. Backstrom, Graduation Pending.

### Judith Ann Dold Rooney, Prescott, Wis.

B.S. '77, University of Wisconsin, River Falls. Major: Art Education. Minor: Related Fields. Major Adviser: Prof. M.K. DiBlasio. May Graduate.

#### Lisa Ann Rydell, Eagan

B.E.S. '77, University of Minnesota. Major: Design, Housing, and Apparel. Minor: Studio Arts. Major Adviser: Prof. R.A. Abell. May Graduate.

#### Scott Terrell Savage, Lemont, Ill.

B.A. '81, Southern Illinois University, Carbondale. Major: Business Education. Minor: Related Fields. Major Adviser: Prof. G.N. McLean. Graduation Pending.

#### Kevin Paul Scattum, Rushford

B.A. '75, University of Minnesota. Major: Mass Communication. Minor: Related Fields. Major Adviser: Prof. I.E. Fang. Graduation Pending.

Muriel Katherine Schiltgen, Lakeland B.S. '84, University of Wisconsin, River Falls. Major: English. Minor: Related Fields. Major Adviser: Prof. C.M. Hancher. June Graduate.

#### David Taylor Schmit, Minneapolis B.A. '78, Florida Atlantic University. Major: Child

B.A. 78, Florida Atlantic University. Major: Child Psychology. Minor: Related Fields. Major Adviser: Prof. W.A. Collins. August Graduate.

#### Paul Allan Schoening, Alexandria

B.A. magna cum laude '83, St. Olaf College. Major: Mathematics. Minor: Related Fields. Major Adviser: Prof. P.B. Garrett. June Graduate.

#### David Warren Schroeder, St. Paul

B.S.Ed. '85, Dr. Martin Luther College. Major: History. Minor: Related Fields. Major Adviser: Prof. A.H. Spear. July Graduate.

### Connie Jean Schulz, Eau Claire, Wis.

B.A. cum laude '82, University of Wisconsin, Eau Claire. Major: German. Minor: Related Fields. Thesis: Die Entwicklung Christoph Heins als Dichter in der Deutschen Demokratischen Republik. Major Adviser: Prof. G.H. Weiss. Graduation Pending.

#### Eric Roland Schulz, Louisville, Ky.

A.B. with honors '83, University of Louisville. Major: Industrial Relations. Minor: Related Fields. Thesis: The Development and Construct Validation of the Goal Orientation Questionnaire. Major Adviser: Prof. J.G. Scoville. May Graduate.

#### Usko Shivute Shivute

B.A. '82, Luther College. Major: History. Minor: English. Major Adviser: Prof. A. F. Isaacman. October Graduate.

#### Todd Aaron Sibert

B.A. summa cum laude '84, Bethel College. Major: Education. Minor: Related Fields. Major Adviser: Prof. S.M. Clark. May Graduate.

#### Jeffrey Scott Sigafoos, Minneapolis

B.A. '83, University of Minnesota. Major: Educational Psychology. Minor: Related Fields. Major Adviser: Prof. J.E. Rynders. July Graduate.

#### Linda D. Silber

B.A. '79, Evergreen State College. Major: Sociology. Minor: Related Fields. Major Adviser: Prof. R.G. Simmons. June Graduate.

#### Eileen Marie Sipple, St. Paul

B.A. summa cum laude '74, Marquette University. Major: Industrial Relations. Minor: Related Fields. Major Adviser: Prof. D.A. Ahlburg. Graduation Pending.

#### Patricia Rose Ordonez Sison, Manila, Philippines

B.S. '80, University of the Philippines. Major: Education. Minor: Related Fields. Major Adviser: Prof. C.A. Carrier. June Graduate.

#### Linda Sue Skallman, Grand Rapids

B.A. '73, University of Minnesota. Major: Industrial Relations. Minor: Related Fields. Major Adviser: Prof. M.A. Zaidi. June Graduate.

### Mark H. Skidmore, Brigham City,

B.S. '79, M.S. '81, Utah State University. Major: Industrial Relations. Minor: Related Fields. Major Adviser: Prof. M.A. Zaidi. Graduation Pending.

#### Linda Lou Smith

B.S. '79, University of Wisconsin, River Falls. Major: Mass Communication. Minor: Related Fields. Major Adviser: Prof. R.L. Jones. June Graduate.

#### Jill Marie Snyder, Minneapolis

B.S. summa cum laude '84, Mankato State University. Major: Communication Disorders. Minor: Related Fields. Thesis: Selection of Pupils with Phonological Differences for Speech Services: Concordance Between Policy and Practice. Major Adviser: Prof. R.P. McDermott. September Graduate.

#### Joan Ellen Sommerfeld, Lakeville

B.S. Ed. '60, Wayne State University; A.M. '69, University of Michigan. Major: History. Minor: Related Fields. Major Adviser: Prof. T.G. Stavrou. Iuly Graduate.

#### Cindy Rychling Spielman, St. Paul

B.A. cum laude '81, University of Connecticut. Major: Educational Psychology. Minor: Related Fields. Major Adviser: Prof. D.R. Loeffler. October Graduate.

#### Paul Gordon Stoltz

B.A. '82, University of California, Santa Barbara, Major: Speech-Communication, Minor: Vocational Education, Thosis: The American Wilderness: Conservationism Versus Preservationism: A Clash of Two Visions, Major Adviser: Prof. G. L. Shapiro, July Graduate.

#### Ruthanne Dorothy Strohn, Oconomowoc, Wis.

B.S. '67, University of Minnesota, Major: Educational Psychology, Minor: Related Fields, Major Adviser: Prof. W.W. Tennyson, August Graduate.

#### James A. Studer, St. Cloud

B.S. 66, St. Cloud State College. Major: Speech-Communication. Minor: Related Fields. Major Adviser: Prof. E.G. Bormann. September Graduate.

#### Chee Su

B.A. '82, Chinese Culture University. Major: Education. Minor: Related Fields. Major Adviser: Prof. S.R. Trollip. July Graduate.

#### Ignatius Basis Susilo, Surabaya, Indonesia

Sarj. '80, Gadjah Mada University. Major: American Studies. Major Adviser: Prof. G.G. Yates. July Graduate.

#### Kristen Lynne Thorberg Swan, Minneapolis

B.A. magna cum laude '75, University of Minnesota. Major: Family Social Science. Minor: Related Fields. Major Adviser: Prof. Gerhard Neubeck. June Graduate.

Timothy Robert Sweet, Minneapolis B.A. summa cum laude '82, University of Minnesota. Major: English. Minor: Related Fields. Major Adviser: Prof. C.M. Hancher. June Graduate.

#### Tamrat Tademe, Ethiopia

B.A 79, University of Minnesota, Major: Public Affairs. Major Adviser: Prof. G.A. Warp. October Graduate.

Princess Margaret Tay, Ghana Major: Physical Education. Minor: Related Fields. Major Adviser: Prof. M. L. Young. June Graduate.

Marie Therese Thell, Richmond, Va. B.A. '71, Hamline University. Major: English. Minor: Related Fields. Major Adviser: Prof. C.M. Hancher. June Graduate.

#### Barbara Alice Theno, Eden Prairie

B.A. cum laude '75, University of Minnesota. Major: Industrial Relations. Minor: Related Fields. Thesis: A Field Study in Job Evaluation Reliability, Validity and Potential for Sex Bias. Major Adviser: Prof. R.D. Arvey. October Graduate.

#### Alisa Sue Thomas

B.A. cum laude '83, B.A. cum laude '83, University of California. Irvine. Major: French. Minor: Economics. Major Adviser: Prof. Tom Conley. June Graduate.

Sara Lynne Thompson, Minneapolis B.A. '84, Gustavus Adolphus College. Major: History. Minor: Related Fields. Major Adviser: Prof. T.G. Stavrou. July Graduate.

Mary Margaret Thuente, St. Paul B.A. 72, College of St. Catherine. Major: English. Minor: Related Fields. Major Adviser: Prof. C.M. Hancher. August Graduate.

#### Robert John Todd, Rochester

B.A. '70, University of Minnesota; B.S. '72, Winona State College. Major: Elementary Education. Minor: Related Fields. Major Adviser: Prof. J.J. Cogan. July Graduate.

#### Joan Elaine Toohev, St. Paul

B.A. '73, College of St. Catherine. Major: Business Education. Minor: Related Fields. Major Adviser: Prof. G.N. McLean. June Graduate.

Barbara K. Trautmann, New Brighton B.A. magna cum laude '81, Hamline University. Major: Industrial Relations. Minor: Related Fields. Major Adviser: Prof. R.E. Azevedo. June Graduate.

#### Michael Gene Trom, Owatonna

B.A. '80, B.S. '81, University of Minnesota, Major: Communication Disorders, Minor: Related Fields, Thesis: Training Normal Speakers to Increase Nasality Using TONAR II Feedback, Major Adviser: Prof. C.D. Starr, July Graduate.

Sandra Ruth Tschannen, Maple Grove B.A. with highest honor '76, Hamline University. Major: Public Affairs. Major Adviser: Prof. T.R. Dewar. July Graduate.

Demissie Jimma Tufa, Woodbury B.A. '79, University of Minnesota. Major: American Studies. Major Adviser: Prof. A.I. Geffen. Graduation Pending.

#### Oddgeir Tveiten, Oslo, Norway

Cand.Mag. '84, University of Oslo. Major: Mass Communication. Minor: Related Fields. Thesis: The Politics of the Press: A Resource Mobilization Perspective on a Media— Policy Conflict in Norway. Major Adviser: Prof. C.C. Lee. Graduation Pending.

#### Aniefiok James Umana

B.Ed. '83, McGill University. Major: Industrial Education. Minor: Related Fields. Major Adviser: Prof. W.E. Schoonmaker. August Graduate.

#### Shivute Usko

B.A. '82, Luther College. Major: History. Minor: English. Major Adviser: Prof. A. Isaacman. Graduation Pending.

### Elaine Kim Valtinson, San Francisco, Calif.

B.A. '81, University of Minnesota. Major: Industrial Relations. Minor: Related Fields. Thesis: An Empirical Analysis of Fiedler's Contingency Model of Leadership Effectiveness. Major Adviser: Prof. G. Seltzer. Graduation Pending.

#### Danny Lyle Vindedahl, Minneapolis B.S. with distinction '79, University of Minnesota. Major: Educational Administration. Minor: Related Fields. Major Adviser: Prof. G. F. Alkire. June Graduate.

#### Lynn Marie Waldsmith

B.A. '80, Michigan State University. Major: English. Minor: Related Fields. Major Adviser: Prof. C.M. Hancher. June Graduate.

#### Maribeth Weber

B.A. '84, University of Minnesota. Major: Mass Communication. Minor: Related Fields. Major Adviser: Prof. J.C. Busterna. Graduation Pending.

#### Kevin John Weddle, Inver Grove Heights

B.S. 79, United States Military Academy. Major: History. Minor: Related Fields. Thesis: Appointments and Promotions: Discrimination in Minnesota Volunteer Regiments During the Civil War, 1861-1865. Major Adviser: Prof. R.R. Menard. June Graduate.

#### Wendy Ann Weden, Edina

B.A. with distinction '83, University of Michigan. Major: Political Science. Minor: Related Fields. Major Adviser: Prof. W.H. Flanigan. July Gradu-

#### Kenneth H. Weide

B.A. '72, B.S. '83, University of Minnesota. Major: Geography. Minor: Soil Science. Thesis: Sand and Gravel Mining Reclamation in Minnesota. Major Adviser: Prof. D.A. Brown. June Graduate.

#### Michael Alan White, Hollywood, Fla. A.B. '83, Brandeis University. Major: Industrial Relations. Minor: Related Fields. Major Adviser:

Prof. M.A. Zaidi. October Graduate.

#### Clarice Ann Wilson, Dows, Iowa

A.B. with honors '77, Grinnell College. Major: South Asian Languages. Minor: Related Fields. Major Adviser: Prof. M.A. Barker. September Graduate.

# Mary Diedrich Winterbauer, St. Paul B.A. 73, University of Minnesota. Major: Education. Minor: Related Fields. Major Adviser: Prof. R.J. Park. May Graduate.

#### Bokyung Yang, Republic of Korea

B.A. 83, Jeonbug National University. Major: English as a Second Language. Minor: Related Fields. Major Adviser: Prof. J.K. Gundel. June Graduate.

### Marianne Yost, West Des Moines,

Iowa

B.A. '81, University of Minnesota. Major: Educational Psychology. Minor: Related Fields. Major Adviser: Prof. L.S. Hansen. July Graduate.

#### Van J. Young

Pending.

B.A. cum laude '83, Macalester College. Major: History. Minor: Related Fields. Major Advisers: Profs. E.L. Farmer and D.W. Noble. July Graduatr.

#### Lawrence Michael Zbikowski, St. Paul B.A. summa cum laude '84, University of Minnesota. Major: Music. Minor: Related Fields. Major Adviser: Prof. D.A. Damschroeder. Graduation

Kathryn Louise Ziewitz, Miami, Fla. B.A. with honors'79, University of Florida. Major: Mass Communication. Minor: Related Fields. Major Adviser: Prof. P.J. Tichenor. May Graduate.

#### Master of Arts

#### UNIVERSITY OF MINNESOTA, DULUTH

#### Judyth Ilene Andersen, Esko

B.F.A. '84, University of Minnesota, Duluth. Major: Art. Minor: Related Fields. Major Adviser: Prof. A.B. Coker. May Graduate.

#### Maureen C. Baker, Duluth

B.S. '68, State University College, Plattsburgh. Major: Educational Psychology. Minor: Related Fields. Major Adviser: Prof. M.F. Gum. July Graduate.

#### Patricia Louise Bowen Bambenek

B.A.S. magna cum laude '77, University of Minnesota, Duluth. Major: Education. Minor: Related Fields. Major Adviser: Prof. V.L. Simula. August Graduate.

#### Beth Anne Bellgowan, Wadena

B.A.S. '85, University of Minnesota, Duluth. Major: Communicative Disorders. Minor: Related Fields. Major Adviser: Prof. C.S. Spillers. August Graduate.

#### Caroline Rea Carlson, Duluth

B.A. '64, University of Denver, Major: Communicative Disorders, Minor: Related Fields, Major Adviser: Prof. J.T. Hatten, September Graduate.

#### Sally Ann Christensen, Duluth

B.A.S. '85, University of Minnesota, Duluth, Major: Communicative Disorders, Minor: Related Fields, Major Adviser: Prof. C.S. Spillers, August Graduate.

#### Delores Ellen Gokee, Red Cliff, Wis.

B.A. magna cum laude '79, University of Minnesota, Duluth. Major: Educational Psychology. Minor: Related Fields. Major Adviser: Prof. M.F. Gum. Graduation Pending.

#### Lawrence Joseph Grace, Thunder Bay, Ontario, Canada

B.A. '74, Lakehead University. Major: Education. Minor: Related Fields. Major Adviser: Prof. W.C. Gemeinhardt. October Graduate.

#### Teresa Michelle Grothe, Windom

B.A.S. '85. University of Minnesota. Duluth. Major: Communicative Disorders. Minor: Related Fields. Major Adviser: Prof. C.S. Spillers. August Graduate.

#### Rosemary Haugen, Duluth

B.A.S. '85, University of Minnesota, Duluth, Major: Communicative Disorders, Minor: Related Fields, Major Adviser: Prof. C.S. Spillers, August Graduate.

#### Lawrence Allan Helmbrecht, Duluth

B.A. '80, University of Minnesota, Major: Educational Psychology, Minor: Related Fields, Major Adviser: Prof. M.F. Gum. June Graduate.

#### Bruce Alan Johnson, Golden Valley

B.A. '81, Southwest State University. Major: Educational Psychology. Major Adviser: Prof. M.F. Gum. Graduation Pending.

#### Chervl Ann Johnson, Mesa, Ariz.

B.A. cum laude 76, College of St. Scholastica. Major: Educational Psychology. Minor: Related Fields. Major Adviser: Prof. M.F. Gum. September Graduate.

#### Patricia Louise Kelm, Duluth

B.A. '79, Concordia College, Major: Educational Psychology, Minor: Related Fields, Major Adviser: Prof. M.F. Gum. July Graduate.

#### Laurie Jean Kirsch, Hermantown

B.A.S. '85, University of Minnesota, Major: Communicative Disorders, Minor: Related Fields, Major Adviser: Prof. C.S. Spillers, Graduation Pending.

#### Linda Lea Lacher, Rochester

B.A.S. '85, University of Minnesota, Duluth. Major: Communicative Disorders. Minor: Related Fields. Major Adviser: Prof. C.S. Spillers. August Graduate.

#### Dianne Jean Litersky, Ashland, Wis.

B.A.S. '85, University of Minnesota, Duluth, Major: Communicative Disorders, Minor: Related Fields, Major Adviser: Prof. C.S. Spillers, August Graduate.

#### Janice Kay Lubbers, Burke, S.D.

B.S. cum laude '84, University of South Dakota, Vermillion. Major: Educational Psychology. Minor: Related Fields. Major Adviser: Prof. M.F. Gum. August Graduate.

#### Jeffrey Jav Magner, Cohasset

B.A.S. 85, University of Minnesota, Duluth. Major: Communicative Disorders. Minor: Related Fields. Major Adviser: Prof. J.T. Hatten. August Graduate.

#### Elizabeth Ann Marolt, Gilbert

B.A.S. '85, University of Minnesota, Major: Communicative Disorders, Minor: Related Fields, Major Adviser: Prof. C.S. Spillers, September Graduate.

#### DeeAnn Lynn Mikrot, Willow River

B.S. magna cum laude '85, St. Cloud State University. Major: Communicative Disorders. Minor: Related Fields. Major Adviser: Prof. C.S. Spillers. August Graduate

#### Pamela Marian Miller, Anchorage,

#### Alaska

B.A. '78, University of Minnesota. Major: English. Minor: Related Fields. Major Adviser: Prof. J.E. Duncan. October Graduate.

#### Michele Margaret Opack

B.A. '81, University of Minnesota. Major: English. Minor: Linguistics, History. Major Adviser: Prof. K.C. Risdon. September Graduate.

#### Heidi Anita Palm, White Bear Lake

B.A.S. '85, University of Minnesota, Duluth. Major: Communicative Disorders. Minor: Related Fields. Major Adviser: Prof. J.T. Hatten. August Graduate.

#### Barbara Ann Perushek, Duluth

B.S. magna cum laude '74, University of Minnesota. Major: English. Minor: Related Fields. Major Adviser: Prof. M.D. Linn. July Graduate.

#### Nancy Marie Peterson, Shell Lake,

#### Wis.

B.S. '85, University of Wisconsin, River Falls. Major: Communicative Disorders. Minor: Related Fields. Major Adviser: Prof. C.S. Spillers. August Graduate.

#### Betty Lou Petron, Duluth

B.A. '85, University of Minnesota, Duluth. Major: Education. Minor: Related Fields. Major Adviser: Prof. G.L. Keency. August Graduate.

#### Gary Lee Phillips, Hallock

B.S. '73, Moorhead State College. Major: History. Minor: Related Fields. Major Adviser: Prof. R.A. Morris. October Graduate.

Jean Louise Renneberg, Grand Marais B.S. magna cum laude '74, University of Minnesota. Major: Education. Minor: Related Fields. Major Adviser: Prof. F.P. Comella. May Graduate.

#### Iane Elizabeth Rubin, St. Cloud

B.A. magna cum laude '84, University of South Dakota, Vermillion. Major: Communicative Disorders. Minor: Related Fields. Major Adviser: Prof. C.S. Spillers. August Graduate.

#### Donna Jane Rundman, Ishpeming, Mich

B.S. summa cum laude '79, Northern Michigan University, Major: Educational Psychology, Minor: Related Fields. Major Adviser: Prof. M.F. Gum. Graduation Pending.

#### Rebecca Rae Russell, Isanti

B.A.S. '85, University of Minnesota, Duluth. Major: Communicative Disorders. Minor: Related Fields. Major Adviser: Prof. C.S. Spillers. August Graduate.

#### Ann Marie Shirley, Duluth

B.A. '82, University of Minnesota. Major: Educational Psychology. Minor: Related Fields. Major Adviser: Prof. M.F. Gum. August Graduate.

#### Kay Croteau Slack, Duluth

B.S. '82, University of Wisconsin, Superior. Major: Educational Psychology. Minor: Related Fields. Major Adviser: Prof. M.F. Gum. May Graduate.

#### Sylvia Helen Wier, Duluth

B.A. '77, Marquette University. Major: English. Minor: Related Fields. Major Adviser: Prof. R.R. Owens. May Graduate.

#### Master of Business Administration

Finn Kristian Aamodt, Oslo, Norway B.S.B. '85, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Brian Edward Adams, Maplewood

B.S. '77, University of New Hampshire. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

### Kathleen Jean Phillips Adams,

Minneapolis

B.S. '75, Mankato State College. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. September Graduate.

#### Jaechul Ahn

B.A. '83, Sogang University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. July Graduate.

#### John Paul Allen, Hopkins

B.A. magna cum laude '75, Concordia College. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Scott Michael Ambourn, Blaine

B.A. '82, Macalester College. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. July Graduate.

#### Dean Robert Anderson, Inver Grove Heights

B. Met. E. '80, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N. L. Chervany. July Graduate.

#### Randy Neal Anderson

B.S.B. 79, University of Minnesota, Major: Business Administration, Major Adviser: Prof. N.L. Chervany, August Graduate.

#### Meredith Martin Atherley, Minneapolis

B.A. cum laude '78, Bucknell University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Susan Elizabeth Atkins-Harris, Milwaukee, Wis.

B.S. with distinction, University of Wisconsin, Madison. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. May Graduate.

#### Leonard Paxson Austin, Minneapolis

A.B. '84, University of Michigan, Ann Arbor. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Suheila Elias Azar

B. Commerce with distinction '83, Birzeit University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Isabelle Bacque, France

Major: Business Administration. Major Adviser; Prof. N.L. Chervany. June Graduate.

#### Thomas John Barnidge, Burnsville

B.B.A. '84. University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany, June Graduate.

#### Susan Bonnie Barr, Minneapolis

B.S.B. '82, University of Minnesota, Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Gardell Wendell Bearl, New Hope

B.A. '74, St. Cloud State College. Major: Business Administration. Major Adviser: Prof. N.L. Chervanv. June Graduate.

### Steven Lawrence Becker, Wyndmere,

B.S. with honor '80. North Dakota State University. Major: Business Administration. Major Adviser: Prof. N. L. Chervany. June Graduate.

#### Heino A. P. Beckman, Celle, West Germany

A.M. '67, Ph.D. '75, University of Pennsylvania. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. July Graduate

#### Annette Fay Behm, Minot, N.D.

B.A. '85, Minot State College. Major: Business Administration. Major Adviser: Prof. N. L. Chervany. Graduation Pending.

#### Raymond John Beier, Short Hills, N.J. B.Ac. '78 summa cum laude, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. October Graduate.

David Michael Beman, Brooklyn Park B.A. '76, University of Florida. Major: Business Administration, Major Adviser: Prof. N. L. Chervany. July Graduate.

#### Maureen Kolomeir Berry, Montreal, Canada

B.A. '81, University of Minnesota, Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Milind Yashwant Bhat, India

B.E. with distinction '80, University of Bombay. Major: Business Administration. Major Adviser: Prof. N. L. Chervany, August Graduate.

#### Susan Elaine Bies, Northfield

B.S. '82, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Nancy Dina Bjorklund, Maple Grove

B.S. magna cum laude '76, University of Connecticut. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. August Graduate.

#### Calvin Earl Blanchard, St. Paul

B.S. '77, Iowa State University. Major: Business Administration, Major Adviser: Prof. N.L. Chervany. August Graduate.

#### Steven Jon Bloomquist, Edina

B.S.B. with high distinction '85, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N. L. Chervany. June Graduate.

#### Bonnie Jo Bobleter, Minneapolis

B.A. cum laude '85, Hamline University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. October Graduate.

#### Ronald Allen Bogdanovich

B.B.A '85, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

#### Robert Paul Borchardt, Brooklyn Park B.C.E. '72, University of Minnesota. Major: Busi-

ness Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Paul Ross Braun, Minneapolis

B.S.B. '81, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Beth Louise Brill, Hopkins

B.S. with distinction '73, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. July Graduate.

#### Sam Earl Bruce, Minneapolis

B.S.B. '80, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

### John Joseph Bryant, Cedar Rapids,

B.S.S. '81, Cornell College. Major: Business Administration. Major Adviser: Prof. N. L. Chervany. June Graduate.

#### John Maurice Buettner, Bloomington B.Chem.E. '72, University of Minnesota. Major:

Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Janis Harmon Burke, Dayton, Ohio

A.B. '76, University of Georgia. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

#### John Paul Burns, Coon Rapids

B.S. magna cum laude '84, Bemidji State University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

#### Lee John Canning, Minnetonka

B.A. cum laude '51, St. Mary's College. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. July Graduate.

#### Iude Martin Carlin, Minneapolis

B.A. cum laude '82, Coe College. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Myfanwy Margaret Carranza, Minnetonka

B.S. cum laude '77, Kearney State College. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Michael John Carroll, Columbia Heights

B.S.M.E. with distinction '77, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Everett W. Chard, Minneapolis

B.A. magna cum laude '62, Miami University, Ohio; M.A. '63, University of California, Berkeley. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

Gary Ronald Charles, St. Louis Park B.B.A. '81, University of Wisconsin, Ean Claire. Major: Business Administration. Major Adviser: Prof. N.L. Chervany, June Graduate.

#### Claudia Marie Chaten, Minneapolis

B.A. '80, Miami University; J. D. '83, Case Western Reserve University. Major: Business Administration. Major Adviser: Prof. N. L. Chervany. September Graduate.

#### Joe Chichuen Chum, Hong Kong

B.S. '82, Iowa State University of Science and Technology. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Joan Roberta Coffey, Eagan

B.A. '76, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

### Christopher Lance Coleman,

#### Rochester

B.A. '83, Gustavus Adolphus College. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Rui Horta Costa

Dipl. '84, Universidade Catolica Portuguesa. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### William Todd Coumbe, Minneapolis

B.S.B. with distinction '76, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. July Graduate.

#### Kent Alan Davidson, Cokato

B.S. cum laude '80, St. Cloud State University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Iill Mary Davis, St. Paul

B.A. '82, College of St. Thomas. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Marcia Lee Davis, Shoreview

B.A. '79, Bethel College. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

#### John Brian Delebo, Minneapolis

B.S. '81, St. John's University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. July Graduate.

Sidney Paulo DeSouza, Nairobi, Kenya B.S.B. '83, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Donald Quinten Deters, Belgrade

B.A. '85, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Dennis J. Devine, Minneapolis

B.A. with distinction '81, University of Iowa. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Sila F. Dikici, Minneapolis

B.S.Chem. E. with high distinction '82, University of Illinois. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Laura Elizabeth Dirks, Minneapolis

B.A. magna cum laude, M.A. '71, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

#### Jeffrey Robert Domler, St. Paul

B.S.B. 80, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Carlton David Donaway, Burnsville

B.A. '77, California State University, Northridge. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. July Graduate.

#### Richard Allen Dorsey, Minneapolis

B.Ag. B.A. '78, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. October Graduate.

#### Ronald Alan Drake, St. Louis Park

B.S.E.E. 84, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Teresa Elizabeth Earl, Edina

B.S.B. '76, University of Minnesota, Major: Business Administration, Major Adviser: Prof. N.L. Chervany, June Graduate.

#### Miles Blaine Edmundson, Coon Rapids

B.A. '76, University of Minnesota; M.Div. '80, Luther Theological Seminary. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. August Graduate.

#### Patricia Ann Hanson Eitrheim

B.S. cum laude '80, Moorhead State University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. July Graduate.

#### Bruce Paul Eklund, Burnsville

B.A. '81, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Dennice Polak Elias

B.S. with high honor '85, DePaul University, Major: Business Administration, Major Adviser: Prof. N.L. Chervany, June Graduate.

#### Victoria Ann Elsinger, Madison, Wis.

B.A. magna cum laude 84, Loras College. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Denise Marie Engebretson, Minneapolis

B.A. magna cum laude '82, Augsburg College. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Iune Graduate.

#### Elizabeth Engelking, St. Paul

B.S. '82, College of William and Mary, Virginia. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

Thomas James Engman, Mounds View B.S.M.E. '76, M.S.M.E. '79, University of Wisconsin, Madison. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Neal Christian Erickson, Minneapolis B.M. '78, Concordia College; M.M. '80, Drake University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Marta L. de Faria, Rio de Janeiro, Brazil

Dipl.Arq. '81, Universidade Santa Ursala. Major: Business Administration. Major Adviser: Prof. N. L. Chervany. June Graduate.

#### David Robert Fink, Minneapolis

B.A. cum laude '73, St. Olaf College. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Ion Allen Finseth, Chatfield

B.A. '80, Luther College. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. July Graduate.

#### Paul David Finsness, Minnetonka

B.A. '67, B.Arch '69, University of Minnesota, Major: Business Administration, Major Adviser: Prof. N.L. Chervany, June Graduate.

#### Alan Emil Fleischauer, Minneapolis

B.B.A. '77, University of Wisconsin, Madision. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Thomas Robert Fleming, Rochester

B.A. '84, Brigham Young University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

### Donna Louise Pedersen Fors,

Bloomington

B.A. '70, North Dakota State University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Bradley Kent Fossum, Minneapolis

B.S.C. É. summa cum laude '79, Unîversity of North Dakota, Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Isaac Jay Fox, St. Paul

B.A. with distinction '69, M.A. '76, University of Wisconsion. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

#### David D. Gardner, Victoria

B.S.E.E. with high honor '79, Michigan Technological University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate

Greta Ljungkull Garmers, Minneapolis B.S. '57, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

### Helen Emilie Gbala, Bremerton, Wash.

B.A. '66, Central Washington State College; M.A. '71, University of Minnesota. Major: Business Administration. Major Adviser: Prof. R.B. Upson. Graduation Pending.

#### Susan Kay Geiser, Minneapolis

B.A. '82, College of St. Benedict. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate. Gregg Arthur Gittus, Minneapolis B.A. 82, St. Olaf College. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Thomas Edwin Goad, St. Paul

B.S.B. '80, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

Luis Candido Gomez, Cottage Grove B.S. '83, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

Robert Winfield Graff, Minneapolis B.B.A. '77, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. July Graduate.

Anne W. Grande, Minneapolis B.S. with distinction '67, Iowa State University of Science and Technology; M.S. '69, Simmons College. Major: Business Administration. Major Ad-

viser: Prof. N.L. Chervany. June Graduate.

Michael Alan Greenstein, Minneapolis B.S.B. '85, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

Rosanne Edith Gregoire, Goodhue B.A. '77, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

Howard Brandon Guest, Plymouth B.S. with distinction '81, Northwestern University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

Scott Joseph Gutknecth, Albert Lea B.S. '85, Winona State University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

Frank Anthony Hable, Coon Rapids B.S. magna cum laude '84, Bemidji State University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

Thomas Arthur Hagan, Scobey, Mont. B.A. summa cum laude '69, Concordia College. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

Roy Vinjar Halvorsen, Horten, Norway B.S. magna cum laude '84, California State University, Fresno. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. July Graduate.

Mark David Haney, St. Paul B.A. '80, Gustavus Adolphus College. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate. Mark Jeffrey Hanson, Minneapolis B.S. '72, St. John's University, B.S. '75, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

John Martin Hasselberg

B.A. cum laude '81, Gustavus Adolphus College. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

Stephen John Hastings, Minneapolis B.S.B. '85, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

Mark Pierce Haugland, Minneapolis B.S. San Diego State University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. October Graduate.

Daniel John Healy, St. Paul

B.S. '79, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

Nicholas Mark Healy, St. Paul B.A. '82, College of St. Thomas, Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Ralph Anthony Heasley, Cincinnati, Ohio

B.S. '69, Ottawa University; Ph.D. '77, University of Kansas. Major: Business Administration. Major Adviser: Prof. R.B. Upson. Graduation Pending.

Svein Hedloy, Baerum, Norway B.S. '85, Babson College. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Iune Graduate.

Joyce Kennedy Heeter, Minnetonka B.A. '66, Wellesley College. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. July Graduate.

Jon Anthony Heimerman, St. Paul B.A. '75, St. John's University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

Susan Mary Heinbockel, Edina B.S.B. with distinction '76, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. July Graduate.

Laura Mac Herren, Cedar Rapids B.S.S. '74, Cornell College. Major: Business Administration. Major Adviser: Prof. N. L. Chervany. June Graduate.

#### John Richard Herrera, Milwaukee, Wis.

B.A. '76, University of Wisconsin, Milwaukee, Major: Business Administration, Major Adviser: Prof. N.L. Chervany, June Graduate.

Donavon John Hess, West St. Paul B.A. '65. University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

Douglas John Heupel, Minneapolis B.S. 83, Mankato State University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Irene Wakefield Hill, Eagan

B.S. '79, Brigham Young University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. July Graduate.

#### Mark Michael Hillenbrand

B.A. '83, College of St. Thomas. Major: Business Administration. Major Adviser: Prof. N.L. Chervany, August Graduate.

#### Judith Ann Holden, Cedar

B.S. with high distinction '62, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. September Graduate.

Thomas David Holets, Rochester B.A. '81, Concordia College. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. August Graduate.

Joseph Patrick Holewa, Minneapolis B.E. E. '82, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

James Matthew Holland, Warren, Ill. B.S.C.E. '81. Marquette University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

Mark David Holman, Minneapolis B.B.A. '76, Western Michigan University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Debora Kay Holt, Hutchinson

B.A. cum laude '83, College of St. Benedict. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Carol Ann Honeycutt, Denver

B.S. with distinction '70, Colorado State University. Major: Business Administration. Minor: Related Fields. Major Adviser: Prof. C.W. Rudelius. July Graduate.

#### Carol S. Hood, Little Canada

B.A. summa cum laude '73, University of California, Los Angeles, Major: Business Administration, Major Adviser: Prof. N. L. Chervany, June Graducte.

Lynette Kay Hough, Maple Grove B.S. with honor 79, South Dakota State University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. July Graduate.

Leslie Marie Hubbs, White Bear Lake B.S. 79, University of Wisconsin, River Falls. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

Therese Ann Hubinger, Mahtomedi B.S. magna cum laude '76, Mankato State College. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Roger Lee Hudson

B.S. 80, University of Minnesota. Major: Business Administration. Major Adviser: Prof. R.B. Upson. July Graduate.

Thomas Scott Ihbe, St. Paul B.B.A. '81, B.S.I.E. '81, University of Wisconsin, Madison. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

Oivind Brath Ingero, Horten, Norway B.S. magna cum laude '84, California State University, Fresno. Major: Business Administration. Major Adviser: Prof. N.L. Chervany, July Graduate.

Gerald Eugene Isaacson, Minnetonka B.S.B. '77, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Joni Elaine Jallo, New Brighton

B.S. '82, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

Bradley Carl Johnson, St. Bonifacius B.S. '77, North Dakota State University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Glenn Earl Johnson, St. Paul

B.S.B. '82, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. July Graduate.

#### Jerome Lee Johnson

B.S. '76, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Kristine M. Johnson, Chicago, Ill.

B.S.E. '78, Purdue University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. July Graduate.

#### Timothy Allen Johnson

B.S. cum laude '79, Drake University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany, Graduation Pending.

#### Robert Baird Jones, Shoreview

B.A. '72, University of Minnesota. Major: Business Administration. Major Adviser: Prof. R.B. Upson. June Graduate.

### Gay Ann Jorgensen, Dousman, Wis.

B.Geo.E. with distinction, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Mark William Jurkovich

B.S. with distinction '76, D.D.S. '78, University of Minnesota, Major: Business Administration, Major Adviser: Prof. N.L. Chervany. June Graduate.

Karen Lee Kaehler, St. Paul B.E.S. '77, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. May Graduate.

#### Susan J. Kallgren

B.S.B. '79, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. September Graduate.

#### Douglas Lowell Kayser, Minneapolis

B.C.E. '84, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Robert Mark Keever, Minneapolis

B.A. '80, Carleton College. Major: Business Administration. Major Adviser: Prof. N. L. Chervany. Graduation Pending.

#### Catherine Therese Kelly, St. Cloud

B.A. '83, College of St. Catherine. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Kevin O. Kelly, Golden Valley

B.B.A. '80, University of Iowa. Major: Business Administration. Major Adviser: Prof. N. L. Chervany. Graduation Pending

#### Maureen A. Kelly, Minneapolis

B.A. '81, College of St. Benedict. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. May Graduate.

#### Koukeo Khounbanam, St. Paul

Lic. '79, Universite d'Angers. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. October Graduate.

#### Young Jae Kim, Korea

B.B.A. 84, Seoul National University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### William Patrick Kingston, Austin

B.A. '74, B.S.N. '76, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Scott Richard Kirby, Plymouth

B.S.B. '79, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany, June Graduate.

### Karen McCloskey Klein, Bloomington

B.S. with high honors '80, Bentley College. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. July Graduate.

#### Heidi Marie Knatterud, Bismark, N.D.

B.S. summa cum laude '85, Moorhead State University. Major: Business Administration. Major Adviser: Prof. N. L. Chervany. June Graduate.

#### Kevin Harold Koehler, Elk River

B.S. with high scholastic honors '78, St. Cloud State College. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Peter Francis Komarek

B.A. '84, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Gary Charles Krivo, Minnetonka

B.S.B. '83, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. July Graduate.

#### Linda Lou Krueger, Minnetonka

B.S. '71, M.Ed. '72, University of North Dakota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Lois Iean Laitinen, Minneapolis

B.S. cum laude '75, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

Thomas Cassel Lane, Minneapolis B.S.B. '81, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. July Graduate.

#### Janet Beth Larson, Minneapolis

B.A. cum laude '80, University of Southern California. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Brian Allen Lauritsen-Smith, Minneapolis

B.A. magna cum laude '81, St. Olaf College. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

#### Gregory Jon Lawler, Minneapolis

B.S. '84, St. John's University. Major: Business Administration. Major Adviser: Prof. N. L. Chervany. June Graduate.

### Sarah Frances Leaver, Whitewater, Wis.

B.A. cum laude '85, Marquette University. Major: Business Adminastration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Chih Jen Jennifer Lee

B.B.A. '82, National Taiwan University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

#### Wanki Lee, Korea

B.A. '84, Seoul National University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### John Rein Leiviska

B.S. '84, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. August Graduate.

#### Carol Linda Lenhart, Chanhassen

B.A. '71, St. John's University. Major: Business Administration. Major Adviser: Prof. N. L. Chervany. Iuly Graduate.

#### **Gregory Scott Lewis**

B.B.A. '84, University of Wisconsin, Whitewater, Major: Business Administration, Major Adviser: Prof. N.L. Chervany, June Graduate.

#### Charles Malcolm Linnell

B.S. '72, St. Cloud State College. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

Christine Fong Lockwood, Hong Kong B.A. '81, College of St. Catherine. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Michael Jeffrey Lowry, Minneapolis B.C.E. '81, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L.

ness Administration. Major Adviser: Prof. N.L. Chervany. August Graduate.

#### David Dai-Wai Lui

B.S. with high scholastic honors '78, St. Cloud State University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

#### Iudith K. Lund, Wavzata

B.A. summa cum laude '61, Macalester College. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Judith Lynn, Minneapolis

B.A. 79, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. August Graduate.

#### Melinda Sue Machones, Minneapolis

B.A. '77, Stephens College. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. September Graduate.

#### Ronald Michael Mackowski,

#### Milwaukee, Wis.

B.B.A. 83, University of Wisconsin. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. August Graduate.

#### Tobias Christopher Madden, St. Paul

B.S.B. '85, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Daniel Joseph Malinski, Grove City

B.S. with distinction '78, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Steve Rocco Mannarino, St. Paul

B.S.B. '84, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. July Graduate.

#### Daniel B. Marcotte, St. Paul

B.A. '82, St. Olaf College. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Karen Jean Marinovich, Minneapolis

B.S. cum laude '82, University of Pittsburgh. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Richard George Marsh, Ely

B.Ac. '79, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Timothy James Masek, St. Paul

B.S.B. '81, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Craig Allen Mataczynski

B.S.N.E. '82, University of Wisconsin, Madison. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. July Graduate.

#### Mary June Maynard, Minneapolis

B.A. cum laude '74, St. Olaf College. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Marcia Anne McCarty

B.S. '85, Winona State University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

Kevin Richard McCloughan, St. Paul A.B. magna cum laude '81, Augustana College. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. July Graduate.

#### Donald E. McGrath, Willmar

B.Geo. E. '55, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Monica Ann McNaughton,

#### Minneapolis

B.A. '83, Lawrence University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Steven Lee McNeill, Stewartville

B.A. magna cum laude '83, Gustavus Adolphus College. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. July Graduate.

Robert John McNichols, Minneapolis B.S. '79, Marquette University. Major: Business

Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Ronald John Merbler, Edina

B.S.B. '83, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Ann Michele Merz, Minneapolis

B.S.B. '82, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. August Graduate.

Richard Allen Meyer, Chebanse, Ill.

B.A. '70, Luther College. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Laura J. Miller, St. Paul

A.B. with honors '77, Grinnell College. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. July Graduate.

#### Rodney Harold Miller, Moorhead

B.C.E. '78, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Karen Ann Mills, Wayzata

B.A. with honors '85, Earlham College. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### John David Moody, North Oaks

B.A. '84, Carleton College. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

#### Kent R. Morris, St. Paul

B.S. '82, Brigham Young University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Terry Duane Mostrom, Minneapolis

B.C. É with distinction '79, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Daniel Robert Mott, Minneapolis

B.A. '79, Carleton College. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. July Graduate.

#### Robert John Muir, St. Paul.

B.M.E. 85, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Richard T. Murphy, Minneapolis

B.E.D. '75, B.L.A. '75, University of Minnesota; M.L.A. '80, Harvard University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Andrew Joseph Naber, Minneapolis

B.S. magna cum laude '77, St. John's University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. July Graduate.

#### John Charles Nash, Crystal

B.S.B. '84, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Sukhendu Narayan Nath

M.S. '56, University of Calcutta; M.S. '67, Brigham Young University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. October Graduate.

#### Allen Charles Nelson, Golden Valley B.B.A. '78, University of Wisconsin, Madison. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

Laura Lynn Nelson, Milwaukee, Wis. B.B.A. with distinction '83, University of Wisconsin. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

#### Richard Dean Nelson, St. Paul

B.S. '82, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. July Graduate.

Stephen Franklin Nelson, Minneapolis B.S. '66, University of Minnesota; M.S. '72 University of Wisconsin, Milwaukee. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Joseph Mark Nerenberg, San Diego, Calif.

B.A. '82, University of California, San Diego. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. October Graduate.

Raymond Chi-Leung Ng, Hong Kong B.B.A. '84 with distinction, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. October Graduate.

#### Herbert William Nichols, Jr., Golden Vallev

B.A. '76, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

### Fred Abraham Niederman, Alhambra, Calif.

B.A. '73, University of California, Santa Barbara, Major: Business Administration. Major Adviser: Prof. N.L. Chervany. August Graduate.

Michael John Noble, Minneapolis B.A. '83, University of Chicago. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduatc.

Lance Allan Novak, Plymouth B.B.A. cum laude '81, University of Wisconsin, Eau Claire. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

Barbara Ann Odegard, St. Louis Park B.S.B. '83, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

John Collins Odell, Minnetonka B.A. '84, Colorado College. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

Dale John O'Donnell, Hampton, Iowa B.S. '79, Iowa State University of Science and Technology. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. July Graduate.

Michael L. O'Halloran, Wausau, Wis. B.A. summa cum laude '79, College of St. Thomas. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. May Graduate.

Russell Craig O'Keefe, Brooklyn Park B.S. magna cum laude '86, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. July Graduate.

# Peter Bernard John O'Kelly, Grand Forks, N.D.

B.A. '82, University of Oregon. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate. Patrick Thomas Olk, Antigo, Wis.
B.S. '82, Marquette University. Major: Business

B.S. '82, Marquette University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Carleton Louis Olmanson,

Minneapolis

B.S.B. with distinction '78, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

#### Todd S. Olsen, Shakopee

B.B.A. cum laude '85, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Robert Brian Osgood

B.S. '79, Michigan State University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Norma Jean Padrnos-Usset, Maple Grove

B.S. '79, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. July Graduate.

Scott Gerard Parrish, South St. Paul B.S. '81, University of Wisconsin, River Falls. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Donald Garner Patton, Edina

B.S.M.E. '61, Agricultural and Mechanical College, Texas. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. July Graduate.

#### Terry Loren Paulus, St. Paul

B.S.B. '78, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

Keith Howard Pedersen, St. Paul B.Arch '84, B.E.D. '84, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Nancy Carol Pehrson

B.Ch. E. '75, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

### Daniel Jon Peterson, Maplewood

B.A. cum laude '85, College of St. Thomas. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Jeffrey D. Pflaum, St. Paul

B.A. '82 magna cum laude, B.S. '82 magna cum laude, Mankato State University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. October Graduate.

### William Howard Poirier, Green Bay, Wis.

B.A. '82, Macalester College. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Lisa K. Pope, Minneapolis

B.A. '83 College of St. Benedict. Major: Business Administration. Major Adviser: Prof. N.L. Chervany, June Graduate.

#### William Clayton Poppert, St. Paul B.S. '73, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. May Graduate.

#### Michael David Ranum, Crookston B.A. magna cum laude '79, Concordia College. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Lance David Redfield, Morris B.A. with high distinction '85, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. July Graduate.

#### Richard Scott Remes, Prior Lake B.Ch.E. with distinction '84, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. July Graduate.

#### Russell Ray Reynolds, Roseville B.A. '84, Bethel College. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

### Thomas Louis Roach, Rock Rapids, Iowa

B.B.A. '83, Iowa State University of Science and Technology. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Richard John Roles, Minneapolis B.S. Pharm. '70, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Robert Monne Rolschau, Edina B.S. '83, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduatc.

#### Gerald C. Rutkowski, Minnetonka B.S.Bus.Adm. '64, Wayne State University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. May Graduate.

# Michael Kenneth Sabbann, Woodbury B.A. '79, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Margaret Alice Sarazin, Minneapolis B.A. 82, College of St. Thomas. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

#### Lawrence Anthony Schmidt, Eagan B.A. '75, M.A. '77, College of St. Thomas. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. September Graduate.

#### James A. Schoettler, St. Paul

B.E.D. '72, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Scott Alan Schroepfer

B.S. '81, University of Wisconsin, Stevens Point. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

# Thomas Harry Schultz, Plymouth B.S. with scholastic honors '77, St. Cloud State University, Major: Business Administration, Major Adversity, Major and Adversity, Major and Adversity, Major and Adversity, Major Adversity, Major

versity. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. August Graduate.

#### Dale Michael Schumacher, St. Paul B.S.B. '81, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Kent Alan Seetin, Huntley B.S. with distinction '80, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

### M. Victoria Selep, Roseville B.S.E.E. magna cum laude '77, Marquette University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Juliet Balian Seropian, St. Paul B.S.B. '80, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. July Graduate.

#### Jay Howard Silver, St. Paul B.S.B. with distinction '80, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. May Graduate.

#### Julie Ann Skallman, St. Paul B.C.E. '76, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Michael J. Skucius, Hector B.A. '76, Southwest Minnesota State College. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. July Graduate.

#### Linda Joyce Smith, Edina B.A. '61, University of Minnesota, Major

B.A. '61, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Lois I. Sonstegard, Buffalo

B.S.N. cum laude 69, St. Olaf College; M.A. 71, New York University: Ph. D. '84, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

### LaBarre Burkhardt Spence, Buffalo,

B.S. '71, Case Western Reserve University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. July Graduate.

#### Thomas Joseph Spitznagle, Bloomington

B.S.B. '76, University of Minneosta. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

Randolph L. Stacy, Princeton B.S. with distinction '78, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N. L. Chervany. June Graduate.

#### Joyanne Irene Stahl, Deephaven

B.G.S. 81, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Bruce McIvor Steiner, Wavzata

B.A. '71, St. Lawrence University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Gregory Thomas Steinhagen, Minneapolis

B.S. cum laude '74, Wisconsin State University, Oshkosh, Major: Business Administration, Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Neil Allen Sticha, Bloomington

B.Mech. Eng. '80, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. May Graduate.

Louise A. Strobel, Roseville B.A. magna cum laude '85, College of St. Thomas. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Sue Dahl Swenson

B.A. '75, M.A. '77, University of Chicago. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

### John Thomas Tatakis, Jr., Cleveland,

B.A. '80, College of Wooster. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Susan Shevlin Tenney, Wayzata

B.A. '82, Macalester College. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Robert Peter Thames

B.S.B. '82, M.H.A. '84, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N. L. Chervany. June Graduate.

#### Charles Albin Thews

B.A. summa cum laude '76, Concordia College. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

#### Susan R. Tomita, St. Paul

B.S. '82, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Wendy Lee Treadwell, Minneapolis

B.A. '78, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. July Graduate.

#### Darla J. Tufto, Minneapolis

B.S. '78, North Dakota State University. Major: Business Administration. Major Adviser: Prof. N. L. Chervany. June Graduate.

Katrina Ann Van Buskirk, Bloomington B.S. '83, North Dakota State University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Linnea Van Dyne, Fremont, Ohio

A.B. '71, University of Michigan. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Donna Jean Matthew Vandehaar, Hastings

B.G.S. '84, Drake University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### John William Vegter, Burnsville

B.S.Ag.E. '73, University of Wisconsin, Madison. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Michael James Vessey

B.S. '81, Arizona State University. Major: Business Administration. Major Adviser: Prof. N. L. Chervany. Graduation Pending.

#### Mark John Vieno II.

B.A. cum laude '82, Carleton College. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. October Graduate.

Monica Ann Vogel, North Mankato B.S. magna cum laude '79, Mankato State University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. May Graduate.

#### Wayne Roman Vohnoutka, Eden Prairie

B.M.E. '80, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

Lynn Ann Von Korff, Minneapolis B.F.A. '77, Boston University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

Mark Wilfred Wahl, Minneapolis B.S. '81, Marquette University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. October Graduate.

Brian John Warnert, Cold Spring B.S. '80, St. Cloud State University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

## Lee Luellen Weber, Bound Brook, N.J.

B.S. '83, Virginia Polytechnic Institute and State University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. August Graduate.

Nora Cecelia Whiteman, Minneapolis B.S. '80, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

Kent Eugene Whitson, Minneapolis B.S.B. '84, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

Ellen Elizabeth Widmark, Hibbing B.A. '83, St. Cloud State University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

Janet R. Wiessner, Minneapolis B.S. with distinction '73, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

### Bryan Mark Willborg, Rochester B.S. magna cum laude '81, St. Cloud State Univer-

B.S. magna cum laude '81, St. Cloud State University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. August Graduate.

Katherine Alice Wilson, Minnetonka B.S. '81, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. July Graduate.

Jongman Won, Scoul, Korea B.E. '84, Seoul National University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

#### Steven Paul Worwa

B.S.B. '79, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

Jae-Ryong Yang

B.B.A. '79, Yonsei University; M.B.A. '81, Seoul National University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

Mark Isadore Yanta, Minneapolis B.Ag.E. '83, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. July Graduate.

#### Ah-Geck Yong

B.S.B. '81, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. September Graduate.

### Hirokazu Yuihama, Maizuru, Kyoto, Iapan

B. Écon. '84, Kansai University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. June Graduate.

### Barbara Jo Zeches, Richfield

B.S.B. with distinction '82, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. July Graduate.

Alvis Clayton Zimmerman, Arden Hills B.S.B. '82, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. May Graduate.

# Master of Business Administration UNIVERSITY OF MINNESOTA, DULUTH

Ronald Hans Dysvick, Duluth B.B.A. '82, University of Minnesota, Duluth. Major: Business Administration. Major Adviser: Prof. R.W. Lichty. August Graduate.

#### Gerald Lee Golobich, Virginia

B.S. '75 with high scholastic honors, St. Cloud State College. Major: Business Administration. Minor: Related Fields. Major Adviser: Prof. S.A. Rubenfeld. May Graduate.

#### Michael Guy Jodouin, Duluth

B.B.A. 80, University of Minnesota, Duluth. Major: Business Administration, Major Adviser: Prof. I.L. Pierce. Graduation Pending.

#### David Llovd Kisby, Cottage Grove

B.A. cum laude '84, University of Minnesota. Major: Business Administration. Minor: Related Fields. Major Adviser: Prof. C.L. Anderson. May Graduate.

#### Mark Alvn Schober, Duluth

B. Acet. '77, University of Minnesota, Duluth. Major: Business Administration. Major Adviser: Prof. L.J. Syck. August Graduate.

B.M.E. with distinction '64, M.S.Min.E. '66, University of Minnesota, Major: Business Administration. Major Adviser: Prof. A.T. Gupta. June Graduate.

#### Dennis Donald Taylor, Crystal

Jared Charles Scofield, Duluth

B.B.A. '77, University of Minnesota. Major: Business Administration. Major Adviser: Prof. D.W. Ireland. June Graduate.

#### Thomas Joseph Van Hale, Virginia

B.S. '71, St. Cloud State College. Major: Business Administration. Major Adviser: Prof. K.R. Knudsen. October Graduate.

#### Master of Business Taxation

#### William Joseph Begin, Bayport

B.A. cum laude '54, College of St. Thomas. Major: Business Taxation. Major Adviser: Prof. F.R. Jacobs. August Graduate

#### Bradley Bruce Billings, New Hampton, Iowa

B.A. '78, University of Northern Iowa, Major: Business Taxation. Major Adviser: Prof. F.R. Jacobs. June Graduate.

#### Roger Curtis Clarke, Minneapolis

B.A. '67, Columbia University; J.D. '75, William Mitchell College of Law; M.S. '69, University of Omaha. Major: Business Taxation. Major Adviser: Prof. F.R. Jacobs. August Graduate.

#### Sandra Anne Copa, Maple Grove

B.A. '81, Gustavus Adolphus College. Major: Business Taxation. Major Adviser: Prof. F.R. Jacobs. Graduation Pending.

#### James Richard Estes, Wall, S.D.

B.S.B. '75, University of South Dakota, Vermillion. Major: Business Taxation. Major Adviser: Prof. F.R. Jacobs. June Graduate.

#### Cheryl D. Ficks, Bloomington

B.S.B. '83, University of Minnesota. Major: Business Taxation. Major Adviser: Prof. F.R. Jacobs. June Graduate.

#### Thomas G. Lemm, Eagan

B.A. '76, B.A. cum laude '76, College of St. Thomas. Major: Business Taxation. Major Adviser: Prof. F.R. Jacobs. June Graduate

#### James Shay Nolan, Jr., Minnetonka

B.S.B. '75, University of Minnesota. Major: Business Taxation. Major Adviser: Prof. F.R. Jacobs. Graduation Pending.

#### Brian Richard Nordling, Roseville

B.S.B. with high distinction '80, University of Minnesota. Major: Business Taxation. Major Adviser: Prof. F.R. Jacobs. August Graduate.

#### Catherine E. Petersen, St. Paul

B.B.A. '79, University of Wisconsin, Whitewater. Major: Business Taxation. Major Adviser: Prof. F.R. Jacobs. July Graduate.

#### Shelly Karin Smith, St. Paul

B.A. '80, College of St. Benedict. Major: Business Taxation. Major Adviser: Prof. F.R. Jacobs. June Graduate.

### Adrianne Bujalski Tharp, New Haven,

B.S. magna cum laude '78, Quinnipiac College. Major: Business Taxation. Major Adviser: Prof. F.R. Jacobs, June Graduate.

#### DeeAnn Thompson, Minneapolis

B.S.B.A. magna cum laude '75, M.S. '76, University of North Dakota. Major: Business Taxation. Major Adviser: Prof. F.R. Jacobs. October Gradu-

#### James John Valento, White Bear Lake

B.S.B. '67, University of Minnesota; J.D. cum laude '76, Hamline University. Major: Business Taxation. Major Adviser: Prof. F.R. Jacobs. August Graduate.

#### Mark Scott Vanney

B.S. '74, United States Air Force Academy. Major: Business Taxation. Major Adviser: Prof. F.R. Jacobs. September Graduate

#### Dirk Jon Vanslooten, Minneapolis

B.S. magna cum laude '79, St. Cloud State University. Major: Business Taxation. Major Adviser: Prof. F.R. Jacobs. May Graduate.

#### Mark William Wahrman, Minneapolis B.A. '74, University of Minnesota. Major: Business

Taxation. Major Adviser: Prof. F.R. Jacobs. September Graduate.

#### Craig Howard Wilson, St. Paul

B.S.B. '81, University of Minnesota. Major: Business Taxation. Major Adviser: Prof. F.R. Jacobs. June Graduate.

#### Master of Chemical Engineering

#### Paul Joseph Huspeni

B.Ch. Eng. 76, University of Minnesota. Major: Chemical Engineering. Minor: Related Fields. Project: Study of Linear Low Density Polyethylene/Polypropylene Blend Properties. Major Adviser: Prof. M.V. Tirrell. May Graduate.

#### Thomas Paul Kempf, New Hope

B. Chem. E. with distinction '78, University of Minnesota. Major: Chemical Engineering. Minor: Related Fields. Project: Adaptive Control of Extrusion Processes. Major Adviser: Prof. K.F. Jensen. June Graduate.

#### Master of Civil Engineering

#### Loyal E. Gake

B.S. '71, Wisconsin State University, Whitewater; B.S.C.E. '75, Marquette University. Major: Civil Engineering. Minor: Related Fields. Project: Hydropower Feasibility at the Fish Hook River Dam MN 00234. Major Adviser: Prof. R.E.A. Arndt. May Graduate.

#### Hossein Khanlarzadeh

B.C.E. '83, University of Minnesota. Major: Civil Engineering. Minor: Related Fields. Project: Pavement Rehabilitation: Analysis of Minnesota Test Sections. Major Adviser: Prof. T. Krauthammer. October Graduate.

Josephine Ruth Lundquist, Lake Elmo B.Geo. E. '81, University of Minnesota. Major: Civil Engineering. Minor: Related Fields. Project: Environmental Studies: Part A: A Feasibility Study for CMA Production from Waste Resources in Minnesota. Part B: Analysis of Four Analytical Solutions of the Transport and Adsorption of Soluble Materials in a Porous Media. Major Adviser: Prof. M. Semmens. Graduation Pending.

#### Master of Electrical Engineering

#### John Franklin Feikema, Woodbury B.Chem 78, B.E.E. 78, University of Minnesota Major: Electrical Engineering. Minor: Related

Major: Electrical Engineering. Minor: Related Fields. Project: Pattern Recognition and Modeling in Industrial Data Analysis. Major Adviser: Prof. F.M. Waltz. June Graduate.

# Randolph Gene Hartman, Fargo, N.D. B.S. '79, North Dakota State University. Major: Electrical Engineering. Minor: Related Fields. Project: Inertial Navigation Sensor Presampler Designs. Major Adviser: Prof. K.S.P. Kumar. June Graduate.

#### Brook Alan Mapes

B.S.E.E. '79, Michigan Technological University. Major: Electrical Engineering. Minor: Related Fields. Project: An Instantaneous Heart Rate Processor. Major Adviser: Prof. R.Y. Kain. September Graduate

#### **Master of Fine Arts**

#### Leslie George Brelsford, Kellogg

B.M. '71, Simpson College. Major: Theatre Arts. Minor: Related Fields. Major Adviser: Prof. H.L. Adey. Graduation Pending.

#### Scott Eugene Brennan, Austin

B.F.A. magna cum laude '82, St. Cloud State University. Major: Studio Arts. Minor: Art History. Major Adviser: Prof. H.T. Rowan. Graduation Pending.

### Eileen Marie Connolly, Warminister,

B.A. cum laude '84, Allentown College of St. Francis de Sales. Major: Theatre Arts. Minor: Related Fields. Major Adviser: Prof. E.H. Nash. Graduation Pending.

#### Daniel David Douthit

B.A. magna cum laude '84, St. Cloud State. Major: Theatre Arts. Minor: Related Fields. Major Adviser: Prof. R.D. Moulton. June Graduate.

#### Elizabeth-Ann Ellen-Marie English, New York

B.A. '80, Fordham University. Major: Theatre Arts. Minor: Related Fields. Major Adviser: Prof. E.H. Nash. July Graduate.

Laurel Susan Fardella, Pittsburgh, Pa. B.A. '8I, Pennsylvania State University. Major: Theatre Arts. Minor: Related Fields. Major Adviser: Prof. Barbara Reid. August Graduate.

Marguerite May Folger, St. Paul B.A. 78, B.S. 79, Iowa State University of Science and Technology. Major: Theatre Arts. Minor: Related Fields. Major Adviser: Prof. H. L. Adey. Graduation Pending.

### Susan Jill Francis, West Palm Beach, Fla.

B.F.A. '80, M.A. '82. Florida State University. Major: Theatre Arts. Minor: Related Fields. Major Adviser: Prof. Barbara Reid. Graduation Pending.

### Sarah Jane Fromme, Colorado Springs, Colo.

B.A. '84, Colorado College, Major: Theatre Arts. Minor: Related Fields, Major Adviser: Prof. E.H. Nash, August Graduate.

David James Hartmann, Elk Grove B.F.A. 82. University of Wisconsin, Whitewater. Major: Theatre Arts. Minor: Related Fields. Major Adviser: Prof. C.L. Brockman. August Graduate.

Jon Andrew Hegge, Whitehall, Wis. B.A. magna cum laude '84, Winona State University. Major: Theatre Arts. Minor: Related Fields. Major Adviser: Prof. E.H. Nash. August Graduate.

Roxann Joy Henderson, Coon Rapids B.A. with high honor 80, Northwestern College, Major: Music, Minor: Related Fields, Major Adviser: Prof. E.L. Sutton, Graduation Pending.

Karen Alice Holmberg, Morgan B.F.A. '75, Minneapolis School of Art and Design. Major: Studio Arts. Minor: Related Fields. Major Adviser: Prof. M. Myers. Graduation Pending.

#### Stephen Charles Kanee, Winnipeg, Manitoba, Canada

B.F.A. 70, University of Minnesota, Major: Theatre Arts. Minor: Related Fields, Major Adviser: Prof. K.L. Graham. October Graduate.

#### Reed Dennis Kettenacker. Robbinsdale

B.F.A. '81. University of Minnesota. Major: Studio Arts. Minor: Art History. Major Adviser: Prof. H.T. Rowan. June Graduate.

#### Scott Donald Latendresse

B.S. summa cum laude '79, Mankato State University. Major: Theatre Arts. Minor: Related Fields. Major Adviser: Prof. C.L. Brockman. August Graduate.

#### Matthew Scott Mielke

B.A. cum laude '82, Gustavus Adolphus College. Major: Theatre Arts. Minor: Related Fields. Major Adviser: Prof. C.L. Brockman. July Graduate.

#### Verna Elaine Monson, Valley City, N.D.

B.A. '77, B.S. '77, Moorhead State University. Major: Music. Minor: Related Fields. Major Adviser: Prof. P.W. Freed. Graduation Pending.

Pamela Jo Morrisey, Aberdeen, S.D. B.A. with distinction '83, University of Minnesota. Major: Theatre Arts. Minor: Related Fields. Major Adviser: Prof. E.H. Nash. October Graduate.

### Kathryn Mullen Nash, Charleston, W.Va.

B.S.Sec.Ed. '72, West Virginia University, Morgantown; M. Ed. '80, University of Florida, Gainesville. Major: Theatre Arts. Minor: Related Fields. Major Adviser: Prof. E. H. Nash. July Graduate.

Stephen Joseph O'Toole, Delton, Ill. B.A. '82, St. Norbert College, Major: Theatre Arts. Minor: Related Fields, Major Adviser: Prof. E.H. Nash, July Graduate.

Alexandra Papoutsaki, Athens, Greece Dipl. '78, National University of Athens; A.M. '82, University of Illinois, Urbana-Champaign. Major: Theatre Arts. Minor: Related Fields. Major Adviser: Prof. E.H. Nash. Graduation Pending.

#### **Roxane Bix**

B.A. summa cum laude '74, Albion College. Major: Theatre Arts. Minor: Related Fields. Major Adviser: Prof. H.L. Adey. July Graduate.

Ann Marie Scheibe, LaMoure, N.D. B.S. '83, Moorhead State University. Major: Theatre Arts. Minor: Related Fields. Major Adviser: Prof. C.L. Brockman. October Graduate.

Anthony John Steblay, Minneapolis B.S. with high distinction 57, University of Minnesota. Major: Theatre Arts. Minor: Related Fields. Major Adviser: Prof. H.L. Adev. July Graduate.

Lisa Ann Stephens, Hancock, Mich. B.A. '82, Western Michigan University. Major: Theatre Arts. Minor: Related Fields. Major Adviser: Prof. C.L. Brockman. October Graduate.

Michael Wayne Stowell, Sauk Rapids B.S. scholastic honors '78, St. Cloud State University. Major: Studio Arts. Minor: Art History. Major Adviser: Prof. C.C. Hoard. Graduation Pending.

Richard Scott Stroot, Minneapolis B.E.S. magna cum laude '79, St. Cloud State University. Major: Theatre Arts. Minor: Related Fields. Major Adviser: Prof. H.L. Adey. June Graduate. Robert Deuane Wagner, Kingman, Kan.

B.S.Ed. '83, B.F.A. '84, Emporia State University. Major: Theatre Arts. Minor: Related Fields. Major Adviser: Prof. R.D. Moulton. June Graduate.

Timothy Charles Willey, Bird Island B.A.S. '78, University of Minnesota. Major: Theatre Arts. Minor: Related Fields. Major Adviser: Prof. H.L. Adey. May Graduate. Elizabeth Ann Wilson, La Grange Park, Ill.

A.B. '81, Washington University. Major: Theatre Arts. Minor: Related Fields. Major Adviser: Prof. Barbara Reid. Graduation Pending.

#### Master of Landscape Architecture

Mark Stephen DeBower, Auburn, N Y

B.S. '80, Iowa State University of Science and Technology. Major: Landscape Architecture. Thesis: Computer Plant Growth Simulation Model. Major Adviser: Prof. R.B. Martin. August Graduate.

#### Master of Metallurgy and Materials Science

James Alexander Lilly III, Minneapolis B.S. '69, University of Wyoming; M.S. '77, University of North Dakota. Major: Metallurgy and Materials Science. Minor: Civil Engineering. Project: Pavement Rehabilitation: Analysis of Minnesota Test Sections. Major Adviser: Prof. W.W. Gerberich. September Graduate.

#### Master of Music

Pamela Jean Doebert, Minneapolis B.M.E. with distinction '81, Valparaiso University. Major: Music. Major Adviser: Prof. D.C. Ware. October Graduate.

Noel Jerome Engebretson, Minneapolis

B.M. '77, University of Texas at Austin. Major: Music. Major Adviser: Prof. P.W. Freed. July Graduate

Daniel Joel Geary, Minneapolis B.M. '80, Mankato State University. Major: Music. Major Adviser: Prof. P.W. Freed. June Graduate.

Lorelei Mary Giddings

B.A. '75, Moorhead State University; B.M. '84, University of Minnesota. Major: Music. Major Adviser: Prof. J.E. Anderson. August Graduate.

Mary Elizabeth Gormley, Rapid City, S.D.

B.M. 78, Oberlin College; M.B.T. '85, University of Minnesota. Major: Music. Major Adviser: Prof. D.W. Billmeyer. May Graduate. Mark Alden Haberman, Sioux City,

B.M.E. magna cum laude '78, Morningside College. Major: Music. Major Adviser: Prof. D.W. Billmeyer. July Graduate.

Joseph Keith Hagedorn, Denver, Iowa B.M. '84, Cornell College. Major: Music. Major Adviser: Prof. R.T. Laudon. June Graduate.

Ioanne Catherine Higgins

B.S. '52, University of Minnesota, Major: Music, Major Adviser: Prof. T.S. Lancaster, May Gradu-

Kenneth Duane Jenson, Minneapolis B.M. summa cum laude '72, Concordia College. Major: Music. Major Adviser: Prof. D.C. Ware. July Gråduate.

David Radcliffe Moberg, Minneapolis B.A. '77, St. Olaf College. Major: Music. Major Adviser: Prof. T.S. Lancaster. Graduation Pending.

David Bernhard Moklebust, Austin B.M.Ed. '79, Wartburg College. Major: Music. Major Adviser: Prof. T. Lancaster. Graduation Pending.

### Michele Marie Paape, Marshfield,

B.M. magna cum laude '80, St. Olaf College. Major: Music. Major Adviser: Prof. L.E. Weller. May

#### Otto Nicholas Raths, St. Paul

B.M. '83, University of Minnesota. Major: Music. Major Adviser: Prof. R.T. Laudon. October Gradu-

#### Master of Science

#### Carmen Lydia Adams, Fairfax, Va. B.A. '72, Ball State University, Major: Nursing, Minor: Related Fields. Thesis: Nurses' Job Satisfaction as Related to Clinical Setting, Major Adviser: Prof. S.R. Edwardson. May Graduate.

James Paul Adank, Fountain City, Wis. B.S. with honors '83. University of Wisconsin, LaCrosse. Major: Physics. Minor: Related Fields. Major Adviser: Prof. R.K. Hobbie. July Graduate.

#### Michael John Allen

B.S. '83, Cornell University. Major: Animal Science. Minor: Related Fields. Thesis: Effects of Cobalt Supplementation on Carbohydrate and Nitrogen Utilization by Ruminal Bacteria in Continuous Culture. Major Adviser: Prof. M.D. Stern. August Graduate.

Hossien Amehdi-Ghomi, Tehran, Iran B.A. '84, University of Minnesota, Major: Computer and Information Sciences. Minor: Related Fields. Major Adviser: Prof. W. D. Munro. October Graduate.

Craig Edward Anderson, St. Paul B.S. '74. St. John's University. Major: Nursing. Minor: Related Fields. Major Adviser: Prof. Jean Kintgen-Andrews. July Graduate.

#### Lisa Stai Andrada, Bloomington

B.S. '83, University of Minnesota. Major: Computer and Information Sciences. Minor: Business Administration. Major Adviser: Prof. J.A. Larson. July Graduate.

#### Rolf James Annexstad, St. Peter

B.S. 84, University of Minnesota. Major: Animal Science. Minor: Biochemistry. Thesis: Extruded Soybeans and Corn Gluten Meal as Supplemental Protein Sources for Lactating Dairy Cattle. Major Advisers: Profs. D.E. Otterby and M.D. Stern. September Graduate.

#### Mary Beverly Bacigalupo, Duluth B.A. '77, College of St. Scholastica, Major: Nursing. Minor: Related Fields. Major Adviser: Prof.

K.G. Dineen, July Graduate.

Philip Lawrence Barker, Bloomington B.A. magna cum laude '81, Bethel College. Major: Chemistry. Minor: Related Fields. Thesis: ESCA Studies of Distroted Metallocenes and of Ziegler-Natta Catalysis. Major Adviser: Prof. P.G. Gassman. Graduation Pending.

#### Anita Marie Barklind, Edina

B.A. cum laude '82, Hamline University, Major: Biometry and Health Information Systems. Minor: Related Fields. Major Adviser: Prof. L.C. Gatewood. Graduation Pending.

#### Mary Kathryn Becker

B.S. '73, College of St. Theresa. Major: Nursing. Minor: Related Fields. Major Adviser: Prof. Kathleen Sodergren. May Graduate.

#### Linda Marie Benjamin, Park Rapids B.S. '84, University of Minnesota. Major: Nutrition. Minor: Related Fields. Major Adviser: Prof. S.D. Clarke. June Graduate.

#### Michael Scott Benner, Mechanisburg, Pa.

B.S. magna cum laude '84, Shippensburg University. Major: Plant Breeding. Minor: Related Fields. Thesis: Mapping Genes for Elevated Amino Acid Levels in Maize. Major Adviser: Prof. R. L. Phillips. October Graduate

Sandra Hagen Benson, Fargo, N.D. B.U.S. with honor '77, North Dakota State University. Major: Nursing. Minor: Related Fields. Major Adviser: Prof. Mariah Snyder. August Graduate.

John Clark Bergstrom, Phoenix, Ariz. B.S. '59. North Dakota Agricultural College; D. D. S. '63, University of Minnesota, Major: Dentistry. Minor: Related Fields. Thesis: A Color Analvsis of the Ceramo-Metal Complex Using Variable Porcelains and Metals. Major Adviser: Prof. R.J. Goodkind. October Graduate.

Laura Anne-Meyer Best, Racine, Wis. B.S. '79. University of Wisconsin, Madison, Major: Horticulture, Minor, Related Fields, Thesis, In Vitro Adventitious Plant Regeneration of Euonymus europaeus from Embryonic Tissues. Major Advisers: Profs. W.P. Hackett and H.M. Pellett. August Graduate.

Katherine Grace Betts, Baltimore, Md. B.S. '82, Yale College, Yale University. Major: Ecology. Minor: Related Fields. Major Adviser: Prof. Craig Packer. June Graduate.

Terry Jon Birkenstock, Fall River, Wis. B.S. '80, University of Wisconsin, Madison. Major: Wildlife. Minor: Related Fields. Thesis: Aquatic Invertebrate Community and Water Quality Aspects of Prairie Wetlands: Interactions Between Natural and Human-Induced Changes. Major Adviser: Prof. J.A. Cooper. June Graduate.

#### Kathe Elizabeth Bjork, St. Paul

B.S. '78, University of Árizona. Major: Animal Science. Minor: Wildlife. Thesis: Comparative Digestive Capabilities of Captive Moose, Cattle and Sheep. Major Adviser: Prof. J.D. Donker. August Graduate.

#### Lisa Marie Blankenheim, Columbia Heights

B.S. magna cum laude '82, University of Wisconsin, Oshkosh. Major: Food Science. Minor: Related Fields. Thesis: Sources and Identification of Lactobacilli in Cheddar Cheese. Major Adviser: Prof. H.A. Morris. Graduation Pending.

#### Jason Terry Bock

B.A. '71, California State University, Northridge; D.D.S. '84, University of California, San Francisco. Major: Dentistry. Minor: Related Fields. Thesis: Horizontal Condylar Augulation Changes Following Forward and Backward Sagittal Split Osteotomy and Rigid Screw Fixation. Major Adviser: Prof. M.S. Leonard. June Graduate.

#### Carlotta E. Knutson Bode

B.A. '82, Metro State University. Major: Nursing. Minor: Related Fields. Major Adviser: Prof. Patricia Crisham. June Graduate.

James Peter Boulay, Boston, Mass. B.S. '77, D.V.M. '81, Colorado State University. Major: Veterinary Surgery, Radiology, and Anesthesiology. Minor: Related Fields. Major Adviser: Prof. A.J. Lipowitz. July Graduate.

#### Nancy Carol Braker, St. Paul

B.A. '81, Carleton College. Major: Entomology. Minor: Related Fields. Thesis: Impact of Fenusa pusilla, the Birch Leaf Miner (Hymenoptera: Tenthredinidae), on Ten Birch Species and Accessions, Including an Investigation of Birch Resistance to the Insect. Major Adviser: Prof. M.E. Ascerno. August Graduate.

Scott Donald Bridgham, Augusta, Me. B.A. with highest distinction '82, University of Maine. Major: Ecology. Minor: Related Fields. Thesis: Effects of Low Levels of 2,2'-Dichloro-biphenyl on Daphnia pulicaria. Major Adviser: Prof. D.C. McNaught. August Graduate.

#### Mark P. Brieden, Minneapolis

B.S.Pharm. '78, Ferris State College; D.D.S. '84, University of Detroit. Major: Dentistry. Minor: Related Fields. Thesis: A Study of Psychological Changes Associated with Orthognathic Surgery. Major Adviser: Prof. R.R. Bevis. May Graduate.

David Joseph Brownstein, Chicago, Ill. B.S. with high distinction '85, University of Illinois, Urbana. Major: Computer and Information Sciences. Minor: Related Fields. Major Adviser: Prof. W.D. Munro. September Graduate.

### Mark John Bruzek, Wausau, Wis.

B.S. '76, St. John's University. Major: Dentistry. Minor: Related Fields. Major Adviser: Prof. R.J. Feigal. Graduation Pending.

#### Cheryl Ann Burns, Watertown, S.D.

B.S. '76, B.S. in Medical Technology '77, University of South Dakota. Major: Medical Technology. Minor: Related Fields. Thesis: Immunocytochemistry of Lymphoid Tumors Utilizing Cryostat Sections of Human Bone Marrow Trephine Biopsies. Major Adviser: Prof. R.D. Brunning. October Graduate.

Rosa Larrinaga Cabanela, Rochester Lic. '65, Universidad de Santiago. Major: Mathematics. Minor: Statistics. Major Adviser: Prof. L.F. Gray. July Graduate.

#### Randolph R. Calcote, Minneapolis

B.A. cum laude '72, Park College. Major: Ecology. Minor: Related Fields. Major Adviser: Prof. M.B. Davis. Graduation Pending.

#### Miriam Elaine Cameron

B.S.N. with distinction '66, University of Minnesota. Major: Nursing. Minor: Belated Fields. Thesis: The Relationship Among Self Esteem, Sex Role Classification, and Definiteness of Response in the Tennessee Self Concept Scale. Major Adviser: Prof. M.A. Newman. October Graduate.

## Lyn Cammarano, Brookline, Mass. B.S. cum laude '81, Tufts University. Major: Chemistry. Minor: Related Fields. Thesis: Synthesis of Novel Rhenium Carbonyl Anions. Major Adviser: Prof. J.E. Ellis. October Graduate.

Pablo A. Carrion, Quito, Ecuador B.S. '82, University of Maryland, College Park. Major: Medical Microbiology. Minor: Related Fields. Major Adviser: Prof. C.L. Wells. June

Charles Robert Caswell, Minneapolis B.A. summa cum laude '82, Carleton College. Major: Mathematics. Minor: Statistics. Major Adviser: Prof. R.L. Roberts. Graduation Pending.

#### Valerie Jeanne Cervenka, St. Paul

B.S. '82, University of Minnesota, Major; Entomology, Minor; Related Fields, Thesis; A Survey of Insects Associated with Bovine Dung in Minnesota, Major Adviser; Prof. R.D. Moon, Graduation Pending.

#### Shu-Ping Chang, Taipei, Taiwan

B.S. '81, National Chiao Tung University. Major: Computer and Information Sciences. Minor: Electrical Engineering. Major Adviser: Prof. T.C. Pong, July Graduate.

#### Ling Chun Chen, Taipei, Taiwan

B.S. 84, University of Washington, Major: Computer and Information Sciences, Minor: Related Fields, Major Adviser: Prof. W.D. Munro, Graduation Pending.

#### Ping Chen

B.S. 82, Zhongshan University. Major: Mathematics. Minor: Related Fields. Major Adviser: Prof. D.E. White. September Graduate.

#### Edward Kin-Wai Ching, Hong Kong

B.A. '81. University of California, Berkeley. Major: Computer and Information Sciences. Minor: Related Fields. Major Adviser: Prof. W.D. Munro. October Graduate.

#### LaVerne Louise Christie, Edina

B.A. '74, State University of New York, Buffalo; B.A. '82, California State University, Sacramento. Major: Biometry and Health Information Systems. Minor: Related Fields. Major Adviser: Prof. A.I. Goldman. June Graduate.

#### David Maxwell Collins, Silverstream, New Zealand

Major: Social and Administrative Pharmacy. Minor: Related Fields. Major Adviser: Prof. A.I. Wertheimer. Graduation Pending.

#### Audrey Joyce Cooney, Minneapolis

B.A. '81, Carroll College. Major: Nursing. Minor: Related Fields. Major Adviser: Prof. S.R. Edwardson, October Graduate.

#### Susan Dee Cors

B.S. '77 University of Southern Mississippi. Major: Nursing. Minor: Related Fields. Major Adviser: Prof. K.G. Dineen. June Graduate.

#### Michel Couderchet, France

Lic. '81, Universite de Besancon: Mait. '82, Universite de Franche. Major: Botany. Minor: Related Fields. Thesis: Daily Changes in the Sensitivity of Soybean Seedlings to Cold Temperature. Major Adviser: Prof. W. L. Koukkari. August Graduate.

#### Mary Lynn Cowan, St. Paul

B.A. magna cum laude <sup>7</sup>9, University of Wisconsin, Green Bay, Major: Ecology, Minor: Botany. Thesis: Growth Responses of Old Field Plants to a Nitrogen Gradient, Major Adviser: Prof. G.D. Tilman, August Graduate.

### Martha Allison Crowell, Libertyville,

B.S. '79, University of North Carolina, Greensboro. Major: Chemistry. Minor: Related Fields. Thesis: The High Performance Liquid Chromatography of Metal Butylnapthylmethyldithiocarbamates. Major Adviser: Prof. P.W. Carr. Graduation Pending.

# Robert Bruce Cumming, Bloomington B.Math. with high distinction '85, University of Minnesota. Major: Physics. Minor: Mathematics. Major Adviser: Prof. A.M. Goldman. Graduation Pending.

#### George C. Daher

B.A. '83, University of Minnesota. Major: Environmental Health. Minor: Related Fields. Thesis: The Role of Cadmium and Zinc in the Pathogenesis of Metal Funne Fever and Chemical Pneumonitis. Major Adviser: Prof. J.B. Stevens. August Graduate.

#### Robert Frank Dahlen, Minneapolis

B.S. with merit '75, United States Naval Academy; B.S. '79, University of Arizona. Major: Computer and Information Sciences. Major Adviser: Prof. V.A. Berzins. June Graduate.

#### Barbara Lynne Daiker, Minneapolis

B.S. cum laude '84, Augsburg College. Major: Public Health. Minor: Epidemiology. Thesis: An Analysis of a Tool That Measures Public Health Nursing Needs. Major Adviser: Prof. M.A. Aroskar. Graduation Pending.

#### Richard Lee Daise, Kanorado, Kan.

B.S.Agr. '74, D.V.M. '76, Kansas State University. Major: Food Science. Minor: Related Fields. Major Adviser: Prof. S.R. Tatini. October Graduate.

#### Roberta J. Davis, Rosemount

B.S. cum laude '79, Concordia College. Major: Public Health. Minor: Epidemiology. Thesis: Analysis of the Relationship Between Self-Reported Alcohol Use and Work-Related Injuries. Major Adviser: Prof. S.G. Gerberich. August Graduate.

#### Stephen Eugene Davis, Rochester

B.S. 82, University of Minnesota. Major: Animal Physiology. Minor: Related Fields. Thesis: Effects of Estradiol on LH and FSH in the Lactating Sow. Major Adviser: Prof. J.E. Wheaton. July Graduate. William Randy Deeter, Ogden, Utah B.S. '76, Weber State College; D.D.S. '81, Georgetown University. Major: Dentistry. Minor: Anatomy. Thesis: Validation of Two Descriminative Check Lists for Evaluation of Chronic TMJ and Craniofacial Pain. Major Adviser: Prof. M.T. Jaspers. Graduation Pending.

#### Paul Jacob DeGroot, Richfield

B.S. summa cum laude '84, Marquette University. Major: Biomedical Engineering. Minor: Related Fields. Major Adviser: Prof. P. L. Blackshear. June Graduate

#### Paula Jane Denman, Minneapolis

B.S.Ag. '78, University of Tennessee. Major: Food Science. Minor: Related Fields. Thesis: Effect of Sweeteners, Milk Proteins and Gums on the Perception of Sweetness and Vanilla. Major Adviser: Prof. D.E. Smith. Graduation Pending.

### George Douglas Dion, Virginia Beach,

B.A. with honors '84, University of North Carolina, Chapel Hill. Major: Agricultural and Applied Economics. Minor: Political Science. Thesis: Collective Actions as Conventional Behavior. Major Adviser: Prof. C.F. Runge. September Graduate.

Stanton Baldwin Dotson, Mattoon, Ill. B.S. '84, Colorado State University. Major: Plant Breeding. Minor: Biochemistry. Thesis: Sodium Azide as a Maize Tissuc Culture Mutagen. Major Adviser: Prof. D.A. Somers. Graduation Pending.

Thomas James Douville, Cadott, Wis. B.S. '83, B.Ch.E. '83, University of Minnesota. Major: Microbial Engineering. Minor: Related Fields. Major Adviser: Prof. R.S. Hanson. September Graduate.

#### Steven Roger Duff, Farmington

B.S. with distinction '84, University of Minnesota. Major: Entomology. Minor: Related Fields. Thesis: Pollen Trapping Honey Bee Colonies in Minnesota. Major Adviser: Prof. Basil Furgala. June Gradnate

Laurie Marie Dunkle, Apple Valley B.A. '85, Drake University. Major: Environmental Health. Minor: Related Fields. Major Adviser: Prof. O.R. Ruschmeyer. August Graduate.

### Stephen Eugene Durham, Joelton, Tenn.

B.S. '78, United States Air Force Academy. Major: Physics. Minor: Related Fields. Major Adviser: Prof. M.L. Marshak. July Graduate.

#### Timothy G. Ehr

B.S. '82, 'University of Wisconsin. Major: Agronomy. Minor: Related Fields. Thesis: Biology and Herbicide Susceptibility of Prickly Smartweed (Polygonum bungeanum), Pennsylvania Smartweed (P. pensylvanicum), and Pale Smartweed (P. lapathifolium). Major Adviser: Prof. R.N. Andersen. August Graduate.

#### Gail Ann Eiber

B.S. '70, Michigan State University. Major: Laboratory Medicine. Minor: Pathobiology. Thesis: Transaldolase and Transketolase as Biochemical Markers of Normal and Leukemic Lymphocytes. Major Adviser: Prof. Walid Yasmineh. Graduation Pending.

#### Ibrahim El-Sayed ElHakim, Egypt

B.D.S. '76, M.S. '82, Al-Azhar University. Major: Dentistry. Minor: Anatomy. Thesis: The Effect of Factor XIII on Bone Healing in Normal and Induced Diabetic Rats. Major Adviser: Prof. H.J. Kwon. Graduation Pending.

#### Mehdi Elketroussi, Algeria

Ing. '83, Universite d' Oran. Major: Computer and Information Sciences. Minor: Related Fields. Thesis: Diagnosis of Logical Errors in Beginner Programs. Major Adviser: Prof. Maria Gini. August Graduate.

#### Nancy Rose Emmolo-Sudol

B.S. '79, William Paterson College of New Jersey. Major: Nursing. Minor: Related Fields. Thesis: Perceived Needs of Families of Critically Ill Patients in an Intensive Care Unit. Major Adviser: Prof. B.H. Canedy. August Graduate.

Harvey Lee Even, Des Moines, Iowa B.A. cum laude '72, B.S. '75 with distinction, D.D.S. '76 with distinction, University of Minnesota. Major: Dentistry. Minor: Related Fields. Thesis: A Comparison of Debonding Methods and Bracket Slot Distortion. Major Adviser: Prof. R.R. Bevis. June Graduate.

#### Barbara Ann Ewen, Rochester

B.S.N. magna cum laude '80, Moorhead State University. Major: Nursing. Minor: Related Fields. Major Adviser: Prof. M.B. Ryden. September Graduate.

#### Bonnie Adkins Finke, Minneapolis

B.S. '83, University of Minnesota. Major: Nutrition. Minor: Related Fields. Thesis: Influence of Free Fatty Acids on the Hormonal Induction of Malic Enzyme Activity in Primary Cultures of Rat Hepatocytes. Major Adviser: Prof. S.D. Clarke. July Graduate.

#### Barbara L. Francken, Minneapolis

B.S. '83, University of Minnesota. Major: Food Science. Minor: Related Fields. Major Adviser: Prof. T.P. Labuza. June Graduate.

#### Gregory Scott Friedrichs. Duluth

B.S. 84, University of Minnesota, Major: Physiology, Minor: Chemistry, Thesis: Autonomic Control of Cardiovascular Parameters in the Dive Response of the Duck, Major Adviser: Prof. L.E. Wittmers, September Graduate.

#### Elizabeth Mary Gabler

B.S. '83, University of Minnesota. Major: Design, Housing, and Apparel. Minor: Art History. Major Adviser: Prof. E.D. Larkin. Graduation Pending.

Adel Ahmed Ghonami, Cairo, Egypt B.Sc. '75, Alexandria University. Major: Computer and Information Sciences. Minor: Electrical Engineering. Thesis: Object Management in the Nexus Computing Environment. Major Adviser: Prof. A.R. Tripathi. September Graduate.

Frank A. Gleeson, Naperville, Ill. B.Sc. '72. National University of Ireland, Dublin; Higher Natl. Dipl. Educ. '73, National University of Ireland, Galway. Major: Computer and Information Sciences. Minor: Related Fields. Major Adviser: Prof. W.D. Munro. October Graduate.

Diane Helen Glinsman, Cambridge B.S.Geophys. with high distinction '84, University of Minnesota. Major: Computer and Information Sciences. Minor: Related Fields. Thesis: Constrained Global Minimization by Integer Programming. Major Adviser: Prof. J. B. Rosen. July Graduate

Gerry Eloise Gomes, Eden Prairie B.S. '76, College of St. Francis Major: Nursing. Minor: Related Fields. Major Adviser: Prof. S.R. Edwardson. June Graduate.

Carole Ann Gongaware, Long Lake B.S.N. cum laude '67, St. Olaf College. Major: Nursing. Minor: Related Fields. Major Adviser: Prof. B.M. Feldman. Graduation Pending.

Don Goodnature, Minneapolis B.S. '72, Iowa State University of Science and Technology; M.S. '79, University of Illinois, Urbana-Champaign, Major: Computer and Information Sciences, Minor: Related Fields, Major Adviser: Prof. W.D. Munro, June Graduate.

Anil K.S. Gowda, Bangalore, India B.S.M.E. with distinction '84, University of Minnesota, Major: Computer and Information Sciences. Minor: Related Fields. Major Adviser: Prof. W.D. Munro. June Graduate.

#### Mark Alan Graham

B.S. '80, University of Massachusetts, Amherst. Major: Forestry. Minor: Related Fields. Thesis: Process Variables in the Production of Densified Wood Fuel With the Addition of Coal Fines. Major Adviser: Prof. J.G. Haygreen. July Graduate.

Patricia Jane Graham, Minneapolis

B.A. 76, Metropolitan State University. Major: Nursing. Minor: Related Fields. Thesis: A Comparison of the Career Development in Nursing Middle Managers Who Have and Have Not Experienced Mentor Relationships. Major Advisor: Prof. S.R. Edwardson. June Graduate.

Cheryl Rose Grant, Minneapolis

B.A. magna cum laude 82. Drury College. Major: Physics. Minor: Related Fields. Thesis: Dynamics of Droplet Formation in Nuclear Matter. Major Adviser: Prof. J.I. Kapusta. June Graduate.

Sheila Rosanne Grow, Minneapolis B.S. in Ed. '70, University of Missouri. Major: Geology. Minor: Related Fields. Thesis: Water Quality in the Forestville Creek Karst Basin of Southeastern Minnesota. Major Adviser: Prof. E.C. Alexander, Jr. October Graduate.

Teresa Ann Gruber, St. Paul

B.S. in Agr. with high distinction '83, University of Nebraska, Lincoln. Major: Plant Breeding. Minor: Related Fields. Thesis: Combination of Dwarfing, Peduncle Extension, and Generalized Crown Rust Resistance in Oats. Major Adviser: Prof. D.D. Stuthman. May Graduate.

Xue Min Gu, Shanghai

Dipl. '68, Huadong Teachers' College. Major: Mechanics. Minor: Related Fields. Major Adviser: Prof. P.R. Sethna. October Graduate.

Mary Elizabeth Halaney, Minneapolis B.S.P.T. '79, Washington University, St. Louis. Major: Physical Therapy. Minor: Related Fields. Major Adviser: Prof. J.D. Allison. July Graduate.

Christine Ann Harper, Minneapolis B.S.N. with high distinction '77, University of Minnesota. Major: Nursing. Minor: Related Fields. Thesis: Determining the Costs of Nursing Care for Stroke Patients in a Behabilitation Setting. Major Adviser: Prof. S.R. Edwardson. June Graduate.

Sharon Faye Harvey, LeRoy

B.S. '77, Mankato State University'. Major: Computer and Information Sciences. Minor: Mathematics Education. Major Adviser: Prof. K.S. Frankowski. June Graduate.

Carla Joan Heinke, Brooklyn Center B.S. '84, University of Minnesota, Major: Animal Science. Minor: Related Fields. Major Adviser: Prof. K.S. Guise. Graduation Pending.

### Kim Louise Hermanson, Dubuque, Iowa

B.S. '83, Iowa State University. Major: Computer and Information Sciences. Minor: Related Fields. Major Adviser: Prof. P.E. Johnson. Graduation Pending.

#### Lori Ann Herzan, Minnetonka

B.A. magna cum laude '84, Augsburg College. Major: Physiology. Minor: Biochemistry. Major Adviser: Prof. J.A. Johnson. Graduation Pending.

#### John William Hines, Woodbury

B.S. '83, University of Minnesota. Major: Soil Science. Minor: Related Fields. Thesis: Tillage Effects on Soil Hydraulic Conductivity. Major Adviser: Prof. S.C. Gupta. July Graduate.

### Agnes Elizabeth Hoeger, Sioux Falls, S.D.

B.A. '81, Augustana College. Major: Nursing. Minor: Related Fields. Major Adviser: Prof. K.G. Dineen. June Graduate.

#### Cho-Li Caroline Hou, Republic of China

B.S. '80, National Chung-Hsing University. Major: Computer and Information Sciences. Minor: Related Fields. Major Adviser: Prof. W.T. Tsai. Graduation Pending.

#### Margaret Nai Yu Hsiang

B.S. Pharm. '79, University of Minnesota. Major: Pharmaceutics. Minor: Related Fields. Major Adviser: Prof. S.C. Miller. August Graduate.

Christopher Paul Hunt, Newark, Del. B.A. '82, Oberlin College. Major: Geophysics. Minor: Related Fields. Thesis: The Acquisition of Chemical Remanent Magnetization During the Inversion of Titanomaghemites in Oceanic Basalt. Major Adviser: Prof. S.K. Banerjee. June Graduate.

#### Christine Chieko Izuno, McAllen,

#### Texas

B.S. summa cum laude '76, Allegheny College; M.S. '79, Purdue University. Major: Plant Physiology. Minor: Genetics. Thesis: Isolation and Characterization of Soybean Genomic Clones Related to the Yeast Sequence Encoding the Largest Subunit of RNA Polymerase II. Major Adviser: Prof. T.J. Guilfoyle. July Graduate.

#### Heather Almquist Jacobson

B.S. '83, University of Maine, Orono. Major: Ecology. Minor: Geology. Major Adviser: Prof. H.E. Wright. July Graduate.

#### Donald Allen Jahn, Montevideo

B.A. with distinction '83, University of Minnesota. Major: Chemistry. Minor: Related Fields. Thesis: Solid-State Tautomeric Properties of B-DI- and B-Triketomethanes. Major Adviser: Prof. M.C. Etter. July Graduate.

#### Jonathan Lee Jickling

B.S.F. '80, University of Michigan, Ann Arbor. Major: Forestry. Minor: Related Fields. Major Adviser: Prof. H.M. Gregersen. June Graduate.

#### Bradley John Joern

B.A. '70, University of Nebraska. Major: Biometry and Health Information Systems. Minor: Related Fields. Major Adviser: Prof. J.R. Boen. August Graduate.

#### David Robert Johnson, Roseville

B.S. '80, University of Minnesota. Major: Plant Pathology. Minor: Related Fields. Thesis: Identification and Characterization of Stem Rust Resistance in Avena Fatua L. Major Adviser: Prof. P.G. Rothman. June Graduate.

#### Jeffrey Alan Johnson, Fergus Falls

B.S. '84, University of Minnesota. Major: Pharmacology. Minor: Chemistry. Thesis: Species-Related Differences in the Sensitivity of Brain Acetylcholinesterase to Inhibition by Organophosphate Insecticides. Major Adviser: Prof. K.B. Wallace. July Graduate.

#### Pamela Ogren Johnson

B.A. '80, College of St. Catherine. Major: Nursing. Minor: Related Fields. Major Adviser: Prof. Mariah Snyder. August Graduate.

Ann Marie Journey, Washington, D.C. B.S. with honors '83, University of Wisconsin, Madison. Major: Zoology. Minor: Fisheries. Major Adviser: Prof. J.C. Underhill. May Graduate.

#### Nancy Budijati Karta, Jakarta,

#### Indonesia

B.C.S. '81, University of Minnesota. Major: Computer and Information Sciences. Minor: Related Fields. Major Adviser: Prof. M.A. Gray. August Graduate.

#### Christopher Michael Kavanaugh, Villa Park, Ill.

B.A. '84, St. Mary's College. Major: Fisheries. Minor: Statistics. Thesis: Some Creel Survey Methods Applicable to Minnesota Recreational Fisheries. Major Adviser: Prof. G.R. Spangler. October Graduate

#### Milree Keeling, Wheeler, Wis.

B.S.N. '79, Case Western Reserve University. Major: Nursing. Minor: Related Fields. Major Adviser: Prof. K.G. Dineen. July Graduate.

#### Julie Ann Wandke Kelly, Wayzata

B.S.N. 75, St. Olaf College. Major: Nursing. Minor: Related Fields. Major Adviser: Prof. S.S. Rode. June Graduate.

#### Elizabeth Rychen Kennedy

B.S. '81, B.S. '81, North Carolina State University. Major: Wildlife. Minor: Related Fields. Thesis: The Impact of the Herbicides Glyphosate and 2,4-D on Moose Browse in Conifer Plantations in Northeastern Minnesota. Major Adviser: Prof. P.A. Jordan. September Graduate.

#### Joseph Vincent Kennedy, St. Paul

B.S.F.S. '80, Georgetown University; J.D. cum laude '83, University of Minnesota, Major: Agricultural and Applied Economics, Minor: Related Fields, Major Adviser: Prof. V.W. Ruttan, Graduation Pending

#### John Willis Kerr, Rochester

B.S.E.E. with distinction '59, State University of Iowa; M.S. '80, University of Vermont. Major: Computer and Information Sciences. Minor: Related Fields. Major Adviser: Prof. W.D. Munro. May Graduate.

### Amani Mohamed Khalil, Alexandria,

B.D.M.S. '80, Alexandria University, Major: Dentistry. Minor: Education. Thesis: A Retrospective Cross-Sectional Evaluation of Concise(R) Sealants, Major Adviser: Prof. L.B. Messer. August Graduate.

#### Edward Steven Kilelu, Wundanyi, Kenya

B.V.M. '81, University of Nairobi. Major: Veterinary Medicine. Minor: Related Fields. Thesis: The Role of Bovine Respiratory Syncytial Virus in Outbreaks of Bovine Respiratory Disease and Studies on the Efficacy of Modified Live Bovine Respiratory Syncytial Virus Vaccine. Major Adviser: Prof. T.R. Ames. August Graduate.

#### Steven Elliot Kindom, Minneapolis

B.S. '78, University of Minnesota, Major: Food Science, Minor: Biochemistry, Thesis: Quantification of Cholesterol Oxidation Products by High Performance Liquid Chromatography in Food and Biological Systems, Major Advisers: Profs. P.B. Addis and A.S. Csallany, May Graduate.

#### Carol Lvnn Kindschi, St. Paul

B.S. '74, University of Wisconsin, Madison. Major: Nursing. Minor: Related Fields. Thesis: Behavioral Assessment in Attention Deficit Disorders: The Norming of Two Rating Scales. Major Adviser: Prof. V.C. Gordon. Graduation Pending.

#### Margaret Helen Kippley, St. Cloud

B.S. magna cum laude '80, St. Cloud State University. Major: Nursing. Minor: Related Fields. Major Adviser: Prof. S.S. Rode. July Graduate.

#### Thomas Richard Knapp

B.S. '84, University of Wisconsin, Madison. Major: Animal Science. Minor: Related Fields. Thesis: The Steroid Modulating Effects on Prolactin and Luteinizing Hormone Release in vitro in the Domestic Turkey (Meleagris gallopavo). Major Adviser: Prof. M.E. Halawani. July Graduate.

#### Svngwan Ko

B.S. 81, University of Southern California, Los Angeles. Major: Computer and Information Sciences. Minor: Related Fields. Major Adviser: Prof. W.D. Munro. July Graduate.

#### Marta Maria Kosarchyn, Chicago, Ill.

B.A. summa cum laude '77, Kent State University; M.S. '79, University of Illinois, Urbana-Champaign. Major: Computer and Information Sciences. Minor: Related Fields. Major Adviser: Prof. W.D. Munro. June Graduate.

#### Sheri Ann Krueger

B.S. '80, College of St. Teresa, Major: Nursing, Minor: Related Fields, Major Adviser: Prof. B.M. Feldman, July Graduate.

#### Carol Emily Kuehnel, Minneapolis

B.S. '58, University of Minnesota; M.A. '78, College of St. Thomas, Major: Nursing. Minor: Related Fields. Major Adviser: Prof. S.R. Edwardson. July Graduate.

#### Josephine Rosales Lagata, Quezon

City, Philippines

D.V.M. 77, University of the Phillipines. Major: Veterinary Microbiology. Minor: Related Fields. Thesis: Production and Characterization of Monoclonal Antibodies Against the Hemagglutinin of Avian Influenza Virus. Major Adviser: Prof. Vaithianatha Sivanandan. September Graduate.

### Terrence Elizabeth Lambright,

Minneapolis

B.S.N. '82, University of Minnesota, Major: Nursing, Minor: Related Fields, Major Adviser: Prof. Patricia Crisham, July Graduate.

### James Burton Landwehr, Madison,

Wis.

B.A. '75, University of Iowa, Major: Agricultural Economics, Minor: Statistics, Major Adviser: Prof. W.R. Maki, July Graduate.

#### Norman Yung-Pei Lao, Columbus, Ohio

B.A. '84, Northwestern University. Major: Mathematics. Minor: Operations Research. Major Adviser: Prof. L.W. Green, June Graduate.

#### Choon Heng Lee, Singapore

B.C.S. with distinction '85, University of Minnesota. Major: Computer and Information Sciences. Minor: Statistics. Major Adviser: Prof. W.D. Munro. August Graduate.

### Francisco Miguel Leone, Montevideo, Urugnay

B.S. '81, University of Minnesota, Major: Animal Science. Minor: Agricultural and Applied Economics. Thesis: Influence of Forage Source and Level Fed to Dairy Cows on Intake, Milk Production, Composition, and Digestibility. Major Adviser: Prof. F.R. Ehle. May Graduate.

#### Sandra Elizabeth Lew, Panama, Republic of Panama

B.A. '84, College of St. Catherine. Major: Computer and Information Sciences. Minor: Related Fields. Major Adviser: Prof. K.S. Frankowski. Graduation Pending.

Douglas Bruce Light, Armonk, N.Y. A.B. '78, Colby College. Major: Zoology. Minor: Related Fields. Major Adviser: Prof. W.D. Schmid. June Graduate.

#### Paul H. Lima, Superior, Wis.

B.S. with honor '70, Wisconsin State University, Superior. Major: Physiology. Minor: Related Fields. Thesis: Electrophysiologic Investigation of the Effects of Herpes Simplex Virus on Sensory Neurons in Culture. Major Adviser: Prof. R.S. Pozos. May Graduate.

#### Antonette Marie Logar, Black Hawk, S.D.

B.A. '78, Leigh University; J.D. '82, University of Louisville. Major: Computer and Information Sciences. Minor: Related Fields. Major Adviser: Prof. J.A. Larson. July Graduate.

William Frank Londo, Morrison, Ill. B.A. '82, Hope College. Major: Chemistry. Minor: Related Fields. Thesis: A Characterization of the Torsional Vibration of Certain Derivatives of 9-Phenylanthracene. Major Adviser: Prof. P.F. Barbara. October Graduate.

#### Steven Jay Long

B.A. '83, Central Methodist College. Major: Agronomy. Minor: Related Fields. Thesis: Influence of Temperature on Pod and Seed Development in Birdsfoot Trefoil. Major Adviser: Prof. D.K. Barnes. Graduation Pending.

#### James Stephen Lorenz, St. Paul B.A. '70, Macalester College. Major: Botany. Minor: Soil Science. Thesis: Aspects of Nitrogen Cycling in a Cattail Marsh. Major Advisor: Prof. D. D.

nor: Soil Science. Thesis: Aspects of Nitrogen Cycling in a Cattail Marsh. Major Adviser: Prof. D.D. Biesboer. September Graduate.

Scott Womack Lounsbury, Excelsior B.A. cum laude '79, University of Minnesota, Duluth. Major: Environmental Health. Minor: Related Fields. Major Adviser: Prof. J.B. Stevens. August Graduate.

### Randall Keith Lout, Oklahoma City,

B.D.S. '84, University of Oklahoma, Major: Dentistry, Minor: Related Fields, Thesis: The Cariogenicity of Aspartame and Sorbitol: An in Vivo Animal Study, Major Adviser: Prof. L.B. Messer, August Graduate.

Sandra Lee Lovell, White Bear Lake B.S.N.A. '78, University of Minnesota. Major: Physiology. Minor: Related Fields. Major Adviser: Prof. I.J. Fox. June Graduate.

#### Harry Hermann Luithandt

B.A. '84, University of California, Berkeley. Major: Mechanics. Minor: Related Fields. Major Adviser: Prof. P.R. Sethna. Graduation Pending.

#### Li-Ping Lung, Republic of China B.S. '82, Tunghai University. Major: Physics. Minor: Computer and Information Sciences. Major Adviser: Prof. D.K. Debnhard. July Graduate.

### Mark Udell Magnusson, Roseau B.S. '82. North Dakota State University

B.S. '82, North Dakota State University. Major: Agronomy. Minor: Related Fields. Thesis: Tolerance of Soybeans (Glycine Max) and Sunflowers (Helianthus Annuus) to Fall Applied Dicamba. Major Adviser: Prof. D.L. Wyse. Graduation Pending.

Christine Brown Mahoney, St. Paul B.S. with distinction '82, University of Minnesota. Major: Animal Science. Minor: Statistics. Thesis: Health Care Costs and Labor Requirements Following Selection for Body Size in Dairy Cattle. Major Adviser: Prof. L.B. Hansen. June Graduate.

#### Max William Martin

B.S. '84, University of Wisconsin. Major: Plant Breeding. Minor: Plant Pathology. Thesis: Inheritance of Ear Length and Its Association with Other Plant and Ear Traits in Sweet-Corn Inbreds Crossed with Havel's Dent Inbred. Major Adviser: Prof. D.W. Davis. October Graduate.

#### Maria Guadalupe Martinez Paulin, San Luis Potosi, Mexico

Lic. '83, Universidad Autonoma de San Luis Potosi. Major: Agricultural and Applied Economics. Minor: Related Fields. Major Adviser: Prof. D.C. Dahl. August Graduate.

Donald Marvin Mattsson, Minneapolis B.A. '87, University of Minnesota. Major: Microbial Engineering. Minor: Related Fields. Major Adviser: Prof. A.G. Fredrickson. Graduation Pending.

Laura Mary Joy McCann, Moose Lake B.S. with distinction '82, University of Minnesota. Major: Animal Science. Minor: Related Fields. Thesis: Nutritive Values of Important Moroccan Feeds. Major Adviser: Prof. R.D. Goodrich. September Graduate.

#### Kenneth Lee McDonough,

Bloomington

B.S. '75, M.D. '79, University of Minnesota, Major: Biometry and Health Information Systems, Minor: Computer and Information Sciences, Major Adviser: Prof. L.B. Ellis, June Graduate.

#### David William Meile, Minneapolis

B.A. '84, University of Minnesota. Major: Biometry and Health Information Systems. Minor: Related Fields. Major Adviser: Prof. L.C. Gatewood. Graduation Pending.

#### Paul Michael Morano

B.S.Ag. '83, University of Wisconsin, Madison. Major: Food Science. Minor: Related Fields. Thesis: Identification of Volatile Compounds Useful in Predicting Shelf-Life of Pasteurized Milk. Major Adviser: Prof. S.R. Tatini. June Graduate.

#### Maria Ines Moreno, Colombia

Lic. '79, Escuela Colombiana de Rehabilitacion. Major: Physical Therapy. Minor: Related Fields. Major Adviser: Prof. R.P. Patterson. Graduation Pending.

#### Marcia L. Morris, Coeur d'Alene, Idaho

B.A. magna cum laude '83, Macalester College. Major: Genetics. Minor: Public Affairs. Thesis: Seizures and Myoclonus in Patients with Alzheimer's Disease. Major Adviser: Prof. V.E. Anderson. May Graduate.

#### David Henry Mueller, Owatonna

B.S. '83, University of Minnesota. Major: Environmental Health. Minor: Related Fields. Major Adviser: Prof. C.E. McJilton. June Graduate.

### Margaret Ruth Munro, Missoula, Mont.

B.S.P. with honors '79, University of Montana, Major: Hospital Pharmacy, Minor: Business Administration, Major Adviser: Prof. R.L. Broekemeier, July Graduate.

#### Nilabh Narayan, Bihar, India

B. Tech. with first class honours '82, Indian Institute of Technology. Major: Mechanics. Minor: Related Fields. Major Adviser: Prof. Robert Plunkett. July Graduate.

#### Thomas Naughton, Minneapolis

B.S. magna cum laude 65, Creighton University. Major: Mathematics. Minor: Related Fields. Major Adviser: Prof. P.J. Olver. June Graduate.

#### Philip Edgar Nesse, St. Paul

B.A. '71, B.S. with distinction '78, University of Minnesota. Major: Soil Science. Minor: Related Fields. Thesis: Correlation of Values from Various Methods of Phosphorus Extraction with an Indicator of Plant Available Phosphorus in Alkaline Soils. Major Adviser: Prof. Janis Grava. June Graduate.

#### Pierre Jean Nicolas, France

Maitr. '81, D.E.A. '83, Universite de Provence; Dipl.Ing. '84, Ecole Nationale des Travaux Publics de L'Etat. Major: Mathematics. Minor: Related Fields. Major Adviser: Prof. M.A. Jodeit. August Graduate.

### Elizabeth Harper Elleby Nixon, St. Paul

B.A. '79, University of Colorado. Major: Plant Physiology. Minor: Related Fields. Thesis: The Quantification of Rhythm Characteristics Associated with the Physiology of Water Uptake and Loss in Abutilon Theophrasti Medic. Major Adviser: Prof. W.L. Koukkari. Graduation Pending.

#### Susan Marie Nourse

B.A. magna cum laude '81, Carleton College. Major: Geology. Minor: Related Fields. Thesis: A Laboratory Investigation of Mass Transfer from Hydrocarbons To Water in Porous Media. Major Adviser: Prof. H.O. Pfannkuch. August Graduate.

## Michael Scott O'Brien, Eau Claire, Wis.

B.S. Pharm. with distinction '82, University of Wisconsin. Major: Hospital Pharmacy. Minor: Related Fields. Major Adviser: Prof. R.M. Giese. October Craduate

#### Amy Lynn Ollendorf, Duluth

B.S. 83, Beloit College. Major: Ancient Studies. Minor: Related Fields. Major Adviser: Prof. G.R. Rapp, Jr.. Graduation Pending.

#### Gregory Allen Opitz

B.A. 82, Augsburg College. Major: Animal Science. Minor: Related Fields. Thesis: Cytochemical Differentiation of Chicken (Gallus Domesticus) Mitotic Chromosomes. Major Adviser: Prof. R.N. Shoffner. July Graduate.

### Betty Marie Owens, Bloomington,

Ind.

B.A. '76, B.S. cum laude '79, Bradley University. Major: Nursing. Minor: Related Fields. Major Adviser: Prof. T.M. Rothweiler. October Graduate.

### Kenneth John Pagano, Wellington, Fla.

B.S. '82, University of Maine, Orono. Major: Forestry. Minor: Related Fields. Thesis: The Effects of Mixing High and Low Density Species on Bond Development in Waferboard. Major Adviser: Prof. R.O. Gertjejansen. Graduation Pending.

#### Sharon Lee Palanuk, Springfield, Ore.

B.S.M. 84, B.S.F.S. 84, Oregon State University. Major: Food Science. Minor: Related Fields. Thesis: The Effect of Light-Induced Riboflavin Loss in Skim Milk. Major Adviser: Prof. J.J. Warthesen. Graduation Pending.

Panayota Palli, Athens, Greece

Dipl. 84, University of Patras. Major: Mathematics. Minor: Statistics. Major Adviser: Prof. P.B. Garrett. August Graduate.

#### Anjani Patel, Calcutta, India

B.A. '83, Mills College. Major: Computer and Information Sciences. Minor: Related Fields. Major Adviser: Prof. S.K. Rahimi. June Graduate.

#### Stephanie Catherine Patka Franz

B.A. 82, Augsburg College. Major: Physics. Minor: Related Fields. Major Adviser: Prof. William Zimmermann, Jr. July Graduate.

#### Marilyn Kay Peasley

B.S.N. 69, St. Louis University. Major: Nursing Minor: Related Fields. Major Adviser: Prof. V.C. Gordon. May Graduate.

#### David Mark Pelletier, Athens, Ga.

B.S. '84, University of Georgia. Major: Mathematics. Minor: Mechanics. Major Adviser: Prof. P.J. Olver. September Graduate.

# Virginia Marie Peschke, Woodstock,

B.S. with honors '83, University of Illinois, Urbana-Champaign. Major: Plant Breeding. Minor: Related Fields. Thesis: Discovery of AC Activity Among Progeny of Regenerated Maize Plants. Major Advisers: Profs. B.G. Gengenbach and R.L. Phillips. May Graduate.

### Bruce Allan Petrick, Makoti, N.D.

B.A. '84, B.S. '84, Minot State College. Major: Computer and Information Sciences. Minor: Mathematics. Major Adviser: Prof. W.D. Munro. August Graduate.

Andrew T. Phillips, State College, Pa. B.S. with highest distinction '84, Pennsylvania State University. Major: Computer and Information Sciences. Minor: Related Fields. Major Adviser: Prof. J.B. Rosen. June Graduate.

# Holly Ann Pohl, Brookfield, Wis.

B.S. '83, University of Wisconsin. Major: Animal Science. Minor: Related Fields. Thesis: Effect of Melatonin Treatment on Luteinizing Hormone and Prolactin Levels and Ovarian Activity in Ewes. Major Adviser: Prof. J. E. Wheaton. Graduation Pending

Michael Samuel Postol, Glenview, Ill. B.S. '84, University of Chicago. Major: Mathematics. Minor: Aerospace Engineering. Major Adviser: Prof. P.B. Garrett. June Graduate.

#### Eileen Marie Pouliot, Minneapolis

B.S. cum laude '82, University of Minnesota. Major: Nursing. Minor: Related Fields. Major Adviser: Prof. P. Crisham. Graduation Pending.

#### Todd Craig Poulson, Denver, Colo.

B.A. '77, D.D.S. '81, University of Colorado. Major: Dentistry. Minor: Related Fields. Thesis: Immunoperoxidase and Ultrastructural Evaluations of Oral Mucosal Disturbances for Human Papillomavirus. Major Adviser: Prof. R.A. Vickers. Graduation Pending.

#### Gary Lee Raeth

B.S. with distinction '73, University of Minnesota. Major: Animal Science. Minor: Related Fields. Major Adviser: Prof. C.W. Young. September Graduate

#### Nancy Valo Reed, Minneapolis

B.A. '77, Gustavus Adolphus Collège. Major: Nursing. Minor: Related Fields. Thesis: Sexual Concerns of Female Renal Transplant Patients in the Ambulatory Care Setting. Major Adviser: Prof. A.M. Sime. Graduation Pending.

#### Darrell Orlyn Ricke, Cedar

B.C.Sc. '81, University of Minnesota. Major: Computer and Informtion Sciences. Minor: Mathematics. Major Adviser: Prof. W.D. Munro. September Graduate.

#### Lois Ellen Rink

B.S. cum laude '80, Winona State University. Major: Nursing. Minor: Related Fields. Major Adviser: Prof. T.M. Rothweiler. July Graduate.

#### Catherine Lea Roach, Minneapolis

B.A. '82, St. Olaf College. Major: Statistics. Minor: Related Fields. Major Adviser: Prof. K.M. Chaloner. Graduation Pending.

# Maria Helena Rocha-Lima, Brazil

Lic. '74, Bach. '75, Pontificia Universidade Catolica do Rio de Janeiro. Major: Agricultural and Applied Economics. Minor: Related Fields. Thesis: The Marginal Productiveness of Inputs for Crop Production in Brazil. Major Adviser: Prof. J.W. Hammond. September Graduate.

Stefano Emidio Romagnoli, Pisa, Italy Laur. '82, Universita Degli Studi di Pisa. Major: Theriogenology. Minor: Animal Physiology. Major Adviser: Prof. B.E. Seguin. June Graduate.

#### Carleen Jean Erickson Ronchetti, Duluth

B.A. '73, Gustavus Adolphus College. Major: Nursing. Minor: Related Fields. Thesis: Instrumental Control and Its Effect on Stress. Major Adviser: Prof. A.M. Sime. Graduation Pending.

# Juan Camilo Samper, Colombia

Med. Vet. '85, Universidad Nacional de Colombia. Major: Theriogenology. Minor: Animal Science. Major Adviser: Prof. M.L. Fahning. Graduation Pending. Nancy Lynn Schamell, Minneapolis B.S.N. cum laude '77. University of Wisconsin, Eau Claire. Major: Nursing. Minor: Related Fields. Major Adviser: Prof. E.C. Eagan. June Graduate.

#### Rebecca Ann Schatz, St. Paul

B.S. '77. University of Texas. Austin. Major: Computer and Information Sciences. Minor: East Asian Studies. Major Adviser: Prof. W.D. Munro. Graduation Pending.

# Michael Edward Schechterly,

#### Duncannon, Pa.

B.S. '84, Juniata College. Major: Wildlife. Minor: Related Fields. Major Adviser: Prof. Yosef Cohen. July Graduate.

David L. Scheel, Las Croces, N.M. B.S. cum laude '84, Rensselaer Polytechnic Institute. Major: Ecology. Minor: Related Fields. Major Adviser: Prof. Craig Packer. July Graduate.

#### Karen Ann Schmidt

B.S. with high distinction '79, Pennsylvania State University. Major: Food Science. Minor: Related Fields. Thesis: Effects of Homogenization on the Physical and Sensory Characteristics of Vanilla Ice Cream. Major Adviser: Prof. D.E. Smith. October Graduate.

# Suzanne Jean Schoenfelt, Hammond, Ind.

A.B. '77, Indiana University, Major: English, Minor: Related Fields, Major Adviser: Prof. C.M. Hancher, Graduation Pending.

Danny Glenn Seanger, St. Cloud B.S. '80, St. Cloud State University. Major: Medical Technology. Minor: Biochemistry. Thesis: Mean Platelet Volume as an Indicator of Platelet Rejuvenation Following Bone Marrow Transplantation. Major Adviser: Prof. R.D. Brunning. July Graduate.

# Michael William Seidl, Fond du Lac, Wis.

B.S. '84, University of Wisconsin, Madison, Major: Hospital Pharmacy, Minor: Related Fields, Major Adviser: Prof. C.E. Daniels, July Graduate.

Raafat Abdelaziz Seifeldin, Egypt B.S. '77, University of Alexandria; Pharm.D. '84, University of Minnesota. Major: Social and Administrative Pharmacy. Minor: Related Fields. Major Adviser: Prof. A.I. Wertheimer. September Graduate.

Timothy Paul Sether, Roseville

Major: Plant Breeding. Minor: Related Fields. Thesis: Variation Within Lines at Five Levels of Inbreeding for Testcross Performance in a Maize (Zea mays L.) Population. Major Adviser: Prof. J.L. Geadelmann. Graduation Pending.

#### Dwi Putra Setiawan, Padang, Indonesia

Sarj. '79, Universitas Lampung. Major: Entomology. Minor: Related Fields. Thesis: Studies on Aster Leafhopper, Macrosteles fascifrons (Stal) (Homoptera: Cicadellidae), and Aster Yellow in Minnesota. Major Adviser: Prof. D.W. Ragsdale. Graduation Pending.

Jatin Kishor Sheth, Bombay, India

B.E. '84, University of Poona, Major: Materials Science and Engineering, Minor: Related Fields, Thesis: Test Frequency Effects on Fatigue Crack Processes, Major Adviser: Prof. W.W. Gerberich, Graduation Pending.

Heayong Shin, Kangwon-do, Korea B. S. '82, Seoul National University. Major: Mathematics. Minor: Related Fields. Major Adviser: Prof. R. D. Gulliver. July Graduate.

# Shengqiang Shu, People's Republic of China

B.S. '82, Huazhong Agricultural College. Major: Entomology. Minor: Related Fields. Thesis: Laboratory Studies of the Host-Seeking Behavior of a Parasitoid, Trichogramma Nubilale and a Kairomone from Its Host, Ostrinia Nubilalis. Major Adviser: Prof. R.L. Jones. September Graduate.

#### John Gregory Sidle

B.S. '74, Oregon State University. Major: Wildlife. Minor: Related Fields. Major Adviser: Prof. J.R. Kitts. May Graduate.

### Thomas David Siefferman, Eden Prairie

B.S.Chem. '82, Georgia Institute of Technology. Major: Biochemistry. Minor: Microbiology. Thesis: Bacteriocins of the Staphylococci. Major Adviser: Prof. E.D. Gray, Graduation Pending.

Dennis Eugene Simon, Fairmont

B.S. '79, Mankato State University. Major: Wildlife. Minor: Related Fields. Thesis: Density, Migration and Mortality Patterns of White-Tailed Deer Using a Sanctuary in Southeastern Minnesota. Major Adviser: Prof. P.A. Jordan. September Graduate.

#### Jennifer Rae Skinner, Plymouth

B.A. cum laude '80, Luther College. Major: Food Science. Minor: Related Fields. Major Adviser: Prof. E.A. Zottola. August Graduate.

David John Sogard, Ames, Iowa

B.S. '84, Iowa State University of Science and Technology. Major: Biomedical Engineering. Minor: Related Fields. Major Adviser: Prof. P.L. Blackshear. June Graduate.

#### Rachel A. Somsen, St. Paul

B.A. cum laude '74, Northwestern College. Major: Medical Technology. Minor: Related Fields. Thesis: Plasma Catecholamines by High Performance Liquid Chromatography with Amperometric Detection. Major Adviser: Prof. L.D. Bowers. October Graduate.

#### Eduardo Arvydas Stasiukynas

Med.Vet. '83, University Nacional de Columbia. Major: Theriogenology. Minor: Related Fields. Major Adviser: Prof. Raimunds Zemjanis. July Graduate.

#### Ane Cornelia Steigerwald, Willmar B.S. with honor '71, Winona State University. Major: Nursing. Minor: Related Fields. Major Adviser: Prof. S. Rode. Graduation Pending.

#### Donna Joy Stenberg, St. Paul

B.A. '75, D.D.S. '84, University of Minnesota. Major: Dentistry. Minor: Related Fields. Thesis: Longterm Facial Changes with Maxillary Advancement in Cleft and Non-Cleft Patients. Major Adviser: Prof. R.R. Bevis. June Graduate.

Elizabeth Ann Stenglein, Minneapolis B.S.N. with distinction '76, University of Minnesota. Major: Nursing. Minor: Related Fields. Major Adviser: Prof. S.G. Corcoran. July Graduate.

# William Keith Stewart, Charlevoix, Mich.

B.S. cum laude '81, Alma College. Major: Forestry. Minor: Related Fields. Thesis: Innoculation of Jack Pine Seedlings with a Concentrated Basidiospore Spray of Cronartium Quercuum F. SP. Banksianae. Major Adviser: Prof. C.A. Mohn. September Graduate.

# Benjamin Ira Stiegler, Minneapolis

B.A. 77, Carleton College. Major: Computer and Information Sciences. Minor: Psychology. Major Adviser: Prof. M. Gini. Graduation Pending.

# Rosalind Beth Strum Odin, New City, N.Y.

B.S. '83, Cornell University. Major: Nutrition. Minor: Related Fields. Thesis: Membrane Phospholipid Composition of Cultured Rat Hepatocytes. Major Advisers: Profs. S.D. Clarke and S.F. Phinney. August Graduate.

# David Scott Stucker, Shoreview

B.S. with distinction '83, University of Minnesota. Major: Entomology. Minor: Related Fields. Thesis: Establishment of Economic Injury Levels and Economic Thresholds for Pea Aphid on Alfalfa. Major Adviser: Prof. E.B. Radcliffe. Angust Graduate.

#### Ann Marie Sturtz, St. Paul

B.A. cum laude '84, St. Olaf College. Major: Genetics. Minor: Related Fields. Thesis: Fine Structure Restriction Endonuclease Mapping of Molecularly Cloned Cottontail Rabbit Papillomavirus DNA from Rabbit Tumors. Major Adviser: Prof. A.J. Faras. July Graduate.

#### Sergiu Suliteanu, Minneapolis

Major: Computer and Information Sciences, Minor: Related Fields, Major Adviser: Prof. V.A. Berzins, May Graduate.

#### Mary Anne Sword, Brookings, S.D.

B.S.Á.S. '83, South Dakota State University, Brookings, Major: Forestry, Minor: Related Fields. Thesis: Growth and Ectomycorrhizal Relationships of Three Northern Minnesota Conifers, Major Adviser: Prof. R.K. Dixon, Graduation Pending.

#### Kelly Rae Tait, Barnum

B.A. summa cum laude '84, College of St. Scholastica. Major: Medical Microbiology. Minor: Related Fields. Major Adviser: Prof. B.H. Gray. July Grad-

#### Fen Tang, Taiwan

B.S. '82, National Taiwan University. Major: Botany. Minor: Related Fields. Thesis: Colonization of Vesicular-Arbuscular Mycorrhizae in Typha Angustifolia. Major Adviser: Prof. I.D. Charvat. Graduation Pending.

#### Alain Louis Taquet, Paris, France

Lic. '83, Mait. '84, Universite de Paris I, Sorbonne; Dipl.Ing., Ecole Superieure d'Electricite. Major: Computer and Information Sciences. Minor: Business Administration. Thesis: An Interface for an End User of a Communication Software. Major Adviser: Prof. K.J. Maly. June Graduate.

# Susan Lynn Stickel Temme, Amarillo, Tex.

B.S. magna cum laude '73, University of Massachusetts. Major: Nursing. Minor: Related Fields. Major Adviser: Prof. S.S. Rode. Graduation Pending.

### Jean Avis Thomas

B.A. '82, Pomona College. Major: Mathematics. Minor: Related Fields. Major Adviser: Prof. M.D. Bramson. July Graduate.

# Eileen Carol Turner

B.A. cum laude '77, State University of New York, Buffalo. Major: Nursing. Minor: Related Fields. Major Adviser: Prof. K.G. Dineen. August Graduate

# Preeyaphan Udomprasert, Thailand

D.V.M. with first honours '82, Kasetsart University. Major: Theriogenology. Minor: Related Fields. Major Adviser: Prof. N.B. Williamson. July Graduate.

#### Vilma C. Valiente, Cartagena, Colombia

Quim Farmac. '66, Universidad de Cartagena, Major: Social and Administrative Pharmacy. Minor: Related Fields. Major Adviser: Prof. A.I. Wertheimer, Graduation Pending.

# David Peter Van Eenenaam, Watertown, N.Y.

B.A. '83, Hope College, Major: Physiology, Minor: Biochemistry, Thesis: Ion Channels and a Morphological and Ion Channel Transformation in a Simian Virus Transformed Hamster Insulin Tumor B-Cell Line, Major Adviser: Prof. D.G. Levitt, Graduation Pending.

#### Teresa Ellen Vandereyk

B.S. '80, Purdue University. Major: Nursing. Minor: Related Fields. Major Adviser: Prof. E.E. Mansfield. June Graduate.

Heidi Theresa Vandrasek, Minneapolis B.S. '82, University of Wisconsin. Stout. Major: Food Science. Minor: Related Fields. Thesis: Thiamin Stability and Partitioning In Cooked Rice and Pasta Products. Major Adviser: Prof. J.J. Warthesen. May Graduate.

# Charles Lawrence Vaubel,

Minneapolis

B.A. magna cum laude '79, Carleton College. Major: Botany. Minor: Related Fields. Major Adviser: Prof. J. D. Charvat. June Graduate.

Catherine Ann Verdoorn, Rochester B.S. '75, College of St. Teresa. Major: Nursing. Minor: Related Fields. Thesis: The Relationship of Education and Moral Reasoning in Nursing Students. Major Adviser: Prof. Patricia Crisham. August Graduate.

Russel Rudolph Viker, Georgetown B.S. '84, North Dakota State University. Major: Agricultural Economics. Minor: Related Fields. Thesis: The Valuation of Farm Labor. Major Adviser: Prof. D.C. Dahl. June Graduate.

David Howland Wang, Minneapolis B.A. '81, Carleton College, Major: Physiology, Minor: Biochemistry. Thesis: The Effects of 19 Weeks of Simulated Cross-Country Skiing on Blood Lipid Levels in Women. Major Adviser: Prof. A.S. Leon. October Graduate.

Su-Min Wang, Taipei, Taiwan

B.D.S. '81, National Taiwan University. Major: Dentistry. Minor: Related Fields. Thesis: Viability of Human Pulp Fibroblasts After Timed Contact with Different Storage Media: An in Vitro Study Model for Treatment of Avulsed Teeth. Major Adviser: Prof. R.J. Feigal. August Graduate.

#### Bryan Keith Warwood, Bozeman, Mont.

B.S.Ch.E. '84, Montana State University. Major: Microbial Engineering. Minor: Related Fields. Major Adviser: Prof. Palmer Rogers. July Graduate.

#### Frank Hao Wen

Major: Agricultural Economics. Minor: Related Fields. Major Adviser: Prof. K.W. Easter. August Graduate.

#### Mary Page White

B.S. with honors '83, James Madison University. Major: Chemistry. Minor: Related Fields. Thesis: Investigation of the Reaction of 4-Hydroxycatechol with Catechol 1,2-Dioxygenase: Unique Oxidase Activity. Major Adviser: Prof. Lawrence Que, Jr. August Graduate.

Adam Tomei Whitten, Chicago, Ill. B.A. '84, Northwestern University. Major: Physics. Minor: Related Fields. Major Adviser: Prof. Konrad Mauersberger. July Graduate.

# Michael Raymond Wick, Eau Claire, Wis.

B.S. magna cum laude '84, University of Wisconsin, Eau Claire. Major: Computer and Information Sciences. Minor: Related Fields. Major Adviser: Prof. J.R. Slagle. July Graduate.

Mary Jo Wilkinson, Marquette, Mich. B.S.N. '66, University of Michigan; M.S. '75, University of Wisconsin. Major: Nursing. Minor: Related Fields. Thesis: Psychological Profiles of Adult Female Children of Alcoholics as Compared with Adult Females Reared in Families Who Did Not Abuse Alcohol. Major Adviser: Prof. S. Rode. Graduation Pending.

Deborah Lee Wind, South Bend, Ind. B.A. '83, Miami University. Major: Nutrition. Minor: Related Fields. Major Adviser: Prof. S.D. Phinney. July Graduate.

Mary Terrence Wotzka, Cambridge B.A. cum laude '75, College of St. Benedict; B.S.N. '79, University of Iowa. Major: Nursing. Minor: Related Fields. Thesis: The Effect of Alcohol Abuse on Selected Cognitive Functions, Return to Work, and Duration of Post-Concussion Symptoms in Minor Head Injury. Major Adviser: Prof. M. Snyder. Graduation Pending.

# Rhonda Lynne Wright, Indianapolis, Ind.

B.S. 79, Purdue University. Major: Plant Breeding. Minor: Related Fields. Thesis: Somatic Hybridization Between Birdsfoot Trefoil (Lotus Corniculatus) and L. Coimbrensis. Major Adviser: Prof. D.A. Somers. September Graduate.

# Diane Marie Young, Waterloo, Iowa

B.S.N. with high distinction '76, University of Iowa. Major: Nursing. Minor: Related Fields. Thesis: The Significant Other: A Variable Influencing the Cardiac Patient's Compliance with Exercise Recommendations. Major Adviser: Prof. V.C. Gordon. June Graduate.

#### Shida Yousefi, Tehran, Iran

B.S. '83, University of Minnesota. Major: Medical Microbiology. Minor: Related Fields. Major Adviser: Prof. J.T. Prince. September Graduate.

# Othman B. Zakaria, Johor Bahru,

#### Malaysia

B.A. with honors '84, University of Northern Iowa. Major: Physics. Minor: Related Fields. Major Adviser: Prof. W.H. Johnson. October Graduate.

### **Master of Science**

#### UNIVERSITY OF MINNESOTA, DULUTH

#### Terrence John Boerboom

B.A. '82, University of Minnesota. Major: Geology. Minor: Related Fields. Thesis: Tourmalinite, Nelsonite, and Associated Rocks (Early Proterozoic) Near Philbrook, Todd County, Central Minnesota. Major Adviser: Prof. R.W. Ojakangas. Graduation

#### Henry Francis Corcoran

B.S. '83, Worcester State College. Major: Chemistry. Minor: Related Fields. Thesis: Investigation of P-NN Dimethyl Amino Phenxl-Isothioexanata as Post Column Label for HPLC Analysis of Amino Acids Using Electrochemical Detection, Major Adviser: Prof. Donald Poe. July Graduate.

# Richard Edward Deblois, Canby,

B.S. '84, Southwest State University. Major: Chemistry. Minor: Related Fields. Major Adviser: Prof. D.E. Samkoff. Graduation Pending.

#### Kayo Lyle Dokken

B.S. '84, Portland State University. Major: Geology. Minor: Related Fields. Thesis: Trace Fossils of the Middle Ordovician Platteville Formation in Southwestern Minnesota. Major Adviser: Prof. D.G. Darby. Graduation Pending.

#### Jalal Banafshehvargh Fatehi

B.S. cum laude '83, North Carolina Central University. Major: Chemistry. Minor: Related Fields. Major Adviser: Prof. T.J. Bydalek. Graduation Pending.

# Mary Isom Fatchi, Liberty, N.C.

B.A. 83, Duke University. Major: Chemistry. Minor: Related Fields. Thesis: Characterization of the Blood-Brain Barrier: Glycoconjugate Receptors of 14 Lectins in Canine Brain, Cultured Endothelial Cells, and Blotted Membrane Proteins. Major Adviser: Prof. L. R. Drewes, August Graduate.

#### James R. Frantes, St. Paul

B.S. Earth S. '83, Montana State University. Major: Geology. Minor: Related Fields. Thesis: Petrology and Sedimentation of the Archean Seine Series Conglomerate and Quartzite, Wabigoon Belt, Northern Minnesota and Western Ontario. Major Adviser: Prof. R.W. Ojakangas. Graduation Pend-

#### Donna Mae Gadbois, Scotland, S.D.

B.S. '83, University of South Dakota. Major: Chemistry. Minor: Related Fields. Thesis: Isolation and Translation of mRNA from the Hagfish, Eptatretus stouti, Slime Gland. Major Adviser: Prof. W.L. Salo. September Graduate.

#### Daniel Keith Holm, Duluth

B.A. magna cum laude '84, University of Rochester. Major: Geology. Minor: Related Fields. Thesis: Structural Relationships of the Archean Mcgrath Gneiss and Adjacent Early Proterozoic Metasedimentary Rocks: East Central Minnesota. Major Adviser: Prof. T.B. Holst. July Graduate.

### Richard Carl Holz

B.S. '84, Bemidji State University. Major: Chemistry. Minor: Related Fields. Thesis: Spectra of Europium B-Diketone Adducts. Major Adviser: Prof. L.C. Thompson. July Graduate.

Julia Ann Kelly, Minneapolis B.A. cum laude '77, St. Olaf College. Major: Biology. Minor: Related Fields. Major Adviser: Prof. D.J. Schimpf. May Graduate.

#### Patrick Michael Lannon, South St. Paul

B.A. magna cum laude '83, College of St. Thomas. Major: Geology. Minor: Related Fields. Thesis: The Quaternary Stratigraphy and Glacial History of the Duluth-Superior Area. Major Adviser: Prof. C.L. Matsch. Graduation Pending.

#### Eric Kendall Linscheid

B.S. '80, University of Wisconsin, Madison, Major: Geology, Minor: Related Fields, Thesis: The Petrography of the Longnose Peridotite and Its Relationship to the Duluth Complex, Major Adviser: Prof. P.C. Morton, Graduation Pending.

#### Richard Mark Little, Wayzata

B.S. '84, University of Minnesota, Major: Chemistry, Minor: Related Fields. Thesis: Characterization of the Structural Properties of Cyanase. Major Adviser: Prof. P.M. Anderson. September Graduate.

# Barbara Wonson Liukkonen, Duluth

B.A. cum laude '76. Carleton College. Major: Geology. Minor: Biology. Thesis: Geochemistry of Two Small Lakes in Northeastern Minnesota in Relation to Atmospheric Inputs. Major Adviser: Prof. G. Rapp, Jr. Graduation Pending.

# Yamin Ma, Beijing, People's Republic of China

B.S. '82. Branch College, Peking University. Major: Physics. Minor: Related Fields. Major Adviser: Prof. J.R. Hiller. Graduation Pending.

# Joan Elizabeth McKearnan, Evanston,

B.A. '81. Gustavus Adolphus College. Major: Biology. Minor: Related Fields. Thesis: Status and Breeding Success of Common Terns in Minnesota. Major Adviser: Prof. F.J. Cuthbert. October Graduate.

### John Albert Norlien, Cloquet

B.S. '85. University of Minnesota, Duluth, Major: Physics. Minor: Related Fields, Thesis: Radon 222 Daughters - An Atmospheric Measurement System, Major Adviser: Prof. H.G. Hanson, August Graduate.

#### Dennis Lee Olson, Duluth

B.A. magna cum laude '74, University of Minnesota, Duluth. Major: Zoology. Minor: Geology. Thesis: The Population and Distribution of Common Loon (Gavia Immer) in Northern Wisconsin. Major Adviser: Prof. H.L. Collins. Graduation Pending.

#### Robert Walter Pillsbury, Duluth

B.S. '82, University of Minnesota, Major: Biology, Minor: Related Fields, Major Adviser: Prof. G.E. Ahlgren, Graduation Pending.

### Colin Lee Reichhoff, Eldorado, Wis.

B.S. '83 cum laude. University of Wisconsin, Oshkosh. Major: Geology. Minor: Related Fields. Thesis: Geology of a Lower Proterozoic Volcaniclastic Sequence Near Wausau, Marathon County, Wisconsin. Major Adviser: Prof. R.W. Ojakangas. June Graduate.

# Kenneth Walter Sargent, Golden

#### Valley

B.A. '82, Hamline University. Major: Biology. Minor: Related Fields. Thesis: The Effect of Aquatic Plants on Sediment Phosphorus Distributions. Major Adviser: Prof. D.J. Schimpf. October Graduate.

#### Kanyin Zhang

B.S. 84, Peking University, Major: Chemistry, Minor: Related Fields. Thesis: The Methacrylaldehye Dianion Synthon. Major Adviser: Prof. R.M. Carlson, October Graduate.

# Meishan Zhao, People's Republic of China

Major: Physics. Minor: Related Fields. Major Adviser: Prof. B.R. Casserberg. September Graduate.

### **Master of Science**

### MAYO GRADUATE SCHOOL OF MEDICINE

# Gunnar Haraldsson Plate, Helsinborg, Sweden

M.D. 74, Karolinska Institutet. Major: Surgery. Minor: Biometry and Health Information Systems. Thesis: Venous Vascular Prostheses. Major Adviser: Prof. M.P. Kaye. August Graduate.

# Master of Science in Aerospace Engineering

# Emmanuil Ioannou Protonotarios,

# Athens, Greece

B.A.E.M. with distinction '85, University of Minnesota, Major: Aerospace Engineering, Minor: Mathematics, Major Adviser: Prof. A.S. Berman, August Graduate.

#### Ronald Scott Ricci

B.A.E.M. '79, University of Minnesota, Major: Aerospace Engineering, Minor: Related Fields, Major Adviser: Prof. A.S. Berman, August Graduate.

# Master of Science in Agricultural Engineering

Jay David Harmon, Bunker Hill, Ind. B.S.Ag. E. '84, Purdue University. Major: Agricultural Engineering. Minor: Related Fields. Thesis: Flow Analysis of Baffled, Slotted Eave Inlets, with and Without Attic Effects. Major Adviser: Prof. K.A Janni. July Graduate.

Chakib Jenane, Meknes, Morocco Dipl. '83, Institut Agronomique et Veterinaire, Hassan II. Major: Agricultural Engineering. Minor: Related Fields. Major Adviser: Prof. J. Chaplin. Graduation Pending.

# Janice Faye Norwig, International Falls

B.S. '80, B.Ag. E. with distinction '82, University of Minnesota. Major: Agricultural Engineering. Minor: Related Fields. Thesis: Sucrose Leaching During Blanching and Thermal Processing of Green Peas. Major Adviser: Prof. R.V. Morey. June Gradnate.

# Master of Science in Chemical Engineering

Bradford Thomas Bell, Houston, Tex. B.S.Ch.E. '84, Rice University. Major: Chemical Engineering. Minor: Mathematics. Thesis: Modeling of Impedance Data: Copper Electrodissolution from a Rotating Disk Electrode. Major Adviser: Prof. W.H. Smyrl. July Graduate.

Mark John Dicarlo, Pittsburgh, Pa. B.S.Ch.E. '80, Carnegie Mellon University. Major: Chemical Engineering. Minor: Related Fields. Thesis: Reverse Roll Coating—Experiments and Theory. Major Adviser: Prof. C.W. Macosko. June Graduate.

Mark Paul Hagemeister, Plymouth B.S.Ch.E. '84, Massachusetts Institute of Technology. Major: Chemical Engineering. Minor: Related Fields. Thesis: Semiconductor/Polymer Interfaces. Major Adviser: Prof. H.S. White. August Graduate.

Suzan Jane Hirz, Bellevue, Wash. B.S.Ch.E. summa cum laude '84, University of Washington. Major: Chemical Engineering. Minor: Related Fields. Thesis: Modeling of Interactions between Adsorbed Block Copolymers. Major Adviser: Prof. M.V. Tirrell. September Graduate. Tze Man Ko, Brooklyn, N.Y.

B.E. '84, Copper Union School of Engineering, Major: Chemical Engineering, Minor: Physics. Thesis: Silicon Diffusion and Aluminum Grain Growth Characteristics of Vapor Deposited Aluminum Films on Silicon Substrates. Major Advisers: Profs. W.W. Gerberich and L.D. Schmidt. July Graduate.

#### Farzaneh Rafi, Tehran, Iran

B.Ch. E. '83, University of Minnesota. Major: Chemical Engineering. Minor: Related Fields. Thesis: Mathematical Modeling of a Gas-Phase Fluidized Bed Reactor for Production of Polyethylene Using Ziegler-Natta Catalysis. Major Adviser: Prof. M.V. Tirrell. October Graduate.

#### Walter Resch, Minneapolis

B.Ch. E. with distinction '83, University of Minnesota. Major: Chemical Engineering. Minor: Related Fields. Thesis: The Spinning Drop Apparatus for Interfacial Tension Measurement. Major Adviser: Prof. L.E. Scriven. October Graduate.

# Evelyn Ann Taylor, Mount Clemens, Mich.

B.S. with distinction '84, Cornell University. Major: Chemical Engineering. Minor: Related Fields. Thesis: Alcohol Reactions on Clean and Organosi-lane-Modified Titanium Dioxide. Major Adviser: Prof. G.L. Griffin. September Graduate.

### Master of Science in Civil Engineering

Douglas James Ammerman, Somerset,

B.C.E. with high distinction '84, University of Minnesota. Major: Civil Engineering. Minor: Related Fields. Thesis: An Experimental Investigation into the Behavior of Semi-Rigid Composite Connections. Major Adviser: Prof. R.T. Leon. October Graduate.

Merlynn Dean Bender, Lehr, N.D. B.S. '84, North Dakota State University, Fargo. Major: Civil Engineering. Minor: Related Fields. Thesis: Engineering Aspects of Lake Aeration with Applications to Metallimnetic Aerator Design. Major Adviser: Prof. H.G. Stephan. May Graduate.

#### Ali Reza Boroojerdi, Tehran, Iran

B.S. '76, Sharif University of Technology, Major: Civil Engineering, Minor: Related Fields, Thesis: Experimental Investigation of Effective Slab Width Under Lateral Loading, Major Adviser: Prof. C.E. French, September Graduate.

#### Theresa Dale Dodge

B.S.C.E. '83, University of Minnesota. Major: Civil Engineering. Minor: Related Fields. Thesis: Bulking Control and Nitrification Stability in Intermittently Fed Activated Sludge Systems. Major Adviser: Prof. S.C. Chiesa. May Graduate.

# Gregg Michael Downing, St. Paul

B.Chem. with high distinction 72, M.Ed. 72, University of Minncosta. Major: Civil Engineering. Minor: Related Fields. Thesis: Trace Metal Speciation and Response to Acidification in Sediments from Little Rock Lake, Wisconsin. Major Adviser: Prof. P.L. Brezonik. June Graduate.

# Christopher Reed Ellis, Minneapolis

B.E.E. with distinction '82, University of Minnesota. Major: Civil Engineering. Minor: Related Fields. Thesis: Development of a Low Velocity Current Meter with Application to Stratified Flow. Major Adviser: Prof. H.G. Stefan. Graduation Pending.

# Michael John Hafner, La Crosse, Wis.

B.S.C.E. magna cum laude Marquette University. Major: Civil Engineering. Minor: Related Fields. Thesis: Moment Resistant Connections Between Precast Elements Subjected to Cyclic Lateral Loads. Major Adviser: Prof. C.E. French. Graduation Pending.

#### Philip Tully Hodge, Beaver, Pa.

B.S.C.E. '73, Illinois Institute of Technology. Major: Civil Engineering. Minor: Related Fields. Thesis: Lateral Stability of Trusses with Partial Restraint. Major Adviser: Prof. T.V. Galambos. Graduation Pending.

#### Yumin Vincent Kang, Taipei, Taiwan

B.S. '82, National Chen Kung University. Major: Civil Engineering. Minor: Related Fields. Thesis: Plastic Flow of Granular Material Around Obstacles. Major Adviser: Prof. Andrzej Drescher. July Graduate.

# Ryuzo Kiri, Tokyo, Japan

B.S. '79 Nagasaki University, Japan. Major: Civil Engineering. Minor: Related Fields. Major Adviser: Prof. R.T. Leon. May Graduate.

### Eil Kwon, Seoul, Korea

B.S.C.E. '76, Sung Kyun Kwan University, Korea. Major: Civil Engineering. Minor: Related Fields. Thesis: Microcomputer-Assisted Interactive Method for Dynamic Decision Making in Transit Routes. Major Adviser: Prof. Y.J. Stephanedes. May Graduate.

#### Mehul Narendra Parikh

B.E. '81, Gujarat University. Major: Civil Engineering. Minor: Computer and Information Sciences. Major Adviser: Prof. T. Krauthammer. Graduation Pending.

#### Joy Ann Rogalla, Minneapolis

B.C. cum laude '78, Bemidji State College, Major: Civil Engineering, Minor: Related Fields, Thesis: Empirical Acidification Modeling for Lakes in the Upper Great Lakes Region, Major Adviser: Prof. P.L. Brezonik, June Graduate.

#### Hussain Mohd Shanaa, Palestine

B.C.E. with high distinction '84, University of Minnesota. Major: Civil Engineering. Minor: Related Fields. Thesis: A Numerical Procedure for Analysing Reinforced Concrete Beams Under Combined Loading. Major Adviser: Prof. Theodor Krauthammer. August Graduate.

### Kevin John Weddle, Inver Grove Heights

B.S. '79, United States Military Academy. Major: Civil Engineering. Minor: Related Fields. Major Adviser: Prof. Andrzej Drescher. June Graduate.

# Master of Science in Dermatology MAYO GRADUATE SCHOOL OF MEDICINE

# Hannan Hamilton Liu, Republic of China

M.B. '79, National Defense Medical Center. Major: Dermatology. Minor: Related Fields. Thesis: The Subset of HLA-DR+/OKT6+ and HLA-DR-/OKT6+ Langerhans Cells Does Not Exist in the Skin and Quantitative and Morphologic Changes of Langerhans Cells After Ultraviolet A Irradiation of Human Epidermis. Major Adviser: Prof. A.L. Schroeter. September Graduate.

# Master of Science in Electrical Engineering

# Jun-Ho Baek, Seoul, Korea

B.S.E. '81, Seoul National University. Major: Electrical Engineering. Minor: Physics. Major Adviser: Prof. Michael Shur. July Graduate.

Antonios Bassias, Canea-Krete, Greece Dipl. '83, Democritus University of Thrace. Major: Electrical Engineering. Minor: Related Fields. Major Adviser: Prof. M. Kaveh. October Graduate.

George Douglas Brown, Minnetonka B.S. '71, University of Wisconsin. Major: Electrical Engineering. Minor: Computer and Information Science. Major Adviser: Prof. R.Y. Kain. Graduation Pending.

### Young Hee Byun, Seoul, Korea

B.S.E.E. cum laude '82, Sogang University. Major: Electrical Engineering. Minor: Related Fields. Major Adviser: Prof. M. Shur. Graduation Pending.

#### Zaher Abdallah Daboussi

B.E.E. with distinction '84, University of Minnesota. Major: Electrical Engineering. Minor: Computer and Information Sciences. Major Adviser: Prof. Narendra Mohan. August Graduate.

### Asgeir Thor Eiriksson, Reykjavik, Iceland

Major: Electrical Engineering. Minor: Computer and Information Sciences. Major Adviser: Prof. R.Y. Kain. May Graduate.

#### Oran Faik Ener, St. Paul

B.E.E. with distinction '81, University of Minnesota. Major: Electrical Engineering. Minor: Related Fields. Major Adviser: Prof. Mostafa Kaveh. September Graduate.

# Todd Alan Fischer, Boulder, Colo. B.S. with special honors '85, University of Colorado, Boulder. Major: Electrical Engineering. Mi-

rado, Boulder. Major: Electrical Engineering. Minor: Computer and Information Sciences. Major Adviser: Prof. L. L. Kinney. June Graduate.

#### Olafur Gislason, Reykjavík, Iceland Major: Electrical Engineering. Minor: Rela

Major: Electrical Engineering. Minor: Related Fields. Thesis: Path-Finding in Faulty Module Arrays. Major Adviser: Prof. R.Y. Kain. Graduation Pending.

#### Roger John Gravrok, Minneapolis

B.E.E. 85, University of Minnesota. Major: Electrical Engineering. Minor: Related Fields. Thesis: Tunnel Junctions as Ohmic Interconnections for Three-Dimensional Integrated Circuits. Major Adviser: Prof. R.M. Warner, Jr. Graduation Pending.

#### James G. Hiller, Bloomington

B.E.E. '83, University of Minnesota. Major: Electrical Engineering. Minor: Related Fields. Thesis: Characteristics of Mesh Gate Transistors. Major Adviser: Prof. J.E. Holte. May Graduate.

# Norman Edward Johnson, Jr., Duluth,

B.S.A. Phys. with honor '79, Georgia Institute of Technology. Major: Electrical Engineering. Minor: Related Fields. Major Adviser: Prof. Rolf Schaumann. August Graduate.

#### Dennis Leon Karst, Rochester

B.S. with high honor '79, South Dakota State University. Major: Electrical Engineering. Minor: Related Fields. Major Adviser: Prof. R.F. Lambert. August Graduate.

# Mohammed Hossein Lari-Najafi,

#### Karman, Iran

B.E.E. '83, University of Minnesota. Major: Electrical Engineering. Minor: Computer and Information Sciences. Major Adviser: Prof. L.L. Kinney. October Graduate.

#### Curtis Harold Mathiowetz, Rochester

B.S. with honor '76, North Dakota State University. Major: Electrical Engineering, Minor: Related Fields. Major Adviser: Prof. H.M. Wechsler. June Graduate.

#### Jeffrey Allen Meisner, Madison, Wis.

B.A. '74, Macalester College. Major: Electrical Engineering. Minor: Related Fields. Major Adviser: Prof. J.A. Carruthers. October Graduate.

# David William Nielsen, New Hope

B.A. with scholastic honors '77, St. Cloud State University. Major: Electrical Engineering. Minor: Related Fields. Major Adviser: Prof. R.M. Warner.

### Patrick Anthony O'Gorman, Cork, Republic of Ireland

B. Eng. '84, National University of Ireland, Cork. Major: Electrical Engineering. Minor: Related Fields. Major Adviser: Prof. N. Mohan. October

### Ken Wayne Osterberg, Minneapolis

B.E.E. '84, University of Minnesota. Major: Electrical Engineering. Minor: Computer and Information Sciences. Major Adviser: Prof. R.M. Warner, Jr. June Graduate.

Randall Russell Pratt, New Brighton B.S.E.E. '83, Massachusetts Institute of Technology. Major: Electrical Engineering. Minor: Related Fields. Thesis: Design of a Fully Monolithic High-Frequency Filter and Control Scheme. Major Adviser: Prof. Rolf Schaumann. July Graduate.

#### Lee Anton Sendelbach

B.S. '79, University of Wisconsin, Madison. Major: Electrical Engineering. Minor: Computer and Information Sciences. Major Adviser: Prof. R.Y. Kain. July Graduate.

Chin Tan, Kuala Lumpur, Malaysia B.Sc. with honours '83, University of Southampton, England. Major: Electrical Engineering. Minor: Computer and Information Sciences. Major Adviser: Prof. R.Y. Kain. May Graduate.

#### Swie Tsing Tan, Indonesia

B.C.S. '85, University of Minnesota. Major: Electrical Engineering. Minor: Computer and Information Sciences. Major Adviser: Prof. L.L. Kinney. August Graduate.

### Anthony Varghese, Irinjalakuda, Kerala, India

B.S. summa cum laude '83, University of Wisconsin, Platteville. Major: Electrical Engineering. Minor: Computer and Information Sciences. Major Adviser: Prof. B.Y. Kain. Scutember Graduate.

# Gerald J. Waldera II, Dickinson, N.D.

B.A. cum laude '84, Carleton College. Major: Electrical Engineering. Minor: Related Fields. Thesis: Artificial Intelligence Applications in VLSI Design Automation: A Technology Review and an Example Application. Major Adviser: Prof. W.A. Plice. September Graduate.

# Steven Paul Woolet, Apex, N.C.

B.A. summa cum laude 79, Bethel College; B.S.E.E. with high honors 80, University of Notre Dame. Major: Electrical Engineering. Minor: Related Fields. Major Adviser: Prof. K.S. Kumar. May Graduate.

# Xiaodong Wu, People's Republic of China

B.S. '82, State University of New York, Stony Brook. Major: Electrical Engineering. Minor: Related Fields. Major Adviser: Prof. R.Y. Kain. Graduation Pending.

#### Kemin Zhou, People's Republic of China

B.S. '82, Beijing Institute of Aeronautics and Astronautics, Major: Electrical Engineering, Minor: Related Fields, Major Adviser: Prof. P.P. Khargonekar, May Graduate.

# Master of Science in Industrial Engineering

Yuan Guo, People's Republic of China B.S. '82, Dalian Institute of Technology, China. Major: Industrial Engineering. Minor: Statistics. Major Advisers: Profs. S.R. Arora and T.O. Kvalseth. May Graduate.

Stephen Joseph Orth, Minneapolis B.S. '84, University of Minnesota. Major: Industrial Engineering. Minor: Related Fields. Major Adviser: Prof. P.J. Starr. July Graduate.

#### Jaeyoung Park, Seoul

B.E. '82, Hangyang University. Major: Industrial Engineering. Minor: Related Fields. Major Adviser: Prof. J.S. White. June Graduate.

# Harold Gene White, St. Paul

B.Ag. E. '85, University of Minnesota. Major: Industrial Engineering. Minor: Related Fields. Major Adviser: Prof. J.S. White. July Graduate.

# Master of Science in Mechanical Engineering

# Jeong Ho Ahn, Korea

B.Sc. 84, Seoul National University. Major: Mechanical Engineering. Minor: Related Fields. Major Adviser: Prof. D.R. Riley. Graduation Pending.

# Seokmin Ahn, Seoul, Korea

B.E. '79, Hanyang University. Major: Mechanical Engineering. Minor: Related Fields. Major Adviser: Prof. D.R. Riley. Graduation Pending.

# Gregory Todd Anacker, Minneapolis

B.S. E. summa cum laude '75, B.G.S. with high distinction '75, University of Michigan. Major: Mechanical Engineering. Minor: Industrial Engineering. Major Adviser: Prof. D.R. Riley. August Graduate.

# Timothy Lynn Dirr

B.Arch. '76, University of Cincinnati. Major: Mechanical Engineering, Minor: Computer and Information Sciences. Thesis: A Voice-Augmented Engineering Workstation Prototype Utilizing Tree-Structured Menus. Major Adviser: Prof. D.R. Riley. May Graduate.

#### James Lee Ellingson, Odessa

B.A. cum laude '82, Concordia College. Major: Mechanical Engineering. Minor: Electrical Engineering. Major Adviser: Prof. D.R. Riley. May Graduate.

Richard Jay Erdman, Cedarburg, Wis. B.S. '85 summa cum laude, University of Wisconsin, Platteville. Major: Mechanical Engineering. Minor: Physics. Thesis: Cycle Analysis of a Mixed Fluid System. Major Adviser: Prof. W.E. Ibele. Graduation Pending.

Mark Eugene Franchett, Minneapolis B.S.M.E. with distinction '82, University of Wisconsin, Madison. Major: Mechanical Engineering. Minor: Related Fields. Thesis: Heat Transfer from a Flat Surface to an Oblique Impinging Jet. Major Adviser: Prof. R.J. Goldstein. July Graduate.

#### Eric William Grald, Maple Plain

B.S.M.E. '83, Massachusetts Institute of Technology. Major: Mechanical Engineering. Minor: Related Fields. Thesis: An Analytical Study of Natural Convection Heat Transfer in Annular Sectors. Major Adviser: Prof. T. H. Kuehn. October Graduate.

#### Ker-Ching Hsieh

Major: Mechanical Engineering. Minor: Related Fields. Major Adviser: Prof. B.Y. Liu. Graduation Pending.

#### Anil Kumar Jain, Bhilai, India

B.Tech with distinction '84, Indian Institute of Technology. Major: Mechanical Engineering. Minor: Computer and Information Sciences. Thesis: Knowledge Representation for Automatic Assembly Using Robots. Major Adviser: Prof. Max Donath. June Graduate.

#### Changhwa Jeong, South Korea

B.E. 82, Hanyang University. Major: Mechanical Engineering. Minor: Related Fields. Major Adviser: Prof. N.A. Decker. Graduation Pending.

### Alan Charles Kernik, St. Paul

B.M.E. '80, M.S. '86, University of Minnesota. Major: Mechanical Engineering. Minor: Related Fields. Thesis: Electro Fluid Mechanical Control of Infection. Major Adviser: Prof. P.L. Blackshear. Inly Graduate.

# Tae-Kuk Kim, Korea

B.E. '77, Chung-Ang University; M.S. '79, Korea Advanced Institute of Science and Technology. Major: Mechanical Engineering. Minor: Related Fields. Thesis: An Experimental Investigation of Local Fluidization Behavior Near a Horizontal Tube Immersed in a Fluidized Bed. Major Adviser: Prof. N.A. Decker. October Graduate.

#### Joanne Elizabeth Kleinhenz,

Minneapolis

B.S.M.E. with distinction '76, University of Minnesota. Major: Mechanical Engineering. Minor: Related Fields. Major Adviser: Prof. A.G. Erdman. September Graduate.

#### Sridhar Kota, Hyderabad, India

B.E. with distinction '80, Osmania University, India; M.S. '82, University of Mississippi. Major: Mechanical Engineering. Minor: Computer and Information Sciences. Major Advisers: Profs. A.G. Erdman and D.R. Riley. May Graduate.

#### Duen Kuo, Tainan, Taiwan

B.S. Eng., National Taiwan University. Major: Mechanical Engineering. Minor: Related Fields. Thesis: Dynamic Simulation of Strip Shape During Cold Rolling. Major Adviser: Prof. K.A. Stelson. May Graduate.

#### Sean Michael Marek, Lakeville

B.S. '81, St. John's University. Major: Mechanical Engineering. Minor: Related Fields. Major Adviser: Prof. D.A. Frohrib. October Graduate.

#### Terence Dennis Neavin, St. Paul

B.M.E. '80, University of Minnesota. Major: Mechanical Engineering. Minor: Related Fields. Major Adviser: Prof. D.R. Riley. Graduation Pending.

# Ilango Shanmugavelu, Thanjavur,

Tamil Nadu, India

B.Eng. '80, Madurai Kamaraj University. Major: Mechanical Engineering. Minor: Related Fields. Major Adviser: Prof. T.H. Kuehn. Graduation Pending.

# Brett Richard Sorensen, Albert Lea

B.M.E. '82, University of Minnesota. Major: Mechanical Engineering. Minor: Computer and Information Sciences. Thesis: A Laser Scanning Based System for Tracking Three Dimensional Motion of Human Gait. Major Adviser: Prof. Max Donath. Graduation Pending.

#### Chuen-Jinn Tsai, Taiwan

B.S.E. '77, National Taiwan University. Major: Mechanical Engineering. Minor: Related Fields. Thesis: Fundamental Study of Purge Air System. Major Advisers: Profs. D.Y. Pui and T.H. Keuhn. Graduation Pending.

#### Jeffrey Harold Vogel, St. Louis Park

B.M.E. '84, University of Minnesota. Major: Mechanical Engineering. Minor: Related Fields. Thesis: On Tool Vibration Modeling for Wear Identification. Major Advisers: Profs. Subbiah Ramalingam and K.A. Stelson. June Graduate.

Shi-Zoom Wang, Taichung, Taiwan B.S.E. '78, M.S. '81. National Cheng Kung University. Major: Mechanical Engineering. Minor: Related Fields. Major Adviser: Prof. D.Y. Pui. June

# Gerard Nicholas Weisensel, Madison,

B.S. with honors '79, University of Wisconsin, Major: Mechanical Engineering, Minor: Mathematics, Electrical Engineering, Thesis: Influence of Fluid-Structure Interaction on the Modal Parameters of Thin Beams of Various Geometries, Major Adviser: Prof. D.A. Frohrib. October Graduate.

# Sadek Wahba Youssef, Alexandria,

Egypt

B.S. 74, Alexandria University; M.S. '80, Cairo University, Major: Mechanical Engineering, Minor: Mathematics, Major Adviser: Prof. T. H. Kuehn, September Graduate.

# Master of Science in Ophthalmology

MAYO GRADUATE SCHOOL OF MEDICINE

# George Ronald Reiss

B.A. magna cum laude, Southern Connecticut State College; M.D. '81, State University of New York, Stony Brook, Major: Ophthalmology, Minor: Related Fields. Thesis: Aqueous Ascorbic Acid Levels in the Animal World, Major Adviser: Prof. R.F. Brubaker. August Graduate.

# Master of Science in Orthopedic Surgery

MAYO GRADUATE SCHOOL OF MEDICINE

Kenneth Allen Pettine, Fort Collins B.A. '76, Colorado College; M.D. with honors '81, University of Colorado. Major: Orthopedic Surgery. Minor: Related Fields. Thesis: Analysis of the External Fixator Pin Bone Interface. Major Adviser: Prof. P.J. Kelly. August Graduate.

### Master of Social Work

#### Scott Eugene Bartell

B.A. cum laude '73, University of Minnesota. Major: Social Work. Major Adviser: Prof. C.D. Hollister. June Graduate.

# John Edward Beach, Minneapolis

B.S. '81, University of Minnesota. Major: Social Work. Major Adviser: Prof. J.F. Gilgun. Graduation Pending.

# Catherine Guerrero Bishop,

Minneapolis

B.A. '78, University of Iowa. Major: Social Work. Major Adviser: Prof. N.M. Abramson. June Graduate.

# Marie Joyce Boler

B.A. '76, Metropolitan State University. Major: Social Work. Major Adviser: Prof. J.F. Gilgun. June Graduate.

# Theresa Ann Brinkhaus, Bloomington

B.A. '81, University of Minnesota. Major: Social Work. Major Adviser: Prof. G.S. Hoshino. September Graduatc.

# Barbara Bess Buchanan, Fridley

B.A. '82, University of Minnesota. Major: Social Work Major Adviser: Prof. M.R. Cohn. October Creducto

### Clarissa Helena Campbell,

# Minneapolis

B.A. '65, University of Connecticut; M.A. '66, University of Massachusetts, Amherst. Major: Social Work, Major Adviser: Prof. J.K. Quam. July Graduate

# Braden Ripley Canfield, Rockford, Ill. B.S. '80, Illinois State University. Major: Social

B.S. '80, Illinois State University. Major: Social Work. Major Adviser: Prof. J.L. Edleson. July Graduate.

### Lynn S. Chepolis, Minneapolis

B.A. '60, University of Colorado, Boulder; M.S. '79, Wright State University. Major: Social Work. Major Adviser: Prof. M.C. Cohn. June Graduate.

#### Linda J. Frieden, Minneapolis

B.A. with distinction '78, Iowa State University of Science and Technology. Major: Social Work. Major Adviser: Prof. J.K. Quam. June Graduate.

# Michelle Poore Griggs, St. Paul

B.S. '79, University of Minnesota. Major: Social Work. Major Adviser: Prof. N.M. Abramson. October Graduate.

#### Kurt Brian Hannes, Minneapolis

B.A. with high scholastic honors 72, St. Cloud State College; M.A. '76, Michigan State University, East Lansing. Major: Social Work. Major Adviser: Prof. J.K. Quam. June Graduate.

#### Susanne Kay Hollister, Minneapolis

B.S. '78, University of Wisconsin, La Crosse. Major: Social Work. Major Adviser: Prof. G.S. Hoshino. June Graduate.

#### Marilyn Susan Israel, Virginia

B.A. '66, University of Minnesota. Major: Social Work. Major Adviser: Prof. Annalee Stewart. June Graduate.

# Steve Dayle Klemz, St. Cloud

B.A. '80, B.S. '82, St. Cloud State University. Major: Social Work. Major Adviser: Prof. Annalee Stewart. June Graduate.

# Kim Diane Adlis Kraft, Strandquist

B.S.W. '81, Moorhead State University. Major: Social Work. Major Adviser: Prof. N.F. Bracht. June

#### Janice Susan Krebsbach, Eveleth

Graduate.

B.A. '79 cum laude, St. Cloud State University. Major: Social Work. Major Adviser: Prof. J.F. Gilgun. June Graduate.

#### Margaret Camille Larson, Minneapolis B.A. '70, University of Colorado, Boulder. Major: Social Work. Major Adviser: Prof. L.E. Jones. June

Michelle Rose Lesley, Minneapolis B.S. '78, Illinois State University, Normal. Major: Social Work. Major Adviser: Prof. N.F. Bracht. Graduation Pending.

# John William Lynch, Far Rockaway,

B.A. '77, Augustana College. Major: Social Work. Minor: Related Fields. Major Adviser: Prof. N.F. Bracht. June Graduate.

Mary Patricia Maher, Minneapolis B.A. '80, Carleton College. Major: Social Work. Major Adviser: Prof. J. F. Gilgun. September Grad-

#### Elizabeth Marie Mendoza,

#### Minneapolis

B.A. '80, College of St. Benedict. Major: Social Work. Major Adviser: Prof. N.M. Abramson. June

### Lynn R. Mickelsen, Minneapolis

B.A. '82, Luther College. Major: Social Work. Major Adviser: Prof. J.F. Gilgun. June Graduate.

#### Julia Kimberly Moen, St. Paul

B.A. '80, Bethel College. Major: Social Work. Major Adviser: Prof. M.R. Cohn. Graduation Pending.

# Diane Virginia Morlan, Minneapolis

B.A. '77, Moorhead State University. Major: Social Work. Major Adviser: Prof. J. K. Quam. June Grad-

#### Beth Luise Pfund Muehlberg

B.A. magna cum laude '78, Moorhead State University. Major: Social Work. Major Adviser: Prof. N.F. Bracht. July Graduate.

#### Angela Katherine Noll

B.S.W. '82, University of Minnesota. Major: Social Work. Major Adviser: Prof. M.R. Cohn. October Graduate.

#### Iane Marie Otto, Minneapolis

B.A. magna cum laude '83, University of Minnesota. Major: Social Work. Major Adviser: Prof. L.E. Jones. Graduation Pending.

#### Karol Lea Parker, New Town, N.D.

B.A. '77, Macalester College. Major: Social Work. Major Adviser Prof. Annalee Stewart. Graduation Pending.

#### Michael Francis Pattison, Minneapolis B.A.S. '83, University of Minnesota. Major: Social Work. Major Adviser: Prof. N.M. Abramson. Sep-

Catherine Anne Percival, Bloomington B.A. '84, University of Minnesota. Major: Social Work. Major Adviser: Prof. M.R. Cohn. June Grad-

# Joan Cynthia Pilot, St. Cloud

tember Graduate

B.A. '76, University of Minnesota. Major: Social Work. Major Adviser: Prof. Annalee Stewart. September Graduate.

#### Lisa Helen Potswald, Duluth

B.A. '78, Univesity of Minnesota. Major: Social Work. Major Adviser: Prof. J.L. Edelson. October Graduate.

### Sandra Lea Radtke

B.A. cum laude '74, Moorhead State University. Major: Social Work. Major Adviser: Prof. J.K. Quam. June Graduate.

#### Sharon Rose Robinson

B.A. '79, University of Minnesota. Major: Social Work. Major Adviser: Prof. C.D. Hollister. June Graduate.

#### Marjorie Ann Rokala, Dassel

B.A. 72, University of Minnesota. Major: Social Work. Major Adviser: Prof. C.D. Hollister. July Graduate.

# Nina Louise Ross, Minneapolis

B.A. '80, Macalester College. Major: Social Work. Major Adviser: Prof. N.F. Bracht. Graduate Pend-

### Caroline Schultz

A.B. '81, Grinnell College. Major: Social Work. Major Adviser: Prof. J.F. Gilgun. June Graduate.

Susan Kay Schwartz, Hartington, Neb. B.A. '76, University of Nebraska, Lincoln. Major: Social Work. Major Adviser: Prof. N.M. Abramson. September Graduate.

### Susan Patricia Sethna, St. Paul

B.A. '81, Carleton College. Major: Social Work. Major Adviser: Prof. G.S. Hoshino. September Graduate.

# Jan Virginia Shainline

B.A. '78, Colorado State University. Major: Social Work. Major Adviser: Prof. L.E. Jones. August Graduate.

#### Jean Patricia Shirley, Duluth

B.A. cum laude '81, College of St. Scholastica. Major: Social Work. Major Adviser: Prof. M.R. Cohn. October Graduate.

#### September Steinolfson, Eden Prairie B.A. magna cum laude '76, University of Colorado. Major: Social Work. Major Adviser: Prof. R.S. Pandey. July Graduate.

Teresa Anne Stepaniak, New Brighton B.A. cum laude '82, College of St. Thomas. Major: Social Work. Major Adviser: Prof. M.R. Cohn. Graduation Pending.

Susan Lori Stewart, St. Paul B.A. summa cum laude '83, Hamline University. Major: Social Work. Major Adviser: Prof. G.S. Hoshino. June Graduate.

#### Carol Ann Tinkham, Minneapolis

A.B. '68, Boston University. Major: Social Work. Major Adviser: Prof. N. M. Abramson. June Graduate.

# Master of Social Work

UNIVERSITY OF MINNESOTA, DULUTH

Jeanne Phyllis Gillen, Brainerd B.A. '70, Bemidji State University. Major: Social Work. Major Adviser: Prof. D. R. Falk. May Gradu-

### **Specialist Certificate in Education**

Thomas Murray Daly, Minneapolis B.A. '59, St. John's University; M.A. '84, University of Minnesota. Field: General Educational Administration. Major Adviser: Prof. S.H. Popper. September Graduate.

# Academic Costume

Academic costume—cap, gown, and sometimes hood—may be worn by anyone with a college degree, or by a candidate whose degree is soon to be awarded. Characteristics of costumes show their wearers' highest degrees and, often, the fields of major interest and the institutions by which the degrees are granted.

All bachelors' and masters' gowns are black and untrimmed. The bachelor's gown has a long pointed sleeve, the master's a closed sleeve with an arm slit. Doctors' gowns in the United States are usually black, with velvet front facings and sleeve crossbars. Some universities, especially those abroad, prescribe colorful crimson, bright red, or other colors, set off by black or colored facings.

At commencements, degree candidates wear the gowns for the degrees they are about to receive. Hoods are worn only by those who already possess degrees. Anyone who has a University of Minnesota degree may wear the Minnesota hood—black with a maroon chevron on gold. The length and shape of a hood identify the most advanced degree its wearer has earned, and the hood's velvet edging shows the degree's field: dark blue for philosophy, light blue for education, green for medicine, lilac for dentistry, orange for engineering, russet for forestry, drab for business, olive green for pharmacy, purple for law, gray for veterinary medicine, golden yellow for science, white for liberal arts.

Caps—usually tasseled mortarboards—show by tassel color the nature of degrees awarded at University of Minnesota commencements. Doctors' tassels may be black or gold; masters' are black. Bachelor's degree candidates at Minnesota, however, indicate their fields of study by their tassel colors:

College of Agriculture maize
College of Biological Sciences golden yellow
Conginuing Education and Extensionorange and drab
School of Dentistrylilac
College of Education light blue
College of Forestry maize
General Collegecrimson and white
College of Home Economics maize
Law Schoolpurple
College of Liberal Arts white
School of Management drab
Medical School green
School of Nursing green
College of Pharmacy olive
School of Public Health green
Institute of Technology orange
University Collegeold gold and white
College of Veterinary Medicine

After receiving their degrees, holders may wear the academic costume on any appropriate occasion, but they always wear the black tassel, and omit the shoulder insignia. Appropriate academic costumes can be obtained anywhere that academic ceremonies are conducted.

Gold shoulder epaulets are worn by candidates who are honor students.

# Fall 1986 Graduation Events

**College of Agriculture**, 7 p.m. December 4 Northrop Memorial Auditorium

College of Education, 7:30 p.m. December 8 Northrop Memorial Auditorium

College of Forestry, 5:30 p.m. December 4 Theater, St. Paul Student Center

General College, 7 p.m. December 11 Theater-lecture hall, Coffman Memorial Union

**Graduate School**, 7 p.m. December 7 Northrop Memorial Auditorium

**College of Home Economics**, 7 p.m. December 5 North Star Ballroom, St. Paul Student Center

**College of Liberal Arts**, 1 p.m. December 7 Northrop Memorial Auditorium

School of Management, 2 p.m. December 14 Auditorium, Willey Hall