

## University of Minnesota

Spring 1987 Commencement

January-April Graduate School Candidates for Degrees

## **Board** of Regents

The Honorable Wendell R. Anderson, Wayzata

The Honorable Charles H. Casey, West Concord

The Honorable M. Elizabeth Craig, Minnetonka

The Honorable Jack P. Grahek, Ely

The Honorable Wally Hilke, St. Paul

The Honorable Elton A. Kuderer, Fairmont

The Honorable David M. Lebedoff, Minneapolis

The Honorable Charles F. McGuiggan, Marshall

The Honorable Wenda W. Moore, Minneapolis

The Honorable David K. Roe, Minneapolis

The Honorable Stanley D. Sahlstrom, Crookston

The Honorable Mary T. Schertler, St. Paul

## Administrative Officers

Kenneth H. Keller, President

Roger W. Benjamin, Provost and Vice President for Academic Affairs

Stephen S. Dunham, General Counsel and Vice President

Stanley B. Kegler, Vice President for Institutional Relations

David M. Lilly, Vice President for Finance and Operations

Richard J. Sauer, Vice President for Institute of Agriculture,

Forestry, and Home Economics

Neal A. Vanselow, Vice President for Health Sciences

Frank B. Wilderson, Vice President for Student Affairs

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, Minneapolis, Minnesota 55455.

THE BOARD OF REGENTS requests that the following Northrop Memorial Auditorium procedure be adhered to: Smoking is permitted in posted areas only and is confined to the west side of the building.

## 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**

#### David Kurt Abrahamson, Fridley

B.S. with distinction '62, M.A. '66, University of Minnesota. Major: Educational Administration. Minor: Supporting Program. Project: Teacher Opinions on Selected Morale Factors in North Central Association (NCA) Elementary Schools and Non-affiliated Schools. Major Adviser: Prof. G.F. Alkire. December Graduate.

#### Kathleen Louise Johns, Portugal

B.A. '69, State University of New York; M.S.Ed. '74, State University College, Brockport. Major: Educational Administration. Minor: Supporting Program. Project: Ego Development and the Performance Effective Elementary Principals in the Overseas American Schools. Major Adviser: Prof. V.L. Hendrix. Graduation Pending.

#### Elliott L. Moeser, Duluth

B.S.Ed. '69, Midland College; M.A. '72, University of Wisconsin. Major: Educational Administration. Minor: Supporting Program. Project: Perceptions of Collective Bargaining Agreements in Idaho Schools. Major Adviser: Prof. C. P. Hooker. Graduation Pending.

#### **Doctor of Musical Arts**

## Patricia Dawn Backhaus, Waukesha,

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

#### Robert Warren Kase, Anoka

B.S. '73, University of Minnesota; M.M.E. '75, North Texas State University. Major: Music. Minor: Supporting Program. Major Adviser: Prof. D.B. Baldwin. Graduation Pending.

#### **Doctor of Philosophy**

Linda Mae Aanonsen, Green Bay, Wis. B.S. cum laude '78, Edgewood College. Major: Pharmacology. Minor: Neuroscience. Thesis: The Pharmacological Characterization and Nociceptive Action of Excitatory Amino Acids in the Rodent Spinal Cord. Major Adviser: Prof. G.L. Wilcox. Graduation Pending.

## Ismaile Sherine Abdalla, Alexandria,

M.B.Ch.B '75, M.P.H. '80, Alexandria University. Major: Epidemiology. Minor: Supporting Program. Thesis: Ventricular Premature Beats and Sudden Cardiac Death in Apparently Healthy Men. Major Adviser: Prof. R.J. Prineas. Graduation Pending.

#### 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 Adviser: Prof. V.L. Hendrix. January Graduate.

#### Robert A. Aherin, Monticello, Ill.

B.S. '71, M.S. '73, Illinois State University. Major: Education. Minor: Supporting Program. Thesis: The Prediction and Analysis of Safety Behaviors Among Dairy Farmers in Central Wisconsin. Major Adviser: Prof. R.L. Peterson. Graduation Pending.

#### Laurelee Ann Ahlman

B.A. '70, Northern Michigan University; M.A. '81, University of Minnesota. Major: Educational Administration. Minor: Supporting Program. Thesis: An Analysis of the Consensus of the Role of the Superintendent of Schools in Alaska. Major Adviser: Prof. V.D. Mueller. December Graduate.

Barbara Ellen Ainsworth, Maple Grove B.A. cum laude '74, Fresno State College; M.A. '75, University of Minnesota. Major: Physical Education. Minor: Supporting Program. Thesis: The Effect of Various Durations of Active Recovery on Total and Peak Power Output of Consecutive Ergometer Tests. Major Adviser: Prof. R.C. Serfass. Graduation Pending.

#### Livi Chibuike Ajuonuma, Nigeria

B.A. '82, Huntington College; M.A. '83, University of Minnesota. Major: Mass Communication. Minor: Supporting Program. Thesis: Crisis Reporting and the New World Information Order: U.S. Television Networks News and the Sahelian Hunger Crisis. Major Adviser: Prof. R.E. Carter. Graduation Pending.

#### Juichiro Akiyama

B.C.E. '77, Kyushu University; M.S.C.E. '81, University of Minnesota. Major: Civil Engineering. Minor: Supporting Program. Thesis: Two-Layer Stratified Flow Analysis of Gravity Currents and Turbidity Currents in Lakes, Reservoirs, and the Ocean. Major Adviser: Prof. H.G. Stefan. Graduation Pending.

#### Michael Peter Akpe, Edo, Nigeria

B.S. '79, Tennessee State University; M.S. '82, Louisiana State University. Major: Animal Science. Minor: Supporting Program. Thesis: Phosphorus Biological Availability Studies Using Bone Ash, Bone Densitometry, and Phosphorus Solubility as Response Criteria. Major Adviser: Prof. P.E. Waibel. Graduation Pending.

Saleh Yaseen Ali, Kuwait City, Kuwait B.A. '76, B.S.C.E. '77, University of the Pacific; M.S.C.E. '79, Stanford University. Major: Civil Engineering. Minor: Supporting Program. Thesis: Regional Freight Demand Modeling with Application to Grain Transport. Major Adviser: Prof. Y.J. Stephanedes. February Graduate.

#### Christian Paul Andersen, Cleveland, Ohio

B.S. cum laude '80, Slippery Rock University; M.S. '83, Purdue University. Major: Forestry. Minor: Plant Physiology. Thesis: Dry Weight Partitioning, Growth at Low Temperature and Root Hydraulic Conductivity in V-A Mycorrhizal Fraxinus Pennsylvanica Marsh. Major Advisers: Profs. R.K. Dixon and E.I. Sucoff. February Graduate.

#### Scott Fleming Anfinson, Northfield

B.A. '72, University of Minnesota. Major: Anthropology. Minor: Supporting Program. Thesis: The Prehistory of the Prairie Lake Region in the Northeastern Plains. Major Adviser: Prof. G. E. Gibbon. March Graduate.

## Pamela Kidder Ashley, Charlotte,

B.A. '75, University of North Carolina. Major: Psychology. Minor: Supporting Program. Thesis: The Continuity of Social Adaptation from Infancy Through Kindergarten. Major Adviser: Prof. Byron Egeland. Graduation Pending.

## 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. December Gradu-

## Suzanne J. Baizerman, Mountain View, Calif.

B.A. with distinction '63, University of California; M.S. '65, Columbia University. Major: Design, Housing and Apparel. Minor: Anthropology. Thesis: Textiles, Traditions and Tourist Art: Hispanic Weaving in Northern New Mexico. Major Adviser: Prof. J.B. Eicher. Graduation Pending.

#### Bruce Robert Baller

B.M.E. '73, University of Minnesota. Major: Physics. Minor: Supporting Program. Thesis: Exclusive Wide Angle Scattering as a Test of Perturbative Quantum Chromodynamics. Major Adviser: Prof. E.A. Peterson. March Graduate.

#### Diana Joan Barber, Bloomington

B.A. with high distinction '71, M.A. '78, University of Minnesota. Major: Education. Minor: Supporting Program. Thesis: The Impact of Citizen Participation in Mandated Curriculum Decision-Making Groups at School and District Levels. Major Adviser: Prof. R.D. Kimpston. Graduation Pending.

Vincent Alexander Barnett, Burnsville B.S. '79, Oregon State University; M.S. '84, University of Minnesota. Major: Biochemistry. Minor: Supporting Program. Thesis: Conformational Dynamics of Myosin and Their Relation to the Molecular Mechanism of Muscle Contraction. Major Adviser: Prof. D.D. Thomas. Graduation Pending.

#### Roberta Jean Barta

B.S. magna cum laude '70, M.S. University of North Dakota. Major: Education. Minor: Supporting Program. Thesis: A Comparison of Teacher-Directed Computer Based Instruction and Self-Directed Computer Based Instruction in Teaching Beginning Keyboarding to College Students. Major Advisers: Profs. C.R. Hopkins and J.J. Lambrecht. Graduation Pending.

## Laurence Edward Baumann, South St. Paul

D.V.M. '78, Purdue University; M.S. '82, University of Minnesota. Major: Theriogenology. Minor: Epidemiology. Thesis: Monitoring and Predicting Reproductive Performance in Dairy Herds. Major Advisers: Profs. M.L. Fahning and N.B. Williamson. Graduation Pending.

#### Erica J. Behnke, Rochester, N.Y.

B.S. '78, Michigan State University; M.S. '80, University of Minnesota. Major: Animal Physiology. Minor: Supporting Program. Thesis: Bovine Sperm Capacitation and Oocyte Maturation in vitro. Major Adviser: Prof. A.G. Hunter. Graduation Pending.

#### Keith Lin Belli

B.S. with high distinction '80, M.S. '81, Michigan State University. Major: Forestry. Minor: Supporting Program. Thesis: A Simulation Model for the Artificial Regeneration Process in the Great Lakes Region. Major Adviscr: Prof. A.R. Ek. December Graduate

#### Kelly Marquerite Bemis

B.A. summa cum laude '78, University of Minnesota. Major: Psychology. Minor: Supporting Program. Thesis: A Comparison of the Subjective Experience of Individuals with Eating Disorders and Phobic Disorders: The "Weight Phobia" Versus "Approach-Avoidance" Models of Anorexia Nervosa. Major Advisers: Profs. Norman Garmezy and S.D. Hollon. December Graduate.

#### Michael Eugene Berndt, St. Louis Park

B.S.Geo. with distinction '80, University of Minnesota; M.S. '80, University of Wisconsin. Major: Geology. Minor: Supporting Program. Thesis: Experimental and Theoretical Constraints on the Origin of Mid-Ocean Ridge Geothermal Fluids. Major Adviser: Prof. W. E. Seyfried, Jr. Graduation Pending.

#### Allen Michael Booth, Fulton, N.Y.

B.A. '74, M.D. '77, Johns Hopkins University. Major: Physiology. Minor: Pharmacology. Thesis: The Effect of Bilateral Cervical Vagotomy on the Initial Hemodynamic Response to Exercise in Dogs. Major Adviser: Prof. 1.J. Fox. March Graduate.

#### Benjamin Bornsztein, Buenos Aires, Argentina

Prof. Ens. Sec. Norm. Esp. Ciencias. Educ. '76, Universidad de Buenos Aires; M.A. '78, University of Minnesota. Major: Education. Minor: Supporting Program. Thesis: Why Did They Come? A Study of the Major Factors Which Influence the Foreign Student's Decision to Apply for Admission to Selected Graduate Schools of Education in the United States. Major Adviser: Prof. R.T. Lambert. January Graduate.

Michael Thomas Boyce-Jacine, St. Paul B.S. '81, University of Wisconsin. Major: Microbiology. Minor: Supporting Program. Thesis: Structure, Function and Evolution of a Novel Avian Endogenous Retrovirus Family. Major Adviser: Prof. A.J. Faras. Graduation Pending.

#### David James Brand

B.A. with distinction '78, University of Minnesota. Major: Chemistry. Minor: Supporting Program. Thesis: An Investigation of the Redox Chemistry of Daunomycin and Belated Aglycons. Major Adviser: Prof. J. F. Fisher. February Graduate.

#### Suzanne Brandon, Mount Hope, Wis.

B.A. honors 74, M.S. 76, University of Wisconsin. Major: Sociology. Minor: Supporting Program. Thesis: Mine! No, Mine! The Politics of Parental Kidnapping: An Interactionist Perspective. Major Adviser: Prof. R.E. Sykes. February Graduate.

#### Jody Ann Brylinsky, Ambridge, Pa.

B.S. 77, M. Ed. 79, Slippery Rock University. Major: Physical Education. Minor: Supporting Program. Thesis: Perception of Affordances in the Sport Specific Situation. Major Adviser: Prof. M. L. Krotec. March Graduate.

#### William Paul Bullock

B.S. '73, Randolph-Macon College; M.S. '80, University of Maryland. Major: Plant Breeding. Minor: Supporting Program. Thesis: A Test for Interspecific Recombination via Tissue-Culture-Induced Aberrations in Oats (Avena sativa L.). Major Adviser: Prof. R.L. Phillips. January Graduate.

#### Michael Carl Burke, Levittown, Pa.

B.S. with honor '78, Michigan State University. Major: Horticulture. Minor: Plant Breeding. Thesis: Pollen Staining for Determining Viability, Unreduced Gamete Differentiation, and Nuclear Influence on Pollen Tube Growth of Solanum Tuberosum Group Phureja. Major Adviser: Prof. F.I. Lauer. Graduation Pending.

#### 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. Raimunds Zemjanis. December Graduate.

#### John Lowell Butenhoff, Woodbury

B.A. '73, Franklin and Marshall College; M.S. '76, University of Minnesota. Major: Environmental Health. Minor: Supporting Program. Thesis: Environmental Sulfur Dioxide: Toxicity Toward the Alveolar Macrophage. Major Advisers: Profs. J.B. Stevens and D.E. Barber. Graduation Pending.

#### David Thomas Buzza

B.A. '66, Macalester College; M.A. '68, University of Denver, Major: Theatre Arts. Minor: Supporting Program. Thesis: English Female Costume 1400 to 1485 as Represented on Monumental Brasses and Brass Rubbings. Major Adviser: Prof. Wendell Josal. December Graduate.

#### Joanne Carol Carlson

B.A. '52, Carleton College; M.A. '80, University of Minnesota. Major: English. Minor: Supporting Program. Thesis: Women and Men in John Fowle's Fiction. Major Adviser: Prof. J. D. Hurrell. Graduation Pending.

#### Cynthia Clara Carlton-Ford,

#### Montgomery, Ala.

B.A. '75, Auburn University; M.A. '78, University of Minnesota. Major: English. Minor: Supporting Program. Thesis: Conversation and Power: Dialogue in the Nineteenth-Century Novel. Major Adviser: Prof. W.A. Madden. Graduation Pending.

#### Ancheng Chang

B.S. Ag. 80, National Taiwan University. Major: Chemistry. Minor: Supporting Program. Thesis: Characterization and Properties of Polymerized 3-Methoxythiophene. Major Adviser: Prof. L.L. Miller. Graduation Pending.

## 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. December Graduate.

#### Celeste Leonore Chayabutr, Arden Hills

B.A. 67, Gustavus Adolphus College; M.A.T. '68, Harvard University; M.A. with honors '7I, Western Michigan University. Major: Mathematics. Minor: Supporting Program. Thesis: The Purity of the Frobenius and the Upper Bound Conjecture for Combinatorial Manifolds. Major Adviser: Prof. J.L. Roberts. March Graduate.

#### Gael Frances Cheek, St. Paul

B.A. '71, University of Wisconsin: M.S. '75, Long Island University. Major: Family Social Science. Minor: Supporting Program. Thesis: Consciousness Raising and Woman's Power: Power and Ideology in Marriage. Major Adviser: Prof. P.C. Rosenblatt. Graduation Pending.

#### 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, December Graduate

#### Dipankar Choudhury

B.E. '80, Birla Institute of Technology and Science; M.S.M. E. '82, University of Kentucky. Major: Mechanical Engineering, Minor: Supporting Program. Thesis: A Quasi-Three-Dimensional Calculation Procedure for the Prediction of Flow and Heat Transfer in Heat Exchanger Passages. Major Adviser: Prof. S.V. Patankar. Graduation Pending.

# 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, December

#### M. Michelle Coady, Ames, Iowa

B.S. '80, Iowa State University: M.B.A. '84, St. Ambrose College. Major: Education. Minor: Supporting Program. Thesis: Factors that Influence an Industrial Trainer's Choice of Program Evaluation Methods. Major Adviser: Prof. Jerome Moss, Jr. Graduation Pending.

#### Terry Glenn Cochran

Graduate.

B.A. '78, University of Tennessee; M.A. '81, University of Minnesota. Major: Comparative Literature. Thesis: Disparate Discourse: Rhetoric and the Constitution of Literary History. Major Adviser: Prof. Wladyslaw Godzich. February Graduate.

#### Norman Jeffrey Cohen, Minneapolis

B.A. magna cum laude 80, Brown University, Major: Psychology, Minor: Supporting Program. Thesis: The Response of Chronic Pain Patients to the Original and Revised Versions of the Minnesota Multiphasic Personality Inventory, Major Adviser: Prof. J.N. Butcher, January Graduate.

#### Roberto Contreras Medellin,

#### Matamoros, Mexico

Ing. Quim. '73, Universidad de Coahuila; Maestro '73, Instituto Tecnologico y de Estudios Superiores de Monterrey. Major: Chemical Engineering. Minor: Supporting Program. Thesis: Hot Air and Microwave Drying of Deformable and Rigid Porous Media. Major Advisers: Profs. H.T. Davis and E.A. Davis. February Graduate.

#### Susan J. Crockett, Fargo, N.D.

B.S. '66, University of North Dakota; M.S. '71, North Dakota State University. Major: Physiological Hygiene. Minor: Supporting Program. Thesis: Parent Education in a School-Based Nutrition Intervention Aimed at Third Grade Children. Major Advisers: Profs. A.S. Leon and R.M. Mullis. Graduation Pending.

#### Sharon Louise Cummings,

#### Minneapolis

B.S. '63, Mount Union College; M.S. '66, Michigan State University. Major: Anatomy. Minor: Supporting Program. Thesis: Studies on Corticotropin Releasing Factor (CRF) in the Central Nervous System. Major Adviser: Prof. R.P. Elde. February Graduate

# James Nelson Davis, Little Rock, Ark. B.A. '67, Ouachita Baptist University; M.A. '71, University of Chicago. Major: Education. Minor: Supporting Program. Thesis: Effects of Knowledge of Text Structure on Comprehension of Expository Prose Read in a Foreign Language. Major Adviser: Prof. D.L. Lange. February Graduate.

#### Mark Albert Deeg

B.S. summa cum laude '81, University of Minnesota. Major: Pharmacology. Minor: Biochemistry. Thesis: Cyclic 3',5'- and 5'-Nucleotide Metabolism Related to Stimulus-Secretion Coupling. Major Adviser: Prof. N. D. Goldberg. Graduation Pending.

#### Deborah Kay Deemer, Natrona Heights, Pa.

B.A. '74, Muskingum College; M.S. '79, Pennsylvania State University. Major: Educational Psychology. Minor: Supporting Program. Thesis: Moral Judgment and Life Experience. Major Adviser: Prof. J. R. Rest. Graduation Pending.

## Christopher L. DeFranco, Chicago, Ill.

B.S. '74, Northern Illinois University. Major: Biochemistry. Minor: Genetics. Thesis: Analysis of the Chemical Decay of the Chloramphenicol Acetyltransferase mRNA in Escherichia coli. Major Advisers: Profs. J.A. Fuchs and J.L. Schottel. Graduation Pending.

#### Thomas Michael Dickhudt, Ogilvie

B.A. '69, St. John's University; M.S. '80, St. Cloud State University. Major: Educational Administration. Minor: Supporting Program. Thesis: Perceptions of Elementary and Secondary Principals of Information Services Offered by Educational Cooperative Service Units in Minnesota. Major Adviser: Prof. T.L. Mazzoni. January Graduate.

#### Cristina Duplaa, Barcelona, Spain

Lic. '78, Universidad Autonoma de Barcelona; Lic. '80, Universidad de Barcelona; M.A. '84, University of Minnesota. Major: Hispanic and Luso-Brazilian Literatures. Minor: Supporting Program. Thesis: La Ben Plantada O La Construccion Mitica de la Nacionalidad Catalana. Major Adviser: Prof. Antonio Ramos. January Graduate.

#### E. Daniel Eckberg, Minneapolis

B.A. '58, St. Olaf College; B.S. '62, University of Minnesota. Major: Education. Minor: Supporting Program. Thesis: Perception of Control of Environment and its Reaction to the Acquisition of Critical Thinking and Conflict Resolution Skills. Major Adviser: Prof. W.E. Gardner. Graduation Pending.

#### Karl L. Edwards, Rexburg, Idaho

B.A. '67, M.A. '69, Brigham Young University. Major: Educational Psychology. Minor: Supporting Program. Thesis: The Influence of Discourse Structure in the Metacognition of Ricks College Students. Major Adviser: Prof. S.J. Samuels. Graduation Pending.

#### Saleh Hassan El-Sharkawy

B. Pharm. S. '73, University of Alexandria. Major: Pharmacognosy. Minor: Supporting Program. Thesis: Biotransformation of Zearalenone. Major Adviser: Prof. Y. J. Abul-Hajj. Graduation Pending.

#### 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. December Graduate.

## Judy Anne Enenstein, Lincolnwood, Ill.

B.A. '74, University of Wisconsin; M.A. '79, Johns Hopkins University. Major: Pathobiology. Minor: Cell and Developmental Biology. Thesis: Isolation and Characterization of Epinectin, A Molecule Involved in Cell-Substratum Adhesion. Major Adviser: Prof. L.T. Furcht. Graduation Pending.

#### Marian Jean Enos, Minneapolis

B.S.N. with distinction '71, M.S. '73, University of Minnesota. Major: Education. Minor: Supporting Program. Thesis: Learning in a Residential Educational Program in Independent Living Skills for Adults with Epilepsy. Major Adviser: Prof. R.A. Willie. 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. January Graduate.

#### Andreas Bernd Ernst

B.A. '82, Hope College, Major: Chemistry, Minor: Supporting Program. Thesis: Manganese (III) Acetate Oxidations of Activated Acids, Major Adviser: Prof. W.E. Fristad. Graduation Pending.

#### Mark David Evans, Roseville

B.A. magna cum laude <sup>7</sup>9, University of Minnesota, Major: Psychology, Minor: Supporting Program. Thesis: Accounting for Relapse in a Treatment Outcome Study of Depression, Major Adviser: Prof. S.D. Hollon, Graduation Pending.

#### Brahim Ezzahiri

Dipl. Agron. Gen. '53, Institut Agronomique et Veterinaire Hassan II. Major: Plant Pathology. Minor: Supporting Program. Thesis: Wheat Leaf Rust Epidemiology in Morocco and the Expression and Inheritance of Resistance in the Cultivar Era. Major Adviser: Prof. A.P. Roelfs. December Graduate.

## Elizabeth Victoria Faue, Minneapolis B.A. summa cum laude 79, M.A. 'S5, University of Minneapole Minneapole Winter Minney Supporting

Minnesota. Major: History. Minor: Supporting Program. Thesis: Women, Work and Community in Minneapolis, 1929-1946. Major Adviser: Prof. S.M. Evans. Graduation Pending.

#### Stephen Allyn Ford, St. Paul

A.B. '77, Colby College; M.S. '83, University of Minnesota, Major: Agricultural Economics, Minor: Supporting Program, Thesis: Forecasting Regional Production Relationships: Interregional Competition in the U.S. Turkey Market, Major Adviser: Prof. V.R. Eidman, March Graduate.

#### Antonio Francisco Fortes

Eng. Mecan. '75, Universidade Federal de Minas Gerais; Mest. Eng. '78, Instituto Tecnologico de Aeronautica. Major: Mechanics. Minor: Mechanical Engineering. Thesis: Nonlinear Mechanics in the Fluidization of Beds of Spherical Particles. Major Advisers: Profs. T. S. Lundgren and D. D. Joseph. December Graduate.

#### John E. Fredericksen

B.S. with honors '72. St. Cloud State University; M.A. '78, College of St. Thomas. Major: Educational Administration. Minor: Supporting Program. Thesis: Key Community Indicators for Referendum Levy Elections in Minnesota School Districts. Major Adviser: Prof. V.D. Mueller. Graduation Pending

#### John Philip Froelich, St. Cloud

B.S. '72, St. Cloud State College; M.A. '80, University of Minnesota. Major: Music. Minor: Supporting Program. Thesis: Mouthpiece Forces During Trombone Performance. Major Adviser: Prof. E.M. Turrentine. Graduation Pending.

#### Alan Belmore Frol

A.B. 72, University of California, Berkeley. Major: Psychology. Minor: Supporting Program. Thesis: Thermoregulatory Behaviors in the Rat During Repeated Heat Exposures. Major Adviser: Prof. W.W. Roberts. Graduation Pending.

#### Martha Cruz Fuentes-Rangel, Mexico

Med. Vet. Zootec. '79, Universidad Nacional Autonoma de Mexico: M.S. '84, University of Minnesota. Major: Veterinary Medicine. Minor: Supporting Program. Thesis: Studies on the Role of Pseudorabics Virus in Pasteurella Pneumonia in Swine. Major Adviser: Prof. Carlos Pijoan. January 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 Black Bear Subclan: A Defended Culture. Major Adviser: Prof. J. M. Ingham. December 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. Ianuary Graduate.

#### Judy A. Garber

B.A. summa cum laude '73, State University of New York, Buffalo. Major: Psychology. Minor: Supporting Program. Thesis: Childhood Depression: Validation of the Construct. Major Adviser: Prof. P.E. Meehl. Graduation Pending.

## Maria Teresa Garcia-Mila, Barcelona,

Lic. <sup>‡</sup>77, Universidad de Barcelona. Major: Economics. Minor: Supporting Program. Thesis: Government Purchases and Real Output: An Empirical Analysis and Equilibrium Model with Public Capital. Major Adviser: Prof. C.A. Sims. February Graduate.

#### David Lee Garrison, Asheville, N.C.

B.A. '75, Appalachian State University; M.A. '78, Baylor University, Major: English, Minor: Supporting Program, Thesis: The Theory of a "Poetic Life" in the Practice of Coleridge and Keats, Major Adviser: Prof. Norman Fruman, Graduation Pending.

#### Carole Jean Gerster, Mahtomedi

B.A. '67, M.A. '79, University of Minnesota. Major: English. Minor: Supporting Program. Thesis: Women of Authority: Feminist Re-Vision in the Nineteenth-Century British Novel. Major Adviser: Prof. W.A. Madden. Graduation Pending.

#### Rita Susan Schultz Glazebrook, Cottage Grove

B.S. summa cum laude '79, Augsburg College; M.S. '81, University of Minnesota. Major: Educational Administration. Minor: Supporting Program. Thesis: The Relationship of Deans' Leadership Behaviors and Faculty Burnout in Baccalaureate Schools of Nursing. Major Adviser: Prof. W.M. Ammentorp, Graduation Pending.

#### Tzvika Goldenberg

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

#### Edward Michael Goolish

B.S. '79, Northern Illinois University; M.S. '82, University of Minnesota, Major: Fisheries, Minor: Supporting Program, Thesis: Tissue-Specific Partitioning of Energy Use in Fish. Major Adviser: Prof. I.R. Adelman. December Graduate

#### Rangaraj Gopaliengar, Bangalore, India

B.E. '78. Bangalore University, Major: Materials Science and Engineering. Minor: Supporting Program. Thesis: Kinetics of the Early Stages of Passivation and Dissolution of Pure Nickel in Acidic Environments. Major Adviser: Prof. R.A. Oriani. January Graduate

#### Elizabeth Anne Graeve, Minneapolis B.A. with highest honors '66, University of Northern Iowa; M.S. '74, University of Minnesota. Major: Education. Minor: Supporting Program. Thesis: Patterns of Self-Directed Professional

Learning of Registered Nurses. Major Adviser: Prof. H.Y. Williams. February Graduate

#### Judith Mary Green, St. Paul

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

#### Jan Steven Greenberg, Minneapolis

B.A. '74, University of Massachusetts; M.S.S.W '78, University of Wisconsin. Major: Family Social Science. Minor: Supporting Program. Thesis: Aging-Fathers' and Aging-Mothers' Perceptions of Relationships with Their Adult Children. Major Adviser: Prof. P.G. Boss. January Graduate.

## Duty Densmore Greene, Asheville,

B.A. '66, Brown University; B.S. with high honors '71, M. Econ. '73, North Carolina State University. Major: Agricultural Economics. Minor: Economics. Thesis: The Impact of Economic Policies on the Agricultural Sector and Food Consumption in the Dominican Republic: A Multimarket Analysis. Major Adviser: Prof. T.L. Roc. Graduation Pending.

#### Teresa Ann Gruber, St. Paul

B.S. Ag. with high distinction '83, University of Nebraska: M.S. '86. University of Minnesota, Major: Plant Breeding, Minor: Supporting Program, Thesis: Relation of Early Vigor S1 Lines with Agronomic Performance in an Elite Population of Maize. Major Adviser: Prof. J. L. Geadelmann. Graduation Pend-

#### Rosanne M. Gulino, Cincinnati, Ohio B.A. '70, St. Louis University; M.A. '77, University of Minnesota. Major: Classical Area Studies. Minor: Latin. Thesis: Implications of the Spatial Arrangement of Tabernae at Pompeii, Region One. Major Adviser: Prof. W.D.E. Coulson. Graduation

#### Hunjoo Ha, Seoul, Korea

B. Pharm. '81, Ewha Woman's University. Major: Pharmacology, Minor, Supporting Program, Thesis: Renal Vasoconstrictor Mechanisms in Experimental Diabetes Mellitus. Major Adviser: Prof. E.W. Dunham. January Graduate.

#### Inbong Ha

B.S. '76, B. Econ. '79, Kyungpook National University. Major: Economics. Minor: Supporting Program. Thesis: Predictability of Exchange Rates. Major Advisers: Profs. T. J. Sargent and C.A. Sims. January Graduate.

#### Myrna Pearl Haga, Grand Forks, N.D. Ph.B '64, University of North Dakota; M.S.W. '67, Washington University. Major: Social Work. Minor: Supporting Program. Thesis: A Description of Expert and Novice Clinical Reasoning in an Ill-Defined Problem Area. Major Adviser: Prof. B. Compton. Graduation Pending.

#### Kobra Haghighi, Tehran, Iran

M.S. '83, University of Minnesota. Major: Horticulture. Minor: Supporting Program. Thesis: Methods of Hybridization of Two Bean Species: Phaseolus Vulgaris and P. Acutifolius. Major Adviser: Prof. P.D. Ascher. January Graduate.

#### Michel Hanck, Brussels, Belgium

Ing. '80, Universite Libre de Bruxelles. Major: Physics. Minor: Supporting Program. Thesis: A New Approach to the Microscopic Theory of Light Ion Collisions. Major Adviser: Prof. Y.C. Tang. March Graduate

#### Betty Anne Hanley, Terrace Bay, Canada

B.A. '63, University of Western Ontario; M.M. '66, Wayne State University. Major: Music. Minor: Supporting Program. Thesis: Educators' Attitudes to Philosophies of Music Education: A Q Study. Major Advisers: Profs. E.M. Turrentine and C.E. Furman. January Graduate.

### Brian Francis Hanley, Lawrence,

#### Mass.

B.S.Ch.E. 79, University of Massachusetts. Major: Chemical Engineering. Minor: Supporting Program. Thesis: Dynamic Light Scattering from Index-Matched Ternary Solutions with Applications to Free Radical Polymerizationkinetics. Major Adviser: Prof. M. V. Tirrell. March Graduate.

#### Gary D. Hansen

B.S. 80, University of Puget Sound, Major: Economics, Minor: Supporting Program, Thesis: Three Essays on Labor Indivisibility and the Business Cycle, Major Adviser: Prof. E.C. Prescott, December Graduate.

#### Jo Anne Harkins

B.A. '73. M.A. '79. University of Minnesota. Major: Family Social Science. Minor: Supporting Program. Thesis: Adult Children of Alcoholic and Nonalcoholic Families: Emotional Distress and Intergenerational Transmission of Distance. Major Adviser: Prof. M.J. Hogan. December Graduate.

## Karen Marie Harmon, Fort Atkinson, Wis.

B.S. '81, University of Wiscousin, 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, December Graduate.

#### Pimolsri Kamolnate Harnpattanapanich, Bangkok, Thailand

D.V.M. honors '79. Chulalongkorn University; M.P.H. '82. University of Minnesota. Major: Veterinary Microbiology. Minor: Supporting Program. Thesis: Influence of Temperature and pH on the Production of Staphylococcal Enterotoxin A. Major Adviser: Prof. S.R. Tatini. March Graduate.

#### Zahir Hashemi, Minneapolis

B.A. cum laude '80, Macalester College; M.S.E.E. '82, University of Minnesota. Major: Control Science and Dynamical Systems. Minor: Supporting Program. Thesis: Adaptive Control via Energy Exchange. Major Adviser: Prof. K.S.P. Kumar. February 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. December Graduate.

#### 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. January Graduate.

#### Robert McCulloch Herndon, Jr.

B. E. S. '80, Johns Hopkins University. Major: Computer and Information Sciences. Minor: Supporting Program. Thesis: Attribute Grammer Systems for Prototyping Translators and Languages. Major Adviser: Prof. V. A. Berzins. Graduation Pending.

#### Carolyn Paula Herron, Mound

B.A. '70, University of Minnesota, Major: Psychology, Minor: Supporting Program. Thesis: Interrelationships Among Vocational Needs, Locus of Control, and Outcome Following Spinal Cord Injury. Major Adviser: Prof. G.T. Athelstan. Graduation Pending.

#### Brian James Hertog, Minneapolis

B.S. with distinction '77, M.S. '79, University of Minnesota. Major: Mechanics. Minor: Supporting Program. Thesis: The Elastic Dielectric: Minimizing States in Ferroelectrics. Major Adviser: Prof. Roger Fosdick. Graduation Pending.

#### 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. December Graduate.

#### Abderrahmane Hilali, Morocco

Dipl. Agron. Gen. '72, Dipl. Ing. Agron. '75, Institut Agronomique Hassan II. Major: Horticulture. Minor: Supporting Program. Thesis: Reciprocal Differences, Variability and Implication to Potato Production from True Seed of Tuberosum X Phureja Hybrids. Major Adviser: Prof. F.I. Lauer. Ianuary Graduate.

#### Timothy Donald Hill, Minneapolis

B.S. with honor '81, Michigan State University. Major: Pathobiology. Minor: Supporting Program. Thesis: The Role of Glutathione and Glutahione Peroxidase in Human Platelet Function and Arachidonic Acid Metabolism. Major Adviser: Prof. J.G.White. March Graduate.

#### Shervin Hojat

B.E.E. '80, M.S.E.E. '82, University of Minnesota. Major: Electrical Engineering. Minor: Computer and Information Sciences. Thesis: VLSI Placement. Major Adviser: Prof. R.Y. Kain. December Graduate

#### Mary Lou Honstead, Minneapolis

B.A. '76, Iowa State University; M.A. '83, University of Minnesota. Major: Educational Psychology. Minor: Supporting Program. Thesis: Correlates of Coping Methods of Sexually Harassed College Students. Major Adviser: Prof. M.L. Snoke. Graduation Pending.

#### Jungihn Hyun, Seoul, Korea

B.S.Ag. '71, M.S.Ag. '74, Seoul National University. Major: Forestry. Minor: Supporting Program. Thesis: Analysis of Dewatering Under Different Ram-Face Configurations in Compression Drying. Major Adviscr: Prof. J.G. Haygreen. December Graduate.

## Diane Helen Jackman, Platteville, Wis.

B.S. '73, M.S. '80, University of Wisconsin. Major: Education. Minor: Supporting Program. Thesis: A Comparison of Learning Styles Among Home Economics and Related Field Undergraduates. Major Adviser: Prof. R.G. Thomas. Graduation Pending.

#### Colleen Marie Jacks, St. Paul

B.A. '79, Gustavus Adolphus College. Major: Genetics. Minor: Supporting Program. Thesis: Sequence and Expression of a Processed Gene for Ribosomal Protein L32 in the Mouse. Major Adviser: Prof. P.B. Hackett. Graduation Pending.

#### Lawrence Dean Jacobson

B.A. '81, University of Colorado; M.S. '83, University of Minnesota. Major: Fisheries. Minor: Statistics. Thesis: Biomass Dynamics of Lake Trout (Salvelinus namaycush) in Lake Superior, 1948-76. Major Adviser: Prof. G.R. Spangler. December Graduate.

#### Lowell Douglas Jacobson

B.A. '79, Carleton College. Major: Electrical Engineering. Minor: Supporting Program. Thesis: Conjoint Image Representation and Its Application to Viewpoint Invariant Form Recognition and Optical Flow Estimation. Major Adviser: Prof. H.M. Wechsler. February Graduate.

#### Thomas Phillip Jacobson

B.S. '69, Bemidji Štate College; M.S. '73, St. Cloud State College; Spec. Cert. '80, University of Minnesota. Major: Educational Administration. Minor: Supporting Program. Thesis: Minnesota's Foundation Program: A Comparison of Revenue Equity Between Minnesota's 1983/84 Foundation Program and Minnesota's 1984/85 Five-Tier Foundation Program. Major Adviser: Prof. V.D. Mueller. December Graduate.

#### Kim-Kuo Jeng, Taiwan

B.E. '77, Chung Yuan Christian College of Science and Engineering. Major: Civil Engineering. Minor: Supporting Program. Thesis: System Reliability Study of Framed Steel Structures. Major Adviser: Prof. T.V. Galambos. February Graduate.

#### Barbara Elaine Johnson, Minneapolis

B.S. '63, Gustavus Adolphus College; M.S. '65, University of Minnesota. Major: Sociology. Minor: Supporting Program. Thesis: The Interruption as Moral Evaluation: An Analysis of Nursing Interactions Regarding Levels of Client Cares in the Midst of Conflicting Pressures of Change. Major Adviser: Prof. L.J. Litman. March Graduate.

#### Bette Magyar Johnson, Wayzata

B.A. '54, University of Michigan; M.A. '85, University of Minnesota. Major: Educational Psychology. Minor: Supporting Program. Thesis: Developmental Differences in Perceptions and Expectations: Implications for Family Relationships and Psychosocial Functioning in the Second Decade of Life. Major Adviser: Prof. R.A. Weinberg. Graduation Pending.

#### David Richard Johnson, Minneapolis

B.A. '73, University of Minnesota; M.S. '77, Mankato State University. Major: Educational Administration. Minor: Supporting Program. Thesis: An Analysis of Public Policy Affecting the Provision of Adult Life Transitional Services to Handicapped Youth. Major Adviser: Prof. R.F. Weatherman. March Graduate.

## Michael Donald Johnson, Edgerton, Wis

B.S. with honors '80, University of Wisconsin. Major: Agronomy. Minor: Supporting Program. Thesis: The Influence of Herbicide Formulation on Weed Control in Reduced Tillage. Major Adviser: Prof. D.L. Wyse. Graduation Pending.

#### Scott Duncan Johnson, Ham Lake

B.S. magna cum laude '75, Mankato State University; M.A. '81, University of Minnesota. Major: Education. Minor: Supporting Program. Thesis: Knowledge and Skill Differences Between Expert and Novice Service Technicians on Technical Troubleshooting Tasks. Major Adviser: Prof. R.A. Swanson. Graduation Pending.

#### Scott Selmer Johnson, Lincoln, Neb.

B.S.Ag, '81, University of Nebraska, M.S. '85, University of Minnesota. Major: Plant Breeding. Minor: Supporting Program. Thesis: Influence of Water Stress in Selection and Evaluation Environments on Response to Recurrent Selection in Maize. Major Adviser: Prof. J.L. Geadelmann. March Graduate.

## Amy Marie Johnson-Colwell, Truth or Consequences, N.M.

B.S. '71, South Dakota State University; M.S. '73, University of California. Major: Educational Psychology. Minor: Supporting Program. Thesis: An Investigation of the Relationships Among Spouses' Level of Ego Development, Type of Marriage, and Marital Satisfaction. Major Adviser: Prof. A.R. Anderson. Graduation Pending.

Thomas P. Johnston, Green Bay, Wis. B.S. Pharm. '80, University of Minnesota. Major: Pharmaceutics. Minor: Supporting Program. Thesis: Evaluation of Poloxamer Vehicles for Intramuscular Use. Major Advisers: Profs. R. J. Sawchuk and S. C. Miller. Graduation Pending.

#### **Dumont Marc Jones**

B.S.Ch.E. with high distinction '81, University of Wisconsin. Major: Chemical Engineering, Minor: Supporting Program. Thesis: On the Theory of Laser-Assisted Atomic Collision Processes. Major Adviser: Prof. J.S. Dahler. December Graduate.

#### Ahmed Kabbali, Meknes, Morocco

Dipl. Agron. Gen. '74, Ing. Agron. '76, Institut of Agriculture and Veterinary Medicine. Major: Animal Science. Minor: Supporting Program. Thesis: Compensatory Growth Studies in Native Morrocan Breeds of Sheep. Major Adviser: Prof. C. E. Allen. January Graduate.

#### Keith Curtis Kajander

B.A. magna cum laude '76, D.D.S. '80, University of Minnesota. Major: Anatomy. Minor: Supporting Program. Thesis: Electrophysiological and Anatomical Studies of the Lateral Cervical Nucleus in Cats. Major Adviser: Prof. G.J. Giesler, Jr. December Graduate.

#### ShienYoung Kang

D.V.M. '77, Seoul National University. Major: Veterinary Microbiology. Minor: Supporting Program. Thesis: Studies on Rotaviruses of Turkeys. Major Adviser: Prof. J.A. Newman. Graduation Pending.

#### Nancy Jean Katzmarek

B.S. with high distinction '71, M.A. '78, University of Minnesota. Major: Educational Administration. Minor: Supporting Program. Thesis: Right Wing Influence on School Board Decision Making: A Cross-Case Comparison. Major Advisers: Profs. V.D. Mueller and T.L. Mazzoni. December Graduate.

#### Beatrice Ann Kelsey

B.S. cum laude '82, University of Minnesota, Major: Chemistry, Minor: Supporting Program. Thesis: The Study of Low Valent Group 4 Carbonyl Compounds, Major Adviser: Prof. J.E. Ellis. December Graduate.

#### Saved Hassan Khidr, Assiut, Egypt

B. Pharm. '74, M. S. Pharm. '78, University of Assiut. Major: Pharmaceutics. Minor: Supporting Program. Thesis: Physical Chemical Aspects of Oral Dosage Formulation of Cyclosporine. Major Adviser: Prof. E. G. Rippie. Graduation Pending.

#### 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. December Graduate.

#### George Anthony King

B.A. magna cum laude '79, Carleton College; M.S. '83, University of Minnesota. Major: Ecology. Minor: Supporting Program. Thesis: Deglaciation and Vegetation History of Western Labrador and Adjacent Quebec. Major Adviser: Prof. H.E. Wright. December Graduate.

## Nancy Arlene Klapes, Lynnfield,

B.A. cum laude '76, University of New Hampshire; M.S. '80, University of Minnesota. Major: Environmental Health. Minor: Supporting Program. Thesis: Studies on the Potential Use of the Algicide Cyanobacterin for the Control of Toxic, Bloom-Forming Cyanobacteria (Blue-Green Algae). Major Adviser: Prof. Donald Vesley. Graduation Pending.

#### Chen-En Ko, Taiwan

B.A. '73, National Taiwan University; M.B.A. '76, University of Southern California, Los Angeles, Major: Business Administration. Minor: Supporting Program. Thesis: Model-Based Sampling in Auditing, Major Advisers: Profs. A. D. Bailey and G. L. Duke, March Graduate.

#### Laura Coffin Koch, Edina

B.A. '69, American University; M.A. '80, University of Minnesota, Major: Education, Minor: Supporting Program. Thesis: The Effect of Instruction Within the Conceptual Field of Multiplicative Structures on the Proportional Reasoning Ability of College Students Taking Developmental Mathematics, Major Adviser; Prof. T.R. Post. February Graduate.

#### Clifford Noah Koller, Akron, Ohio

B.S. with distinction 73. University of Michigan. Major: Entomology. Minor: Supporting Program. Thesis: Chemical Defenses Against Herbivory on Balsam Fir (Abies Balsamea L. Mill): Natural Variation in Foliage Nitrogen and Condensed Tannin, and its Effect on Survival, Growth, and Development of Spruce Budworm (Choristoneura Fumiferana Clemens) in the Field. Major Adviser: Prof. W.E. Miller. Graduation Pending.

#### Sridhar Kota, Hyderabad, India

B. E. '80, Osmania University; M. S. '82, University of Mississippi; M. S. M. E. '86, University of Minnesota. Major: Mechanical Engineering. Minor: Supporting Program. Thesis: Dwell Linkage Synthesis: Development of a Knowledge-based Interactive Computer Aided Design Tool. Major Advisers: Profs. D. R. Riley and A. G. Erdman. Graduation Pending.

#### Patricia Kovel-Jarboe, Minneapolis

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

#### 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. February Graduate.

#### Catherine Pierce Kroeger, St. Paul

A.B. '47, Bryn Mawr College, M.A. '82, University of Minnesota. Major: Classical Area Studies. Minor: Supporting Program. Thesis: The Nachleben of Euripides' Antiope: The Heroine's Transformation into a Mystagogue and a Symbol for the Justification of Zeus. Major Adviser: Prof. E.C. Keuls. Graduation Pending.

#### Mark W. Kroll, Minnetonka

B. Math. with distinction '76, M.S.E.E. '83, University of Minnesota. Major: Electrical Engineering. Minor: Mathematics. Thesis: A Time Dependent Logic Equation Compiler for Macro-Modeling. Major Adviser: Prof. A.A. Tuszynski. Graduation Pending.

#### Gloria Lynn Kumagai, Minneapolis

B.A. magna cum laude '69, M.S.W. '71, University of Minnesota. Major: Educational Administration. Minor: Supporting Program. Thesis: Politics of Voluntary School Desegregation in the St. Paul Public Schools: The Decision-Making Process. Major Adviser: Prof. V.D. Mueller. Graduation Pending.

#### Steven Kent Kuwahara

B.S. Pharm. magna cum laude '76, University of Utah. Major: Pharmacology. Minor: Biochemistry. Thesis: Development of a Primary Mouse Hepatocyte Culture System: Studies Evaluating the Maintenace, Induction and Depression of Cytochrome P-450 Systems. Major Adviser: Prof. G.J. Mannering. Graduation Pending.

#### Phyllis Swanson Lacroix, St. Cloud

B.S. '63, M.S. '76, St. Cloud State University. Major: Education. Minor: Supporting Program. Thesis: The Effects of Cognitive Style, Notetaking, and Instructor-Prepared Handout Materials on Learning from Lecture Instruction. Major Adviser: Prof. C.A. Carrier, Graduation Pending.

#### Nancy L. Weidner Larson,

#### Minneapolis

B.A. '68, University of Michigan; M.A.Ed. '77, San Diego State University. Major: Educational Administration. Minor: Supporting Program. Thesis: A Follow-Up Study of the Initial Adult Educational, Occupational, Financial and of Learning Disabled Former Students: A Program Evaluation. Major Adviser: Prof. N.C. Nickerson. March Graduate.

#### Hye-sung Lee, Daegu, Korea

B.S. '70, M.H. Econ. '72, Kyungpook National University. Major: Nutrition. Minor: Supporting Program. Thesis: Tissue and Urinary Responses to in vivo Lipid Peroxidation. Major Adviser: Prof. A.S. Csallany. March Graduate.

#### Jong Ye Lee, Seoul, Korea

B.S. 73, Korca University; M.P.H. '83, University of Minnesota. Major: Physiological Hygiene. Minor: Pathobiology. Thesis: Genetic Variation in Erythrocyte Membrane Ion Transport and Possible Relationship to Essential Hypertension. Major Adviser: Prof. R.J. Prineas. Graduation Pending.

#### Joo-Hee Lee, Seoul, Korea

B.H.E. '77, M.H.E. '79, Seoul National University. Major: Food Science. Minor: Supporting Program. Thesis: Cholesterol Oxidation of Superoxide Anion in Aprotic and Protic Solutions. Major Adviser: Prof. A.S. Csallany. March Graduate.

#### Kang Neung Lee, Korea

B.S.E. '80, Seoul National University. Major: Materials Science and Engineering. Minor: Supporting Program. Thesis: Hot Corrosion of Ni and Ni-Cr Alloys in Molten Carbonate Mixtures. Major Adviser: Prof. D.A. Shores. February Graduate.

#### Yong Tae Lee, Daegu, Korea

Robert School National University; M.S. '74, Kyungpook National University. Major: Chemistry. Minor: Supporting Program. Thesis: Reactions of Epoxides with Reduced Flavins. Major Adviser: Prof. Jed Fisher. March 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 Techniques. Major Adviser: Prof. G.A. Reineccius. December Graduate.

## Stephen Thomas Leonard, Carrboro, N.C.

B.A. '79, Oakland University. Major: Political Science. Minor: Supporting Program. Thesis: Critical Theory in Political Practice. Major Adviser: Prof. T.W. Ball. March Graduate.

#### Mao-chu Lin, Taiwan

B.A. '68, M.A. '79, National Taiwan Normal University. Major: American Studies. Minor: Supporting Program. Thesis: Identity and Chinese-American Experience: A Study of Chinatown American Literature Since World War II. Major Adviser: Prof. A.I. Geffen. Graduation Pending.

#### Stephen Robert Linne

B.S. 80, M.S.C.E. 84. University of Minnesota. Major: Civil Engineering. Minor: Supporting Program. Thesis: Theoretical and Practical Considerations of the Use of a Selector Chamber for Filamentous Bulking Control. Major Advisers: Profs. M.J. Semmens and S.C. Chiesa. December Graduate

#### Kristin Marie Linner, Minneapolis

B.A. '71, Lawrence University; M.S. '82, University of Minnesota, Major; Microbiology, Minor: Supporting Program. Thesis: Cellular and Biochemical Studies of Class II Molecules Encoded by the HLA-D Region of the Human Major Histocompatibility Complex, Major Adviser: Prof. F.H. Bach, March Graduate.

#### Marilyn Little, Bolingbrook, Ill.

B.A. '76, Antioch College, Major: Geography, Minor: Supporting Program. Thesis: "Native Development' and Chronic Malnutrition in Sukumaland, Tanganyika, 1925-1945. Major Advisers: Profs. P.W. Porte and C.H. Weil. March Graduate.

#### George Poon-Shing Lo, Hong Kong

B.A. 75, York University. Major: Economics. Minor: Supporting Program. Thesis: Pareto Optima and Coalitional Equilibrium in Environments with Private Information. Major Adviser: Prof. E.C. Prescott. February Graduate.

#### Steven Ray Ludwig, Shillington, Pa.

B.S. '82, Pennsylvania State University; M.S. '85, University of Minnesota. Major: Biochemistry. Minor: Supporting Program. Thesis: Characterization of the Alpha-Tubulin Gene Family of Arabidopsis thaliana. Major Adviser: Prof. J.A. Fuchs. February Graduate.

Michael Gary Luxenberg, Minneapolis B.E. '72, Pratt Institute. Major: Psychology. Minor: Genetics and Statistics. Thesis: A Longitudinal Investigation of Mood Patterns in Identical Female Twins. Major Adviser: Prof. Auke Tellegen. December Graduate.

#### James Edward Madl, St. Paul

B.S. '75, Lake Superior State College; M.S. '79, D.V.M. '83, University of Minnesota. Major: Veterinary Physiology and Pharmacology. Minor: Supporting Program. Thesis: Monoclonal Antibodies for Immunocytochemical Localization of Putative Neurotransmitters. Major Adviser: Prof. A.A. Larson. Graduation Pending.

Tendai J. Mahachi, Harare, Zimbabwe B.A. '80, Luther College; M.S. '82, University of Minnesota. Major: Chemistry. Minor: Supporting Program. Thesis: Dimethypyroolidium Mediated Electroreduction and Electroreductive Cyclization. Major Adviser: Prof. Esther Kariv-Miller. Graduation Pending.

#### Perry Robert Malcolm

B.A. summa cum laude '79. Augsburg College. Major: Physics. Minor: Supporting Program. Thesis: Electron Echo 6—A Study by Particle Detectors of Electrons Artificially Injected into the Magnetosphere. Major Adviser: Prof. J. R. Winckler. December Graduate.

#### Monica Mandell, St. Anthony

FilKand '72, Uppsala University; M.S.L.S. '74, Wayne State University, Major: Psychology, Minor: Supporting Program. Thesis: Changes in Componenets of Syndrome Depression Associated with Cognitive Therapy, Pharmacotherapy, and Combined Cognitive and Pharmacotherapy, Major Adviser: Prof. Auke Tellegen. Graduation Pending.

#### Marion Louise Marshall-Nimis, Great Britain

B.A. summa cum laude '76. M.S. '78, University of Minnesota. Major: Animal Science. Minor: Supporting Program. Thesis: Behavior and Genetic Variation in Pigs During Handling and Loading. Major Adviser: Prof. W.E. Rempel. March Graduate.

#### Alice Lorraine Mawdsley, Lynchburg, Va

B.S. 60, M.A. '67, University of Illinois. Major: Theatre Arts. Minor: Supporting Program. Thesis: Egypt's Eternal Drama: An Analysis of the Triumph of Horus. Major Advisers: Profs. G.W. Gadberry and J.D. Hurrell. January Graduate.

#### Patricia L. McAnally, Shoreview

B.S. '58, Illinois State Normal University; M.E. (65, University of Illinois, Major: Educational Psychology, Minor: Supporting Program. Thesis: A Comparison of Deaf Children's Ability to Access Semantic Information Using a Concept-Based and a Morpheme-Based Sign System. Major Advisers: Profs. J.E. Rynders and F.H. Wood. Graduation Pending

#### Nancy Paule Melone, Des Moines, Iowa

B.A. '73, University of Iowa; M.B.A. '81, University of Minnesota. Major: Business Administration. Minor: Supporting Program. Thesis: Expertise in Corporate Acquisitions: An Investigation of the Influence of Specialized Knowledge on Strategic Decision Making. Major Adviser: Prof. P.E. Johnson. Graduation Pending.

Judy Ann Michalski, Durango, Colo. B.S. '70, St. Cloud State University; M.A. '76, University of Texas, Austin. Major: Educational Administration. Minor: Supporting Program. Thesis: Forecasting the Future of Education Cooperative Service Units (ECSU'S). Major Adviser: Prof. V.D. Mueller. Graduation Pending.

#### Monte Robert Miles, Deer Lodge, Mont.

B.A. '78, University of Montana; M.S. '84, University of Minnesota. Major: Plant Pathology. Minor: Plant Breeding. Thesis: Genetics and Inheritance of Resistance to Black Stain of Malting Barley. Major Adviser: Prof. R.D. Wilcoxson. Graduation Pending.

#### Bettie Colleene Minshall

B.S.Ed. with highest honors '73, Northwest Missouri State College. Major: Design, Housing, and Apparel. Minor: Supporting Program. Thesis: Specificity in Attitude Measurement: An Application of the Fishbein Behavioral Intentions Model for Examining Attitudes Toward Apparel Purchasing. Major Adviser: Prof. M.R. DeLong. December Graduate.

#### Annette Mitchell

tion Pending.

B.A. summa cum laude '77, Boston University. Major: Chemistry. Minor: Supporting Program. Thesis: Time Domain Measurements of the Infrared Photodissociation of Weakly Bound Dimers. Major Adviser: Prof. W.R. Gentry. Graduation Pending.

#### Arlett Eugenia Moline, Minneapolis

B.A. '59, M.A. '69, University of Minnesota. Major: Educational Psychology. Minor: Supporting Program. Thesis: Financial Aid and Student Persistence: An Application of Causal Modeling. Major Adviser: Prof. M.E. Corcoran. Graduation Pending.

Jennifer Alice Moody, Houston, Tex. B.A. with honor '74, University of Texas; M.A. '76, University of Minnesota. Major: Ancient Studies. Thesis: The Environmental and Cultural Prehistory of the Khania Region of West Crete: Neolithic Through Late Minoan III. Major Advisers: Profs. F.E. Lukermann and W.E. McDonald. Gradua

Margaret May Moore, Kenbridge, Va. B.A. summa cum laude '80, Valley City State College. Major: Forestry. Minor: Supporting Program. Thesis: Classification of Forest Vegetation in North Central Minnesota Using Landsat Multispectral Scanner and Thematic Mapper Data. Major Adviser: Prof. M.E. Bauer. Graduation Pending.

#### 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 Myccnaean Kingdom of Pylos. Major Advisers: Profs. P.M. Raup and Stanley Aschenbrenner. December Graduate.

#### Susan Collins Mulholland, Duluth

B.A. summa cum laude '76, Bridgewater State College; M.S. '79, University of Minnesota. Major: Ancient Studies. Thesis: Phytolith Studies at Big Hidatsa, North Dakota. Major Adviser: Prof. G.R. Rapp, Jr. Graduation Pending.

Diego Antonio Munoz-Campos

Prof. Ingl. '73, Universidade de Chile; M.A. '81, University of Minnesota. Major: Spanish. Minor: Supporting Program. Thesis: Teatro Poblacional Chileno: 1978-1985 Antologia Critica. Major Adviser: Prof. Hernan Vidal. Graduation Pending.

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. December Graduate.

Karen E. Olson Nagle, Hibbing

B.S. magna cum lande '70, Moorhead State College; M.S. '72, University of Washington. Major: Educational Administration. Minor: Supporting Program. Thesis: Job Satisfaction of Minnesota Community College Administrators: An Examination of the Dual Factor Theory. Major Adviser: Prof. V.D. Mueller. January Graduate.

Darrell Eugene Napton, Drexel, Mo. B.S.Ed. '73, M.A. '75, University of Missouri. Major: Geography. Minor: Supporting Program. Thesis: A Regional Approach to Farmland Preservation: The Twin Cities Mctropolitan Agricultural Preserves Act in a Geographical Perspective. Major Adviser: Prof. J.R. Borchert. February 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. December Graduate.

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. December Graduate.

#### Katherine Juul Nevins

B.A. with distinction '71, University of Colorado; M.S. '75, Kansas State University. Major: Educational Psychology. Minor: Psychology. Thesis: Personality Correlates of Christian Feminists, Religious Fundamentalists and Feminists. Major Adviser: Prof. W.F. Shaffer. December Graduate.

#### Cornelius Nevrinceanu, Minneapolis

Dipl. '75, Institutul Politchnic "Traian Vuia", Timisoara, Major: Mechanical Engineering, Minor: Computer and Information Science. Thesis: Reasoning from First Principles in Process Planning for Precision Machining, Major Adviser: Prof. Max Donath. Graduation Pending.

#### Kathleen Jane Newell, Wadena

B.S. '71, M.Ā. '76, University of Minnesota, Major: Education, Minor: Supporting Program, Thesis: Predictors of Dental Hygiene Students' and Practitioners' Resolution of Professional Issues and Position of Intellectual Development, Major Adviser: Prof. C.A. Carrier, March Graduate.

Nancy Anne Nickman, Helena, Mont. B.S. Pharm. '82, University of Montana; M.S. '84, University of Minnesota. Major: Social and Administrative Pharmacy. Minor: Supporting Program. Thesis: An Evaluation of Physician Attitudes and Beliefs: Desi and Non-Desi Cough and Cold Products. Major Adviser: Prof. A.I. Wertheimer. 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. January Graduate.

#### Paul Francis O'Brien

B.S. Econ. '78, Massachusetts Institute of Technology. Major: Economics. Minor: Supporting Program. Thesis: A Rational Expectations Equilibrium Model of Technical Change. Major Adviser: Prof. T.J. Sargent. January Graduate.

#### Stephen Edward Ockenden, Alexandria, Va.

B.A. '74, Cleveland State University; M.A. '77, University of Minnesota. Major: Political Science. Minor: Supporting Program. Thesis: Patterns of Innovation in Weapons Acquisition Decisions: The Case of the Long-Range Cruise Missile. Major Adviser: Prof. P.T. Hopmann. February Graduate.

#### Margaret Rose O'Connor, St. Paul

B.A. 79, M.A. 82, University of Minnesota, Major: Sociology. Minor: Supporting Program. Thesis: The Independent Elderly: A Study of Self-Definition and Coping Strategies in Situational Contexts. Major Adviser: Prof. D.G. McTavish. January Graduate.

#### Felicia Onwuamah Okoro

B.A. '78, University of Minnesota. Major: Educational Administration. Minor: Public Health. Thesis: Rural Health Delivery in Nigeria: An Exploration of the Demographic Impact of Training Policy. Major Adviser: Prof. W.M. Ammentorp. February Graduate.

#### 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. Robert Dykstra and D.L. Monson. December Graduate.

## Mary Louise Orfield, Menomonie, Wis.

B.S. cum laude '63, Wisconsin State College; M.S. '81, University of Wisconsin. Major: Materials Science and Engineering. Minor: Supporting Program. Thesis: An Investigation into the Solubility of NiO in Molten Alkali Carbonates. Major Adviser: Prof. D.A. Shores. January Graduate.

#### Bruce A. Orman

B.S. with distinction '77, Iowa State University of Science and Technology. Major: Plant Physiology. Minor: Supporting Program. Thesis: Maize Germination and Seedling Growth at Suboptimal Temperatures. Major Adviser: Prof. S.L. Desborough. December Graduate.

# Cathy Lee Packer, Cambridge, Mass. B.A. '73, University of North Carolina; M.A. '82, University of Minnesota. Major: Mass Communications. Minor: Supporting Program. Thesis: Freedom of Expression in the American Military: A Modeling Analysis. Major Adviser: Prof. D.M. Gillmor. Graduation Pending.

Roberta Lynn Paikoff, Syraeuse, N.Y. B.S. with honors '83, Cornell University. Major: Child Psychology. Minor: Supporting Program. Thesis: Causal and Consequential Thinking About Adolescent Pregnancy: Developmental and Individual Factors. Major Adviser: Prof. W.A. Collins. Graduation Pending.

#### Myung-Ho Pee, Seoul, Korea

B. Ś. E. 777, Seoul National University; M.S. E. E. 84, University of Minnesota. Major: Electrical Engineering. Minor: Supporting Program. Thesis: Stability Testing and Stabilization of Two Dimensional Digital Filters. Major Adviser: Prof. E.B. Lee. Graduation Pending.

#### Margaret Helen Penn, Canada

B.A. '67, University of Alberta; M.A. Ed. '72, University of British Columbia. Major: Educational Psychology. Minor: Supporting Program. Thesis: The Relationship of Job Involvement and Sex-Role Identity to Women's Job Stress and Job Satisfaction. Major Adviser: Prof. L.S. Hansen. February Graduate.

#### Gerald Lee Pepper, Duluth

B.A.A. '78, University of Minnesota; M.A. '81, Purdue University. Major: Speech-Communication. Minor: Supporting Program. Thesis: A Procedure for Assessing and Contrasting the Metaphoric and Literal Perceptions of Leadership Within an Organization. Major Adviser: Prof. C.R. Bantz. Graduation Pending.

#### Kathy Lynn Perkins, Minneapolis

B.S. with honors '78, University of California, Riverside. Major: Genetics. Minor: Supporting Program. Thesis: Cytogenetic Analysis of Human Testicular Cancer. Major Adviser: Prof. N.M. Wang. March Graduate.

#### John Persico, Jr., St. Paul

B.S. cum laude '75, Rhode Island College; M.S. '79, University of 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. December Graduate.

#### Dwight Malcolm Peterson,

#### Minneapolis

B.A. cum laude '79, St. Olaf College. Major: Chemistry. Minor: Supporting Program. Thesis: Mechanistic Aspects of Mitomycin C Reductive Activation. Major Adviser: Prof. J. F. Fisher. Graduation Pending.

#### Michael Daniel Petkovich

B.S. cum laude '71, University of Pittsburgh; M.A. '74, Michigan State University; M.S. '76, University of Nevada, Reno. Major: Educational Psychology. Minor: Supporting Program. Thesis: Teaching Algebra with Worked Examples: The Effects of Accompanying Text and Range of Examples on the Acquisition and Retention of a Cognitive Skill. Major Adviser: Prof. R.D. Tennyson. December Graduate.

#### 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. December Graduate.

#### Patricia Ann Pflieger, Columbia, Mo.

B.A. '77, University of Missouri; M.A. '79, Eastern Michigan University. Major: American Studies. Thesis: A Visit to Merry's Museum; or, Social Values in a Nineteenth-Century American Periodical for Children. Major Adviser: Prof. G.G. Yates. Graduation Pending.

## Thomas Roy Pitchford, Wappinger's Falls, N.Y.

B.S. cum laude '79, State University of New York, Buffalo. Major: Physics. Minor: Electrical Engineering. Thesis: Thermal Studies on Free-Standing Liquid Crystal Films. Major Adviser: Prof. C.C. Huang. January Graduate.

#### James Brian Planeaux, Centerville, Ohio

B.S.Ch.E. with highest honors '82, University of Notre Dame. Major: Chemical Engineering. Minor: Supporting Program. Thesis: Bifurcation Phenomena in CSTR Dynamics. Major Adviser: Prof. K.F. Jensen. Graduation Pending.

#### Mary Beth Poferl-Kertzman

B.S. Astrophys. with high distinction '80, B. Phys. with high distinction '80, University of Minnesota. Major: Physics. Minor: Supporting Program. Thesis: Measurements of the Fragmentation Cross Sections of Relativistic Heavy Nuclei and Their Application to Cosmic Ray Propagation. Major Adviser: Prof. P.S. Freier. March Graduate.

#### Mark Carey Poindexter, Fargo, N.D.

B.A. '73, Lindenwood College; M.A. '80, Central Michigan University. Major: Speech-Communication. Minor: Supporting Program. Thesis: A Semiotic Analysis of the Ideology of Prime Time, Commercial Network Television Programming in the United States. Major Adviser: Prof. D.R. Browne. February Graduate.

#### Malu Polanski

B.A. '76, University of Minnesota. Major: Biochemistry. Minor: Supporting Program. Thesis: Incorporation of Bacterial Peptidoglycan Constituents into Macrophage Lipids During Phagocytosis. Major Adviser: Prof. G.R. Gray. January Graduate.

## Gail Carol Potechin, Ottawa, Ontario,

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, December Graduate.

#### Roberto Luis Pozzo, Sante Fe,

#### Argentina

Ing. Quim. '72, Universidad Nacional del LiToral; M.S. '83, University of Minnesota, Major: Mineral Engineering, Minor: Supporting Program, Thesis: Electrochemical Interactions Between Sulfide Minerals and Grinding Media and Their Effects on Flotation and Media Wear. Major Adviser: Prof. Iwao Iwasaki. February Graduate.

#### 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. December Graduate.

#### Michael Dan Rabe, Minnneapolis

B.A. '69, M.A. '73, University of Minnesota, Major: Art History. Minor: Supporting Program. Thesis: The Monolithic Temples of the Pallava Dynasty: A Chronology, Major Adviser: Prof. F.M. Asher. February Graduate.

#### Matobole Dorothy Ralebipi,

#### Potgietersrus, South Africia

B.A. '78, Higher Dipl. '79, University of the North. Major: Library Science. Minor: Supporting Program. Thesis: A Comparison of Job Dimensions and Perceived Management Development Needs of American and South African Library Managers. Major Advisers: Profs. A.K. Wickesberg and W. Simonton. Graduation Pending.

#### Michael A. Rappa, Suffern, N.Y.

B.A. cum laude '80, Union College. Major: Business Administration. Minor: Supporting Program. Thesis: The Structure of Technological Revolutions: An Empirical Study of the Development of III-V Compound Semiconductor Technology. Major Adviser: Prof. W.B. Erickson. Graduation Pending

#### 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 Program. Thesis: Japanese Poetry. Objectivity in Aesthetics, and the Aesthetic. Major Advisers: Profs. M.M. Eaton and D.E. Lewis. March Gradu-

## Gwendoline Lilian Reid, Minneapolis B.A. '28, M.A. '41, Cornell University. Major: Speech-Communication. Minor: English. Thesis:

Winston S. Churchill's Theory of Public Speaking as Compared to his Practice. Major Adviser: Prof. R.L. Scott, Graduation Pending,

#### Nancy Louise Reinsmoen, Burnsville

B.A. cum laude '69, Luther College; M.S. '77, University of Minnesota. Major: Pathobiology. Minor: Cell and Developmental Biology. Thesis: T Cell Recognition of HLA Class II Molecules. Major Adviser: Prof. F.H. Bach. January Graduate.

#### Judith Ellen Reisman

B.S. magna cum laude '68. Boston University; M.A. 74, Tufts University. Major: Child Psychology. Minor: Supporting Program. Thesis: Compensatory Eve Movements in Infants. Major Adviser: Prof. H.L. Pick. Graduation Pending.

#### Elizabeth Kav Rengel, St. Paul

B.A. with highest honors '76, Bethel College. Major: Psychology. Minor: Educational Psychology. Thesis: The Effects of Deletion of Biased Items on Test Reliability and Validity. Major Adviser: Prof. R.V. Dawis. December Graduate.

#### Christina Leah Revnolds

B.S.C. with honors '79, Ohio University: M.A. '81, University of New Mexico. Major: Speech-Communication. Minor: Supporting Program. Thesis: "Donahue": A Rhetorical Analysis of Contemporary Television Culture. Major Adviser: Prof. R.L. Scott. December 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. December Graduate.

#### John Allen Ristow, La Crosse, Wis.

B.S. '84, Wisconsin State College; M.A. '78, University of Minnesota. Major: Education. Minor: Supporting Program. Thesis: A Needs Assessment of Idaho's Industrial Arts Teachers. Major Adviser: Prof. D.C. Bjorkquist. Graduation Pending.

#### Nancy Elaine Robbins

B.A. summa cum laude '77, Creighton University. Major: Psychology. Minor: Supporting Program. Thesis: Entrepreneurial Assessment: Characteristics Which Differentiate Entrepreneurs, Intrapreneurs, and Managers, Major Adviser: Prof. J.P. Campbell. December Graduate.

#### Linda Celeste Roberts, St. Paul

B.A. high honors '76, University of Texas; M.A. '82, University of Minnesota. Major: Psychology. Minor: Supporting Program. Thesis: The Use of the MMPI in Differential Diagnosis of Schizophrenia and Depression. Major Adviser: Prof. J.N. Butcher. March Graduate.

#### Joan Rosalie Rodgers, Australia

B.A. '68, University of New England; M.Applied Sc. '78, University of Canterbury; M.A. '79, University of Sussex. Major: Economics. Minor: Supporting Program. Thesis: An Analysis of Intra-Industry Trade Flows: the Case of Sweden. Major Adviser: Prof. J.S. Chipman. March Graduate.

Karl Frederick Roenigk, Houston, Tex. B.S.Ch.E. magna cum laude '81, University of Houston. Major: Chemical Engineering. Minor: Mathematics. Thesis: Analysis of Low Pressure Chemical Vapor Deposition Processes. Major Adviser: Prof. K.F. Jensen. Graduation Pending

Valerie Mildred Rogosheske, St. Cloud B.S. '69, M.S. '75, St. Cloud State University. Major: Physical Education. Minor: Supporting Program. Thesis: Comparison of Body Composition Variables and Incidence of Menstrual Dysfunction of Low- and High-Mileage Runners Age 18-43. Major Adviser: Prof. R.C. Serfass. Graduation Pending.

#### Carol Crawford Ryan, St. Paul

B.A. '58, State University of Iowa; M.A. '80, University of Minnesota. Major: American Studies. Thesis: Summering. Everyday Life in a Vacation Community, 1909-1985. Major Adviser: Prof. G.G. Yates. Graduation Pending.

#### Dianc Lynne Saber

B.A. cum laude '78, Macalester College. Major: Microbiology. Minor: Supporting Program. Thesis: Isolation, Characteriztion, and Genetics of Pentachlorophenol-Degrading Flavobacterium Strains. Major Adviser: Prof. R.L. Crawford. Graduation Pending.

Patricia Kelly Santelman, Minneapolis B.A. '50, College of St. Teresa; M.A. '81, University of Minnesota. Major: English. Minor: Supporting Program. Thesis: Fantasy Themes in Nineteenth-Century America Voice in Women's Narratives. Major Adviser: Prof. E.M. Griffin. Graduation Pending.

#### Javant Vasant Saraph

B. Tech. '69, Indian Înstitute of Technology; M.B.A. '78, University of Minnesota. Major: Business Administration. Minor: Supporting Program. Thesis: An Investigation of Quality-Management Practices in Medium to Large Size Companies. Major Adviser: Prof. R.G. Schroeder. Graduation Pending.

#### Jeffrey R. Schussler

B.S. cum laude '78, Central Missouri State University; M.S. '83, University of Minnesota, Major: Plant Physiology, Minor: Supporting Program. Thesis: The Involvement of Abscisic Acid in Assimilate Accumulation in Soybean Seeds, Major Adviser: Prof. M.L. Brenner, December Graduate.

#### Stephen Gregg Schwarz, Rochester, 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. December Graduate.

#### David Michael Scott, St. Paul

B.S.Pharm. 72, University of Minnesota. Major: Social and Administrative Pharmacy. Minor: Supporting Program. Thesis: Impact of a Respiratory Illness Chart (Algorithm) on Family Self-Care Practices. Major Adviser: Prof. A.I. Wertheimer. January Graduate.

#### Susan Kay Seaholm, Minneapolis

B.A. magna cum laude '81, M.S. '82, University of Minnesota. Major: Biophysical Sciences. Minor: Supporting Program. Thesis: Adaptable Software for Simulation of Interacting Population Models. Major Adviser: Prof. Eugene Ackerman. Graduation Pending.

#### Suzanne Marie Sharrock

B.S. honors '73, University of Illinois; M.S. '84, University of Minnesota. Major: Computer and Information Sciences. Minor: Supporting Program. Thesis: Integration of Voice, Data, and Video in Lan-Based Systems. Major Advisers: Profs. K.J. Maly and D.H. Du. Graduation Pending.

#### Michael Garson Sher, St. Paul

B.A. '65, Yale University; M.A. '72, M.S. '86, University of Minnesota. Major: Agricultural Economics. Minor: Economics. Thesis: De Gustibus Est Imputandum: The Value of Information About the Nutrient Content of Food. Major Adviser: Prof. B.H. Senauer. Graduation Pending.

#### Stuart Frank Simmons

B.A. 78, Macalester College; M.S. '82, University of Minnesota. Major: Geology. Minor: Supporting Program. Thesis: Physio-Chemical Nature of the Mineralizing Solutions for the St. Nino Vein: Results from Fluid Inclusion, Deuterium, Oxygen and Helium Studies in the Fresnillo District, Zacatecas, Mexico. Major Adviser: Prof. F.J. Sawkins. January Graduate.

#### Miles Maxwell Smayling, Elvsian

B.S. '76, M.A. '79, University of Minnesota, Major: Industrial Relations. Minor: Supporting Program. Thesis: Incentive Programs for Research and Development Scientists and Engineers. Major Adviser: Prof. R.E. Azevedo. Graduation Pending.

#### Brian Robert Smith, Mitchell, S.D.

B.S. '80, South Dakota State University; M.S. '83, University of Minnesota, Major: Horticulture, Minor: Plant Breeding, Thesis: Factors Affecting Response of Solanum Tuberosum Group Andigena to a Domestication Selection Scheme, Major Adviser: Prof. F.I. Lauer, Graduation Pending.

#### Richard Eugene Smith, Hastings

B.S. cum laude '76, Boston University; M.S. '83, University of Minnesota, Major: Computer and Information Sciences. Minor: Supporting Program. Thesis: An Autonomous System for Recovery from Object Manipulation Errors in Industrial Robot Tasks, Major Advisers: Profs. Maria Gini and J.R. Slagle, Graduation Pending.

#### Robert Alan Snyder

B.A. cum laude '82, Boise State University. Major: Philosophy. Minor: Psychology. Thesis: Naturalized Epistemology as a Framework for Understanding Hume's Science of Human Nature. Major Adviser: Prof. P.W. Kitcher. December Graduate.

#### Charles Gordon Soderholm,

#### Worthington

B.S. '78, D.V.M. '80, University of Minnesota, Major: Animal Science, Minor: Supporting Program. Thesis: Effects of Different Doses of Recombinant Bovine Somatotropin (BST) on Milk Production, Body Composition, Condition Score, Circulating Metabolites, Hormones, and Physiological Parameters, Major Adviser: Prof. D.E. Otterby, Graduation Pending.

#### Linda Jane Solie, Minneapolis

B.A. summa cum laude '79, North Park College; M.A. '84, University of Minnesota, Major: Educational Psychology, Minor: Supporting Program. Thesis: The Effects of Solitary Skills Training on Coping with Loneliness, Major Adviser: Prof. D.R. Loeffler, Graduation Pending.

#### Scott Paul Sorenson, Burnsville

B.A. '76, Luther College; M.A. '78, University of Minnesota, Major: Education. Minor: Supporting Program. Thesis: Thomas Harper, Sr. (1786-1853): Trumpet Virtuoso and Pedagogue. Major Adviser: Prof. E.M. Turrentine. March Graduate.

#### Jon Stanley Speier

B.S. '80, University of Wisconsin. Major: Chemistry. Minor: Supporting Program. Thesis: Synthetic and Mechanistic Investigations of Organofluorosilicates. Major Adviser: Prof. W.E. Fristad. Graduation Pending.

#### Niyada Srichantra, Thailand

B. Éd. '75, M. Ed. '78, Chulalongkorn University. Major: Educational Psychology. Minor: Supporting Program. Thesis: Multidimensional Scaling: Does it Remove Acquiescence from the Representation of Likert Attitude Item Structure? Major Adviser: Prof. M. L. Davison. Graduation Pending.

#### Beverly Ann Stadum, Minneapolis

B.A. summa cum laude '68, Augsburg College; M.S.W. '73, Ohio State University. Major: History. Minor: Supporting Program. Thesis: "Maybe They Will Appreciate What I Done and Struggled": Poor Women and Their Families--Charity Cases in Minneapolis. 1900-1930. Major Adviser: Prof. C.A. Chambers. February Graduate.

## Sigrun Stefansdottir, Reykjavík, Iceland

B.A. '83, M.A. '84, University of Minnesota, Major: Speech-Communication. Minor: Supporting Program. Thesis: Policymaking in Educational TV: A Comparative Study of Iceland, Denmark, and Kentucky. Major Adviser: Prof. D.R. Browne. Graduation Pending.

#### John Gerald Steiert

B.S. with distinction '80, University of Iowa, Major: Microbiology. Minor: Supporting Program. Thesis: Bacterial Catabolism of Pentachlorophenol. Major Adviser: Prof. B.L. Crawford. March Graduate.

#### Jeffrey William Stein, Duluth

B.A. summa cum laude '76, University of Minnesota. Major: Physics. Minor: Supporting Program. Thesis: A Study of the Atmospheric Electrical Conductivity and Related Atmospheric Parameters. Major Adviser: Prof. G.D. Freier. February 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. December Graduate.

#### Jane Laurel Swanson

B.A. '78, Gustavus Adolphus College; M.A. '83, University of Minnesota. Major: Psychology. Minor: Educational Psychology. Thesis: Predictors and Correlates of 12-Year Stability of Vocational Interests. Major Adviser: Prof. J.C. Hansen. December Graduate.

#### Atsuhi Tajima

B.S. '80, Kitasato University. Major: Animal Physiology. Minor: Supporting Program. Thesis: Some Aspects of Preserving Chicken Semen: Glycerol Effects, Assay Methods, and Application. Major Adviser: Prof. E.F. Graham. Graduation Pending.

## Phuong Trong Than, Los Angeles,

B.A.E.M. with distinction '80, University of Minnesota. Major: Mechanics. Minor: Supporting Program. Thesis: Interfacial Problems of Two Fluids. Major Advisers: Profs. D.D. Joseph and G.S. Beavers. February 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. Henry Borow. December Graduate.

Roger Lee Thompson

B.M.E. '55, M.M. '58, Northwestern University. Major: Music. Minor: Supporting Program. Thesis: American Music: A Humanities Teaching Model for the Alternative School with Special Focus on Learning Styles. Major Adviser: Prof. S.W. Schultz. December Graduate.

#### Guoqiang Tian, Wuhan, China

Major: Economics. Minor: Supporting Program. Thesis: Nash-Implementation of Social Choice Correspondences by Completely Feasible Continuous Outcome Functions. Major Adviser: Prof. J.S. Chipman. Graduation Pending.

Bruce Collins Trent, Boulder, Colo.

B.S. '75, M.S. '77, University of Colorado. Major: Geo-Engineering. Minor: Supporting Program. Thesis: The Effect of Micro-Structure on the Macroscopic Behavior of Cemented Granular Material. Major Adviser: Prof. P.A. Cundall. Graduation Pending.

Menq-Jiau Tseng

B.S. '77, M.S. '79, National Chung Hsing University. Major: Plant Physiology. Minor: Horticulture. Thesis: Cold-Induced Polypeptides in Tuber-Bearing Solanum Commersoni During Induction of Cold Hardiness. Major Adviser: Prof. P.H. Li. February Graduate.

Chapman Chi-Wing Tsui, Hong Kong B.A. 73, Chu-Hai College. Major: Sociology. Minor: Supporting Program. Thesis: Modernization and Occupational Income Inequality: The Case of the United States, 1950-1980. Major Adviser: Prof. B.L. Ellenbogen. Graduation Pending

#### Mary Margaret Tuchscherer, Appleton, Wis.

B.S. cum laude '79, St. Norbert College; M.S. '83, University of Minnesota. Major: Anatomy. Minor: Supporting Program. Thesis: Quantitative Studies of Peptidergic Primary Afferent Neurons in the Rat. Major Adviser: Prof. V.S. Seybold. Graduation Pending

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. I.A. Fuchs, December Graduate

Noel Richard Urban, Williamson, N.Y. B.S. summa cum laude '79, Syracuse University; M.S.C.E. '84, University of Minnesota. Major: Civil Engineering. Minor: Supporting Program. Thesis: The Nature and Origins of Acidity in Bogs. Major Adviser: Prof. S.J. Eisenreich. February

Annette Joy Van Dyke

B.A. '70, Whitworth College; M.A. '72, Eastern Washington University. Major: American Studies. Thesis: Feminist Curing Ceremonies: The Goddess in Contemporary Spiritual Traditions, Major Adviser: Prof. G.G. Yates. Graduation Pending.

Kathryn L. Vigen, Decorah, Iowa

B.S.N. magna cum laude '56, St. Olaf College; M.S. '80, Rush University. Major: Educational Administration. Minor: Supporting Program. Thesis: Clinical Preceptorships in Nursing Education: A Model for Role Transition. Major Advisers: Profs. V.D. Mueller and N.C. Nickerson. February Graduate.

Mary Jean Vraney, Golden Valley

B.S. '66, University of Wisconsin; M.Ed. '79, Wichita State University. Major: Educational Psychology. Minor: Supporting Program. Thesis: Sexual Assault: Personal Trauma, Social Supports, and Relationships with Male Partners. Major Adviser: Prof. L.S. Hansen. Graduation Pending.

James Charles Ward, Tempe, Ariz.

B.A. '78, M.B.A. '81, University of Minnesota, Major: Business Administration. Minor: Supporting Program. Thesis: The Influence of Mood on Processing Strategy for Marketing Communications. Major Adviser: Prof. Ivan Ross. March Graduate.

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. December Graduate.

Robert Thompson Weaver, Blaine

B.S. '71, M.B.A with distinction '72, California State University, Fresno. Major: Educational Administration. Minor: Supporting Program. Thesis: Structural Analysis and Comparison of Faculty Perceptions and Student Perceptions of an Area of Study with Implications for Curriculum Management. Major Adviser: Prof. W.M. Ammentorp. December Graduate.

#### Richard Jerome Wedlund, Proctor

B.A. '63, M.S. '70, University of Minnesota, Major: Zoology, Minor: Supporting Program. Thesis: Gene Flow and Genetic Distance in Freshwater Snails of the Family Lymnacidae. Major Adviser: Prof. D.E. Gilbertson, March Graduate.

#### Connie Eleanor Wells, Zion, Ill.

B.S. Ed. '64, Northern Illinois University; M.B.A. '82, University of Minnesota. Major: Business Administration. Minor: Supporting Program. Thesis: Evaluation of the MIS Function in an Organization: An Exploration of the Measurement Problem. Major Adviser: Prof. G.W. Dickson. Graduation Pending

## Ronald Burton Wilkes, Huntingdon, Tenn.

B.S. Ed. '70, University of Tennessee; M.B.A. '81, Memphis State University. Major: Business Administration. Minor: Supporting Program. Thesis: Assessment of the Information Systems Organization: An Empirical Investigation of Assessor Perspectives. Major Adviser: Prof. G.W. Dickson. January Graduate.

#### Kurt Douglas Winkelmann, St. Paul

B.A. '78, Macalester College; M.A. '82, University of Minnesota. Major: Economics. Minor: Supporting Program. Thesis: Expected Inflation, Risk and the Return on Owner-Occupied Housing. Major Adviser: Prof. N.J. Simler. Graduation Pending.

#### Marc Craig Woodin, Pekin, Ill.

B.S. high honors '72, University of Illinois; M.S. '78, Colorado State University. Major: Wildlife. Minor: Supporting Program. Thesis: Wetland Selection and Foraging Ecology of Breeding Diving Ducks. Major Adviser: Prof. M.W. Weller. Graduation Pending.

#### Thomas Allan Woods, Winthrop

B.A. summa cum laude '74, M.A. '77, University of Minnesota. Major: American Studies. Thesis: Knights of the Plow: Oliver H. Kelley and the Republican Origins of the Grange. Major Adviser: Prof. D.W. Noble. Graduation Pending.

#### Andrew Gerrie Wright, St. Paul

B.S. Mat.S.E. '80, University of Utah. Major: Materials Science and Engineering. Minor: Supporting Program. Thesis: A Study of the Depth into Single Crystals from Which Electon Channeling Patterns Are Produced. Major Adviser: Prof. W.W. Gerberich. Graduation Pending.

#### Hsuchling Su Wu

B. Pharm. '73, Taipei Medical College; M.S. '83, University of Minnesota. Major: Pharmaceutics. Minor: Supporting Program. Thesis: Poloxamer Drug Delivery Systems for Topical Application. I. In vitro Release of Nicotinic Acid Alkyl Esters. II. Modification of Vehicle Physicochemical Properties. Major Advisers: Profs. R.J. Sawchuk and S.C. Miller. December Graduate.

#### Xiaolan Wu, ChangChun, People's Republic of China

M.S. '83, University of Minnesota, Major: Electrical Engineering, Minor: Supporting Program, Thesis: Noise in Semiconductor Devices Particular in CdxHg1-xTe Photo Diodes, Major Advisers: Prof. Aldert van der Ziel, Graduation Pending.

#### Kebede Yadetie, Addis Ababa, Ethiopia

B.S. '73, M.S. '74, University of Wisconsin, Stout. Major: Vocational Education. Minor: Supporting Program. Thesis: The Relationship Between Job Satisfaction/Satisfactoriness and the Breadth/Specificity of Auto Mechanics Programs. Major Adviser: Prof. Jerome Moss, Jr. Graduation Pending.

#### A. Erinc Yeldan, Turkey

B.A. 82, Bogazici University. Major: Agricultural and Applied Economics. Minor: Economics. Thesis: Turkish Economy in Transition: A General Equilibrium Analysis of the Export-Led Versus Domestic Demand-Led Strategies of Development. Major Adviser: Prof. J. P. Houck. Graduation Pending.

#### Dilek Yeldan, Turkey

B.A. '82, Bosphorus University. Major: Business Administration. Minor: Supporting Program. Thesis: The Effects of Feedback on the Performance of Probability Forecasters. Major Adviser: Prof. P.G. Benson. Graduation Pending.

## William Caswell Youngblood,

#### Roseville

B.A. '68, Valparaiso University; M.A. '73, Indiana University. Major: Psychology. Minor: Supporting Program. Thesis: Empathy and Personality: A Study of Affective Sensitivity and Individual Differences Utilizing a Jungian Framework. Major Adviser: Prof. J. P. Brantner. March Graduate.

#### 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. December Graduate.

#### Shmuel Zalipsky

B.S. '77, M.Ŝ. '81, Hebrew University of Jerusalem. Major: Chemistry. Minor: Supporting Program. Thesis: Development of New Functionalized Polymers and Their Utilization in Peptide Chemistry. Major Adviser: Prof. George Barany. Graduation Pending.

#### Danuta Zamojska-Hutchins, Storm Lake, Iowa

M.A. '67, University of Minnesota. Major: Education. Minor: Linguistics. Thesis: An Assessment of Reading Strategies and an Examination of Text-Related Background Information in Reading Comprehension Among College Students of Russian. Major Adviscr: Prof. D. L. Lange. Graduation Pending.

#### **Doctor of Philosophy in Urology**

#### Rei-Kwen Chiou

B.M. '75, China Medical School. Major: Urology. Minor: Supporting Program. Thesis: Study of the Diagnosis and Treatment of Renal Cell Carcinoma Using Monoclonal Antibodies. Major Adviser: Prof. E. E. Fraley. Graduation Pending.

#### Master of Architecture

#### Meera Ananth, Madras, India

B.Arch. '82, Indian Institute of Technology, Kharagpur; M.Town-Country Planning '83, Anna University. Major: Architecture. Thesis: Computer-Aided Space Planning. Major Adviser: Prof. R.D. Clemence. December Graduate.

#### Hamid Azadegan, Bloomington

B.A. '86, University of Minnesota, Major; Architecture. Thesis: Light in Architecture: Baha'i House of Worship, Nassau, Bahamas. Major Adviser: Prof. D.M. Mulfinger. Graduation Pending.

Raphael Charles Ekop, Abak, Nigeria B.S. '81, University of Wisconsin. Major: Architecture. Thesis: Self-Help Housing: A Cultural Expression for Calabar, Nigeria. Major Adviser: Prof. R.D. Clemence. Graduation Pending.

## Adam Warner Fitzgerald, Grand Ledge, Mich.

B.S. with honors '84, University of Illinois. Major: Architecture. Thesis: An Existing Order: Continuity and Change in the Architecture of Building Additions. Major Adviser: Prof. J.G. Rauma. Graduation Pending.

#### John Henry Harriss, Minneapolis

B.A. '76, Knox College. Major: Architecture. Thesis: Minnesota History Center. Major Advisers: Profs. R.D. Clemence and J.G. Rauma. February Graduate.

#### Gregory Charles Hough, St. Paul

B.A. summa cum laude '83, B.S. summa cum laude '83, Washington State University. Major: Architecture. Thesis: Architecture and City Making: St. Paul's Rice Park District. Major Adviser: Prof. D.M. Mulfinger. Graduation Pending.

## Richard Lambert Laffin, Minneapolis B.A. summa cum laude '75, Dartmouth College.

B.A. summa cum laude '75, Dartmouth College. Major: Architecture. Thesis: Hmong Cultural Center and Housing. Major Adviser: Prof. R. D. Clemence. March Graduate.

#### Julie Marie Marz, Elmhurst, Ill.

B.S. '85, University of Illinois. Major: Architecture. Thesis: The Architectural Stage: A Playhouse in Amsterdam. Major Adviser: Prof. J.G. Rauma. Graduation Pending.

#### Randy Lee Moe, Rapid City, S.D.

B.A. '81, Iowa State University of Science and Technology. Major: Architecture. Thesis: Paradox and Transformation: The Wall as Gateway. Major Adviser: Prof. D.M. Mulfinger. Graduation Pending.

#### Gary F. Rojek, Chicago, Ill.

B.S. '81, University of Illinois. Major: Architecture. Thesis: Metaphor as a Generative Tool in Architectural Design: A Futures Trading Floor Complex for Chicago. Major Adviser: Prof. J.G. Rauma. Graduation Pending.

#### Daniel Michael Rominski, Stillwater B.A. '84, University of Minnesota. Major: Architec-

B.A. '84, University of Minnesota. Major: Architecture. Thesis: Technological Expressionism. Major Adviser: Prof. M.H. Thompson. Graduation Pending.

#### Richard Charles Shnider

B.S.Arch. magna cum laude '84, Temple University. Major: Architecture. Thesis: Boston City Hall Redesigned: A Sensitive Monument. Major Adviser: Prof. R.D. Clemence. February Graduate.

Elizabeth Ellen Thompson, St. Paul B.A. cum laude '76, University of Minnesota. Major: Architecture. Thesis: Living School and Selby Avenue Resource Center. Major Adviser: Prof. R.D. Clemence. Graduation Pending.

#### Kathryn Maxwell Wallace, Minneapolis

B.A. magna cum laude '80, Carleton College. Major: Architecture. Thesis: The Monadnock Center: A Retreat/Meeting Center Concentrating on the Palatienthis Battern Building and Landscape.

Relationship Between Building and Landscape. Major Adviser: Prof. J.G. Rauma. Graduation Pending.

#### Master of Arts

#### Caren Hohenstein Abdelaal, Minneapolis

B.A. '79, University of Minnesota. Major: English as a Second Language. Minor: Related Fields. Major Adviser: Prof. E.E. Tarone. Graduation Pending

## Ronnie Kay Abel, North Massapequa, N.Y.

A.B. cum laude '78, Brandeis University. Major: Psychology. Minor: Related Fields. Major Adviser: Prof. N.M. Crewe. February Graduate.

Mario Cristian Aedo, Santiago, Chile Lic. '82, Mag. '84, Pontificia Universidad Catolica, Chile. Major: Economics. Minor: Related Fields. Major Adviser: Prof. L.F. Lee. March Graduate.

Marjorie Henkel Ahrens, St. Paul B.A. '80. University of Minnesota. Major: Geography. Minor: Related Fields. Thesis: A Contribution to the History of Land Administration in Minnesota: The Origins of the Red Lake Game Preserve. Major Adviser: Prof. R.H. Squires. Graduation Pending.

Frances Rae Anthony, St. Paul B.A. cum laude '71, Macalester College, Major, Education, Minor: Spanish, Major Adviser: Prof. D.L. Lange, December Graduate.

#### Peter Odion Atakpu, Nigeria B.S. '81. Central State University. Major: Educational Administration. Minor: Related Fields. Major Adviser: Prof. G.F. Alkire. Graduation Pending.

James Stephen Bailey, Apple Valley B.S.Ed. '68, Miami University. Major: Education. Minor: Related Fields. Major Adviser: Prof. C.R. Bruning. December Graduate.

#### Ratiba Bassou

Lie. '81. Universite Mohamed Ben Abdallah. Major: English as a Second Language, Minor: Related Fields. Major Adviser: Prof. J.K. Gundel. March Graduate. Karen Marie Bengston, Bloomington B.A. cum laude '80, St. Olaf College. Major: Music. Minor: Related Fields. Major Adviser: Prof. D.A. Damschroder. Graduation Pending.

Robert Lee Bennett, Coon Rapids B.S. '75, University of Minnesota. Major: Music Education. Minor: Related Fields. Major Adviser: Prof. S.W. Schultz. Graduation Pending.

## Ronald Arden Berg, Glenwood City, Wis.

B.A. '69, Augsburg College, Major: Music Education. Minor: Related Fields. Major Adviser: Prof. Stephen Schultz. Graduation Pending.

James Robert Bialke, Minneapolis B.A. '83, University of Minnesota. Major: Industrial Relations. Minor: Related Fields. Major Adviser: Prof. J. J. Flagler. January Graduate.

Diane Carol Bjorkman, McHenry, Ill. B.S. '81, University of Minnesota. Major: Recreation, Park. and Leisure Studies. Minor: Related Fields. Major Adviser: Prof. C.R. Weiss. Graduation Pending.

#### Douglas McLaren Black, Philadelphia, Pa.

B.S. cum laude '85, Temple University. Major: Physical Education. Minor: Related Fields. Major Adviser: Prof. M.L. Krotee. Graduation Pending.

#### 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. February Graduate.

#### Mary T. Boom, Minneapolis B.A. '72. University of Minnesota. Major: Public Affairs. Major Adviser: Prof. N.N. Eustis. Graduation Pending.

#### Kathleen Gunderson Borgen, Burnsville

B.A. '79, College of St. Catherine. Major: Music Education. Minor: Related Fields. Major Adviser: Prof. E.M. Turrentine. January 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. J. Flagler. December Graduate

#### Rebecca Hope Brist, Savage

B.A. summa cum laude '79, Bethel College. Major: English. Minor: Related Fields. Major Adviser: Prof. W.A. Madden. December Graduate.

#### Leslie Marsh Butterfield

B.S. '85, University of Minnesota, Major: Design, Housing, and Apparel, Minor: Art History, Major Adviser: Prof. E.D. Larkin, February Graduate.

Brian Gale Campbell, Cottage Grove B.M. '80, Oberlin College, Major: Music, Minor: Related Fields, Major Adviser: Prof. A.J. Lubet, January Graduate.

#### Laura Maureen Carrig, St. Paul

B.S. magna cum laude '83, Macalester College. Major: Speech-Communication. Minor: Related Fields. Major Adviser: Prof. E.G. Bormann. January Graduate.

#### Li-Ling Chen, Taiwan

B.A. '83, National Taiwan University. Major: Chinese. Minor: Related Fields. Major Adviser: Prof. V.B. Cass. Graduation Pending.

#### Rick Scott Chinberg, Albert Lea

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

#### Tai Young Cho, Korea

B. Econ. '81, Seoul National University. Major: Public Affairs. Major Adviser: Prof. R.T. Kudrle. Graduation Pending.

#### Wook Choi, Korea

B.A. '85, Korca University, Major: Education, Minor: Related Fields, Major Adviser: Prof. S.R. Trollip, 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. December Graduate.

#### Mary Lee King Coulson, Minneapolis A.B. 64, Mount Holyoke College. Major: Art History. Minor: Related Fields. Major Adviser: Prof. Melvin Waldfogel. December Graduate.

Robbin Dale Crabtree, Santa Barbara,

B.A. '82, University of California, Santa Barbara. Major: Speech-Communication. Minor: Related Fields. Major Adviser: Prof. Judine Mayerle. December Graduate.

#### Ruth Johnson Cronje, St. Paul

B.A. cum laude '83, University of Minnesota. Major: English. Minor: Related Fields. Major Adviser: Prof. C.J. Sugnet. Graduation Pending.

#### Nancy Lou Davis

B.A. 82, Gustavus Adolphus College. Major: Industrial Relations. Minor: Related Fields. Major Adviser: Prof. J.G. Scoville. December Graduate.

Joan Audray Davis-Feickert, St. Paul B.S. '66, University of Minnesota. Major: Industrial Education. Minor: Related Fields. Major Adviser: Prof. D.C. Bjorkquist. January Graduate.

#### Barbara Elaine Denny, St. Paul

B.S. 73, University of Puget Sound. Major: Educational Psychology. Minor: Related Fields. Major Adviser: Prof. J.E. Rynders. Graduation Pending.

#### Dawn Simone Dooley, Winona

B.S. '66, M.Ed. '67, University of Minnesota, Major: Educational Psychology, Minor: Related Fields, Major Adviser: Prof. W.F. Shaffer, February Graduate.

#### Debra Lee Dornfeld, Osseo

B.A. '78, University of Minnesota. Major: Psychology. Minor: Related Fields. Major Adviser: Prof. L.H. Lofquist. March Graduate.

#### Cheryl Lee Doucette, St. Paul

B.A. '81, College of St. Catherine. Major: History. Minor: Related Fields. Major Adviser: Prof. T.G. Stavrou. January Graduate.

#### Michael Ignatius Dougherty, St. Paul

B.A. '84, University of Minnesota. Major: Public Affairs. Major Adviser: Prof. J.E. Brandl. Graduation Pending.

#### Jill White Downey, River Falls, Wis.

B.A. magna cum laude '74, University of Minnesota. Major: English. Minor: Related Fields. Major Adviser: Prof. W.A. Madden. Graduation Pending.

#### 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. December Graduate.

#### Siddharth Dube

B.A. magna cum laude '84, Tafts University. Major: Mass Communication. Minor: Related Fields. Major Adviser: Prof. J.W. Ward. January Graduate.

Susan Cramer Duxbury, Bloomington B.A. magna cum laude '80, University of Minnesota. Major: History. Minor: Related Fields. Major Adviser: Prof. C.R. Phillips. March Graduate.

#### Terryl Marie Eikren

B.A. '70, Luther College, Major: Education, Minor: Related Fields, Major Adviser: Prof. R.W. Beach, March Graduate.

Marie Louise Fellbaum, Centralia, Ill. B.A. cum laude '72. St. Olaf College. Major: Linguistics. Minor: Related Fields. Thesis: The Markedness Differential Hypothesis and the Interaction of Two Language Systems in the Acquisition of L2 Stop Consonants. Major Adviser: Prof. G.A. Sanders. February Graduate.

Thomas James Flaherty, Minneapolis B.A. cum laude '84, St. Norbert College, Major: Industrial Relations. Minor: Related Fields. Major Adviser: Prof. R.E. Azevedo, March Graduate.

#### Larry Paul Fonnest, Minneapolis

B.A. cum laude '74, University of Minnesota, Major: Recreation and Park Administration. Minor: Related Fields. Major Adviser: Prof. L.H. McAvov. March Graduate.

#### Connie Jo Foote, St. Paul

B.A. magna cum laude '84, Bemidji State University, Major: Educational Psychology, Minor: Related Fields, Major Advisor: Prof. L.S. Hansen, Graduation Pending.

Nancy Sue Frame, Marine on St. Croix B.A. '83, University of Minnesota. Major: Educational Psychology. Minor: Related Fields. Major Adviser: Prof. D.H. Anderson. Graduation Pending.

Cynthia Julieanne Fremont, St. Paul B.S. '76, University of Wisconsin. Major: Education. Minor: Related Fields. Major Adviser: Prof. C.A. Carrier. Graduation Pending.

#### Renee Lynne Gallagher, Brooklyn Park

B.S. '84, University of Minnesota, Major: Educational Psychology, Minor: Related Fields, Major Adviser: Prof. S.L. Deno, Graduation Pending.

#### Laura Helen Gilbert, St. Paul

B.A. '78, Metropolitan State University. Major: Industrial Relations. Minor: Related Fields. Major Adviser: Prof. B.D. Steffy. Graduation Pending

## Jacqueline Sabina Gold, Levittown, N.Y.

B.A. '81, State University of New York, Albany. Major: Mass Communication. Minor: Related Fields. Thesis: Property Vs. Expression in a Conservative Political Climate. Major Adviser: Prof. D.M. Gillmor. Graduation Pending.

Susan Lynn Govern, Jamaica, N.Y. B.A. 74, Bradford College, B.A. 76, Carleton College. Major: Educational Psychology. Minor: Related Fields. Major Adviser: Prof. N.A. Sprinthall. February Graduate.

Robert William Groene II, St. Paul B.S. 79, B.S. 79, University of Minnesota. Major: Music Education. Minor: Related Fields. Major Adviser: Prof. C.E. Furman. March Graduate.

#### Gerard Alban Guibet

A.B. '71, University of California, Berkeley. Major: Social and Philosophical Foundations of Education. Minor: Related Fields. Major Adviser: Prof. R.H. Beck. Graduation Pending.

Tedd Gunnard Gullickson, Mankato B.A. '80, Concordia College. Major: Music Education. Minor: Related Fields. Major Adviser: Prof. E.M. Turrentine. January Graduate.

Mark Timothy Gustafson, Minneapolis B.A. magna cum laude '74, St. Olaf College, Major: Classical Studies, Minor: Related Fields, Major Adviser: Prof. P. H. Sellew, March Graduate,

Vicky D. Hadjiyanis, Minneapolis B.A. magna cum laude '84, College of St. Thomas. Major: Industrial Relations. Minor: Related Fields. Major Adviser: Prof. P.L. Schumann. December Graduate

#### Dianne S. Hahn, Minneapolis

B.S.C. '79, Ohio University. Major: Industrial Relations. Minor: Related Fields. Major Adviser: Prof. M.F. Bognamo. February Graduate.

#### Roxanne Hale

B.A. '80, University of the Pacific. Major: Hispanic Literature. Minor: Hispanic Linguistics. Major Adviser: Prof. Rene Jara. Graduation Pending.

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

#### Robert Elliott Heacock

B.A. '84, St. Olaf College. Major: Public Affairs. Major Adviser: Prof. R.T. Kudrle. January Graduate.

#### David Joel Heistad, Minneapolis

B.A. '74, St. Olaf College. Major: Educational Psychology. Minor: Related Fields. Major Adviser: Prof. J.S. Terwilliger. December Graduate.

Mary Jane Herbeck, Stoughton, Wis. B.A. cum laude '81, University of Wisconsin. Major: Industrial Relations. Minor: Related Fields. Major Adviser: Prof. R.D. Arvey. Graduation Pending.

#### Sarah Marie Horsman, Roseville

B.S.N. '69, Creighton University. Major: Education. Minor: Related Fields. Major Adviser: Prof. R.A. Willie. March Graduate.

#### Kay Michele Hoskins, St. Paul

B.S. with distinction '75, University of Minnesota. Major: Art Education. Minor: Related Fields. Major Adviser: Prof. M.K. DiBlasio. January Graduate.

#### Jennifer Jo Hugstad-Vaa

B.A. '77, Gustavus Adolphus College. Major: Education. Minor: Related Fields. Major Adviser: Prof. E.D. Gennaro. January Graduate.

#### Eunmin Hyun

B.A. '78, M.H. Ec. '80, Hyosung Women's University. Major: Family Social Science. Minor: Related Fields. Major Adviser: Prof. M.J. Hogan. January Graduate.

#### Gretchen Gilbert Jacobson,

#### Minneapolis

B.A. '81, Augsburg College, Major: Educational Psychology, Minor: Related Fields, Major Adviser: Prof. B.E. Balow, December Graduate

Connie Lou Janke-Marvin, Warroad B.A. with honor '76, Hamline University. Major: Secondary Education. Minor: French. Major Adviser: Prof. H.L. Jorstad. January Graduate.

#### Niels Remmer Jensen, Copenhagen, Denmark

B.A. '73, University of Wisconsin. Major: Mass Communication. Minor: Related Fields. Thesis: Occupational Stress and Burn-out in the Advertising Field. Major Adviser: Prof. R.L. Jones. Graduation Pending.

Sandra Ann Jespersen, Little Canada B.S. summa cum laude '79, St. Cloud State University. Major: Educational Psychology. Minor: Related Fields. Major Adviser: Prof. J.E. Rynders. January Graduate.

#### Shari Ann Johnson, Glencoe

B.A. '66, University of Minnesota. Major: Industrial Relations. Minor: Related Fields. Major Adviser: Prof. H.G. Heneman. February Graduate.

#### Amber Joplin, Minneapolis

B.A. '83, University of Minnesota. Major: Design, Housing, and Apparel. Minor: Related Fields. Major Adviser: Prof. R.A. Abell. December Graduate.

#### Marcia Collins Kelly, St. Paul

A.B. cum laude '76, Mount Holyoke College. Major: Mass Communication. Minor: Related Fields. Major Adviser: Prof. D.M. Gillmor. December Graduate.

#### Ruth Anne Kendrick

B.A. '77, Saint Mary's College; B.S. '80, University of Minnesota. Major: English. Minor: Related Fields. Major Adviser: Prof. Michael Hancher. March Graduate.

## Addison Howland Kermath, Boston, Mass.

B.A. cum laude '75, Clark University. Major: Linguistics. Minor: Related Fields. Thesis: Gaelic from English: A Translational Grammar. Major Adviser: Prof. M.B. Kac. Graduation Pending.

## Victoria Louise Kibler, Claremont, Calif.

B.A. '75, University of Minnesota. Major: English. Minor: Related Fields. Major Adviser: Prof. R.D. Solotaroff. Graduation Pending.

#### Byung Duck Kim, Seoul, Korea

B.A. with highest honors '84, University of Texas, Austin. Major: Economics. Minor: Related Fields. Major Adviser: Prof. Neil Wallace. December Graduate.

#### Yoonok Kim, Seoul, Korea

B.A. '81, Yonsei University. Major: History. Minor: Related Fields. Major Adviser: Prof. J.L. Altholz. January Graduate.

#### Roberta Rae Kimball

B.A. cum laude '76, University of Minnesota. Major: Communication Disorders. Minor: Related Fields. Thesis: Responses to Questions by Linguistically Normal and Language Delayed Preschool Children in a Story Comprehension Task. Major Adviser: Prof. P.A. Broen. December Graduate.

#### Kent Jerome Kollodge, Minnetonka B.S. '81, St. John's University. Major: Industrial

B.S. 81, St. John's University. Major: Industrial Relations. Minor: Related Fields. Major Adviser: Prof. M.F. Bognanno. Graduation Pending.

#### Cary Todd Komoto, Minneapolis

B.S. '83, University of Minnesota, Major: Geography, Minor: Related Fields, Thesis: Japanese-American Residential Patterns in Los Angeles, Major Adviser: Prof. J.S. Adams, December Graduate.

#### Nariko Koto

B.M. 83, University of the Pacific, Major: Music. Minor: Related Fields. Thesis: Mcriken Sugoroku (Amerigo Vespucci's Voyage). Major Adviser: Prof. D.J. Argento. Graduation Pending.

Douglas Robert Kramer, St. Paul B.A. cum laude '79, Yale College. Major: Russian Area Studies. Major Adviser: Prof. G.R. Jahn. Graduation Pending.

Carol Lynn Langer, Bloomington B.A. '79, Gustavus Adolphus College. Major: Physical Education. Minor: Related Fields. Thesis: Cardiorespiratory Responses to Selected Low-level Cardiac Rehabilitation Exercises. Major Adviser: Prof. R.C. Serfass. Graduation Pending.

Barbara Elden Larney, New Brighton B.A. '84, College of St. Catherine. Major: Industrial Relations. Minor: Related Fields. Major Adviser: Prof. J.G. Scoville. Graduation Pending.

Angela Mary Larson, Minneapolis B.S. '84, University of Minnesota, Major: Recreation, Park, and Leisure Studies. Minor: Related Fields, Major Adviser: Prof. S.J. Schleien, Graduation Pending.

Brett Paul Laursen, Minneapolis B.A. '84, Nebraska Weslevan University, Major: Child Psychology, Minor: Related Fields, Major Adviser: Prof. W.A. Collins, January Graduate.

Mary Margaret Leach, Burnsville B.S. 67, Mankato State University. Major: Family Social Science. Minor: Related Fields. Major Adviser: Prof. M.J. Hogan. Graduation Pending.

#### Kellie Ann Leighton, Austin

B.A. magna cum laude '81, University of Minnesota. Major: Communication Disorders. Minor: Related Fields. Thesis: Intelligibility as a Measure of Velopharyngeal Function: A Validity Study. Major Adviser: Prof. R.P. McDermott. December Graduate.

Karen Beth Levine, Des Moines, Iowa B.S. '84, University of Minnesota, Major: Educational Psychology, Minor: Related Fields, Major Adviser: Prof. Susan Rose, December Graduate.

Yunn-Hwa Lii, Taipei, Taiwan B.A. '83, National Kaohsiung Teachers'College. Major: Education. Minor: Related Fields. Major Adviser: Prof. S.R. Trollip. February Graduate.

Jeffrey Scott Litvak, Denver, Colo. B.S. '83, B.A. cum lande '83, University of Colorado, Major: Mass Communication. Minor: Related Fields. Major Adviser: Prof. D.M. Gillmor. Graduation Pending.

#### Susan Jane Lloyd, Northfield

B.A. summa cum laude '59, Muskingum College, Major: Educational Psychology, Minor: Related Fields, Major Adviser: Prof. F.H. Wood, February Graduate

#### Suzanne Lucille Luke, Roseville

B.S. magna cum laude '75, University of Minnesota. Major: Industrial Relations. Minor: Related Fields. Major Adviser: Prof. J.A. Fossum. December Graduate.

Raymond Michael Madell, Maplewood B.S. cum laude '81, Western Michigan University. Major: Recreation. Park, and Leisure Studies. Minor: Forestry. Major Adviser: Prof. L.H. McAvoy. Graduation Pending.

#### Valgerdur Magnusdottir, Akureyri, Iceland

B.A. '85, University of Iceland. Major: Psychology. Minor: Related Fields. Major Adviser: Prof. G.T. Athelstan. Graduation Pending.

### Gerald Thomas Matykowski,

Minneapolis

B.S. with high distinction '78, University of Minnesota, Major: Education, Minor; Related Fields, Major Adviser: Prof. R.D. Tennyson, Graduation Pending.

#### Gwendolyn Louise McAdams, Long Lake

B.A. '65, Luther College, Major: Linguistics, Minor: Related Fields, Major Adviser: Prof. B.T. Downing, January Graduate.

Patrick Joseph McCormack, Austin B.A. '82, University of Minnesota. Major: Public Affairs. Major Adviser: Prof. J.E. Jernberg. January Graduate.

#### Ricky Paul McGrath, Owatonna

B.A. 82, University of Minnesota, Major; Industrial Relations, Minor; Related Fields, Major Adviser; Prof. J.A. Fossum, February Graduate.

#### Sheila Marie McGuire

B.A. with honors '83, State University of New York. Major: Art History. Minor: Related Fields. Major Adviser: Prof. N.W. Canedy. Graduation Pending.

#### Julie Medbery, St. Paul

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

#### Patrick Mendis, Sri Lanka

B.S. '83, University of Sri Jayewardenepura. Major: Public Affairs. Major Adviser: Prof. R.T. Kudrle. Graduation Pending.

#### Maureen Ann Messer, St. Paul

B.A. '80, University of Minnesota. Major: Educational Psychology. Minor: Related Fields. Major Adviser: Prof. L.S. Hansen. Graduation Pending.

#### Susan O. Michelman, Minneapolis

B.S. '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. January Graduate.

#### Lisa Kay Miller, Minneapolis

B.A. magna cum laude '84, University of Minnesota. Major: American Studies. Major Adviser: Prof. G.G. Yates. Graduation Pending.

Donna Jean Montgomery, Minneapolis B.S. '78, University of Minnesota. Major: Educational Psychology. Minor: Related Fields. Major Adviser: Prof. S.J. Samuels. Graduation Pending.

Anne Shepard Moore, Minneapolis B.A. magna cum laude '80, University of North Dakota. Major: Public Affairs. Major Adviser: Prof. J.E. Jernberg. February Graduate.

#### Camilo Antonio Morales

Bach. Lic. Ing. Com. '81, Universidade de Chile. Major: Economics. Minor: Related Fields. Major Adviser: Prof. E. M. Foster. December Graduate.

Reiko Nakaigawa, Tokyo, Japan B.A. '85, International Christian University. Ma-

B.A. 85, International Christian University. Major: Sociology. Minor: Related Fields. Major Adviser: Prof. T.R. Anderson. Graduation Pending.

#### Norah Cathleen Neale, St. Paul

B.A. '84, University of Minnesota. Major: Educational Psychology. Minor: Related Fields. Major Adviser: Prof. L.S. Hansen. February Graduate.

John Philip Ness, St. Louis Park

B.A. '80, University of Minnesota. Major: History. Minor: Related Fields. Major Adviser: Prof. E.L. Farmer. February Graduate.

#### Donald Christopher O'Hare

B.A. magna cum laude '84, Macalester College. Major: Geography. Minor: Related Fields. Major Adviser: Prof. J.G. Rice. March Graduate.

#### Viki Sue Okerlund, Seattle, Wash.

B.A. '79, St. Olaf College: Major: Industrial Relations. Minor: Related Fields. Major Adviser: Prof. H.E. Miller. Ianuary Graduate.

Mary Elizabeth Olsen, Rochester

B.A. '69, Colby College; M.A. '72, University of Arizona. Major: Mass Communication. Minor: Related Fields. Major Adviser: Prof. N.L. Roberts. December Graduate.

#### Lois Jean Olson, St. Paul

B.A. '65, Moorhead State College. Major: Home Economics Education. Minor: Related Fields. Major Adviser: Prof. Jerry McClelland. March Graduate.

Woodrow Geoffrey Parks, Minneapolis B.A. '81, University of Minnesota. Major: English as a Second Language. Minor: Related Fields. Major Adviser: Prof. J.K. Gundel. January Graduate.

#### Stephan Parmentier, Merelbeke,

#### Flanders, Belgium

Lic. Law '83, Catholic University, Louvain. Major: Sociology. Minor: Related Fields. Major Adviser: Prof. J. P. Clark. Graduation Pending.

#### Kenneth Anthony Patterson,

#### Dubuque, Iowa

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

#### Robert Louis Penaloza, Madison, Wis.

B.A. 76, M.A. 78, Trinity University. Major: Education. Minor: Related Fields. Major Adviser: Prof. R.D. Tennyson. Graduation Pending.

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

Harry Cushing Piper III, Deephaven A.B. cum laude '66, Harvard College; J.D. '69, Stanford University. Major: English. Minor: Related Fields. Major Adviser: Prof. C.G. Anderson. Graduation Pending.

#### Sara Martins Prado, Rio de Janeiro, Brazil

Bach. '83, Universidade Federal de Minas Gerais. Major: Luso-Brazilian Literature. Minor: Related Fields. Thesis: Milton Nascimento: A Voz Das Emaranhadas Africas. Major Adviser: Prof. R.W. Sousa. Graduation Pending.

#### Jacqueline Marik Prince, Edina

B.A. 65, Carleton College, Major: Hispanic Literature. Minor: Related Fields. Major Adviser: Prof. Hernan Vidal. February Graduate.

Julienne Swynny Prineas, Wayzata B.A. '80, University of Minnesota. Major: English. Minor: Related Fields. Major Adviser: Prof. L.S. Bridwell. Graduation Pending.

#### Josiane Marie Rabary-Njaka,

Antananarivo, Malagasy Republic B.A. '79, University of Minnesota. Major: French. Minor: Related Fields. Major Adviser: Prof. T.C. Conley. March Graduate.

#### Frances Joanne Rainaldi, Minnetonka

B.S. with distinction 57, University of Minnesota. Major: Educational Psychology. Minor: Related Fields. Major Adviser: Prof. B.E. Balow. December Graduate.

#### Mary JoAn Reef

B.A. <sup>5</sup>72, Purdue University; M.S. '81, Mankato State University, Major: Sociology, Minor: Related Fields, Major Adviser: Prof. R.G. Simmons, Graduation Pending.

#### Janice Louise Reichert, Edina

B.S. cum laude '66, University of Wisconsin. Major: Communication Disorders. Minor: Related Fields. Thesis: The Effects of Two Reinforcement Variables on Graphic Mode Comprehension and Production in Two Language-Disordered Children. Major Adviser: Prof. J.E. Reichle. Graduation Pending.

#### Ellen Louise Reynolds, St. Paul

B.A. '69. Wisconsin State University. Major: English. Minor: Related Fields. Major Adviser: Prof. Michael Hancher. Graduation Pending.

#### Cara Beames Roberson, Edina

B.S. '83, University of Minnesota, Major: Family Social Science, Minor: Related Fields, Major Adviser: Prof. M.J. Hogan, January Graduate.

#### Kimberly Marie Roden

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

#### Linda Catherine Russell, St. Paul

B.S. with distinction '77, University of Minnesota. Major: Education. Minor: Related Fields. Major Adviser: Prof. R.J. Park. Graduation Pending.

#### Albertina Marie Rutten, Deer Creek

Miscrima Marie Mutteri, Decl Oreck B.S. '83, University of Minnesota, Major: Recreation, Park, and Leisure Studies, Minor: Related Fields, Major Adviser: Prof. S. J. Schleien, Graduation Pending.

#### Sandra Ann Plum Ryan

B.S. summa cum laude 83, Bradley University. Major: Communication Disorders. Minor: Related Fields. Thesis: Electroglottographic Analysis of Esophageal Voice. Major Adviser: Prof. C.D. Starr. December Graduate.

Jose Miguel Sanchez, Santiago, Chile Lic. '83, Ing.Com. '83, Mag. '83, Pontificia Universidad Catolica de Chile. Major: Economics. Minor: Related Fields. Major Adviser: Prof. J. B. Slemrod. Graduation Pending.

#### Linda Elaine Schloff

B.S. with distinction '60, B.A. '82, University of Minnesota, Major: History, Minor: Related Fields. Major Adviser: Prof. R.J. Vecoli. December Gradnate.

Lisa Rence Schlotterback, Minneapolis B.A. magna cum laude '84, Concordia College, Major: Educational Psychology, Minor: Related Fields, Major Adviser: Prof. S.L. Lindborg, January Graduate.

#### James George Schmit, St. Paul

B.A. cum laude '78, College of St. Thomas. Major: Industrial Relations. Minor: Related Fields. Major Adviser: Prof. J.G. Scoville. February Graduate.

## Suzanne Jean Schoenfelt, Hammond,

A.B. 77, Indiana University. Major: English. Minor: Related Fields. Major Adviser: Prof. C.J. Sugnet. Graduation Pending.

#### Joyce Lorraine Bates Schultenover, Minnetonka

B.S. '57, St. Cloud State University. Major: Family Social Science. Minor: Related Fields. Major Adviser: Prof. S.L. Zimmerman. Graduation Pending.

#### Robert Troger Schultz, Minneapolis

B.A. '84, California State University. Major: American Studies. Major Adviser: Prof. G.G. Yates. Graduation Pending.

#### John Edward Schwiebert, Rock Island, Ill.

B.A. magna cum laude '76, Carleton College. Major: English. Minor: Related Fields. Major Adviser: Prof. P.G. Furia. December Graduate.

#### Sandra Margaret Scott, Minneapolis

B.A. '71, University of Minnesota. Major: Design, Housing, and Apparel. Minor: Related Fields. Thesis: A Broad Concept Authority Vocabulary for Textile Literature Searching. Major Adviser: Prof. M.P. Grindereng, Graduation Pending.

#### Ann Claire Seivert

B.A. '73, University of Iowa. Major: Linguistics. Minor: Related Fields. Major Adviser: Prof. G.A. Sanders. Graduation Pending.

#### Louise Kathryn Selb, Carroll, Iowa

B.A. '73, University of Minnesota. Major: Communication Disorders. Minor: Related Fields. Thesis: The Effect of Post-Lingual Hearing Loss on Articulation. Major Adviser: Prof. P.A. Broen. Graduation Pending.

#### Denise Ellen Shomaly

Per. '83, Pontificia Universidad Catolica de Chile. Major: Mass Communication. Minor: Related Fields. Thesis: The Media and the Government in Chile: 1973-1985. Major Advisers: Profs. T.L. Glasser and Dario Menanteau. December Gradu-

Mary Suc Simmons, White Bear Lake B.A. '69, University of Maryland. Major: Education. Minor: Related Fields. Major Adviser: Prof. R.J. Park. Graduation Pending.

#### Scott Simpson, Minneapolis

B.A. '78, University of Minnesota. Major: Family Social Science. Minor: Related Fields. Major Adviser: Prof. G.M. Gage. Graduation Pending.

#### Karin Irene Smith, Minneapolis

B.A. '83, University of Minnesota. Major: English as a Second Language. Minor: Related Fields. Major Adviser: Prof. J.K. Gundel. December Gradu-

#### Catherine Ann Solheim, Barnum

B.A.S. magna cum laude '78, University of Minnesota. Major: Family Social Science. Minor: Related Fields. Major Adviser: Prof. M.J. Hogan. February Graduate.

William Anders Solheim, Minneapolis B.A. '84, University of Minnesota, Major: Scandinavian. Minor: History. Major Adviser: Prof. W.E. Mishler, Graduation Pending.

#### Christina Jane Sorden, Menomonee Falls, Wis.

B.A. '83, Coe College. Major: Recreation, Park, and Leisure Studies. Minor: Related Fields. Major Adviser: Prof. L.H. McAvoy. Graduation Pending.

#### Jill Louise Stoltenberg, St. Paul

B.S.D.H. with distinction '76, University of Minnesota. Major: Education. Minor: Related Fields. Major Adviser: Prof. R.A. Willie. December Grad-

#### Donna Marie Terek

B.A. cum laude '75, Miami University. Major: Mass Communication. Minor: Related Fields. Major Adviser: Prof. D.B. Schwartz. January Graduate.

#### Lynda Sue Thompson, St. Paul

B.A. cum laude '69, Augsburg College. Major: Education. Minor: Related Fields. Major Adviser: Prof. C.A. Carrier. January Graduate.

Thomas Lumis Traub, Millington, N.J. B.A. '81, Allegheny College. Major: Industrial Relations. Minor: Related Fields. Major Adviser: Prof. M.A. Zaidi. Graduation Pending.

## Elaine Kim Valtinson, San Francisco,

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. George Seltzer. December Graduate.

#### Susan Ann Von Mosch, St. Paul

B.A. with distinction '78. University of Minnesota. Major: Public Affairs. Major Adviser: Prof. J. E. Brandl. Graduation Pending.

#### Wendy Kay Watson, New Brighton B.A. magna cum laude '80, University of Minne-

sota. Major: Educational Psychology. Minor: Related Fields. Major Adviser: Prof. J.E. Rynders. March Graduate.

#### Heidi Leah Wavinak, Bloomington

B.S. with high distinction '79, University of Minnesota. Major: Educational Psychology. Minor: Related Fields. Major Adviser: Prof. B.E. Balow. December Graduate.

#### Maribeth Weber

B.A. '84, University of Minnesota, Major: Mass Communication. Minor: Related Fields. Major Adviser: Prof. I.C. Busterna. December Graduate.

#### Martha Hall Weingartner, St. Paul

A.B. cum laude '77, Smith College. Major: French. Minor: German. Major Adviser: Prof. F.R.P. Akehurst. February Graduate.

#### M.J. Willoughby, Lawrence, Kan.

B.A. '82, University of Kansas. Major: Political Science. Minor: Related Fields. Major Adviser: Prof. C.E. Walcott. December Graduate

#### Margaret Ann Wolff, Tewksbury, Mass.

B.S. cum laude '74, State College, Fitchburg. Major: Museology. Minor: Related Fields. Major Adviser: Prof. M.F. Smith. Graduation Pending.

Terri Lynn Yablonsky, Minneapolis B.S. summa cum laude '85, University of Minnesota. Major: Mass Communication. Minor: Related Fields. Major Adviser: Prof. P.J. Tichenor. Graduation Pending.

#### Kathleen Faye Yaeger, Minneapolis

B.S. summa cum laude '74, University of Minnesota. Major: Education. Minor: Related Fields. Major Adviser: Prof. H.Y. Williams. December

#### Yong-Ro Yeun, South Korea

B.A. 78, Hankuk University of Foreign Studies. Major: Public Affairs. MajorAdviser: Prof. R.S. Bolan. Graduation Pending.

#### Birgitta Zaar, Vienna, Austria

Mag. 84, Universitat Wien. Major: History. Minor: Related Fields. Major Adviser: Prof. A.F. Isaacman. Graduation Pending.

#### Li Zhao, Beijing, People's Republic of China

B.A. '83, Tianjin Foreign Languages Institute. Major: Japanese. Minor: Related Fields. Major Adviser: Prof. E.M. Copeland. Graduation Pending.

#### Master of Arts

#### UNIVERSITY OF MINNESOTA, DULUTH

#### Gretchen April Ames, Duluth

B.S. magna cum laude '84. University of Wisconsin. Major: Educational Psychology. Minor: Related Fields. Major Adviser: Prof. M.F. Gum. Graduation Pending.

## Mark Dwight Ankarlo, Ashland, Wis. B.A.A. cum laude '76, B.M. cum laude '76, University of Minnesota. Major: Education. Minor: Related Fields. Major Adviser: Prof. Jean Swanson. Graduation Pending.

Marie Louise Atkinson, Rochester B.S. '84, Union College. Major: Educational Psychology. Minor: Related Fields. Major Adviser: Prof. M.F. Gum. Graduation Pending.

#### Susan Elizabeth Betz, Duluth

B.A. summa cum laude '74, University of Minnesota. Major: Communication Disorders. Minor: Related Fields. Major Adviser: Prof. C.S. Spillers. March Graduate.

#### Edward Albert Dow, Scandia

B.A. '85, University of Minnesota, Major: Educational Psychology, Major Adviser: Prof. M. F. Gum. Graduation Pending.

#### Donnie Jean Gordon, Cook

B.S. 85, University of Wisconsin, Major: Educational Psychology, Minor: Related Fields, Major Adviser: Prof. M.F. Gum. Graduation Pending.

#### Eric Charles Johnson, Duluth

B.A. summa cum laude '80, University of Minnesota. Major: Educational Psychology. Minor: Related Fields. Major Adviser: Prof. M.F. Gum. Graduation Pending.

## Linda Dagmar Kirchmaier, Duluth B.A. '84, University of Minnesota. Major: Educational Psychology. Minor: Belated Fields. Major

tional Psychology. Minor: Related Fields. Major Adviser: Prof. M.F. Gum. Graduation Pending.

#### Ruby Kae Koopman, Ivanhoe

B.A. <sup>5</sup>83, University of Minnesota. Major: Educational Psychology. Minor: Related Fields. Major Adviser: Prof. M.H. Smaby. Graduation Pending.

## Susan Ruth LeBlanc, Hubbell, Mich. B.A. cum laude '85, Northern Michigan Univer-

B.A. cum laude 85, Northern Michigan University. Major: Educational Psychology. Minor: Related Fields. Major Adviser: Prof. M. F. Gum. Graduation Pending.

## Brenda Jo Peterson, Lac du Flambeau, Wis.

B.A.S. '85, University of Minnesota. Major: Educational Psychology. Minor: Related Fields. Major Adviser: Prof. M.F. Gum. Graduation Pending.

#### Fereshteh Shahabi, Tehran, Iran

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

#### Richard Alfred Todd, Fridley

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

#### Jean Linda Udesen

B.S. '67, University of Minnesota, Major: Educational Psychology, Minor: Related Fields, Major Adviser: Prof. M.F. Gum. Graduation Pending.

#### Meredith Stevens Uhan, Eveleth

B.S.W. summa cum laude '84, University of Minnesota. Major: Educational Psychology. Minor: Related Fields. Major Adviser: Prof. M.F. Gum. Graduation Pending.

#### **Master of Business Administration**

Steven Paul Addington, Hudson, Wis. B.S.B. '80, University of Minnesota. Major: Business Administration. Major Adviser: Prof. R.B. Upson. Graduation Pending.

Barbara P. Alipio, Minneapolis

B.S. '82, Creighton University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

Spencer Sidney Allen, Minneapolis B.S.B.A. magna cum laude '79, Boston University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

#### Stephen William Allsop, Cedar Rapids, Iowa

B.S. '77, Iowa State University of Science and Technology. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

Timothy Blake Andersen, St. Paul B.A. cum laude '76, Concordia College. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

Robert Thomas Anderson, Minneapolis B.A. '81, University of South Florida. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. March Graduate.

Roberta Kay Anderson, Argyle B.S.B.A. cum laude '81, University of North Dakota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. March Graduate.

#### Stuart A. Anderson

B.B.A. with high distinction '52, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

Ime Andriani, Indonesia

Sarj. '84, Universitas Katolik Parahyangan. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. February Graduate.

Mark Walter Baier, Appleton, Wis. B.A. '79, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

Ann Titus Baker, Circleville, Ohio B.A. cum laude '80, Miami University; M.A. '82, Syracuse University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. March Graduate.

Richard Conrad Baker, Fergus Falls B.A. magna cum laude '85, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending. Joseph Anthony Barrett, Chicago, Ill. B.S. '85, Northern Illinois University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. February Graduate.

Thomas James Barry, Minneapolis B.A. magna cum laude '81, College of St. Thomas. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. March Graduate.

Annette Fay Behm, Minot, N.D. B.A. '85, Minot State College. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. December Graduate.

Judith Marie Bell, Minneapolis B.A. '78, Concordia College. Major: Business Administration. Major Adviser: Prof. N. L. Chervany. March Graduate.

#### Matthew Eli Bellin

B.S. cum laude '78, Tufts University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

Blake Patrick Benson, Forest Lake B.M.E. '79, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

Paula Anne Berg, New Brighton B.A. summa cum laude '85, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

#### Erica Anne Bergsland

B.A. with distinction '83, University of Wisconsin. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

John Earl Biermann, Brooklyn Park B.S. with distinction '74, M.S. '76, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

#### Gunnar Rafn Birgisson

Cand. Occon. '85, University of Iceland. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

John Bernard Blix, Minnetonka B.M.E. with distinction '82, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

Richard David Bloomfield, St. Paul B.A. '84, University of Wisconsin. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

#### Donald Frank Blue, Edina

B.S.B. '78, Indiana University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. January Graduate.

#### Norman Wayne Boese

B.E.E. '81, University of Minnesota, Major: Business Administration, Major Adviser: Prof. R.B. Upson, February Graduate.

Robert M. Boeve, White Bear Lake A.B. cum laude '79, Hope College, Major: Business Administration, Major Adviser: Prof. N.L. Chervany, Graduation Pending.

#### Ronald Allen Bogdanovich

B.B.A. '85, University of Minnesota, Major: Business Administration, Major Adviser: Prof. N.L. Chervany, December Graduate.

#### Randy Lloyd Boser, Pierz

B.S. cum laude '81, St. Cloud State University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

Susan Lein Britzius, Minneapolis B.S.B. '84. University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. December Graduate.

Rudolf Arthur Brynolfson, Minneapolis B.A. cum laude '67, Macalester College. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. February Graduate.

Mary Kathryn Burfeind, Wayzata B.S. 73, Moorhead State University: M.P.H. 76, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. March Graduate.

#### John Paul Burns, Coon Rapids

B.S. magna cum laude '84. Bemidji State University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. December Graduate.

## Rosalyn Litha Caffey, Montgomery, Ala.

B.S. '79, University of Alabama, Major; Business Administration, Major Adviser; Prof. N.L. Chervany, January Graduate.

#### John Charles Carlin

B.S. with honors '74. United States Merchant Marine Academy, Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

Kirsten D. Chapman, St. Paul

B.S.B.A. '80, University of Denver, Major: Business Administration, Major Adviser: Prof. N.L. Chervany, March Graduate.

#### Steven Marshall Chapman, Minneapolis

B.S.B. '78, University of Minnesota, Major; Business Administration, Major Adviser; Prof. N.L. Chervany, Graduation Pending.

#### Shiow-Rong Chen, Taiwan

B.B.A. '85, National Taiwan University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

#### Barbara Ann Claudon, White Bear Lake

B.S. with distinction '84, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

#### Beth Ann Colesworthy

B.S.B. with high distinction '78, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. February Graduate.

Scott Howard Costello, Stillwater B.C.S. with high distinction '79, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. January Graduate.

William Virgil Davidson, Minneapolis B.B.A. with honors '81, University of Notre Dame. Major: Business Administration. Major Adviser: Prof. R.B. Upson. March Graduate.

Patricia Ann Dawson, Minnetonka B.S.B. '82, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. March Graduate.

Laura Elizabeth Dirks, Minneapolis B.A. magna cum laude '70, M.A. '71, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. December Graduate

Sue Ellen Dobey, Minneapolis B.S.B. with high distinction '77, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. December Graduate.

Tad Busch Dolphay, Detroit Lakes B.C.S. 78, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. December Graduate.

#### Joel Rivard Dufresne, St. Paul

B.E. E. with high distinction '70, University of Minnesota. Major: Business Administration. Major Adviser: Prof. R.B. Upson. Graduation Pending.

#### Carole Anne Eaton, Minneapolis

B.B.A. '83, University of Michigan, Major: Business Administration, Major Adviser: Prof. N.L. Chervany, Graduation Pending,

#### Lisa M. Ellram, Minneapolis

B.S.B. with high distinction '82, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

# David Clyde Ewald, Bloomington

B.S. '81, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

Kenneth Frank Fabbre, Minneapolis B.S.B.A. '70, Marquette University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. January Graduate.

# Cesar Gustavo Farell, Montevideo, Uruguav

B.M.E. 83, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

# Jerry Leo Feders, St. Paul

B.A. summa cum laude '79, College of St. Thomas. Major: Business Administration. Minor: Related Fields. Major Adviser: Prof. N.L. Chervany. December Graduate.

#### Michael Thomas Fiedler

B.S. magna cum laude '73, Yale University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

# Shelly Dawn Fife, Minneapolis

B.A. magna cum laude '82, College of St. Thomas. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. December Graduate.

# Alan Raymond Fine, Minneapolis

B.A. '85, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

## Geoffrey Charles Francis

B.A. '78, Śt. Olaf College. Major: Business Administration. Major Adviser: Prof. Ivan Ross. March Graduate.

Laurie Ellen Friedlander, Bronx, N.Y. B.A. '79, Syracuse University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

# Deborah Ritchie Gammage, Delton,

B.S.B. '86, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

William Paul Gerstner, Fargo, N.D. B.Arch. '85, B.S. '85, North Dakota State University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. December Graduate.

# Christopher Joseph Gier, Harper Woods, Mich.

B.A. '81, Michigan State University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. December Graduate.

# Michael Shawn Gray, Minneapolis

B.A. '76, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

# James Daniel Grilli, Woodbury

B.S.B. '74, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. February Graduate.

# Stephanie Chew Grossman,

#### Minneapolis

A.B. with distinction '73, Stanford University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. January Graduate.

# Teresa Jean Guindon, St. Paul

B.S. summa cum laude '80, Winona State University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. March Graduate.

#### Barbara Dawn Halvorson, Edina

B.A. '74, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. February Graduate.

# Wade Douglas Hampe

B.S.B. '80, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. February Graduate.

#### Shirley Tsui-ming Hang, Shoreview

B.S. magna cum laude '82, Mankato State University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

# Thomas John Hanson, Eagan

B.S.B. '78, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. December Graduate.

# Susan Joan Harker, Edina

B.A. cum laude '78, Briar Cliff College. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. January Graduate.

# Linda Adell Hazelton, Minneapolis

B.A. cum laude '72, Florida State University. Major. Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

# Ion Anthony Heimerman, St. Paul

B.A. '75, St. John's University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. December Graduate.

Susan Lee Herridge, Minneapolis B.A. magna cum laude '76, University of Minnesota. Major: Business Administration. Major Adviser: Prof. R.B. Upson. Graduation Pending.

Donavon John Hess, West St. Paul B.A. '65, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. December Graduate.

# Willis Theo Heupel

B.S. '78, M.S. '80, North Dakota State University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

Gregory Steven Hoglund, Richfield B.A. 85, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. December Graduate.

#### Dale Wesley Hommes

B.S. '84, University of Minnesota, Major: Business Administration, Major Adviser: Prof. N.L. Chervany, Graduation Pending.

Leslie Marie Hubbs, White Bear Lake B.S. '79, University of Wisconsin, River Falls. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. March Graduate.

James Michael Huhn, Arden Hills B.S.E.E. '75. Marquette University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. January Graduate.

Gwo-Shu Hwang, Tainan, Taiwan B.S. '83, National Chiao Tung University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

Michelle Mary Jensen, Minneapolis B.A. '81, Gonzaga University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

Susan Ann Johnsen, Minneapolis B.S. with distinction '74, University of Minnesota. Major: Business Administration, Major Adviser: Prof. N.L. Chervany, January Graduate.

# Amy Kay Dunlop Johnson, South Holland, Ill.

B.S. '82, University of Wisconsin. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

Ann Louise Johnson, Richfield B.S. '80, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. March Graduate.

# Julie Rae Johnson, Owatonna

B.A. '83, Gustavus Adolphus College. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

Timothy Arthur Johnson, Cambridge B.S. summa cum laude '81, St. Cloud University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

Richard Brian Kantorowicz, Anoka B.A. '71, University of Minnesota. Major: Business Administration. Major Adviser: Prof. R.B. Upson. January Graduate.

Jeffrey Bernard Karls, Rockville B.S. '81, St. Cloud State University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. December Graduate.

Kevin O. Kelly, Golden Valley B.B.A. '80, University of Iowa, Major: Business Administration. Major Adviser: Prof. N.L. Chervany. December Graduate.

Peter John Kendall, St. Louis Park B.A. '82, Luther College. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. January Graduate.

Choonja Lee Kim, Maple Grove B.A. '66, Dong-A University; B.S. '78, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

Janice Catherine Kohler B.B. '79, University of Toledo. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. March Graduate.

# Martin Fen Nyap Kong, Kota Kinabalu, Sabah, Malaysia B.S. '86, Iowa State University of Science and Technology. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

Elaine Koyama, Edina A.B. '76, Stanford University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

Rose Mary Kueber, St. Paul B.C.S. '82, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. March Graduate.

Daniel Francis Kuplic, Burnsville B.A. '81, College of St. Thomas. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. March Graduate. Julie Kay Lechner, St. Louis Park

B.S. summa cum laude '82, St. Cloud State University, Major: Business Administration, Major Adviser: Prof. N.L. Chervany, Graduation Pending.

Chih Jen Jennifer Lee

B.B.A. '82, National Taiwan University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. December Graduate.

Michael Roy Lee, Edina

B.S. '79, Moorhead State University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

William David Lehman, Minneapolis

B.A. '82, Carthage College. Major: Business Administration. Major Adviser: Prof. N. L. Chervany. Graduation Pending.

Kon Yuen Leung

B.S.B. '80, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

Kent Owen Lillemoe

B.S.B.A. '80, University of South Dakota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

Susan Jean Logan, Minneapolis

B.S.B. '76, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

David Dai-Wai Lui

B.S. with high scholastic honors '78, St. Cloud State University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. February Graduate.

Chelon Cay Lund, Stillwater

B.S. '85, University of Wisconsin. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

John Arnold Lunde, Minneapolis

B.A. with high distinction '72, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

Lynn Irene Lundeberg, Minneapolis

B.A. '79, St. Olaf College; M.S. '82, Oregon State University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

Marcus Richard Lundeberg

B.S. with high scholarship '82, Oregon State University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

Rolf Andrew Madson

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

Henry Frederick Manthei,

Minneapolis

B.S. scholastic honors '76, St. Cloud State University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

Lynn Ellen McDaniel, Lexington, Ky. B.A. magna cum laude '78, Macalester College. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

Robert Ryan McEnaney, Woodbury B.A. '81, College of St. Thomas. Major: Business Administration. Major Adviser: Prof. N.L. Cher-

Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

Phillip Allen McGovern, Minneapolis B.A. '78, College of St. Thomas. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

Steven Joseph Meenan, Oakdale

B.S. '81, Iowa State University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. February Graduate.

Rebecca Jo Miller, Rochester

B.A. '73, University of Minnesota. Major: Business Administration. Major Adviser: Prof. R.G. Berryman. December Graduate.

John Jeffrey Mogush, St. Louis Park

B.A. 73, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. January Graduate.

John David Moody, North Oaks

B.A. '84, Carleton College. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. January Graduate.

William Thomas Murtaugh

B.S.B. '80, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

V. Nagasundaram, India

B. Tech. '80, Indian Institute of Technology, Madras; Post-Grad. Dipl. '82, Indian Institute of Management. Major: Business Administration. Major Adviser: Prof. N. L. Chervany. March Gradnate.

Yun-Fan Ngao, Republic of China

B.A. '84, National Taiwan University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

# Herbert William Nichols, Jr., Golden Valley

B.A. '76, University of Minnesota, Major: Business Administration, Major Adviser: Prof. N.L. Chervany, December Graduate.

# Carleton Louis Olmanson,

#### Minneapolis

B.S.B. with distinction '78, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N. L. Chervany. December Graduate.

# Mark Roy Orlowski, Menomonee Falls, Wis.

B.S. with honors '80, University of Wisconsin. Major: Business Administration. Major Adviser: Prof. N. L. Chervany. Graduation Pending.

# Kevin Robert Orth, St. Paul

B.A. magna cum laude '80. College of St. Thomas. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

# David John Osgood, Minneapolis

B.A. '78, Bethel College, Major: Business Administration, Major Adviser: Prof. N. L. Chervany, January Graduate.

# Felicia Ann Palmer, Cloquet

B.B.A. summa cum laude '81, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

## Manzoor Ulhaq Pandit, Karachi, Pakistan

B.B.A. with honors '79, M.B.A. '80, University of Karachi, Major: Business Administration, Major Adviser: Prof. N.L. Chervany, Graduation Pending.

# Joanne Catherine Pertz, Minneapolis B.S. '73, Wisconsin State University; M.S. '75.

B.5. 13, Wiscouri State University, Major: Business Administration. Major Adviser: Prof. N.L. Chervany, Graduation Pending.

# Thomas C. Pesek, Minneapolis

B.A. '82, College of St. Thomas. Major: Business Administration. Major Adviser: Prof. N.L. Chervany, Graduation Pending.

#### Charles Roy Peterson

B.A. magna cum laude '79, Augsburg College, Major: Business Administration, Major Adviser: Prof. N.L. Chervany, Graduation Pending.

# Cynthia Ann Peterson, Minneapolis

B.A. '78, Augsburg College, Major: Business Administration, Major Adviser: Prof. N.L. Chervany, January Graduate.

# Gary Richard Peterson, Shoreview B.S.B. 81, University of Minnesota. Major: Busi-

B.S.B. 81, University of Minnesota, Major: Business Administration. Major Adviser: Prof. N. L. Chervany, Graduation Pending.

## Gene Howard Peterson, White Bear Lake

B.A. with highest honors '66. Bethel College; M. S. '71. University of Minnesota. Major: Business Administration. Major Adviser: Prof. N. L. Chervany. Graduation Pending.

# Theresa Marie Peterson, Forest Lake B.A. '83, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

Thomas Walter Poeschl, St. Paul B.A. magna cum laude '81. College of St. Thomas. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

# Robert Alan Puls, Beaver Dam, Wis.

B.S. '83, University of Wisconsin. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

#### Scott Edwin Reddington

B.A. '84, Lawrence University, Major: Business Administration, Major Adviser: Prof. N.L. Chervany, Graduation Pending.

#### Thomas Alan Renshaw, St. Paul

A.B. with distinction '71, B.S.E. magna cum laude '79. University of Michigan. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

# Daniel Frank Rode, New Brighton

B.S. '68, Pennsylvania State University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. March Graduate.

# Richard Martin Running, Duluth

B. E. E. with distinction '78, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N. L. Chervany. Graduation Pending.

# Margaret Alice Sarazin, Minneapolis

B.A. '82, College of St. Thomas. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. January Graduate.

# Ronald Joseph Scherwin, Lansing, Ill.

B.A. '79, St. Mary's College, Major: Business Administration, Major Adviser: Prof. N.L. Chervany, December Graduate.

#### DeAnne Shirley Schroeder, Bloomington

B.S. summa cum laude '82. St. Cloud State University. Major: Business Administration. Major Adviser: Prof. N. L. Chervany. March Graduate.

#### Kent Alan Seetin, Huntley

B.S. with distinction '80, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. December Graduate.

Joy Ann Shelton, Perrysburg, Ohio B.S.Pharm. '80, University of Toledo. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. January Graduate.

Michele Anne Simon, St. Paul B.A. '75, Concordia College. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

Steven John Stroncek, Minneapolis B.E.E. with distinction '83, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

Wawa Sulaeman, Cirebon, Indonesia Sarj. '84, Institut Teknologi Bandung. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

# Michael Dean Sunderland,

Minneapolis

M. E. '81 University of Minne

B.M.E. '81, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. December Graduate.

Wendy Lee Surridge, St. Paul

B.S.B.A. summa cum laude '81, Youngstown State University. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. March Graduate.

Chin Tan, Kuala Lumpur, Malaysia B.S. '83, University of Southampton; M.S.E.E. '86, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

Teck Koon Tan, Singapore

B.A.S. with honors 84, University of Windsor, Major: Business Administration, Major Adviser: Prof. N.L. Chervany, Graduation Pending.

Alain Louis Taquet, Paris, France Lic. '83, Mait. '84, Universite de Paris I, Sorbonne; Dipl. Ing. '84, Ecole Superieure d' Electricite; M. S. '86, University of Minnesota. Major: Business Administration. Minor: Related Fields. Major Adviser: Prof. N. L. Chervany. Graduation Pending.

Patrick Lee Thomas, Moorhead B.S. '82, Moorhead State University. Major: Business Administration. Major Adviser: Prof. N.L.

Chervany. December Graduate.

Seng Leong Tjia, Singapore

B.S. magna cum laude '86, University of Oregon. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending. John Crawford Trautz, St. Paul

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

Robert Edward Tunheim, Newfolden B.A. summa cum laude '82, Concordia College. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. March Graduate.

John Robert Ukura, New Brighton B.E.E. '81, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. January Graduate.

Rebecca Christine Vance, Minneapolis B.A. '71, Macalester College. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. December Graduate.

Valerie Dawn Vandersteen, St. Paul B.Ch.E. '82, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

Sharon L. Venne, Eagan

B.A. '81, Luther College. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. December Graduate.

Pamela Jo Vettel, St. Louis Park

B.A. '79, Carleton College. Major: Business Administration. Major Adviser: Prof. R.B. Upson. March Graduate.

Paul Joseph Vetter III, Eagan

B.A. magna cum laude '78, College of St. Thomas. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

Vance Kent Voss, Des Moines, Iowa B.A. '86, Grand View College. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

Michael George Wandrey, Columbus, Wis.

B.S. '76, University of Wisconsin. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

Linda Marie Wandt, Brookfield, Wis. B.A. '85, University of Wisconsin. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

Ralph William Wawrzyniak, St. Louis Park

B.S. with honors '79, University of Wisconsin. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

Susan Carlson Weinberg, Robbinsdale B.A. '73, University of South Dakota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. December Graduate.

# Robin Jeanne Wheeler

B.S. with distinction '74, University of Virginia. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Peuding.

David Henry Williams, Rochester B.A. '83, Gustavus Adolphus College. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

# Robert Stephen Wilson, Mission Viejo, Calif.

B.S. '81, Iowa State University of Science and Technology. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. March Graduate.

# Chee Meng Wong, Singapore

B.S. with honors '86, Southern Illinois University, Carbondale. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

# Steven Paul Worwa

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

# Scot Edwin Zimmerman, Edina

B.E.E. '82, University of Minnesota. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

Beatriz Zolezzi, San Jose, Costa Rica Lic. '74, Instituto Tecnologico y de Estudios Superiores de Monterrey. Major: Business Administration. Major Adviser: Prof. N.L. Chervany. Graduation Pending.

# **Master of Business Administration**

UNIVERSITY OF MINNESOTA, DULUTH

John Raymond Allen, Superior, Wis. B.S. with honor '64, Michigan Technological University. Major: Business Administration. Major Adviser: Prof. K.R. Knudsen. Graduation Pending.

Charles Michael Fedora, Duluth B.S. '67, University of Minnesota. Major: Business Administration. Major Adviser: Prof. Atul Gupta. Graduation Pending.

## Walter R. Magnussen, Jr., St. Paul Park

B.B.A. '81, University of Minnesota. Major: Business Administration. Major Adviser: Prof. R.O. Sielaff. Graduation Pending.

Peter Willcoxon, Sr., Superior, Wis. B.S. '68, St. Joseph's College. Major: Business Administration. Major Adviser: Prof. H.B. Person. January Graduate.

#### **Master of Business Taxation**

Daniel Lee Altwegg, St. Paul B.S. '76, Mankato State University; J.D. '80, Hamline University. Major Adviser: Prof. F.R. Jacobs. Graduation Pending.

Steven Douglas Carlson, Fridley B.S.B. '73, University of Minnesota. Major: Business Taxation. Major Adviser: Prof. F.R. Jacobs. Graduation Pending.

Mark Lenus Erickson, Minneapolis B.S. '83, Mankato State University. Major: Business Taxation. Major Adviser: Prof. F.R. Jacobs. Graduation Pending.

Calvin Andre Giroulx, Bloomington B.B.A. '75, University of Wisconsin. Major: Business Taxation. Major Adviser: Prof. F.R. Jacobs. December Graduate.

# John Richard Morris

B.S.B. '80, University of Minnesota. Major: Business Taxation. Major Adviser: Prof. F.R. Jacobs. December Graduate.

Ramona Jean Nelson, New Hope B.A. magna cum laude '75, Luther College, Major: Business Taxation, Major Adviser: Prof. F.R. Jacobs, March Graduate.

James Shay Nolan, Jr., Minnetonka B.S.B. '75, University of Minnesota. Major: Business Taxation. Major Adviser: Prof. F.R. Jacobs. December Graduate.

Patricia Ann Sellner, Rockville, Md. B.B.A. '81, University of Iowa. Major: Business Taxation. Major Adviser: Prof. F. R. Jacobs. January Graduate.

# William Frederick Yancey,

# Minneapolis

B.A. '78, Dartmouth College; M.For. '80, Duke University; B.Acct. '83, University of Minnesota. Major: Business Taxation. Major Adviser: Prof. F.R. Jacobs. Graduation Pending.

# Master of Civil Engineering

#### Keith Alan Bachman, Arlington

B.C.E. with distinction '80, University of Minnesota. Major: Civil Engineering. Minor: Related Fields. Project: Design of a Wastewater Stabilization Pond Liner System for Groundwater Quality Protection. Major Adviser: Prof. S.C. Chiesa. December Graduate.

# Francis Okechukwu Elekwachi,

# Acha-Isuikwuato, Nigeria

B.C.E. '85, University of Minnesota. Major: Civil Engineering. Minor: Related Fields. Project: The Design and Analysis of a Precast Prestressed Concrete Multistory Building. Major Adviser: Prof. Ladislav Cerny. December Graduate.

# Michelle Ann Moeller, West Seneca,

B.S. '84, Carnegie-Mellon University. Major: Civil Engineering. Minor: Related Fields. Project: Evaluation of Modeling Techniques for Reinforced Concrete Structures Subjected to Lateral Load. Major Adviser: Prof. C. E. French. March Graduate.

# Charbel Joseph Tarzikhan,

## Minneapolis

B.C.E. '85, Ûniversity of Minnesota. Major: Civil Engineering. Minor: Related Fields. Project: Welded and Composite Connections Betwen Precast Elements Subjected to Cyclic Lateral Loads. Major Adviser: Prof. C.E. French. Graduation Pending.

# **Master of Fine Arts**

# John Howard Barnier, Hopkins

B.A. '83, University of Minnesota. Major: Studio Arts. Minor: Related Fields. Major Adviser: Prof. I.V. Henkel. March Graduate.

# Leslie George Brelsford, Kellogg

B.M. '71, Simpson College. Major: Theatre Arts. Minor: Related Fields. Major Adviser: Prof. H.L. Adey. February 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. December 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. January 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. January Graduate.

Kathleen Amelia Schuetz, Minneapolis B.A. '81, Hamline University. Major: Theatre Arts. Minor: Related Fields. Major Adviser: Prof. C.L. Brockman. Graduation Pending.

# Kurt Frederick Schweickhardt,

# Oakland, Calif.

B.A. '76, California State University. Major: Theatre Arts. Minor: Related Fields. Major Adviser: Prof. R.D. Moulton. Graduation Pending.

# 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. December Graduate.

# **Master of Mineral Engineering**

# Donald James Sedgeman, Gilbert

B. Geo. E. '81, University of Minnesota. Major: Mineral Enginering. Minor: Related Fields. Project: Truck Control Methods. Major Adviser: Prof. K.A. Smith. December Graduate.

# **Master of Music**

#### Tamasue Anne AbuAyed, Monticello B.A. '83, University of Minnesota. Major: Music. Major Adviser: Prof. P.W. Freed. Graduation Pending.

# Gary Alan Wood, Anoka

B.S. '80, University of Minnesota, Major: Music. Major Adviser: Prof. J. E. Anderson, March Graduate.

# **Master of Planning**

# Elisabeth Aagot Olness Emerson, Minneapolis

B.A. '79, University of Minnesota, Major: Planning, Major Adviser: Prof. S.M. Fass, Graduation Pending

# Debora Molina Ledesma, Salinas, Calif.

B.A. '84, San Jose State University. Major: Planning. Major Adviser: Prof. T.R. Dewar. December Graduate.

#### Master of Science

# Paul William Aasen, Minneapolis

B.S. '83. University of Minnesota. Major: Environmental Health. Minor: Related Fields. Major Adviser: Prof. O.R. Ruschmeyer. December Gradnate.

# Djoko Utomo Agungrahardjo, Indonesia

B.A. summa cum laude '85, Ohio Wesleyan Univesity. Major: Computer and Information Sciences. Minor: Related Fields. Major Adviser: Prof. W.T. Tsai, Graduation Pending.

# Susan Lee Ahlquist

B.S.N. with distinction '74, University of Minnesota. Major: Nursing. Minor: Related Fields. Major Adviser: Prof. Patricia Crisham. Graduation Pending.

# Abed Sulaiman Al-Jabab

B.D.S. '82, King Saud University, Major: Dentistry, Minor: Related Fields, Thesis: Bond Strength, Rate of Maturation, and Stability of Eight Dentinal Bonding Agents, Major Adviser: Prof. O.A. Zidan, Graduation Pending.

# Timothy Lee Andersen, Bloomington

B.S. '80, Bemidji State University. Major: Ecology. Minor: Related Fields. Thesis: The Effects of Chlorine and Temperature on Ceriodaphnia reticulata in Stream Water. Major Adviser: Prof. D.N. Mc-Naught. Graduation Pending.

#### Sigurd Munro Assev, Grimstad, Norway

Cand. '83, Norges Landbrukshogskole. Major: Plant Physiology. Minor: Biochemistry. Thesis: Isolation and Partial Characterization of Beta-Glucosidase in Almond Meal. Major Adviser: Prof. J.V. Carter. January Graduate.

# Mauricio Jaime Balcazar, Bolivia Lic. 79, Universidad de la Habana. Major: Agricul-

tural Economics. Minor: Economics. Major Adviser: Prof. K.M. Brooks. January Graduate.

# Philip Lawrence Barker, Bloomington B.A. magna cum laude '81, Bethel College. Major: Chemistry. Minor: Related Fields. Thesis: ESCA Studies of Distorted Metallocenes and of Ziegler-Natta Catalysis. Major Adviser: Prof. P.G. Gassman. December Graduate.

# Marlene Rose Barton, St. Louis Park B.A. cum laude '82, B.S. cum laude '82, Mankato State University. Major: Microbiology. Minor: Re-

State University. Major: Microbiology. Minor: Related Fields. Thesis: Isolation and Characterization of a Bacterium that Degrades 4-chlorobiphenyl. Major Adviser: Prof. R.L. Crawford. Graduation Pending.

# Mary Lisa Belvito, St. Paul

B.S. with distinction '83, University of Minnesota. Major: Food Science. Minor: Related Fields. Thesis: Comparison of the Retention Properties of Two Stationary Phases for Use in Reversed-Phase Liquid Chromatography. Major Adviser: Prof. J.J. Warthesen. January Graduate.

# Ben Andrew Bergmann, Atlanta, Ga.

B.S.A. '84, University of Georgia. Major: Horticulture. Minor: Related Fields. Thesis: Investigations Toward the Development of an in vitro Propagation System for Aesculus X Arnoldiana 'Autumn Splendor'. Major Advisers: Profs. W.P. Hackett and H.M. Pellett. Graduation Pending.

# Ranjit Chellappa Bhagyam, Madras, India

B.V.Sc. '78, Tamil Nadu Agricultural University, Madras, Major: Theriogenology. Minor: Related Fields. Thesis: The Role of Ice Nucleation in Freezing Spermatozoa. Major Adviser: Prof. E.F. Graham. December Graduate.

#### Lawrence Theodore Bigelow

B.E.S. '80, University of Minnesota, Major: Astronomy, Minor: Related Fields, Major Adviser: Prof. Lawrence Rudnick, Graduation Pending.

# Susan Marie Strain Billings, Byron

B.S. '80, University of Minnesota. Major: Forestry. Minor: Related Fields. Major Adviser: Prof. A.A. Alm. Graduation Pending.

#### Bjorn Anders Bjorkman

B.A. '84, University of California. Major: Ecology. Minor: Related Fields. Major Adviser: Prof. R.O. Megard. Graduation Pending.

# Lisa Marie Blankenheim, Columbia Heights

B.S. '82 magna cum laude, 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. December Graduate.

Shelley Ann Blilie, Minneapolis B.Phys. '81, B.S.Astrophys. '81, University of Minnesota. Major: Physics. Minor: Related Fields. Major Adviser: Prof. R.K. Hobbie. January Graduate.

Katherine Ann Brady, Rochester B.S.N. '81, University of Iowa. Major: Nursing. Minor: Related Fields. Major Adviser: Prof. Mariah Snyder. January Graduate.

#### Barbara Ann Brown

B.S. '71, University of Wisconsin. Major: Public Health. Minor: Related Fields. Thesis: Ethics Committees in Long-Term Care Facilities in Minnesota. Major Adviser: Prof. M.A. Aroskar. December Graduate.

#### Russell Murray Brown

B.A. cum laude '80, William Marsh Rice University. Major: Mathematics. Minor: Related Fields. Major Adviser: Prof. E.B. Fabes. Graduation Pending.

Mark John Bruzek, Wausau, Wis. B.S. '76, St. John's University. Major: Dentistry. Minor: Related Fields. Thesis: In vitro Wear Testing of Composite and Amalgam in an Artificial Oral Environment. Major Adviser: Prof. R.J. Feigal. February Graduate.

# Donald Mark Bunt

B.A. cum laude '83, Luther College, Major: Mechanics, Minor: Related Fields, Major Adviser: Prof. P.R. Sethna, February Graduate.

Randolph R. Calcote, Minneapolis B.A. cum laude '72, Park College. Major: Ecology. Minor: Related Fields. Thesis: Hemlock in Minnesota: 1200 Years as a Rare Species. Major Adviser: Prof. M.B. Davis. March Graduate.

Elaine Sue Caldbeck, St. Paul B.S. '80, Iowa State University of Science and Technology. Major: Forestry. Minor: Planning. Major Adviser: Prof. T.B. Knopp. March Graduate.

Joan Marie Caldwell, Portland, Ore. B.S. with highest scholarship '83, Oregon State University. Major: Forestry. Minor: Plant Physiology. Thesis: Water Potential and Growth of Red Pine Seedllings Competing with Grass. Major Advisers: Profs. R.K. Dixon and E.I. Sucoff. February Graduate. Linda Duval Carver, Fargo, N.D. B.A. '80, College of St. Catherine. Major: Nursing. Minor: Related Fields. Major Adviser: Prof. P.S. Tomlinson. 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. March Graduate.

# Ching-Jey George Chang, Taipei, Taiwan

B.V.M. '81, National Taiwan University. Major: Veterinary Pathology. Minor: Related Fields. Major Adviser: Prof. T.P. O'Leary. December Gradu-

#### Bharat Charan, Agra, India

B. Tech. '76, Indian Institute of Technology, Madras; M.B.A. '80, University of Iowa. Major: Computer and Information Sciences. Minor: Related Fields. Major Adviser: Prof. W.B. Thompson. December Graduate.

#### Wansoo Choi, Seoul, Korea

B.S. '78, Sung Kyun Kwan University. Major: Computer and Information Sciences. Minor: Related Fields. Major Adviser: Prof. D.L. Boley. Graduation Pending.

# Julia Ann Costello, St. Paul

B.S.Ch. E. '80, Purdue University. Major: Statistics. Minor: Related Fields. Major Adviser: Prof. K.M. Chaloner. January Graduate.

#### Dave Lee Cousins, Minneapolis

B.A. '84, University of Minnesota. Major: Food Science. Minor: Related Fields. Thesis: Applicability of Volatile Components of Milk to Predict Shelf-Life. Major Adviser: Prof. S.R. Tatini. Graduation Pending.

William Arthur Couture, Minneapolis B.S. with distinction '81, University of Minnesota. Major: Physics. Minor: Related Fields. Thesis: Design of a Fractal Metallic Artificial Structure. Major Adviser: Prof. A.M. Goldman. February Graduate.

# Martha Allison Crowell, Libertyville, Ill.

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. March Graduate

#### Sandra Regina Cruz, Philippines

D.D.M. '84. University of the Philippines. Major: Dentistry. Minor: Related Fields. Thesis: Some Effects of Translation, Rotation and Dental Eruption on Mandibular Growth Relative to the Maxilla. Major Adviser: Prof. R.R. Bevis. Graduation Pending.

# 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. December Graduate.

## Sheila Lea Dark, Des Moines, Iowa

B.S.N. '75, University of Missouri, Major: Nursing, Minor: Related Fields. Thesis: Locus of Control and Leader Behavior, Major Adviser: Prof. Patricia Crisham, Graduation Pending.

# Jonelle Davidson, Minneapolis

B.S. with honor '78, Michigan Technological University, Major: Biometry and Health Information Systems, Minor: Related Fields, Major Adviser: Prof. C.T. Le. December Graduate.

#### Patricia Jeanne Davidson.

#### Bloomington

B.A. magna cum laude '82. Gustavus Adolphus College. Major: Physiology. Minor: Biophysical Sciences. Major Adviser: Prof. J.A. Johnson. March Graduate.

## K.K. Tilak Ananda de Alwis, Colombo, Sri Lanka

B.S. '82, University of Colombo, Major: Mathematics. Minor: Related Fields. Major Adviser: Prof. H.H. Gershenson. February Graduate.

# Kenneth William Decker, Mendota Heights

B.A. '77, M.A. '80, University of Minnesota, Major: Soil Science, Minor: Related Fields, Thesis: Laboratory Simulation of the Effects of Acidic Deposition on Sensitive Soils in Minnesota, Major Adviser: Prof. D. F. Grigal, Graduation Pending,

# Michael Harry DeCrescenzo, Minneapolis

B.S.N. with distinction '76, University of Minnesota. Major: Biometry and Health Information Systems. Minor: Related Fields. Major Adviser: Prof. L.C. Gatewood. December 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. December Graduate.

# Kevin James Domack

B.S. '79, Edgewood College. Major: Environmental Health. Minor: Related Fields. Major Adviser: Prof. J.B. Stevens. Graduation Pending.

#### Saikeung Dong, Hong Kong

B.S. magna cum laude '84, University of Illinois, Urbana-Champaign. Major: Computer and Information Sciences. Minor: Mathematics. Major Adviser: Prof. W.D. Munro. December Graduate.

#### Drummond Earley III, Hudson, Me.

B.A. with high distinction '83, University of Maine. Major: Geology. Minor: Related Fields. Thesis: Structural and Petrographic Studies of a Proterozoic Terrain: "Gold Brick District," Gunnison County, Colorado. Major Adviser: Prof. J. H. Stout. February Graduate.

# Nancy Ann Eckardt, Sheboygan, Wis.

B.A. cum laude '82, Lawrence University. Major: Botany. Minor: Related Fields. Thesis: Ecological Aspects of Nitrogen Fixation Associated with Plants of Minnesota Wetlands. Major Advisers: Profs. D. D. Biesboer and D.C. Pratt. Graduation Pending.

#### 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. December Graduate.

#### Aissa El Meskine

Dipl. Ing. Applic. '81, Institut Agronomique et Veterinaire Hassan II. Major: Food Science. Minor: Related Fields. Thesis: Analysis of Effect of Relative Mass Diffusion Resistances on Moisture Transport in a Food-Package System. Major Adviser: Prof. T. P. Labuza. 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. December Graduate.

# Kanaan Abed Faisal, Jeddeh, Saudi Arabia

B.S. with honor '80, University of Petroleum and Minerals. Major: Computer and Information Sciences. Minor: Related Fields. Major Adviser: Prof. W.D. Munro. December Graduate.

# Joellen Mary Feirtag, Ladysmith, Wis.

B.S. '81, University of Wisconsin. Major: Food Science. Minor: Related Fields. Thesis: Thermolytic Lactic Streptococci: Their Development and Potential Application in Accelerated Cheese Ripening. Major Adviser: Prof. L.L. McKay. February Graduate.

# Zaichun Feng, People's Republic of China

B.Eng. '82, Nanjing Aeronautical Institute. Major: Mechanics. Minor: Related Fields. Major Adviser: Prof. P.R. Sethna. December Graduate.

# Kathy Linn Flanders, Dover-Foxeroft, Me.

B.S. with distinction '80, Cornell University. Major: Entomology. Minor: Related Fields. Thesis: Migration, Dispersal, and Colonization by Potato Leafhopper (Homoptera: Cicadellidae). Major Adviser: Prof. E. B. Radcliffe. December Graduate.

## David Alan Frisch, New Holstein, Wis.

B.S. with distinction '84, University of Wisconsin. Major: Plant Breeding. Minor: Related Fields. Thesis: Allelism Test and Selection for Zea mays Mutants Altered in Amino Acid Production. Major Adviser: Prof. B.G. Gengenbach. Graduation Pending.

# Barrie Raymond Froseth, Pullman,

B.S. cum laude '84, Washington State University. Major: Food Science. Minor: Related Fields. Thesis: Phage Insensitivity in Streptococcus lactis NL5: Characteristics of a Plasmid Mediated System. Major Adviser: Prof. L.L. McKay. December Graduate.

Ellen Lydia Fuge, Fort Atkinson, Wis. B.A. '70, Beloit College. Major: Botany. Minor: Related Fields. Thesis: An Assessment of Vesicular-Arbuscular Mycorrhizae on Lead/Zinc Mine Tailings. Major Adviser: Prof. I.D. Charvat. January Graduate.

# Elizabeth Mary Gabler

B.S. '83, University of Minnesota. Major: Design, Housing, and Apparel. Minor: Art History. Major Adviser: Prof. E.D. Larkin. January Graduate.

Pietra Elizabeth Gardetto, St. Paul B.A. '80, Lawrence University. Major: Botany. Minor: Related Fields. Thesis: Nutrient Limitation and the Accumulation of Added Nitrogen and Phosphorus in Sphagnum fuscum. Major Adviser: Prof. D.C. Pratt. Graduation Pending.

Nancy Elizabeth Geving, Cambridge B.A. magna cum laude '81, Westmar College, Major: Ecology. Minor: Related Fields. Thesis: Seasonal Mating Patterns in Myotis lucifugus. Major Adviser: Prof. E.C. Birney, Graduation Pending.

# David Thomas Gilbertson,

# Minneapolis

B.A. '84, University of Minnesota. Major: Biometry and Health Information Systems. Minor: Related Fields. Major Adviser: Prof. S.S. Rich. Graduation Pending.

# Ruth Marie Gladen

B.A. cum laude '79, College of St. Scholastica. Major: Nursing. Minor: Related Fields. Major Adviser: Prof. S.A. Corcoran. March Graduate.

# Daryl Gai Gonchoroff, Rochester

B.S. with high honor 74, Michigan State University. Major: Laboratory Medicine. Minor: Related Fields. Thesis: Characterization of the Structure of Human Liver and Bone Alkaline Phosphatase as Defined by Immunological and Chromatographical Techniques. Major Adviser: Prof. Walid Yasmineh. Graduation Pending.

#### Frank Joseph Greco, Chicago, Ill.

B.A. '77, University of Chicago. Major: Computer and Information Sciences. Minor: Related Fields. Thesis: Numerical Data Compression: Linear and Quadratic Marching Methods. Major Adviser: Prof. M.L. Stein. Graduation Pending.

# Bernard Guillaume, Haiti

Dipl. Agron. '82, Universite d'Etat d'Haiti. Major: Animal Science. Minor: Related Fields. Thesis: Comparison of Sweet White Lupin Seeds to Soybean Meal as a Protein Supplement in Diets for Lactating Dairy Cows. Major Adviser: Prof. D.E. Otterby. January Graduate.

#### Fritz Franz Hadeler

B.S.Pharm. '82, University of Minnesota. Major: Hospital Pharmacy. Minor: Related Fields. Major Adviser: Prof. C.E. Daniels. Graduation Pending.

#### Magdy Sobhy Hanna, Egypt

B.S. 75, Suez Canal University; M.S. '81, Cairo University. Major: Computer and Information Sciences. Minor: Related Fields. Major Adviser: Prof. W.T. Tsai, March Graduate.

#### Scott Allan Hansen

B.S. '81, Iowa State University of Science and Technology. Major: Animal Science. Minor: Related Fields. Thesis: Effects of Forage Source, Particle Size, and Intake on Protein Digestion in Cattle. Major Adviser: Prof. S.D. Plegge. December Graduate.

Barbara Schnell Hansmeier, St. Cloud B.S.N. '75, University of Minnesota. Major: Nursing. Minor: Related Fields. Major Adviser: Prof. Kathleen Sodergren. Graduation Pending.

# Jonathan L. Harder, Minneapolis

B.S. summa cum laude 82, Eastern Mennonite College. Major: Computer and Information Sciences. Minor: Related Fields. Major Adviser: Prof. J.D. Naumann. January Graduate.

#### Carol Astrid Hartley

B.A. '80, Carleton College. Major: Horticulture. Minor: Plant Physiology. Thesis: In vitro Propagation and Field Performance of Minnesota Half-High Hybrid Blueberries. Major Adviser: Prof. P.E. Read. January Graduate.

# William Lawrence Hartmann, St. Cloud

B.S. with distinction '76, D.V.M. '78, University of Minnesota. Major: Veterinary Pathology. Minor: Related Fields. Major Adviser: Prof. G.R. Ruth. January Graduate.

# David Lee Hartsuch, Downers Grove, Ill.

B.S. '81, Northern Illinois University. Major: Computer and Information Sciences. Minor: Related Fields. Major Adviser: Prof. W.D. Munro. January Graduate.

# Nancy Helen Hartwell, Blaine

B.S. '80. College of St. Francis. Major: Nursing. Minor: Related Fields. Major Adviser: Prof. V.C. Gordon. Graduation Pending.

Catherine June Hegg, St. Louis Park B.S. '74, South Dakota State University. Major: Hospital Pharmacy. Minor: Related Fields. Major Adviser: Prof. R.L. Broekemeier. Graduation Pending.

# Kim Louise Hermanson, Dubuque,

B.S. '83, Iowa State University. Major: Computer and Information Sciences. Minor: Related Fields. Major Adviser: Prof. P.E. Johnson. December Graduate.

#### Robert McCulloch Herndon, Jr.

B.E.S. '80, Johns Hopkins University, Major: Computer and Information Sciences, Minor: Related Fields, Major Adviser: Prof. Peter Borgwardt, Graduation Pending.

# Elaid Hlal, Elaioun, Morocco

Ing. Agron. '82, Institut Agronomique et Veterinaire Hassan II. Major: Forestry. Minor: Related Fields. Major Adviser: Prof. D.W. Rose. Graduation Pending.

# Dawn Cheryl Horsted, Minneapolis B.A. '83, St. Olaf College. Major: Environmental

B.A. 83, St. Olaf College, Major: Environmental Health. Minor: Related Fields. Major Adviser: Prof. J.B. Stevens. February 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, March Graduate.

# Hang-Sheng Hou, Hangzhou, China B.S. '82, Zhejiang University. Major: Mechanics.

Minor: Related Fields. Major Adviser: Prof. C.C. Hsiao. February Graduate.

#### German Percy Hovos

Ing. Agron. '82, Universidad Nacional de Colombia. Major: Plant Pathology. Minor: Plant Breeding. Thesis: Studies on the Resistance/Susceptibility of Potato Clones; The Inoculum Potential of Debris and Survival in Soil and Debris; and Chemical Control of Verticillium Wilt of Potatoes. Major Adviser: Prof. N.A. Anderson. January Graduate.

# Yuchu Hsu, Taipei, Taiwan

B.S.Ag. '78, National Taiwan University; M.S. '83, Iowa State University. Major: Food Science. Minor: Related Fields. Thesis: Interactions of Staphylococcal Interotoxins A and B with Condensed Tannins from American Persimmon and Plantain. Major Adviser: Prof. S.R. Tatini. January Graduate.

# Robert Lee Jacobson, Minnetonka

B.S. '82, University of Minnesota, Major: Botany, Minor: Plant Physiology, Thesis: Nitrogen Assimilation in Typha latifolia L. Major Adviser: Prof. T.K. Soulen, January Graduate.

#### Soen-Hwie Jauw, Indonesia

B.E. '84, McGill University. Major: Computer and Information Sciences. Minor: Business Administration. Major Adviser: Prof. W.T. Tsai. December Graduate.

# Frank Peter Jetter, Canada

B.A. '85, University of Lethbridge. Major: Agricultural Economics. Minor: Related Fields. Major Adviser: Prof. R.P. Dahl. Graduation Pending.

#### David John Joensen

B.S. with distinction '83, Iowa State University of Science and Technology. Major: Food Science. Minor: Related Fields. Thesis: Feasibility of Xylitol as an Energy Supplement During Endurance Exercise. Major Adviser: Prof. J.L. Slavin. January Graduate.

# Catherine Mae Johnson, Minneapolis

B.S. with distinction '80, University of Minnesota. Major: Plant Physiology. Minor: Related Fields. Thesis: Membrane and Wall Properties of Cells of Pisum sativum and Hordeum vulgare Grown Under Calcium Deficient Conditions. Major Adviser: Prof. E.J. Stadelmann. Graduation Pending.

# Peter Russell Johnson, Minneapolis

B.A. magna cum laude '75, Gustavus Adolphus College. Major: Chemistry. Minor: Related Fields. Thesis: Analysis of Serum Bile Acids with an Immobilized Enzyme Reactor by Flow Injection Analysis and Reverse Phase High Performance Liquid Chromatography. Major Adviser: Prof. P.W. Carr. March Graduate.

#### Rodney Mark Johnson, Dawson

B.S. with distinction '82, University of Minnesota Major: Food Science. Minor: Related Fields. Thesis: Factors Affecting the Mean and Variance of Measured Pectin Gel Strength as Determined by Three Instruments Using Two Methods. Major Adviser: Prof. W. M. Breene. March Graduate.

Martha Ellis Jordan, Santa Cruz, Calif. A.B. distinction '62, University of California, Berkeley. Major: Geology. Minor: Related Fields. Thesis: Stratigraphy, Sedimentary Petrology, and Palaeontology of the Steinaker Draw Locality in the Middle Jurassic Carmel Formation near Vernal, Utah. Major Adviser: Prof. R.E. Sloan. Graduation Pending.

Bradley Gene Kaiser, Rapid City, S.D. B.A. with distinction '83, Northwestern University. Major: Computer and Information Sciences. Minor: Related Fields. Major Adviser: Prof. T.C. Pong. February Graduate.

Jan Michael Kaldager, Minneapolis B.C.Sci. with high distinction '85, University of Minnesota. Major: Computer and Information Sciences, Minor: Electrical Engineering, Major Ad-

# viser: Prof. D.H. Du. Graduation Pending. 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 Adviscr: Prof. V.W. Ruttan. February Graduate.

#### Woosaeng Kim

B.A. with honors '85, University of Texas. Major: Computer and Information Sciences. Minor: Related Fields. Major Adviser: Prof. W.D. Munro. March Graduate.

Robert Michael Kittay, Pierre, S.D. B.S. cum laude '78. University of Minnesota. Major: Environmental Health. Minor: Related Fields. Major Adviser: Prof. R.D. Singer. December Graduate.

John Martin Kittelson, St. Paul B.A. '77, Pomona College. Major: Statistics. Minor:

Related Fields. Major Adviser: Prof. R.F. Brant. March Graduate.

# Steven Mark Kittelson, Randolph

B.S. '76, Moorhead State University. Major: Wildlife. Minor: Related Fields. Major Adviser: Prof. P.A. Jordan. Graduation Pending.

# Kim Ann Klauder, Watchung, N.J.

B.S. '81, University of Wisconsin. Major: Computer and Information Sciences. Minor: Related Fields. Major Adviser: Prof. Maria Gini. Graduation Pending.

#### Karen Lynn Klotz, Sylvania, Ohio

B.A. summa cum laude '83, Capital University. Major: Chemistry. Minor: Related Fields. Thesis: Structural Analysis of Sialic Acid-Containing Carbohydrates by the Reductive Cleavage Method. Major Adviser: Prof. G.R. Gray. Graduation Pending

# Richard Charles Kolanczyk, Superior, Wis.

B.S. '82, University of Wisconsin. Major: Chemistry. Minor: Related Fields. Thesis: Iron(III)-Catalyzed Oxygenation of Catechols. Major Adviser: Prof. Larry Que. March Graduate.

# Linda Fosmo Kopecky, Wabasha

B.S.N. cum laude '78, Viterbo College. Major: Nursing. Minor: Related Fields. Major Adviser: Prof. Jean Kintgen-Andrews. Graduation Pending.

#### Betsy Eleanor Kreeger, Rochester

B.S. magna cum laude '78, Lenoir Rhyne College. Major: Nursing. Minor: Related Fields. Major Adviser: Prof. R.D. Lindquist. Graduation Pending.

#### Mary Helen Kruse

B.B.Á. '81, University of Notre Dame. Major: Computer and Information Sciences. Minor: Related Fields. Major Adviser: Prof. W.T. Tsai. Graduation Pending.

#### Arlene Louise Kyte, Frazee

B.A. '78, Moorhead State University. Major: Nursing. Minor: Related Fields. Thesis: Altering Mental Functioning in Elderly Nursing Home Residents with the Use of Touch. Major Adviser: Prof. V.C. Gordon. February Graduate.

# George David LaPointe

B.S. '80, University of Massachusetts. Major: Wildlife. Minor: Related Fields. Thesis: Fish Movement and Predation on Macroinvertebrates in a Lakeshore Marsh. Major Adviser: Prof. J.A. Cooper. December Graduate.

# David Arndt Lawstuen, Lanesboro

B.S. '84, University of Minnesota. Major: Animal Science. Minor: Statistics. Thesis: Evaluation of Secondary Type and Fitness Traits of Dairy Cattle. Major Adviser: Prof. L.B. Hansen. Graduation Pending.

#### Dong-Hun Lee, Seoul, Korea

B.S. 85, Seoul National University, Major: Physics, Minor: Related Fields, Major Adviser: Prof. G.W. Greenless, December Graduate.

#### In Sung Lee, Seoul, Korea

B.S. '79, M.S. '81, Scoul National University, Major: Geology, Minor: Related Fields. Thesis: Stable Isotope Studies of the Cumobabi Cu-Mo Breccia Ores, Sonora, Mexico, Major Adviser: Prof. Emi Ito, Graduation Pending.

#### Intae Lee, Seoul, Korea

B.S. '77, Seoul National University, Major: Biophysical Sciences, Minor: Related Fields, Major Adviser: Prof. C.W. Song, December Graduate.

#### Yongkil Lee

B.Ag. '80, Korea University, Major: Forestry, Minor: Related Fields, Major Adviser: Prof. J.G. Haygreen, December Graduate.

## Alice Cecelia Lehman, Minneapolis

B.S. '73. College of St. Catherine. Major: Nursing. Minor: Related Fields. Major Adviser: Prof. V.C. Gordon, Graduation Pending.

#### Corinne Ann LePage

B.A. '73, St. Olaf College. Major: Food Science. Minor: Related Fields. Thesis: Heat Transfer, Water Loss, and Structural Characteristics of Gluten Model Systems Heated in an Experimental Conventional-Microwave Oven. Major Adviser: Prof. Joan Gordon. March 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, December Graduate.

#### Jyneal A. Linton, Minneapolis

B.S.N. 61, Hamline University, Major: Nursing Minor: Related Fields, Major Adviser: Prof. E.C. Egan, January Graduate.

# Jinkui Liu, Tianjin, China

Dipl. '82, Beijing Agricultural University. Major: Animal Science. Minor: Statistics. Thesis: Nutritional Evaluation of Blood Meal and Feather Meal. Major Adviser: Prof. P.E. Waibel. February Gradnate.

#### Anita Wen-Hen Lo

B.S. magna cum laude '81. St. Cloud State University. Major: Computer and Information Sciences. Minor: Electrical Engineering. Major Adviser: Prof. W.D. Munro. February 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. December Graduate.

# Emilio Aurelio Lopez Beltran, Aviles, Asturias, Spain

B.S. cum laude '\$3, Universidad Catolica de Puerto Rico. Major: Biomedical Engineering. Minor: Electrical Engineering. Major Adviser: Prof. S.M. Finkelstein. December Graduate.

#### Harry Hermann Luithardt

B.A. '84, University of California, Berkeley. Major: Mechanics. Minor: Related Fields. Major Adviser: Prof. P.R. Sethna. January Graduate.

# Karen Elizabeth MacDonald

B.S. with distinction '72, University of Minnesota. Major: Nursing. Minor: Related Fields. Major Adviser: Prof. S.R. Edwardson. Graduation Pending.

#### Lorelei Ann Marshall, Lisle, Ill.

A.B. magua cum laude '81, Ripon College, Major: Plant Breeding, Minor: Related Fields, Thesis: Agronomic Performance of Hard Red Spring Wheat Near-Isolines Differing for Day-Length Response, Major Adviser: Prof. R.H. Busch, January Graduate.

# Margaret Claire Martini, Amherst,

B.A. cum laude '80. Bucknell University: B.S. summa cum laude '83. University of New Hampshire. Major: Nutrition. Minor: Related Fields. Thesis: Influence of Gastric Digestion, Beta-Galactosidase in Yogurt, and Composition of Foods on Lactose Malabsorption. Major Adviser: Prof. D.A. Saviano. February Graduate.

# David Michael Matyus, Mundelelein,

B.S. '83, Illinois State University. Major: Environmental Health. Minor: Related Fields. Major Adviser: Prof. C.E. McJilton. February Graduate.

# Maureen Susan McCullough,

## Minneapolis

B.S. '73, College of St. Catherine. Major: Nursing. Minor: Related Fields. Thesis: Psoriasis Treatment: Evaluation of a Home Care Program. Major Adviser: Prof. S.R. Edwardson, Graduation Pending.

# Douglas Kelley McDoniel, Fresno, Calif.

B.A. summa cum laude '83, California State University. Major: Mathematics. Minor: Related Fields. Major Adviser: Prof. M.F. Feshbach. Graduation Pending.

# Mary Korth Meisel, Woodbury

B.S. cum laude '81, Mankato State University. Major: Nursing. Minor: Related Fields. Major Adviser: Prof. E.T. Fahy. January Graduate.

Mary Louise Mellema, Worthington B.S. '82, University of Minnesota. Major: Soil Science. Minor: Related Fields. Thesis: The Effects of Composted Scwage Sludge on Soil Physical Properties. Major Adviser: Prof. J.B. Swan. February Graduate.

Kimberley Rae Meyer, Minneapolis B.A. '79, College of St. Catherine. Major: Nursing Minor: Related Fields. Major Adviser: Prof. V.C. Gordon. Graduation Pending.

Douglas William Miller, Montgomery B.A. '82, St. Olaf College. Major: Agronomy. Minor: Plant Physiology. Thesis: Alfalfa-Perennial Grass Mixtures: Yield. Botanical Composition, Forage Quality, and Par Competition Between Components. Major Adviser: Prof. C.C. Sheaffer. December Graduate.

Stephen Robert Mitchell, Shoreview B.S. with honors'82, Northeastern University. Major: Hospital Pharmacy. Minor: Related Fields. Major Adviser: Prof. C.E. Daniels. December Graduate

# Debra Ann Monson, Stillwater

B.S. '83, College of St. Francis. Major: Nursing. Minor: Related Fields. Major Adviser: Prof. K.G. Dineen. Graduation Pending.

#### V. Nagasundaram, India

B. Tech. '80, Indian Institute of Technology, Madras; Post-Grad, Dipl. '82, Indian Institute of Management. Major: Computer and Information Sciences. Minor: Related Fields. Major Adviser: Prof. P. E. Johnson. March Graduate.

Linda Ann Narotzky, Rochester

A.B.Ed. '72, A.M. '74, University of Michigan; B.S.N. summa cum laude '79, Northern Michigan University. Major: Nursing. Minor: Related Fields. Major Adviser: Prof. V.C. Gordon. January Graduate.

# Jeffrey David Nesler, Eagan

B.A. '81, St. Olaf College. Major: Computer and Information Sciences. Minor: Related Fields. Major Adviser: Prof. W.D. Munro. Graduation Pending.

Sharon Marie Nibbe, St. Louis Park B.S.N. with distinction '73, University of Minnesota. Major: Nursing. Minor: Child Psychology. Major Adviser: Prof. S.S. Rode. Graduation Pend-

# 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. December Graduate.

# Margaret Ann Nordlie, Grand Forks, N. D.

B.S.N. '82, University of North Dakota. Major: Genetics. Minor: Psychology. Major Adviser: Prof. J.R. Sheppard. Graduation Pending.

# Catherine Marie O'Connell, St. Paul

B.A. '82, College of St. Catherine; M.S. '84, University of Minnesota. Major: Statistics. Minor: Related Fields. Major Adviser: Prof. R.F. Brant. March Graduate.

# Marc Alan Odin, Fairfield, Conn.

B.A. with distinction '83, Cornell University. Major: Ecology. Minor: Related Fields. Major Adviser: Prof. D.F. McKinney. December Graduate.

# Felicia Onwuama Okoro

B.A. '78, Ph.D. '87, University of Minnesota. Major: Nursing. Minor: Public Health. Thesis: Job Satisfaction/Dissatisfaction of Nursing Service Directors. Major Adviser: Prof. S.R. Edwardson. March Graduate.

# David Harold Olson, St. Paul

B. Phys. '71, University of Minnesota. Major: Physics. Minor: Mathematics. Thesis: An Experimental Design for Investigation of Resistivity Anomales in Cuprous Chloride Thin Films. Major Adviser: Prof. A.M. Goldman. Graduation Pending.

#### James Daniel Otis

B.A. with distinction '74, University of Colorado. Major: Computer and Information Sciences. Minor: Studio Arts. Major Adviser: Prof. T.C. Pong. Graduation Pending.

# Scott Charles Otto, Minneapolis

B.Phys. with distinction '85, B.C.S. with distinction '85, University of Minnesota. Major: Computer and Information Sciences. Minor: Related Fields. Major Adviser: Prof. W.D. Munro. January Graduate.

## Saemundur Palsson, Reykjavik, Iceland

Cand. Odon. '81, University of Iceland. Major: Dentistry. Minor: Related Fields. Thesis: A Cephalometric and Laminagraphic Study of Relapse After Sagittal Split Osteotomy of the Mandible Using Rigid Fixation. Major Adviser: Prof. R.R. Bevis. Graduation Pending.

#### Scott Arthur Peterson

B.A. '82, St. Olaf College, Major: Computer and Information Sciences. Minor: Related Fields. Major Adviser: Prof. J.V. Carlis. January Graduate.

# Candide J. Petrol, Modesto, Calif.

B.A. '82, D.D.S. '85, University of California. Major: Dentistry. Minor: Related Fields. Thesis: A Study of the Effects of Timing of Grafts to the Cleft Alveolar Process. Major Adviser: Prof. R.R. Bevis. Graduation Pending.

#### Jeffrey David Petty, Edina

B.C.S. 85, University of Minnesota, Major: Computer and Information Sciences, Minor: Related Fields, Major Adviser: Prof. V.A. Berzins, January Graduate.

# Ellen Miller Poffenbarger, Moline, Ill. B.S. with highest distinction '77. Colorado State University; B.S. high honors '80, V.M. high honors '82, University of Illinois. Major: Veterinary Medicine. Minor: Microbiology. Thesis: Natural Killer Cell Activity in the Selenium Deficient Rat. Major Adviser: Prof. J.S. Klausner. December

# 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, December Graduate.

# Paul Richard Puncochar, Brooklyn Park

B.S. cum laude '81. University of Minnesota. Major: Environmental Health. Minor: Related Fields. Major Adviser: Prof. C.E. McJilton. February Graduate.

# Francis Limcaco Quito, Manila, Philippines,

D.V.M. 80, University of the Philippines, Major: Veterinary Physiology and Pharmacology, Minor: Related Fields, Major Adviser: Prof. D.R. Brown, Graduation Pending.

## Somsak Raksil, Thailand

D.V.M. '77, Chulalongkorn University, Major: Theriogenology, Minor: Related Fields, Major Adviser: Prof. S.D. Johnston, December Graduate.

# Jorge Ramirez, Colombia

Ing. 82, Escuela Colombiana de Ingenieria. Major: Agricultural Economics. Minor: Related Fields. Major Adviser: Prof. J.W. Hammond. Graduation Pending.

# Sanjay Ranka, Udaipur, Rajasthan, India

B.Tech. '85. Indian Institute of Technology, Kanpur. Major: Computer and Information Sciences. Minor: Electrical Engineering. Major Adviser: Prof. A.R. Tripathi. December Graduate.

# Nancy Valo Reed, Minneapolis

B.A. 77, Gustavus Adolphus College. Major: Nursing. Minor: Related Fields. Thesis: Sexual Concerns of Female Renal Transplant Patients in the Ambulatory Care Setting. Major Adviser: Prof. A.M. Sime. December Graduate.

# Elisa Ricciardi, Minneapolis

B.A. '76, College of St. Scholastica. Major: Nursing, Minor: Related Fields. Major Adviser: Prof. Patricia Crisham. Graduation Pending.

# Zein Elabidin Elsaved Rizk, Egypt

B.S. '77, University of Tanta; M.S. '82, Menoufia University. Major: Geology. Minor: Related Fields. Major Adviser: Prof. H.O. Pfannkuch. January Graduate.

# Lisa M. Roche, Minneapolis

B.A. '71, University of Chicago; M.P.H. '76, University of Hawaii. Major: Epidemiology. Minor: Related Fields. Major Adviser: Prof. J.S. Mandel. December Graduate.

# Jon Scott Roesler, Minneapolis

B.A. '82, University of Minnesota, Major: Environmental Health. Minor: Related Fields. Major Adviser: Prof. Donald Vesley. February Graduate.

#### Earl Wallace Roethke, Minneapolis

B.S. '75, M.A.T. '77, University of Wisconsin. Major: Computer and Information Sciences. Minor: Related Fields. Major Adviser: Prof. S.C. Bruell. Graduation Pending.

# 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. December Graduate.

#### Marilyn Ann Rothenberg, Detroit, Mich

B.S.N. '78, Wayne State University. Major: Nursing. Minor: Related Fields. Major Adviser: Prof. P.S. Tomlinson. February Graduate.

#### Peter James Saccocia, Bridgewater, Mass.

A.B. '84, Colby College. Major: Geology. Minor: Related Fields. Thesis: Sulfidation of Oxide Facies Iron Formation: Implications for Gold Mineralization in the Glen Township Formation, Aitkin County, East Central Minnesota. Major Advisers: Profs. Emi Ito and F.J. Sawkins. Graduation Pendica.

# Juan Camilo Samper, Colombia

Med. Vet. '85, Universidad Nacional de Colombia. Major: Theriogenology. Minor: Animal Science. Major Adviser: Prof. M. L. Fahning. December Graduate

Scott Douglas Samson, Lincoln, Neb. B.S. with highest scholarship '84, Oregon State University. Major: Geology. Minor: Related Fields. Thesis: The Chemistry, Mineralogy, and Correlation of Ordovician Bentonites. Major Adviser: Prof. E.C. Alexander, Jr. January Graduate.

Josefina Cordero Santos, Philippines D.V.M. '80, University of the Philippines. Major: Veterinary Microbiology. Minor: Related Fields. Thesis: Transmissible Gastroenteritis at Weaning Age of Pigs. Major Adviser: Prof. H.S. Joo. Graduation Pending.

# Sandra Kay Savik

B.S. with distinction '72, University of Arizona. Major: Biometry. Minor: Related Fields. Major Adviser: Prof. E.A. Johnson. Graduation Pending.

# Craig Allen Schrader, Northfield

B.S. 80, University of Minnesota. Major: Soil Science. Minor: Related Fields. Thesis: Spectral Characterization of Major Physical Features of an Agonomic Scene Using the N-Space Method. Major Adviser: Prof. M.W. Seeley. Graduation Pending.

# Jeffrey Steven Seewald

A.B. 84, Colgate University, Major: Geology, Minor: Related Fields. Thesis: Na and Ca Metasomatism During Hydrothermal Basalt Alteration: An Experimental Study, Major Adviser: Prof. W.E. Seyfried. Graduation Pending.

#### Melissa Ann Shepard, Minneapolis

B.A. magna cum laude '82, St. Olaf College. Major: Mathematics. Minor: Related Fields. Major Adviser: Prof. H. H. Gershenson. Graduation Pending

# Kenneth Andrew Shimko, Glen Flora, Wis.

B.S. '82, University of Wisconsin, Major: Geology. Minor: Related Fields. Thesis: A Study on Structures in Two Valley Glaciers in Northern Sweden by Observations and Computer Modeling, Major Adviser: Prof. P.J. Hudleston, Graduation Pend-

## Daniel Dean Skaar, Minneapolis

D.D.S. '82, University of Iowa. Major: Dentistry. Minor: Related Fields. Thesis: Longitudinal Study of Haemophilus Actinomycetemeomitans in Human Periodontal Disease. Major Adviser: Prof. B.L. Pihlstrom. February Graduate.

# Janet Yvonne Smith

B.A. '79, University of Minnesota. Major: Geology. Minor: Civil Engineering. Thesis: On the Fate of Dissolved Aromatic Hydrocarbons in Groundwater Flow Systems: Experimental Determination of Adsorption from Water on Quartz Aquifer Materials and Computer-Simulated Solute Transport with Dispersion from Instantaneous Point Sources in Confined Aquifers. Major Adviser: Prof. H.O. Pfannkuch. December Graduate.

#### Marc Gregory Smith, Austin, Tex.

B.C.S. with distinction '79, University of Minnesota. Major: Computer and Information Sciences. Minor: Related Fields. Thesis: The Design and Implementation of the Kernel Software for a Distributed System Testbed. Major Adviser: Prof. D.L. Boyd. January Graduate.

# Meicheia Song, Taipei, Taiwan

B. Com. '80, National Chengchi University; M.A.M.S. '83, University of Georgia, Major: Computer and Information Sciences, Minor: Related Fields, Major Adviser: Prof. V.A. Berzins, Graduation Pending.

# Adele Mattinat Spegman, Exeter,

B.S. magna cum laude '78, Niagara University. Major: Nursing. Minor: Related Fields. Major Adviser: Prof. S.S. Rode. February Graduate.

# Benjamin Ira Stiegler, Minneapolis

B.A. '77, Carleton College. Major: Computer and Information Sciences. Minor: Psychology. Major Adviser: Prof. Maria Gini. December Graduate.

#### Elizabeth S. Stiller, Madison, Wis.

B.S. '82, University of Minnesota, Major: Forestry. Minor: Related Fields. Major Adviser: Prof. A.A. Alm. January Graduate.

#### Susan Kay Stombaugh

B.S. with distinction '84, Purdue University. Major: Plant Physiology. Minor: Related Fields. Thesis: Abscisic Acid Metabolism by Soybean Seed Tissues. Major Adviser: Prof. M.L. Brenner. February Graduate.

#### Lance Eugene Stover

B.A. summa cum laude '85, Concordia College. Major: Physics. Minor: Related Fields. Thesis: An Apparatus for Magneto-Optic Studies. Major Adviser: Prof. E.D. Dahlberg. February Graduate.

# Andrew Ryan Streitz, Minneapolis

B.A. '80, St. Olaf College. Major: Geophysics. Minor: Related Fields. Thesis: The Application of Shallow Reflection Seismic Investigations to the Delineation of Buried Drift Features. Major Adviser: Prof. H.M. Mooney. Graduation Pending.

# Suphachai Sutanthavibul, Bangkok, Thailand

B. Eng. '83, Chulalongkorn University. Major: Computer and Information Sciences. Minor: Electrical Engineering. Major Adviser: Prof. W.D. Munro. Graduation Pending.

Franklin Joseph Svoboda, Hutchinson B.S. '66, University of Minnesota, Major: Forestry, Minor: Related Fields. Thesis: Wildlife Habitat Management on Private Lands: A Questionnaire Survey of Minnesota Private Landowners, Major Adviser: Prof. T.B. Knopp. Graduation Pending.

Mary Anne Sword, Brookings, S.D. B.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. December Graduate.

# 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. December Graduate.

#### Teh-Yi Tao

B.S. '82. National Taiwan University; M.S. '85, University of Minnesota. Major: Microbial Engineering. Major Adviser: Prof. W.S. Hu. Graduation Pending.

# Marco Testa, Torino, Italy

Laur. Med. Vet. '85. Universita Degli Studi di Torino. Major: Veterinary Surgery. Minor: Related Fields. Major Adviser: Prof. A. J. Lipowitz. Graduation Pending.

# Cynthia Louise Thompson,

#### Bloomington

B.S. cum laude '78, Mankato State University. Major: Nursing. Minor: Related Fields. Major Adviser: Prof. S.R. Edwardson. Graduation Pending.

#### Mark Gerard Tomashek, Winona

B.A. '84, Saint Mary's College. Major: Computer and Information Sciences. Minor: Electrical Engineering. Major Adviser: Prof. W.D. Munro. January Graduate.

# 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. December Graduate.

## Jamshid Abdollahi Vayghan

Dipl. '79, Tehran Polytechnic. Major: Computer and Information Sciences. Minor: Related Fields. Major Adviser: Prof. Maria Gini. Graduation Pending.

#### Maria Veneranda Reves Vega

D.V.M. '78, University of the Philippines. Major: Veterinary Microbiology. Minor: Biochemistry. Thesis: Isolation and Characterization of Monoclonal Antibodies to the Leukotoxin and Surface Antigens of Pasteurella haemolytica al. Major Adviser: Prof. S.K. Maheswaran. March Graduate.

#### Warren Michael Vik, Honey Creek, Iowa

B.S. with distinction '85, Iowa State University. Major: Computer and Information Sciences. Minor: Electrical Engineering. Major Adviser: Prof. W.D. Munro. January Graduate.

# Christine Holdgrafer Vipond

B.S.N. with distinction '77, University of Minnesota. Major: Nursing. Minor: Related Fields. Major Adviser: Prof. Patricia Crisham. Graduation Pending.

#### Sally Ann Vodonik, St. Paul

B.A. 81, Bethel College. Major: Chemistry. Minor: Related Fields. Thesis: Reductive Cleavage Analysis of Polysaccharides Containing Uronic Acid Residues. Major Adviser: Prof. G.R. Gray. Graduation Pending.

# Eric Patrick Vraa

B.A. '84, Moorhead State University. Major: Genetics. Minor: Related Fields. Thesis: Cytogenetic Analysis of Several Human Hepatocellular Carcinoma-Derived Cell Lines. Major Adviser: Prof. Jaroslav Cervenka. February Graduate.

# David Wayne Waggoner, Jr., Ames, Iowa

B.S. with distinction '83, Iowa State University of Science and Technology. Major: Nutrition. Minor: Related Fields. Thesis: The Effect of Swim Stress on Feeding. Major Adviser: Prof. A.S. Levine. March Graduate.

# Mary Patricia Wagner, St. Paul

B.S.N. '78, College of St. Catherine. Major: Nursing. Minor: Related Fields. Major Adviser: Prof. K.A. Sodergren. January Graduate.

# Ray-John Wan

B.Ed. '73, National Taiwan Normal University; M.A. '79, Eastern Michigan University. Major: Computer and Information Sciences. Minor: Related Fields. Major Adviser: Prof. W.T. Tsai. February Graduate.

# Deborah Jane Silverman Weiland, Minneapolis

B.S.N. magna cum laude '75, University of Michigan. Major: Nursing. Minor: Related Fields. Major Adviser: Prof. A.M. Sime. Graduation Pending.

# Kurt Thomas Werner, Sheboygan, Wis.

B.S. '84, St. John's University. Major: Environmental Health. Minor: Related Fields. Major Adviser: Prof. O.R. Ruschmeyer. Graduation Pending.

# Nathan Richard Wetzel, Platteville, Wis.

B.S. '85, University of Wisconsin. Major: Mathematics. Minor: Statistics. Major Adviser: Prof. E.G. Fuhrken. Graduation Pending.

# Barbara Jean Whitman, Hancock, Mich.

B.S. '78, Northern Michigan University. Major: Nursing. Minor: Related Fields. Major Adviser: Prof. J. Kintgen-Andrews. Graduation Pending.

# Carol Ann Wilcox, St. Paul

B.A. '77, College of St. Catherine. Major: Nursing. Minor: Related Fields. Thesis: Perceptions of Registered Nurses About Professional Associations, Professional Authority, and Collective Bargaining. Major Adviser: Prof. Patricia Crisham. December 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. Mariah Snyder. January Graduate.

#### San-Yuan Wu, Taiwan

B.S. '79, National Taiwan University. Major: Mathematics. Minor: Computer and Information Sciences. Major Adviser: Prof. M.B. Luskin. January Graduate.

#### Weiping Xie

B.S. 82, Southwest Agricultural College. Major: Plant Pathology. Minor: Related Fields. Thesis: Production and Analysis of Fusarium Toxin Fusarochromanone. Major Adviser: Prof. C.J. Mirocha. Graduation Pending.

#### Susan Marie Yoost, Stewart

B.S. cum laude '73, Winona State University. Major: Nursing. Minor: Related Fields. Major Adviser: Prof. Kathleen Sodergren. January Graduate

#### Juan Carlos Zuleta, Potosi, Bolivia

Major: Agricultural Economics. Minor: Economics. Major Adviser: Prof. C.F. Runge. February Graduate.

# **Master of Science**

#### UNIVERSITY OF MINNESOTA, DULUTH

# Bruce Arnold Berglund, St. Paul

B.A. '83, St. Olaf College. Major: Chemistry. Minor: Related Fields. Thesis: Electrophilic Additions to Alkenes Using Iodine(III) Reagents. Major Adviser: Prof. Ronald Caple. Graduation Pending.

# Terrence John Boerboom

B.A. '82, University of Minnesota. Major: Geology. Minor: Related Fields. Thesis: Tourmalinites, Nelsonites, and Related Rocks (Early Proterozoic) Near Philbrook, Todd County, Minnesota. Major Adviser: Prof. R.W. Ojakangas. February Graduate.

# Timothy Reed Brown, Helena, Mont.

B.S. '83, Southern Methodist University. Major: Geology. Minor: Related Fields. Thesis: Drift Prospecting in Eskers in Northeastern Minnesota. Major Adviser: Prof. C.L. Matsch. Graduation Pending.

# Daniel Lee England, Hillsdale, Mich.

B.S.Geo E. '81, Michigan Technological University. Major: Geology. Minor: Related Fields. Thesis: Geology and Ore Deposits of the Modoc Pb-Ag-Zn District, Inyo County, California. Major Adviser: Prof. R.L. Morton. December Graduate.

#### Diane Elaine Froen, Gilbert

B.S. '85, Mankato State University. Major: Chemistry. Minor: Related Fields. Thesis: Effect of Adsorption in the Khand-Pauson Cyclizations. Major Adviser: Prof. Ronald Caple. Graduation Pending.

# Charles Michael Hayes, Duluth

B.S. '82, University of Minnesota. Major: Chemistry. Minor: Geology. Major Adviser: Prof. J.C. Nichol. Graduation Pending.

# Yamin Ma, Beijing, People's Republic of China

B.S. 82, Peking University. Major: Physics. Minor: Related Fields. Thesis: The Massive Schwinger Model in Light-Front Form. Major Adviser: Prof. I.R. Hiller. December Graduate.

# Jayne Anne Reichhoff, Menasha, Wis.

B.S. cum laude '84, University of Wisconsin. Major: Geology. Minor: Related Fields. Thesis: Two Keweenawan Basaltic Dike Swarms in the Duluth Area, Minnesota. Major Adviser: Prof. J.C. Green. Graduation Pending.

# George Brian Renier, Duluth

B.A. cum laude '83, University of Minnesota. Major: Chemistry. Minor: Related Fields. Thesis: Neurotoxic Effects on Perfused Canine Brain After Exposure to Organophosphorus Compounds: Determination of Biogenic Amine Levels and Analysis of Phosphatidylcholine Involvement. Major Adviser: Prof. L.R. Drewes. January Graduate.

Margaret Bateman Thomas, Duluth B.A. cum laude '44, College of St. Scholastica. Major: Biology. Minor: Chemistry. Thesis: Karyotypic Examination of Selected Fish Species Subjected to pH Stress. Major Adviser: Prof. S.C. Hedman. Graduation Pending. Jeffrey David Vervoort, Grand Marais B.A. '78, University of Wisconsin. Major: Geology. Minor: Related Fields. Thesis: Petrology and Stratigraphy of the Archean Rocks of the Jap Lake Area, Northwest Cook County, Minnesota. Major Adviser: Prof. J.C. Green. Graduation Pending.

Martin Walter Wangensteen, Duluth B.A. '84, Macalester College. Major: Geology. Minor: Chemistry. Thesis: Composition and Attenuation of Ash Leachate, Western Lake Superior Sanitary District Landfill. Major Adviser: Prof. G. R. Rapp, Jr. Graduation Pending.

# Master of Science in Aerospace Engineering

Jahn-Anders Dorsdal Dyvik, Minneapolis

B.S. with honor 83, California Institute of Technology. Major: Aerospace Engineering. Minor: Mathematics. Major Adviser: Prof. B.S. Liebst. Graduation Pending.

Jerome Alan Farm, White Bear Lake B.Aero.E. '85, University of Minnesota. Major: Aerospace Engineering. Minor: Computer Information Sciences. Major Adviser: Prof. B.S. Liebst. Graduation Pending. Craig Alan McCarty, Golden Valley B.A.E.M. '83, University of Minnesota. Major: Aerospace Engineering. Minor: Related Fields. Major Adviser: Prof. W.L. Garrard. March Graduate.

# Master of Science in Agricultural Engineering

Chakib Jenane, Meknes, Morocco Dipl. '83, Institut Agronomique et Veterinaire, Hassan II. Major: Agricultural Engineering. Minor: Related Fields. Major Adviser: Prof. Jonathan Chaplin. December Graduate.

# Master of Science in Anesthesiology

Thomas Eugene Stanley III, Savannah, Ga.
B.A. '77, M.D. '81, Duke University. Major:

B.A. '77, M.D. '81, Duke University. Major: Anesthesiology. Minor: Physiology. Thesis: The Effects of Halothane on Isometrically Contracting Myocardium During Hypoxia and Reoxygenation. Major Adviser: Prof. J.J. Buckley. Graduation Pending.

# Master of Science in Chemical Engineering

Kathleen Mary Sundberg, Hudson, Wis.

B.A. '84, Carleton College. Major: Chemical Engineering. Minor: Related Fields. Thesis: Electrochemical and Surface Studies on Glassy Carbon and Amorphous Carbon Films and Their Effectiveness as Protective Coatings. Major Adviser: Prof. W.H. Smyrl. Graduation Pending.

# Master of Science in Civil Engineering

Qizhong Guo, Guangdong, China

B.Eng. '82, Tianjin University. Major: Civil Engineering. Minor: Related Fields. Thesis: Numerical Prediction of Turbulent Flow in Shallow Diverging Channels. Major Adviser: Prof. H.G. Stefan. February Graduate.

Prem Gupta

B.Tech. '85, Indian Institute of Technology, Delhi. Major: Civil Engineering. Minor: Computer and Information Sciences. Major Adviser: Prof. R.T. Leon. March Graduate.

Donald Odd Hamnes, Minneapolis B.Phys. with high distinction '71, M.S. '76, University of Minnesota. Major: Civil Engineering. Minor: Related Fields. Major Adviser: Prof. C.E. Bowers. January Graduate.

#### Youvi He, China

B.Eng. '82, Qinghua University. Major: Civil Engineering. Minor: Related Fields. Thesis: Groundwater Modeling of Leaky Wall. Major Adviser: Prof. O.D.L. Strack. February Graduate.

#### Eileen Hoev Helmer

B.S. '84, University of Illinois. Major: Civil Engineering. Minor: Related Fields. Thesis: Aluminum Speciation in Bog Waters and Aluminum Organic Matter Conditional Stability Constants. Major Adviser: Prof. S. J. Eisenreich. March Graduate.

# Randal Allen Hills, North Fond du Lac, Wis.

B.S. '81, University of Wisconsin. Major: Civil Engineering. Minor: Related Fields. Thesis: Sediment Sorting in Meandering Rivers. Major Adviser: Prof. Gary Parker. March Graduate.

Jihshya Lin, Taipei County, Taiwan B.S.E. '79, National Cheng Kung University. Major: Civil Engineering. Minor: Mechanics. Major Adviser: Prof. R.T. Leon. December Graduate.

# Ming Lin, Taiwan

B.S. 82, National Central University. Major: Civil Engineering. Minor: Related Fields. Thesis: The Analytical and Numerical Solutions in Limit Load Plasticity Problems. Major Adviser: Prof. P.A. Cundall. Graduation Pending. Karen Louise Chandler Lindblom,

Minneapolis

B.C. E. with high distinction '82, University of Minnesota. Major: Civil Engineering. Minor: Related Fields. Thesis: Hydraulic Modeling Techniques for Intake Vortices. Major Adviser: Prof. J. S. Gulliver. Graduation Pending.

# James Anthony Postiglione,

Minneapolis

B.C.E. '82, Ûniversity of Minnesota. Major: Civil Engineering. Minor: Chemical Engineering. Thesis: Aspects of Excess Biological Phophorus Removal in Activated Sludge Treatment. Major Adviser: Prof. S.C. Chiesa. January Graduate.

Wenjen Jack Tsai

B.S. Š2, National Cheng Kung University. Major: Civil Engineering. Minor: Related Fields. Thesis: Repaired Reinforced Concrete Interior Joints Under Cyclic Loads. Major Adviser: Prof. C.E. French. Graduation Pending.

Olga Lucia Velez, Medellin, Columbia Ing.Civ. '82, Universidad de Medellin. Major: Civil Engineering. Minor: Related Fields. Major Adviser: Prof. C.E. French. Graduation Pending.

Kevin Lee Western, Osceola, Wis.

B.S.C.E. '83, University of Wisconsin. Major: Civil Engineering. Minor: Related Fields. Thesis: Joint Shear Transfer Effects on Pavement Performance. Major Adviser: Prof. Theodor Krauthammer. January Graduate.

Lihuang Wung, Taipei, Taiwan

B.S.E. '80, National Taiwan University. Major: Civil Engineering. Minor: Related Fields. Thesis: Treatment of Interrupted Traffic Flow in Complex Congested Arterials. Major Adviser: Prof. P.G. Michalopoulos. December Graduate.

# Master of Science in Electrical Engineering

# Zine-Eddine Abid, Algeria

Dipl.Super. '83, Universite de Setif. Major: Electrical Engineering. Minor: Related Fields. Major Adviser: Prof. Michael Shur. Graduation Pending.

# John Arthur Anderson, Rapid City, S.D.

B.S. '75, South Dakota State University; M.S.E.E. '81, South Dakota School of Mines and Technology. Major: Electrical Engineering, Minor: Related Fields. Major Adviser: Prof. R.M. Warner, Jr. February Graduate.

# Alexios Nikolaos Birbas, Patras,

#### Greece

Dipl. '85. University of Patras. Major: Electrical Engineering. Minor: Related Fields. Major Adviser: Prof. Aldert van der Ziel. December Graduatc.

# Paul Evans Bjork, Cambridge

B.A. cum laude '82, Bethel College. Major: Electrical Engineering. Minor: Related Fields. Major Adviser: Prof. K.M. Buckley. March Graduate.

#### Young Hee Byun, Seoul, Korea

B.S.E.E. cum laude '82, Sogang University. Major: Electrical Engineering. Minor: Related Fields. Major Adviser: Prof. Michael Shur. December Graduate

Michael David Camp, Midland, Mich. B.S.E.E. with honor '85, Michigan Technological University. Major: Electrical Engineering. Minor: Related Fields. Major Adviser: Prof. G.E. Sobelman. December Graduate.

#### David John Diers, Rush City

B.C.S. '85, University of Minnesota. Major: Electrical Engineering. Minor: Related Fields. Major Adviser: Prof. D.W. Ernie. Graduation Pending.

# Dennis James Henk, St. Paul

B.E.E. '77, University of Minnesota. Major: Electrical Engineering. Minor: Computer and Information Sciences. Major Adviser: Prof. W.A. Plice. Graduation Pending.

## Vincent Mark Hietala, Embarrass

B.E.E. with high distinction '83, University of Minnesota. Major: Electrical Engineering. Minor: Related Fields. Thesis: Measurement of Microwave Properties of Micron-Sized Coplanar MIS Transmission Lines. Major Adviser: Prof. K.S. Champlin. February Graduate.

# Philip A. Hogan, Ely

B.S.E. 54, B.S.E. 54, University of Michigan, Major: Electrical Engineering, Minor: Related Fields. Major Adviser: Prof. W.A. Plice. Graduation Pending.

# Richard Chen-Hua Hu, Bloomington B.E.E. '83, University of Minnesota. Major: Electrical Engineering Minnes Belated Fields Major.

trical Engineering. Minor: Related Fields. Major Adviser: Prof. B.A. Shenoi. January Graduate.

# Charles Lee Hudson, Jr.

B.S. E.E. '82, University of Cincinnati. Major: Electrical Engineering. Minor: Computer and Information Sciences. Major Adviser: Prof. L.L. Kinney. March Graduate.

# John David Irish, Rochester

B.S. with high honor '82, Michigan Technological University. Major: Electrical Engineering. Minor: Related Fields. Major Adviser: Prof. R.Y. Kain. Graduation Pending.

#### Dong-Soo Lee, Seoul, Korea

B.Eng. '81, Korea University. Major: Electrical Engineering. Minor: Mathematics. Major Adviser: Prof. L.L. Kinnev. Graduation Pending.

# Robert Montgomery McAfoos, New Brighton

B.S. with honors '79, University of Tennessee. Major: Electrical Engineering. Minor: Related Fields. Thesis: Analysis of Feedback Systems with Elliptically Correlated Real Parameter Variations, Major Adviser: Prof. P.P. Khargonekar. Graduation Pending.

# Sutinun Pronanuluck, Bangkok, Thailand

B. Eng. '84, Chulalongkorn University, Major: Electrical Engineering, Minor: Computer and Information Sciences, Major Adviser: Prof. W.A. Plice, Graduation Pending

# Ronald Jefferey Quinn, Washington, D.C.

B.A. '82, Carleton College, Major: Electrical Engineering, Minor: Related Fields, Major Adviser: Prof. F.N. Bailey, March Graduate.

# John Nelson Rydberg, St. Paul

B.A. magna cum laude '85, St. Olaf College. Major: Electrical Engineering. Minor: Computer and Information Sciences. Major Adviser: Prof. J.E. Holte. Graduation Pending.

# Nikolaos Spyridon Vassilas, Corfu, Greece

Dipl. '83, Aristoteleio University of Thessaloniki. Major: Electrical Engineering. Minor: Related Fields. Major Adviser: Prof. H.M. Wechsler. February Graduate. Gregory Joseph Whaley, St. Paul B.E.E. with distinction '84, University of Minnesota. Major: Electrical Engineering. Minor: Related Fields. Thesis: Electron Diffraction Studies of Strained Epitaxial Films Prepared by Molecular Beam Epitaxy. Major Advisor: Prof. P.I. Cohen. January Graduate.

# Andrew Michael Wowchak, Brooklyn

B.E. E. with high distinction '84, University of Minnesota. Major: Electrical Engineering. Minor: Physics. Thesis: Multilayer Step Formation on GaAs(110). Major Adviser: Prof. P.I. Cohen. January Graduate.

# Master of Science in Geo-Engineering

Robert Lawrence DeGroot, Minnetonka

B.S. '75, M.S. '79, University of Wisconsin. Major: Geo-Engineering. Minor: Related Fields. Major Adviser: Prof. Andrzej Drescher. Graduation Pending.

# Master of Science in Industrial Engineering

Maria Dolores Geronimo, Minneapolis B.A. '75, University of Toledo. Major: Industrial Engineering. Minor: Statistics. Major Adviser: Prof. T.O. Kvalseth. March Graduate.

# Master of Science in Mechanical Engineering

# Seokmin Ahn, Seoul, Korea

B.E. '79, Hanyang University. Major: Mechanical Engineering. Minor: Related Fields. Major Adviser: Prof. D.R. Rilev. December Graduate.

#### Mario Brossa, Italy

Laur. '83, Politecnico di Torina. Major: Mechanical Engineering. Minor: Related Fields. Thesis: Probe Measurements in Argon Plasma Jets. Major Adviser: Prof. Emil Pfender. December 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. December Graduate.

# Ridha Gouja, Jerba, Tunisia

B.S. '85, University of Southwestern Louisiana Major: Mechanical Engineering, Minor: Related Fields. Thesis: Optimization of a Parallel and Rectilinear Motion Gripper Linkage. Major Adviser: Prof. T.R. Chase. Graduation Pending.

# Daniel John Grieshaber, Warren, Mich.

B.S.E. cum laude '85, University of Michigan. Major: Mechanical Engineering. Minor: Related Fields. Thesis: On Tool Fracture Monitoring in Face Milling with Vibration Signals. Major Adviser: Prof. Subbiah Ramalingam. January Graduate.

# Rosanne Elise Gronseth, Minneapolis B.M.E. '83, University of Minnesota. Major: Mechanical Engineering. Minor: Related Fields. Ma-

jor Adviser: Prof. J.W. Ramsey. Graduation Pending.

#### Jen-Hwa Guo, Taiwan

B.S. '80, Tatung Institute of Technology; M.S. '82, National Taiwan University. Major: Mechanical Engineering. Minor: Related Fields. Thesis: Design, Construction and Control of a Direct-Drive Active Compliant End-Effector. Major Adviser: Prof. Homayoon Kazerooni. Graduation Pending.

# Gregg Allan Hohenstein, Richfield

B.M. E. with distinction '83, University of Minnesota. Major: Mechanical Engineering. Minor: Biomedical Engineering. Thesis: A Deformation Analysis of Cylindrical Bodies Subjected to a Finite Length Band of External Radial Pressure. Major Adviser: Prof. D.A. Frohrib. Graduation Pending.

# Ker-Ching Hsieh

B.S. Ag. '82, National Taiwan University. Major: Mechanical Engineering. Minor: Related Fields. Major Adviser: Prof. B.Y.H. Liu. December Graduate.

# Frank Marion Kelso, Madison, Wis.

B.M.E. 78, University of Minnesota, Major: Mechanical Engineering, Minor: Related Fields. Thesis: Foundations of Productivity: Cad/Cam in the Technical Education. Major Adviser: Prof. D. R. Riley. March Graduate.

Jungho Kim, San Francisco, Calif. B.S. '82, University of California. Major: Mechanical Engineering. Minor: Fluid Mechanics. Thesis: The Development of a Turbulent Heat Flux Probe and Its Use in a 2-D Boundary Layer over a Convex Surface. Major Adviser: Prof. T.W. Simon. January Graduate.

Marcia Jan Lemmon, Detroit Lakes B.A. '85, Concordia College. Major: Mechanical Engineering. Minor: Physics. Major Adviser: Prof. Homavoon Kazerooni. Graduation Pending.

Terence Dennis Neavin, St. Paul B.M.E. '80, University of Minnesota. Major: Mechanical Engineering. Minor: Related Fields. Major Adviser: Prof. D.R. Riley. December Graduate.

# Bradley James Nelson, Botswana, Africa

B.S. high honors '84. University of Illinois. Major: Mechanical Engineering. Minor: Related Fields. Thesis: Optimal Location of Assembly Tasks in a Manipulator's Workspace. Major Adviser: Prof. Homayoon Kazerooni. March Graduate.

#### Francisco Javier Romay-Novas

Ing. Mech. '85, Escuela Superior Politecnica del Litoral. Major: Mechanical Engineering. Minor: Related Fields. Major Adviser: Prof. D.Y.H. Pui. Graduation Pending.

# Wooseok Seol, Seoul, Korea

B.S.E. '84, Seoul National University. Major: Mechanical Engineering. Minor: Aerospace Engineering. Thesis: Heat Transfer from a Flat Surface to a Row of Impinging Circular Air Jets Including the Effect of Entrainment. Major Adviser: Prof. R.J. Goldstein. 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.H. Pui and T.H. Keuhn. December Graduate.

# Master of Social Work

# Sarah Monson Baker, St. Paul

B.A. magna cum laude '81, University of Northern Colorado. Major: Social Work. Major Adviser: Prof. N.M. Abramson. Graduation Pending.

# John Edward Beach, Minneapolis

B.S. '81, University of Minnesota, Major: Social Work, Major Adviser: Prof. J.F. Gilgun, December Graduate.

# Cynthia Louise Behr

B.A. '83. College of St. Catherine, Major: Social Work, Major Adviser: Prof. J.K. Quam. Graduation Pending.

# Kathryn Joan Berg

B.A. summa cum laude 83, Mankato State University. Major: Social Work. Major Adviser: Prof. J.F. Gilgun. December Graduate.

## Laura Kay Booth, Laporte

B.A. cum laude '81, St. Olaf College. Major: Social Work. Major Adviser: Prof. J.F. Gilgun. Graduation Pending.

# Susan Elizabeth Brown, Saddle River, N.L.

N.J. B.A. 75. Ramapo College of New Jersey. Major: Social Work. Major Adviser: Prof. L.E. Jones. March Graduate. Charlene Kay Carlotto, St. Louis Park B.A. summa cum laude '71, Wartburg College. Major: Social Work. Minor: Related Fields. Major Adviser: Prof. R.H. Rooncy. Graduation Pending.

#### Margo Elene Cohen

B.S. 81, Grand Valley State College, Major: Social Work, Major Adviser: Prof. R.S. Pandey, Graduation Pending.

# Susan Kay Cromwell, Rockford, Ill.

B.S. 81, Iowa State University of Science and Technology. Major: Social Work. Major Adviser: Prof. N.F. Bracht. Graduation Pending.

# Elizabeth Mary Doyle, St. Joseph

B.A. summa cum laude '85, College of St. Benedict. Major: Social Work. Major Adviser: Prof. J.F. Gilgun. Graduation Pending.

# Janice Marie Dubrick, Chicago, Ill.

B.A. '83, College of St. Catherine. Major: Social Work. Major Adviser: Prof. R.H. Rooney. Graduation Pending.

# Kristine Elizabeth Hage Dugger, Minneapolis

B.A.S. '84, University of Minnesota, Major: Social Work, Major Adviser: Prof. J.F. Gilgun, Graduation Pending.

# Sheryl Lea Dysvick, Duluth

B. Soc. Dev. '79, University of Minnesota, Duluth Major: Social Work. Major Adviser: Prof. J.F. Gilgun. December Graduate.

#### Constance Lorraine Esho

B.S. '81, University of Minnesota. Major: Social Work. Major Adviser: Prof. Annalee Stewart. December Graduate.

# Beth Ellen Feikema, Minneapolis

B.A. '81, University of Minnesota, Major: Social Work. Major Adviser: Prof. J.L. Edleson, March Graduate.

# Joanna L. Fladwood, Sarasota, Fla.

B.A. '85, University of Minnesota. Major: Social Work. Major Adviser: Prof. Esther Wattenberg. March Graduate.

# Mary Emily Green, Minneapolis

B.A. 80, Carleton College. Major: Social Work. Major Adviser: Prof. Maura Sullivan. Graduation Pending.

# Katherine Rachel Harris, Minneapolis B.A. cum laude '83, University of Minnesota. Ma-

jor: Social Work. Major Adviser: Prof. C.D. Hollister. Graduation Pending.

#### Susan Marie Hoffert, Chaska

B.A. '75, University of Minnesota. Major: Social Work. Major Adviser: Prof. L.E. Jones. Graduation Pending.

# Sandra Rae Johnson, Minneapolis

B.A. with distinction '78, University of Minnesota. Major: Social Work. Major Adviser: Prof. Annalee Stewart. Graduation Pending.

#### Catharine Baker Jovce, Minneapolis

B.A. '85, University of Minnesota. Major: Social Work. Major Adviser: Prof. R. H. Rooney. Graduation Pending.

# Mary Edrys Kubiak, Afton

B.A. '65, College of St. Catherine. Major: Social Work. Major Adviser: Prof. Annalee Stewart. Graduation Pending.

# Laurie Belzer Levi, Plymouth

B.A. with distinction '81, University of Iowa. Major: Social Work. Major Adviser: Prof. R.S. Pandey. March Graduate.

# Mary Kapter Maher, Stevens Point,

B.S. with high honors '75, University of Wisconsin; B.A. '85, University of Minnesota. Major: Social Work. Major Adviser: Prof. M.R. Cohn. Graduation Pending.

# Terese Lynn Mahling, Little Falls

B.A. '77, Moorhead State University. Major: Social Work. Major Adviser: Prof. J.F. Gilgun. Gradua-

#### Margaret Jo Meade, Minneapolis

B.A. 76, Augsburg College. Major: Social Work. Major Adviser: Prof. N.M. Abramson. Graduation Pending.

#### Laura Wynne Mendelman-James

B.A. '80, Gettysburg College. Major: Social Work. Major Adviser: Prof. C.D. Hollister. February Graduate.

# Julia Kimberly Moen, St. Paul

B.A. '80, Bethel College. Major: Social Work. Major Adviser: Prof. M.R. Cohn. December Gradu-

#### Donald L. Olauson

B.A. '72, University of Washington. Major: Social Work. Major Adviser: Prof. Annalee Stewart. Graduation Pending.

# Jane Marie Otto, Minneapolis

B.A. magna cum laude '83, University of Minnesota. Major: Social Work. Major Adviser: Prof. L.E. Jones. December Graduate.

# Karol Lea Parker, New Town, N.D.

B.A. '77, Macalester College. Major: Social Work. Major Adviser: Prof. Annalee Stewart. February Graduate.

# Khanh Dao Pham, St. Paul

Lic. '70, Van-Hanh University. Major: Social Work. Major Adviser: Prof. Annalee Stewart. December Graduate.

# Jeanne Margaret Podvin, Minneapolis

B.S. '73, B.S. '76, University of Minnesota. Major: Social Work. Major Adviser: Prof. M.R. Cohn. Graduation Pending.

# Roberta Grace Resler, Minneapolis

B.A.S. '84, University of Minnesota. Major: Social Work. Major Adviser: Prof. Annalee Stewart. Graduation Pending.

# Patricia Joyce Rogers

B.A. magna cum laude '81, University of Utah. Major: Social Work. Major Adviser: Prof. J.F. Gilgun. Graduation Pending.

# William Sandberg, Phoenix, Ariz.

B.S.W. '79, Arizona State University. Major: Social Work. Major Adviser: Prof. Annalee Stewart. Graduation Pending.

# Marilyn Ann Sandquist, North Mankato

B.S. '80, Mankato State University. Major: Social Work. Major Adviser: Prof. N.F. Bracht. March Graduate

# Penny Lee Scheffler, Morton

B.A. '81, St. Olaf College, Major: Social Work, Major Adviser: Prof. I. E. Carter, Graduation Pending.

#### Gregory John Sicheneder, St. Paul B. A. '80. College of St. Thomas. Major: Social Work. Major Adviser: Prof. R.S. Pandey. Graduation Pending.

#### Michael Frank Smuk, Minneapolis B.S. '77, Moorhead State University, Major: Social Work. Major Adviser: Prof. N.M. Abramson. Graduation Pending.

Teresa Anne Stepaniak, New Brighton B.A. cum laude '82, College of St. Thomas. Major: Social Work. Major Adviser: Prof. M.R. Cohn. December Graduate.

# Lisa Stowall Thompson, Boulder,

B.A. with distinction '83, Colorado State University. Major: Social Work. Major Adviser: Prof. N.M. Abramson. Graduation Pending.

#### Clyde Lewis Turner

B. Ś. '76, University of Minnesota, Major: Social Work, Major Adviser: Prof. Annalee Stewart, March Graduate.

# Kristen Ann Wilner, Minneapolis

B.S. '82, Bemidji State Úniversity. Major: Social Work. Major Adviser: Prof. Esther Wattenberg. Graduation Pending.

# **Specialist Certificate in Education**

# Lisa Renee Heidtke Schlotterback, Minneapolis

B.A. magna cum laude '84, Concordia College; B.A. '87, University of Minnesota. Field: School Psychology. Major: Educational Psychology. Major Adviser: Prof. S.L. Lindborg. Graduation Pending.

# Summary of Degrees Conferred by the University During the Academic Year 1986-87

Conferred July, August, and December, 1986, and March 1987 6,387
Conferred June 1987 (subject to completion of requirements)
Total degrees conferred (1986-1987)

<sup>\*</sup>Includes degrees conferred at Duluth, Morris, Crookston, and Waseca.

# 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 School
College of Liberal Arts white
School of Management
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

Gold shoulder epaulets are worn by candidates who are honor students.

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.

# Spring 1987 Graduation Events

College of Agriculture, 7 p.m. June 3 Northrop Memorial Auditorium

College of Biological Sciences, 7:30 p.m. June 13

North Star Ballroom, St. Paul Student Center

**School of Dentistry**, 7:30 p.m. June 12 Northrop Memorial Auditorium

**College of Education**, 7:30 p.m. June 8 Northrop Memorial Auditorium

College of Forestry, 5:30 p.m. June 6 Theatre, St. Paul Student Center

General College, 2 p.m. June 7 Auditorium, Willey Hall

Graduate School, 7 p.m. May 29 Northrop Memorial Auditorium

College of Home Economics, 7 p.m. June 4

Northrop Memorial Auditorium

Law School, 2 p.m. May 10 Northrop Memorial Auditorium

College of Liberal Arts, 1 p.m. June 14 Northrop Memorial Auditorium

**School of Management**, 6 p.m. June 14 Northrop Memorial Auditorium

Medical School, 2:30 p.m. June 5 Northrop Memorial Auditorium

 $\begin{array}{l} \textbf{Medical Technology}, \ 1 \ p.m., \ June \ 7 \\ 2\text{-}620 \ Moos \ Tower \end{array}$ 

Mortuary Science, 5 p.m. June 12 Great Hall, Coffman Memorial Union

**School of Nursing**, 2 p.m. June 13 Rarig Center

College of Pharmacy, 2 p.m. June 6 Auditorium, Willey Hall

School of Public Health, 2 p.m. June 13 Earle Brown Center, St. Paul

ROTC, 7 p.m. June 19 Mayo Memorial Auditorium

**Institute of Technology**, 7 p.m. June 5 Northrop Memorial Auditorium

University College, 7 p.m. June 5 Auditorium, Willey Hall

College of Veterinary Medicine, 2 p.m. June 20 Northrop Memorial Auditorium