



UNIVERSITY OF MINNESOTA

Spring 1991

Graduate School

Commencement



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The Honorable Jean B. Keffeler, Minneapolis
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The Honorable Alan C. Page, Minneapolis
The Honorable Mary J. Page, Olivia
The Honorable Thomas R. Reagan, Gilbert
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The Honorable Stanley D. Sahlstrom, St. Cloud
The Honorable Ann J. Wynia, St. Paul

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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.

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Additional copies of this booklet are available
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100 Church St. S.E., University of Minnesota,
Minneapolis, Minnesota 55455.

Order of Events

Prelude Concert	From 12 noon to 1 p.m., music is provided by Mary Levoir, organ
Processional	<p>At 1 p.m., the macebearer and the United States flag marshal march onto the stage, heralding the arrival of the academic procession of candidates. In the procession are administrators, faculty, distinguished guests, and regents. The order of march of candidates is as follows:</p> <p>Doctor of Philosophy Specialist Certificate in Education Doctor of Education Master's Degrees Doctor of Musical Arts</p> <p>Suite for Trumpet and Organ Henry Purcell Suite in D MajorGeorge Frederick Handel Robert Walser, trumpet; Mary Levoir, organ</p>
The National Anthem	<p>As soloist Rosalind Laskin steps to the microphone, the entire audience will stand and join in singing the national anthem:</p> <p>O, say! can you see, by the dawn's early light, What so proudly we hail'd at the twilight's last gleaming, Whose broad stripes and bright stars, thro' the perilous fight O'er the ramparts we watch'd were so gallantly streaming? And the rockets' red glare, the bombs bursting in air, Gave proof thro' the night that our flag was still there. O, say, does that star-spangled banner yet wave O'er the land of the free and the home of the brave?</p>
Speaking for the University	Dean Robert T. Holt, Ph.D., Graduate School
Introduction of Commencement Speaker	Leonard Kuhl, Ph.D., Vice President for Academic Affairs Michelle Englund, President, Council of Graduate Students
Commencement Address	"Reflections on Graduate Education" The Dean of the Graduate School
Presentation of Candidates for Master's Degrees and Specialist Certificates	Associate Dean Kenneth Zimmerman, Ph.D., will present the candidates for professional master's, master of science, and master of arts degrees, and specialist certificates in education to Dean Holt and the audience. All candidates will proceed across the stage as they are presented.

Interlude	Adagio from Symphony V Charles-Marie Widor Mary Levoir, organ
Presentation of Candidates for Doctoral Degrees	Associate Deans Mark L. Brenner, Ph.D., and Walter V. Weyhmann, Ph.D., will present the candidates for the degrees of Doctor of Education, Doctor of Musical Arts, and Doctor of Philosophy. After each new doctoral candidate has been hooded, Dean Brenner or Dean Weyhmann will present him or her to Dean Holt.
Conferring of Degrees	Regent M. Elizabeth Craig will confer certificates and degrees upon the candidates.
Closing Remarks	Dean Robert T. Holt
Hail! Minnesota	The audience will rise and join in singing the University's alma mater: Minnesota, hail to thee! Hail to thee, our college dear! Thy light shall ever be A beacon bright and clear; Thy sons and daughters true Will proclaim thee near and far; They will guard thy fame And adore thy name; Thou shalt be their Northern Star.
Recessional	The graduates will leave their seats. The audience is requested to remain seated until those in the academic procession have marched out. Trumpet Voluntary John Stanley Robert Walser, trumpet; Mary Levoir, organ
Commencement Reception	The commencement reception on the plaza of Northrop Memorial Auditorium immediately follows the ceremony. All candidates and their guests are invited.

The Board of Regents requests that you adhere to the Northrop Memorial Auditorium policy that smoking is permitted only in posted areas on the west side of the lobby.

Academic Costume and the University Mace

Academic gowns date back to the 14th century, when they served two functions of nearly equal importance: to indicate the academic rank of the wearer and to keep the scholar warm in the drafty stone halls of academia.

The markings, cut, and colors of modern-day academic costume—cap, gown, and sometimes hood—indicate the academic degree, the field of study, and the institution that granted the degree.

Master's gowns, black and untrimmed, have pointed sleeves. Doctor's gowns in the United States traditionally have been black with velvet front facings and crossbars on the sleeves, but in recent years a number of universities have adopted gowns of distinctive school colors.

The Minnesota hood, which may be worn by anyone with a doctoral degree from the University of Minnesota, is black with a maroon chevron on gold.

A new University of Minnesota Ph.D. gown and matching tam made their appearance in 1988 to celebrate the centenary of the first Minnesota Ph.D. The Minnesota gown is maroon trimmed with black velvet chevrons and gold metallic braid.

Each institution has its own pattern of colors on the hood, worn around the neck and down the back of the gown. The length and shape of the hood identify the most advanced degree the wearer has earned, and the velvet edging shows the field: blue for doctor of philosophy, light blue for doctor of education, and pink for doctor of musical arts.

At commencement ceremonies, degree candidates wear the gowns for the degrees they are about to receive. Hoods are worn by those who already have the degree, and new Ph.D.s are hooded on stage.

The Mace

The University of Minnesota mace was carried for the first time in 1961 by Regents' Professor of Physics Alfred O.C. Nier at the inauguration of President O. Meredith Wilson. Art professor Philip Morton designed the mace: a crystal sphere four inches in diameter surmounted by the North Star, symbol of the state of Minnesota, on a solid aluminum handle set with the University regents' seal.

The University of Minnesota

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 20 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 440,139 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.

Enrollment in fall 1990 was 53,294 on all five campuses. Enrollment was 40,972 on the Twin Cities campus, 7,923 at Duluth, 2,021 at Morris, 1,042 at Waseca, and 1,336 at Crookston.

During the 1989-1990 academic year, the University of Minnesota conferred 10,835 degrees on all its campuses: 6,122 in July, August, and December 1989 and March 1990, and 4,713 in June 1990.

University alumni include four Nobel Prize winners, a 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 Graduate School

Before 1900, only a handful of American universities had graduate schools to promote, coordinate, and integrate graduate education on their campuses. The University of Minnesota joined the growing movement in 1905 when the regents established the Graduate School as a separate college and named University engineering professor Henry T. Eddy to the deanship. Eight years later, Guy Stanton Ford, a historian and future University of Minnesota president, was named dean. Ford envisioned a community of scholars unified by a single administrative voice. Believing that graduate education begins with able faculty skilled as investigators in the field, Ford worked to attract some of the best teachers and researchers to Minnesota. He obtained funding for research, libraries, laboratories, and financial aid for graduate students. When he left the deanship in 1938, the organizational structure and traditions that

today govern graduate education at the University of Minnesota had been established.

The adaptability and flexibility of Ford's legacy became apparent in the 1940s, when World War II transformed America's view of the world—and of education. Thousands of returning service men and women took advantage of the GI Bill to come to the University of Minnesota. Although the initial wave of students primarily affected undergraduate education, by 1950 some 6,000 graduate students called the University home. Between 1940 and 1960, the University awarded more than 3,000 doctoral degrees, three fourths of the total number of Ph.D.'s granted up to that time.

Today the Graduate School, headed by Dean Robert T. Holt, has more than 2,500 faculty members and more than 10,000 students and offers degrees in approximately 175 fields.

Degrees Awarded

The following individuals had completed all the requirements for their degrees as of March 29, 1991. The month of graduation is noted for each student. Degrees are listed in

presentation order as follows: professional master's, master of science, and master of arts degrees, specialist certificates, and doctoral degrees.

Professional Master's Degrees

Eman Yousef Abusa'da, Palestine

B.A. '89, Bethlehem University. Degree: Master of Social Work, March '91. Major: Social Work. Major Adviser: Jean K. Quam

John Thomas Adams, Minneapolis

B.S. '77, University of Missouri. Degree: Master of Business Administration, December '90. Major: Business Administration. Major Adviser: Donald R. Bell

John Francis Allgaier, Plymouth

B.S. '81, Iowa State University of Science and Technology. Degree: Master of Business Administration, February '91. Major: Business Administration. Major Adviser: Donald R. Bell

Michael James Allison, Marshalltown, Iowa

B.B.A. with high distinction '87, University of Iowa. Degree: Master of Business Administration, March '91. Major: Business Administration. Major Adviser: Donald R. Bell

Judith Kaye Meyers Altobell, St. Paul

B.A. summa cum laude '86, Macalester College. Degree: Master of Fine Arts, February '91. Major: Studio Arts. Minor: Related Fields. Major Adviser: Curtis C. Hoard

Barbara Jane Andersen, Waterloo, Iowa

B.S. '81, Iowa State University of Science and Technology. Degree: Master of Landscape Architecture, December '90. Major: Landscape Architecture. Minor: Ecology. Thesis: An Analysis of Changes in Patch and Corridor Characteristics as Related to Wildlife Habitat Quality, Olmsted County, Minnesota. Major Adviser: Joan I. Nassauer

Barton Lee Anderson, Blaine

B.M.E. with distinction '69, University of Minnesota. Degree: Master of Business Administration, March '91. Major: Business Administration. Major Adviser: Donald R. Bell

Dean Robert Anderson, Greenwood

B.A. '68, California State University. Degree: Master of Business Administration, December '90. Major: Business Administration. Major Adviser: Donald R. Bell

John Anthony Andreozzi, Lackawanna, N.Y.

B.A. '69, State University of New York; M.Ed. '71, University of Hartford; M.A. '74, University of Wisconsin. Degree: Master of Social Work, December '90. Major: Social Work. Major Adviser: George S. Hoshino

Dennis Dean Asay, Davenport, Iowa

B.A. '76, St. Ambrose College. Degree: Master of Business Administration, November '90. Major: Business Administration. Major Adviser: Donald R. Bell

John Joseph Bahlman, Neenah, Wis.

B.B.A. '85, University of Wisconsin. Degree: Master of Business Administration, December '90. Major: Business Administration. Major Adviser: Donald R. Bell

Wendy Ferris Bennett, Minneapolis

B.A. cum laude '76, Radcliffe College. Degree: Master of Music, October '90. Major: Music. Major Adviser: Everett L. Sutton

Julio Cesar Bermudez, Argentina

B.Arch. '82, Universidad Catolica de Santa Fe. Degree: Master of Architecture, October '90. Major: Architecture. Thesis: Rethinking Architectural Foundations: A Reflective Voyage into the Experiential Roots of Architecture. Major Adviser: Julia Robinson

Warren Bettenhausen, Mound

B.S. cum laude '81, Moorhead State University. Degree: Master of Business Administration, December '90. Major: Business Administration. Major Adviser: Donald R. Bell

Todd Alfred Breiholz, Eagan

B.S. cum laude '83, St. Cloud State University. Degree: Master of Business Administration, March '91. Major: Business Administration. Major Adviser: Donald R. Bell

Kristin E. Brinkman, Houston, Tex.

B.M. magna cum laude '89, University of Houston. Degree: Master of Music, December '90. Major: Music. Major Adviser: Almita Vamos

Leigh Bristolkagan

B.A. with great distinction '62, University of California; M.A. '64, University of Pennsylvania; M.A. '69, Ph.D. '82, Harvard University. Degree: Master of Social Work, November '90. Major: Social Work. Major Adviser: Nancy M. Abramson

Carole Anne Brouellette, Linwood

B.A. '76, William Penn College; M.S. '86, Northern Illinois University. Degree: Master of Business Administration, March '91. Major: Business Administration. Major Adviser: Donald R. Bell

Judith M. Browntrujillo

B.A.Ed. '68, B.S.Med.Tech. '73, University of New Mexico. Degree: Master of Business Administration, January '91. Major: Business Administration. Major Adviser: Donald R. Bell

Brad Lee Brunn, St. Paul

B.I.E. '86, Georgia Institute of Technology. Degree: Master of Business Administration, December '90. Major: Business Administration. Major Adviser: Donald R. Bell

Brentt Clifton Bugler, Cape Town, South Africa

B.Sc.Eng. '82, University of Cape Town; B.Com. '88, University of South Africa. Degree: Master of Business Administration, October '90. Major: Business Administration. Major Adviser: Donald R. Bell

Janet Elaine Bush, Minneapolis

B.A. '82, Hamline University. Degree: Master of Social Work, December '90. Major: Social Work. Major Adviser: Miriam R. Cohn

Angela Lidtke Bussell, Minnetonka

B.S. '83, North Dakota State University. Degree: Master of Business Administration, January '91. Major: Business Administration. Major Adviser: Donald R. Bell

Scott Busyn

B.A. '86, St. Olaf College. Degree: Master of Business Administration, December '90. Major: Business Administration. Major Adviser: Donald R. Bell

Charles Michael Campbell, Los Alamitos, Calif.

B.S. '81, Utica College of Syracuse University. Degree: Master of Business Administration, November '90. Major: Business Administration. Major Adviser: Donald R. Bell

Steven Thomas Capistrant, Roseville

B.A. '86, St. John's University. Degree: Master of Planning, October '90. Major: Planning. Major Adviser: Barbara L. Lukermann

Russell Scott Chadinha, Minneapolis

B.B.A. '87, University of North Dakota. Degree: Master of Business Administration, October '90. Major: Business Administration. Major Adviser: Donald R. Bell

Richard Thomas Chamberlain, Minnetonka

B.S.B. '75, University of Minnesota. Degree: Master of Business Administration, November '90. Major: Business Administration. Major Adviser: Donald R. Bell

Susan Shettles Charleston, St. Paul

B.F.A. '75, Tufts University. Degree: Master of Fine Arts, December '90. Major: Studio Arts. Minor: Related Fields. Major Adviser: Herman T. Rowan

Patricia Anne Clemons, Minneapolis

B.A. '55, Albion College. Degree: Master of Fine Arts, January '91. Major: Theatre Arts. Minor: Related Fields. Major Adviser: H. Wesley Balk

Eric Roy Cohen, St. Paul

B.A. cum laude '83, Kent State University. Degree: Master of Architecture, December '90. Major: Architecture. Thesis: Small-Scale, Shared Housing for Aging: Independence Through Interdependence. Major Adviser: John G. Rauma

Lynda Stockdill Cramer, Glencoe

B.A. '76, University of Minnesota. Degree: Master of Social Work, February '91. Major: Social Work. Major Adviser: Linda E. Jones

Linda Lou Crawford

B.A. '79, University of South Dakota. Degree: Master of Social Work, February '91. Major: Social Work. Major Adviser: Nancy M. Abramson

Blaise Dagilatis, Minneapolis

B.A. '82, College of William and Mary. Degree: Master of Business Administration, December '90. Major: Business Administration. Major Adviser: Donald R. Bell

Margaret Bordenave DeMUSE, Eagan

B.A. '84, College of St. Thomas. Degree: Master of Business Taxation, November '90. Major: Business Taxation. Major Adviser: Frederick R. Jacobs

Robert D. Denzer, Minneapolis

B.S.B. '84, University of Minnesota. Degree: Master of Business Administration, January '91. Major: Business Administration. Major Adviser: Donald R. Bell

Mark Stephen Derus, Bloomington

B.S.B. '79, University of Minnesota. Degree: Master of Business Administration, March '91. Major: Business Administration. Major Adviser: Donald R. Bell

Christopher Mark DeVaney, Hoyt Lakes

B.B.A. '86, University of Minnesota. Degree: Master of Business Administration, March '91. Major: Business Administration. Major Adviser: Donald R. Bell

Larry Eakman, Coon Rapids

B.S. '80, University of Illinois. Degree: Master of Business Administration, December '90. Major: Business Administration. Major Adviser: Donald R. Bell

Robert K. Eshun

B.Sc.Ag. '76, University of Ghana. Degree: Master of Business Administration, January '91. Major: Business Administration. Major Adviser: Donald R. Bell

Mark Ettinger

B.S. '76, Iowa State University. Degree: Master of Business Taxation, November '90. Major: Business Taxation. Major Adviser: Frederick R. Jacobs

Sheila Farrell-McFarland, Minneapolis

B.S. with distinction '77, University of Minnesota. Degree: Master of Fine Arts, January '91. Major: Studio Arts. Minor: Related Fields. Major Adviser: Gary L. Hallman

Mark Felton, Akron, Ohio

B.S.B. '84, Ohio State University. Degree: Master of Business Administration, November '90. Major: Business Administration. Major Adviser: Donald R. Bell

Daniel George Fors, Bloomington

B.S. '69, North Dakota State University. Degree: Master of Business Administration, December '90. Major: Business Administration. Major Adviser: Donald R. Bell

Susan Louise Forsmark, Andover

B.S. '76, University of Minnesota. Degree: Master of Social Work, December '90. Major: Social Work. Major Adviser: Nancy M. Abramson

Martha Miller Franke, Eagan

B.A. '82, Gettysburg College. Degree: Master of Social Work, March '91. Major: Social Work. Major Adviser: Oliver J. Williams

Joan Alvina Fredson, Eagan

B.M.E. '84, University of Minnesota. Degree: Master of Business Administration, December '90. Major: Business Administration. Major Adviser: Donald R. Bell

Greg Leo Gaul, Earlring, Iowa

B.A. '85, College of St. Thomas. Degree: Master of Social Work, December '90. Major: Social Work. Major Adviser: Sara M. Taber

Kaye Sue Geistfeld, Burnsville

B.S. cum laude '80, St. Cloud State University. Degree: Master of Business Taxation, January '91. Major: Business Taxation. Major Adviser: Frederick R. Jacobs

Louetta Marie Gengenbach, Roseville

B.S. with high distinction '68, University of Nebraska; M.Ed. '71, University of Illinois. Degree: Master of Social Work, January '91. Major: Social Work. Major Adviser: Ronald H. Rooney

Rahoul Ghose, India

B.Tech. '80, Indian Institute of Technology, Kharagpur; P.G. Diploma in Indian Institute of Management, Bangalore. Degree: Master of Business Administration, January '91. Major: Business Administration. Major Adviser: Donald R. Bell

Kimberly Lyn Glidden, Bloomington

B.Acct. summa cum laude '86, University of North Dakota. Degree: Master of Business Administration, December '90. Major: Business Administration. Major Adviser: Donald R. Bell

Michael J. Grasee

B.B.A. summa cum laude '87, University of Wisconsin. Degree: Master of Business Taxation, March '91. Major: Business Taxation. Major Adviser: Frederick R. Jacobs

Julie A. Greif, Milwaukee, Wis.

B.S. '87, University of Minnesota. Degree: Master of Music, February '91. Major: Music. Major Adviser: Lawrence Weller

Joseph Christian Grimme, Minneapolis

B.S. '78, United States Air Force Academy. Degree: Master of Business Administration, February '91. Major: Business Administration. Major Adviser: Donald R. Bell

John Fredric Grinager, Rapid City, S.D.

B.A. '75, Dakota Wesleyan University. Degree: Master of Planning, January '91. Major: Planning. Major Adviser: John M. Bryson

Gregory Colin Groenke, Vadnais Heights

B.M.E. '86, University of Minnesota. Degree: Master of Business Administration, January '91. Major: Business Administration. Major Adviser: Donald R. Bell

Anand Gupta

B.Ch.E. with distinction '80, M.S.M.E. '86, University of Minnesota. Degree: Master of Business Administration, October '90. Major: Business Administration. Major Adviser: Donald R. Bell

Audur Hafsteinsdottir, Iceland

B.M. with distinction '87, New England Conservatory of Music. Degree: Master of Music, December '90. Major: Music. Major Adviser: Almita Vamos

Thomas Michael Haines, Minneapolis

B.A. magna cum laude '86, College of St. Thomas. Degree: Master of Business Taxation, January '91. Major: Business Taxation. Major Adviser: Frederick R. Jacobs

Norma Beth Hanlon, Minneapolis

B.A. '68, Kansas State University; B.F.A. '85, University of Minnesota. Degree: Master of Fine Arts, December '90. Major: Studio Arts. Minor: Related Fields. Major Adviser: William N. Roode

Antoinette Dee Harms, Richfield

B.A. '67, Beloit College; M.A. '69, University of Iowa. Degree: Master of Business Administration, March '91. Major: Business Administration. Major Adviser: Donald R. Bell

Ralph Evans Harrison, Minneapolis

B.A. '78, Lawrence University. Degree: Master of Business Administration, January '91. Major: Business Administration. Major Adviser: Donald R. Bell

Jody Ann Hauer, St. Paul

B.A. '80, College of St. Catherine. Degree: Master of Planning, March '91. Major: Planning. Major Adviser: Barbara L. Lukermann

Daniel Paul Headlee, Pequot Lakes

B.S. cum laude '83, St. Cloud State University. Degree: Master of Business Administration. March '91. Major: Business Administration. Major Adviser: Donald R. Bell

Thomas Andrew Hegg

B.F.A. '74, Carnegie-Mellon University. Degree: Master of Fine Arts. December '90. Major: Theatre Arts. Minor: Related Fields. Major Adviser: Robert D. Moulton

Julia E. Heinz, Bloomington

B.A. '79, College of St. Catherine. Degree: Master of Business Administration. March '91. Major: Business Administration. Major Adviser: Donald R. Bell

Catherine Susan Heltemes, Brooklyn Park

B.A. '71, St. Mary's College. Degree: Master of Business Administration. December '90. Major: Business Administration. Major Adviser: Donald R. Bell

Mark David Hennes

B.S. magna cum laude '83, Mankato State University. Degree: Master of Business Administration. January '91. Major: Business Administration. Major Adviser: Donald R. Bell

Francis Hofmeister, Lakeville

B.A. '82, College of The Holy Cross. Degree: Master of Business Administration. December '90. Major: Business Administration. Major Adviser: Donald R. Bell

James Matthew Honsvall, Stillwater

B.S. magna cum laude '80, Bemidji State University. Degree: Master of Business Taxation. October '90. Major: Business Taxation. Major Adviser: Frederick R. Jacobs

Karin Hornstein, Konstanz, Germany

Diplom '84, Universitat Konstanz. Degree: Master of Architecture. March '91. Major: Architecture. Thesis: A Place to Live: An Attempt to Create Meaningful Housing. Major Adviser: John G. Rauma

Su-Jwen Huang, Taiwan

B.A. '84, Fu Jen Catholic University. Degree: Master of Social Work. December '90. Major: Social Work. Major Adviser: Burton R. Galaway

Bradley Jay Hull

B.M., B.A. '89, Oberlin College. Degree: Master of Music. December '90. Major: Music. Major Adviser: Lydia Artymiw

Thinh Thi Huynh

B.S. '89, University of Minnesota. Degree: Master of Social Work. February '91. Major: Social Work. Major Adviser: Jean K. Quam

Jill Marie Jacobs, Maple Grove

B.S. '85, St. Cloud State University. Degree: Master of Business Administration. March '91. Major: Business Administration. Major Adviser: Donald R. Bell

Alan Howard Johnson, Maple Grove

B.S.B. '87, University of Minnesota. Degree: Master of Business Administration. March '91. Major: Business Administration. Major Adviser: Donald R. Bell

Alice Louise Johnson, Silver Spring, Md.

B.A. '73, Macalester College. Degree: Master of Business Administration. October '90. Major: Business Administration. Major Adviser: Donald R. Bell

Bradley Clifford Johnson, Minneapolis

B.A. '80, Gustavus Adolphus College. Degree: Master of Business Administration. December '90. Major: Business Administration. Major Adviser: Donald R. Bell

Steven Russell Johnson, Robbinsdale

B.A. summa cum laude '86, Luther College. Degree: Master of Business Administration. December '90. Major: Business Administration. Major Adviser: Donald R. Bell

Jamison Aasland Jorde, Minneapolis

B.A. '90, University of Minnesota. Degree: Master of Business Administration. March '91. Major: Business Administration. Major Adviser: Donald R. Bell

Dean Alan Jorgensen, Plymouth

B.A. summa cum laude '82, Gustavus Adolphus College. Degree: Master of Business Taxation. November '90. Major: Business Taxation. Major Adviser: Frederick R. Jacobs

Robert Charles Kariniemi, Wayzata

B.E.E. '78, University of Minnesota. Degree: Master of Electrical Engineering. January '91. Major: Electrical Engineering. Minor: Radiology. Project: Magnetic Resonance Imaging. Major Adviser: Mostafa Kaveh

Elizabeth Jane Keefe, Minneapolis

B.A. '87, University of Minnesota. Degree: Master of Social Work. December '90. Major: Social Work. Major Adviser: Jean K. Quam

Cathleen McCabe Keeney

B.S. '84, St. Cloud State University. Degree: Master of Business Administration. March '91. Major: Business Administration. Major Adviser: Donald R. Bell

Jeffrey Alan Keiser, Minneapolis

B.A. '84, Hamline University. Degree: Master of Business Administration. January '91. Major: Business Administration. Major Adviser: Donald R. Bell

Marlene Carol Killa, St. Paul

B.Ch.E. '80, University of Minnesota. Degree: Master of Business Administration. December '90. Major: Business Administration. Major Adviser: Donald R. Bell

Young-Sun Kim, Seoul, Korea

B.S.E. '86, Seoul National University. Degree: Master of Architecture. December '90. Major: Architecture. Thesis: A Design Proposal for the Music Building Addition, Minneapolis Campus, University of Minnesota. Major Adviser: Dennis W. Grebner

Cynthia Ann King, Winona

B.A. cum laude '88, St. Mary's College. Degree: Master of Business Administration, March '91. Major: Business Administration. Major Adviser: Donald R. Bell

Daniel Thomas Kitrell, Cottage Grove

B.S. summa cum laude '84, St. Cloud State University. Degree: Master of Business Administration, March '91. Major: Business Administration. Major Adviser: Donald R. Bell

Thomas Donald Kmetz, Louisville, Ky.

B.H.S. with distinction '85, University of Kentucky. Degree: Master of Business Administration, October '90. Major: Business Administration. Major Adviser: Donald R. Bell

Kuansin Ko

B.A. '84, College of St. Teresa. Degree: Master of Music, March '91. Major: Music. Major Adviser: Paul W. Freed

Hilpert Kostka, Germany

Diplom-Ingenieur '89, Technische Universität Carolo-Wilhelmina zu Braunschweig. Degree: Master of Business Administration, March '91. Major: Business Administration. Major Adviser: Donald R. Bell

Daniel Lee Kraus, Highland Park, Ill.

B.S.B. '81, University of Minnesota. Degree: Master of Business Taxation, November '90. Major: Business Taxation. Major Adviser: Frederick R. Jacobs

Jacquelyn Sue Kruger, Farmington

B.M.E. summa cum laude '68, Wartburg College. Degree: Master of Music, November '90. Major: Music. Major Adviser: Thomas S. Lancaster

Earle Fleetwood Kyle IV, St. Paul

B.A. '87, Macalester College. Degree: Master of Planning, January '91. Major: Planning. Major Adviser: Richard S. Bolan

Sandra Louise Landman

B.A. '86, College of St. Catherine. Degree: Master of Business Administration, November '90. Major: Business Administration. Major Adviser: Donald R. Bell

Allen Jeffrey Larson, Elbow Lake

B.A. magna cum laude '86, Concordia College. Degree: Master of Business Administration, March '91. Major: Business Administration. Major Adviser: Donald R. Bell

Virginia Lynch Laukka

B.S. '86, University of Michigan. Degree: Master of Architecture, October '90. Major: Architecture. Thesis: The Preservation of Family History in the Upper Peninsula of Michigan. Major Adviser: John G. Rauma

William Craig Lawless, Schenectady, N.Y.

B.A. magna cum laude '82, College of St. Thomas. Degree: Master of Business Taxation, January '91. Major: Business Taxation. Major Adviser: Frederick R. Jacobs

William Eugene Lebrun, Pipestone

B.A. '69, St. Cloud State University; M.A.T. '73, Mankato State College. Degree: Master of Business Taxation, January '91. Major: Business Taxation. Major Adviser: Frederick R. Jacobs

Elizabeth Louise Lindquist, Minneapolis

B.S. '80, San Jose State University. Degree: Master of Business Administration, December '90. Major: Business Administration. Major Adviser: Donald R. Bell

Robin Ann Livingston, Golden Valley

B.S. '86, Augsburg College. Degree: Master of Social Work, March '91. Major: Social Work. Major Adviser: Maura Sullivan

Lynn Marie MacDonald

B.S. '81, University of Wisconsin. Degree: Master of Business Administration, December '90. Major: Business Administration. Major Adviser: Donald R. Bell

Paul Herbert Mahler, River Falls, Wis.

B.S. '83, University of Wisconsin; J.D. '86, Hamline University. Degree: Master of Business Taxation, February '91. Major: Business Taxation. Major Adviser: Frederick R. Jacobs

William Keith Marshall

B.S. '80, M.S. '84, University of Missouri. Degree: Master of Business Administration, January '91. Major: Business Administration. Major Adviser: Donald R. Bell

Brian Carl Matye

B.S. '81, University of Wisconsin. Degree: Master of Business Administration, March '91. Major: Business Administration. Major Adviser: Donald R. Bell

Anne Marie McCreery, Minneapolis

B.S.B. '88, University of Minnesota. Degree: Master of Business Taxation, February '91. Major: Business Taxation. Major Adviser: Frederick R. Jacobs

James Robert McDougall, Minnetonka

B.S. '86, University of Wisconsin. Degree: Master of Business Administration, February '91. Major: Business Administration. Major Adviser: Donald R. Bell

Donna May McJunkin, Hastings

B.Comp.Sc. with distinction '86, University of Minnesota. Degree: Master of Business Administration, December '90. Major: Business Administration. Major Adviser: Donald R. Bell

Brian Ross McPhail, Osage, Iowa

B.A. with high honors '79, University of Northern Iowa; J.D. '83, University of Oklahoma. Degree: Master of Business Taxation, February '91. Major: Business Taxation. Major Adviser: Frederick R. Jacobs

Jeffrey Todd Megna, Waukesha, Wis.

B.S. '83, University of Wisconsin. Degree: Master of Business Administration, March '91. Major: Business Administration. Major Adviser: Donald R. Bell

Arlene June Mencke, St. Paul

B.S. '73, Florida Atlantic University; Ph.D. '78, Florida State University. Degree: Master of Business Administration, March '91. Major: Business Administration. Major Adviser: Donald R. Bell

Todd William Miller, Richfield

B.S.B. '86, University of Minnesota. Degree: Master of Business Administration, October '90. Major: Business Administration. Major Adviser: Donald R. Bell

Reena Mittal, Delhi, India

B.A. '88, College of St. Catherine. Degree: Master of Business Administration, January '91. Major: Business Administration. Major Adviser: Donald R. Bell

Lawrence Henry Mohr, Mankato

B.S.B. '86, University of Minnesota. Degree: Master of Business Taxation, February '91. Major: Business Taxation. Major Adviser: Frederick R. Jacobs

Robyn Sue Badali Moltzan, Robbinsdale

B.S. '84, University of Wisconsin. Degree: Master of Business Administration, December '90. Major: Business Administration. Major Adviser: Donald R. Bell

Donald Ray Moma, Anchorage, Alaska

B.B.A. '87, University of Alaska. Degree: Master of Business Administration, December '90. Major: Business Administration. Major Adviser: Donald R. Bell

Marcelo Emilio Montero, Argentina

Licenciado '86, Universidad Nacional de Cordoba; M.S. '90, University of Minnesota. Degree: Master of Business Administration, March '91. Major: Business Administration. Major Adviser: Donald R. Bell

Joseph S. Moser, Norfolk, Neb.

B.A. '86, Nebraska Wesleyan University. Degree: Master of Fine Arts, January '91. Major: Theatre Arts. Minor: Related Fields. Major Adviser: Barbara Reid

Louise Marie Muldoon

B.S.B.A. '80, Seton Hall University. Degree: Master of Business Administration, December '90. Major: Business Administration. Major Adviser: Donald R. Bell

John Takashi Murakami, Eden Prairie

B.A. '83, Gustavus Adolphus College. Degree: Master of Business Administration, March '91. Major: Business Administration. Major Adviser: Donald R. Bell

Randall Clifford Nedegaard, Hinckley

B.A. '87, Bethel College. Degree: Master of Social Work, December '90. Major: Social Work. Major Adviser: Jane F. Gilgun

James Milton Nelson, Mendota Heights

B.A. '80, University of Minnesota. Degree: Master of Business Administration, December '90. Major: Business Administration. Major Adviser: Donald R. Bell

Jolene Ann Nelson, Sandstone

B.A. '86, Macalester College. Degree: Master of Business Administration, December '90. Major: Business Administration. Major Adviser: Donald R. Bell

James Ness

B.A. cum laude '83, Luther College. Degree: Master of Business Administration, December '90. Major: Business Administration. Major Adviser: Donald R. Bell

Virginia Schultz Olson, Mound

B.S.B. '85, University of Minnesota. Degree: Master of Business Administration, March '91. Major: Business Administration. Major Adviser: Donald R. Bell

Joseph Thomas Oyaski, Minneapolis

B.S.E.E. '87, Purdue University. Degree: Master of Business Administration, March '91. Major: Business Administration. Major Adviser: Donald R. Bell

Sandra Casey Palm, Minneapolis

B.M. '85, University of Wisconsin. Degree: Master of Music, December '90. Major: Music. Major Adviser: Alexander Braginsky

Thomas Scott Parker, Salt Lake City

B.S. '88, University of Utah; M.H.A. '90, University of Minnesota. Degree: Master of Business Administration, February '91. Major: Business Administration. Major Adviser: Donald R. Bell

Maureen Elizabeth Pechacek

B.S. '81, University of Wisconsin. Degree: Master of Business Taxation, December '90. Major: Business Taxation. Major Adviser: Frederick R. Jacobs

Anette Sonnergaard Petersen, Copenhagen, Denmark

Degree: Master of Business Administration, March '91. Major: Business Administration. Major Adviser: Donald R. Bell

Richard Eugene Peterson, St. Paul

B.F.A. '82, University of Minnesota. Degree: Master of Architecture, November '90. Major: Architecture. Thesis: Water, Aesthetics, Technology, and Housing. Major Adviser: Dale M. Mulfinger

Dennis Pierre, Plymouth

B.A. magna cum laude '83, College of St. Thomas. Degree: Master of Business Administration, December '90. Major: Business Administration. Major Adviser: Donald R. Bell

Randolph John Pladson, Burnsville

B.S. with honors '73, California Polytechnic State University. Degree: Master of Business Administration, March '91. Major: Business Administration. Major Adviser: Donald R. Bell

Janice Eileen Porter, Minneapolis

B.M.E. magna cum laude '79, University of Wisconsin. Degree: Master of Music, December '90. Major: Music. Major Adviser: Thomas S. Lancaster

Klaus Albert Proehl

B.S. '66, South Dakota State College of Agriculture and Mechanic Arts. Degree: Master of Business Administration. January '91. Major: Business Administration. Major Adviser: Donald R. Bell

Jaswanth G. Rao, Minneapolis

M.S. '83, Washington State University. Degree: Master of Business Administration, December '90. Major: Business Administration. Major Adviser: Donald R. Bell

Laurie Hansen Reiter, Arden Hills

B.S. '77, University of Montana. Degree: Master of Business Administration, December '90. Major: Business Administration. Major Adviser: Donald R. Bell

Eunmi Shin Rhee, Seoul, Korea

B.Voice '86, Ewha Womans University. Degree: Master of Music, October '90. Major: Music. Major Adviser: D. Clifton Ware, Jr.

Gregory William Richter, St. Paul

B.S. cum laude '83, St. Cloud State University. Degree: Master of Business Administration, December '90. Major: Business Administration. Major Adviser: Donald R. Bell

Dora Linda Salazar, Newport

B.A. '87, University of Minnesota. Degree: Master of Social Work, December '90. Major: Social Work. Major Adviser: Jean K. Quam

Brenda Bouley Sallstrom, Minnetonka

B.A. '82, Carleton College. Degree: Master of Business Administration, March '91. Major: Business Administration. Major Adviser: Donald R. Bell

Michael John Salmen, St. Paul

B.A. magna cum laude '87, College of St. Thomas. Degree: Master of Business Administration, December '90. Major: Business Administration. Major Adviser: Donald R. Bell

Anna Celia Sampson, Brooklyn Park

B.A. '89, College of St. Catherine. Degree: Master of Social Work, December '90. Major: Social Work. Major Adviser: Jean K. Quam

Gregg William Santa

B.M. cum laude '82, University of Wisconsin. Degree: Master of Music, January '91. Major: Music. Major Adviser: D. Clifton Ware, Jr.

Janet Lee Sass, Minneapolis

B.A. with high honors '75, Bethel College. Degree: Master of Business Taxation, November '90. Major: Business Taxation. Major Adviser: Frederick R. Jacobs

Beth Suzanne Schipper, Minneapolis

B.A. magna cum laude '87, Hamline University. Degree: Master of Business Administration, March '91. Major: Business Administration. Major Adviser: Donald R. Bell

William Wayne Schlemmer, Bloomington

B.S.B. '77, University of Minnesota. Degree: Master of Business Administration, December '90. Major: Business Administration. Major Adviser: Donald R. Bell

Thomas Matthew Schmidt

B.S.B.A. magna cum laude '74, Marquette University. Degree: Master of Business Administration, January '91. Major: Business Administration. Major Adviser: Donald R. Bell

Wayne Richard Schmidt, Point Pleasant, N.J.

B.S. '77, Cornell University. Degree: Master of Business Administration, March '91. Major: Business Administration. Major Adviser: Donald R. Bell

Richard A. Schoenthaler, St. Paul

B.S.B. '87, University of Minnesota. Degree: Master of Business Taxation, January '91. Major: Business Taxation. Major Adviser: Frederick R. Jacobs

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B.S. '88, University of Minnesota. Degree: Master of Business Administration, January '91. Major: Business Administration. Major Adviser: Donald R. Bell

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B.S. '86, St. Cloud State University. Degree: Master of Business Administration, October '90. Major: Business Administration. Major Adviser: Donald R. Bell

Krista Scott, Garden City, Kan.

B.F.A. '83, Emporia State University. Degree: Master of Fine Arts, December '90. Major: Theatre Arts. Minor: Related Fields. Major Adviser: Stephen C. Kanee

Timothy Gerard Scott, Minneapolis

B.A. '88, University of Minnesota. Degree: Master of Social Work, March '91. Major: Social Work. Minor: Public Affairs. Major Adviser: Mark S. Umbreit

Susan Kay Shellberg, Golden Valley

B.B.A. '85, Iowa State University of Science and Technology. Degree: Master of Business Administration, March '91. Major: Business Administration. Major Adviser: Donald R. Bell

Elizabeth Price Shipton, Minneapolis

B.A. '81, University of Minnesota. Degree: Master of Social Work, March '91. Major: Social Work. Major Adviser: Jean K. Quam

Ilse Siebenschuh, Bremen, B.R.D., Germany

B.F.A. summa cum laude '87, University of Minnesota. Degree: Master of Fine Arts, January '91. Major: Studio Arts. Minor: Related Fields. Major Adviser: Victor Caglioti

Frank Jason Simer, Minneapolis

B.A. '86, Macalester College. Degree: Master of Business Administration, March '91. Major: Business Administration. Major Adviser: Donald R. Bell

LeAnn Michelle Simonson, Isle

B.S. magna cum honore '88, Winona State University. Degree: Master of Social Work, December '90. Major: Social Work. Major Adviser: George S. Hoshino

Keith C. Skerrett, Minneapolis

B.A. magna cum laude '72, Howard University. Degree: Master of Business Administration, March '91. Major: Business Administration. Major Adviser: Donald R. Bell

Ted D. Skogman, Cambridge

B.A. '80, University of Minnesota. Degree: Master of Business Administration, December '90. Major: Business Administration. Major Adviser: Donald R. Bell

G. Connell Smith, St. Louis Park

B.A.Sc. '80, M.A.Sc. '84, University of Toronto. Degree: Master of Business Administration, March '91. Major: Business Administration. Major Adviser: Donald R. Bell

Stephen Malachy Spellman, Minneapolis

B.B.A. with honors '84, University of Notre Dame. Degree: Master of Business Administration, December '90. Major: Business Administration. Major Adviser: Donald R. Bell

Diane Marie Springer, Minnetonka

B.A. '67, St. Cloud State College. Degree: Master of Business Administration, December '90. Major: Business Administration. Major Adviser: Donald R. Bell

Kirk Fredrick Sprunger

B.B.A. '74, University of Texas. Degree: Master of Business Administration, March '91. Major: Business Administration. Major Adviser: Donald R. Bell

Karla Rauk Stacey

B.S. with honors '63, University of Wisconsin; M.Ed. '70, Pennsylvania State University. Degree: Master of Business Administration, February '91. Major: Business Administration. Major Adviser: Donald R. Bell

Laurie Ann Stangl, Minneapolis

B.S. summa cum laude '82, St. Cloud State University. Degree: Master of Business Administration, December '90. Major: Business Administration. Major Adviser: Donald R. Bell

Margaret Ellen Steiner, Cannon Falls

B.S. with distinction '88, University of Minnesota. Degree: Master of Social Work, November '90. Major: Social Work. Major Adviser: Ailee Moon

Gregory Martin Steininger, Eagan

B.A. summa cum laude '83, St. John's University. Degree: Master of Business Administration, October '90. Major: Business Administration. Major Adviser: Donald R. Bell

Michae: Charles Stokke, Minneapolis

B.B.A. magna cum laude '80, University of Wisconsin. Degree: Master of Business Administration, March '91. Major: Business Administration. Major Adviser: Donald R. Bell

Nancy R. Strauss, Minneapolis

B.S. '74, University of North Dakota; M.P.H. '83, University of Texas Health Sciences Center. Degree: Master of Social Work, December '90. Major: Social Work. Major Adviser: Jean K. Quam

Steven Paul Strawbridge

B.S. '84, University of Wisconsin. Degree: Master of Business Administration, January '91. Major: Business Administration. Major Adviser: Donald R. Bell

Colleen Brandt Stucker, St. Paul

B.S.B. with distinction '80, University of Minnesota. Degree: Master of Business Taxation, February '91. Major: Business Taxation. Major Adviser: Frederick R. Jacobs

Kendra Lea Swanson, Fridley

B.Acc. cum laude '85, University of Minnesota. Degree: Master of Business Administration, January '91. Major: Business Administration. Major Adviser: Donald R. Bell

Terri Larae-Prosser Tam

B.S.B. '85, University of Minnesota. Degree: Master of Business Taxation, November '90. Major: Business Taxation. Major Adviser: Frederick R. Jacobs

Monica Mae Tasto, Madison, Wis.

B.S. '84, Moorhead State University. Degree: Master of Business Administration, December '90. Major: Business Administration. Major Adviser: Donald R. Bell

Andrea Christine Taylor, Richfield

B.S.N. '83, University of Minnesota. Degree: Master of Business Administration, November '90. Major: Business Administration. Major Adviser: Donald R. Bell

Teresa Lou Thoreson, Robbinsdale

B.A. '84, Iowa State University of Science and Technology. Degree: Master of Architecture, November '90. Major: Architecture. Thesis: Dwelling: A Study of Design on the Rural Landscape. Major Adviser: Dale M. Mulfinger

Michael John Thyken, Minneapolis

B.A. magna cum laude '83, College of St. Thomas. Degree: Master of Business Administration, March '91. Major: Business Administration. Major Adviser: Donald R. Bell

Mark August Toffle, St. Louis Park

B.M.E. '85, University of Minnesota. Degree: Master of Mechanical Engineering, December '90. Major: Mechanical Engineering. Minor: Related Fields. Project: An Experimental Study of Particle Re-Entrainment from the Rigid Disc Drive Head-Disc Interface. Major Adviser: David Y. H. Pui

Isabelle Torres

B.A. '78, University of Minnesota. Degree: Master of Social Work, January '91. Major: Social Work. Major Adviser: Jean K. Quam

Sandra M. Traudt, St. Paul

B.A. '75, Bethel College. Degree: Master of Social Work, November '90. Major: Social Work. Major Adviser: Esther Wattenberg

Eugene Amos Treadwell

A.B. '72, Harvard College. Degree: Master of Architecture, January '91. Major: Architecture. Thesis: High School for the Visual and Performing Arts, Houston, Texas. Major Adviser: Roger D. Clemence

Irene Oiling Tsang, Plymouth

B.Ch.E. with distinction '76, University of Minnesota. Degree: Master of Business Administration, December '90. Major: Business Administration. Major Adviser: Donald R. Bell

Jane Louise Ubbelohde, Shakopee

B.S. '80, University of Wisconsin. Degree: Master of Architecture, January '91. Major: Architecture. Thesis: Reestablishing a Sense of Place: A Case Study of the Midwestern Midsize City, Eau Claire, Wisconsin. Major Adviser: John G. Rauma

Charles Thomas Urban, Minneapolis

B.A. '80, University of North Carolina. Degree: Master of Business Administration, January '91. Major: Business Administration. Major Adviser: Donald R. Bell

Nora Ann VandenBoom, Eagan

B.A. '84, University of Minnesota. Degree: Master of Business Administration, December '90. Major: Business Administration. Major Adviser: Donald R. Bell

Robert James VandenBoom

B.M.E. '84, University of Minnesota. Degree: Master of Business Administration, December '90. Major: Business Administration. Major Adviser: Donald R. Bell

Ann Elizabeth Vessey, Minnetonka

B.A. summa cum laude '88, Wheaton College. Degree: Master of Social Work, October '90. Major: Social Work. Major Adviser: Neil F. Bracht

Diane Catherine Hron Wadsworth, St. Paul

A.B. magna cum laude '83, Ripon College. Degree: Master of Social Work, March '91. Major: Social Work. Major Adviser: Jeffrey L. Edleson

Daniel Scott Waller, Eagan

B.B.A. with distinction '86, Iowa State University of Science and Technology. Degree: Master of Business Taxation, January '91. Major: Business Taxation. Major Adviser: Frederick R. Jacobs

Joyce L. Wascoe, Golden Valley

B.A. '66, University of Minnesota. Degree: Master of Business Administration, December '90. Major: Business Administration. Major Adviser: Donald R. Bell

Jennifer Nielle Webb

B.A. '69, St. Cloud State College. Degree: Master of Social Work, December '90. Major: Social Work. Major Adviser: Esther Wattenberg

James Marlo Wiese, West St. Paul

B.S. '83, University of Wisconsin; M.A. '87, Gordon-Conwell Theological Seminary. Degree: Master of Business Taxation, December '90. Major: Business Taxation. Major Adviser: Frederick R. Jacobs

Kristin Willardson, St. Louis Park

B.S.E.E. '85, South Dakota State University. Degree: Master of Business Administration, December '90. Major: Business Administration. Major Adviser: Donald R. Bell

William Joseph Worzala, Shoreview

B.S.B.A. with honors '83, University of Dayton. Degree: Master of Business Administration, January '91. Major: Business Administration. Major Adviser: Donald R. Bell

Judith Anne Wurdock, Minneapolis

B.S. cum laude '70, University of Detroit. Degree: Master of Business Administration, October '90. Major: Business Administration. Major Adviser: Donald R. Bell

Paul Steven Zaslasky, Duluth

B.B.A. cum laude '81, University of Minnesota. Degree: Master of Business Administration, January '91. Major: Business Administration. Major Adviser: Donald R. Bell

Paul Joseph Zenner, Little Falls

B.S.N. '84, University of Minnesota. Degree: Master of Business Administration, March '91. Major: Business Administration. Major Adviser: Donald R. Bell

John August Zitur

B.S. '87, St. John's University. Degree: Master of Business Administration, February '91. Major: Business Administration. Major Adviser: Donald R. Bell

Professional Master's Degrees

University of Minnesota, Duluth

Elizabeth Ann Fochs, Duluth

B.S. '75, Bemidji State University; B.A.E.M. '77, University of Minnesota. Degree: Master of Business Administration, November '90. Major: Business Administration. Major Adviser: Jerrold M. Peterson

Bradley Neil Ojard, Duluth

B.M.E. '81, University of Minnesota. Degree: Master of Business Administration, November '90. Major: Business Administration. Major Adviser: Jerrold M. Peterson

Gabriele Weber, Germany

B.A. '87, Macalester College. Degree: Master of Business Administration, March '91. Major: Business Administration. Major Adviser: Kjell R. Knudsen

Master of Science

Sukaina H. Abdulkarim

M.B.Ch.B. '78, University of Mosul. Degree: Master of Science, March '91. Major: Laboratory Medicine. Minor: Pathobiology. Thesis: Location of Sites of Chromosomal Breaks in Fanconi's Anemia and Their Relation to Loci of Oncogenes and Fragile Sites. Major Adviser: Jaroslav Cervenka

Laura M. Aguilar, Mexico City, Mexico

Licenciado '89, Universidad Iberoamericana. Degree: Master of Science, March '91. Major: Biomedical Engineering. Minor: Related Fields. Major Adviser: Stanley M. Finkelstein

Khurshid Ahmed, Lund, Khwar, Pakistan

M.Sc. '85, N.W.F.P. Agricultural University. Degree: Master of Science, February '91. Major: Plant Breeding. Minor: Related Fields. Thesis: Tissue Culture Initiation and Plant Regeneration of Malting Barley Genotypes. Major Adviser: Burle G. Gengenbach

Rakan Elias Alamat, Amman, Jordan

B.A.E.M. '89, University of Minnesota. Degree: Master of Science in Aerospace Engineering, December '90. Major: Aerospace Engineering. Minor: Mechanical Engineering. Major Adviser: William L. Garrard

Khalid I. Alhumaizi, Saudi Arabia

B.E. '86, King Saud University. Degree: Master of Science in Chemical Engineering, January '91. Major: Chemical Engineering. Minor: Related Fields. Thesis: Feedback Control of a Countercurrent Moving Bed Reactor. Major Advisers: Robert W. Carr, Jr. and Rutherford Aris

Steven Michael Anderson

B.Mat.Sc.E. '85, University of Minnesota. Degree: Master of Science, March '91. Major: Biomedical Engineering. Minor: Related Fields. Major Adviser: Perry L. Blackshear

Pablo Emilio Arellano, Mexico

D.V.M. '85, Universidad Nacional Autonoma de Mexico. Degree: Master of Science, November '90. Major: Veterinary Medicine. Minor: Related Fields. Thesis: Vaccination for Pseudorabies Virus in the Grower-Pig. Major Adviser: Robert B. Morrison

Farid Abd Elreh Badria, Mansoura, Egypt

B.S.Pharm. '78, Al Mansoura University. Degree: Master of Science, October '90. Major: Pharmacognosy. Minor: Related Fields. Major Adviser: W. Thomas Shier

Roger John Baerg

B.S. with high distinction '85, University of Minnesota. Degree: Master of Science, January '91. Major: Agronomy. Minor: Plant Physiology. Thesis: Antagonism of Diclofop Control of Wild Oat (*Avena fatua*) by DPX-L5300. Major Adviser: John W. Gronwald

Walter Alvin Barker

B.S. '80, M.S. '82, Tuskegee Institute. Degree: Master of Science, October '90. Major: Horticulture. Minor: Related Fields. Thesis: Anatomical Structures Influencing Postharvest Weight Loss in Broccoli Brassica oleracea (L.) Italica. Major Adviser: Luther Waters, Jr.

Timothy George Barry, Fort Collins, Colo.

B.Comp.Sc. with distinction '85, University of Minnesota. Degree: Master of Science, October '90. Major: Computer and Information Sciences. Minor: Related Fields. Thesis: Optimal Diameter Unidirectional Hypercubes. Major Adviser: David H. Du

Sherie Sidonia Bartsh, Bloomington

B.S. '80, University of Minnesota. Degree: Master of Science, December '90. Major: Wildlife. Minor: Statistics. Thesis: Territorial Behavior and Breeding Frequency in Relation to Age, Size, and Serum Testosterone and Cortisol Concentrations in Male Weddell Seals. Major Adviser: Donald B. Siniff

Sanjay Bawa, New Delhi, India

B.E. '85, University of Delhi. Degree: Master of Science in Civil Engineering, November '90. Major: Civil Engineering. Minor: Computer and Information Sciences. Thesis: Behavior of Large Composite Columns During Construction. Major Adviser: Roberto Tomas Leon

William Ronald Betten, Woodbury

B.S. '77, South Dakota School of Mines and Technology. Degree: Master of Science in Electrical Engineering, December '90. Major: Electrical Engineering. Minor: Physics. Major Adviser: Gerald E. Sobelman

Kiandokht Beyzavi

B.E.E. with high distinction '88, University of Minnesota. Degree: Master of Science in Electrical Engineering, March '91. Major: Electrical Engineering. Minor: Physics. Major Adviser: Marshall I. Nathan

Roger James Blahnik

B.S. cum laude '72, University of Minnesota. Degree: Master of Science, February '91. Major: Entomology. Minor: Related Fields. Thesis: A Revision of the Neotropical Genus *Chimarrhodella* Lestage (Trichoptera: Philopotamidae). Major Adviser: Ralph W. Holzenthal

Irwin Nordahl Boe, Jr.

B.A. '87, University of Minnesota. Degree: Master of Science, December '90. Major: Biomedical Engineering. Minor: Related Fields. Thesis: Biosensor Development and Applications Using Differential Heat Conduction Calorimetry. Major Adviser: Rex E. Lovrien

Kristine Krenzke Boettcher, St. Louis Park

B.S.N. with distinction '79, Valparaiso University. Degree: Master of Science, January '91. Major: Nursing. Minor: Related Fields. Major Adviser: Ruth D. Lindquist

Mark Thomas Bollenbeck

B.A. '84, University of Minnesota. Degree: Master of Science, November '90. Major: Statistics. Minor: Related Fields. Major Adviser: Sanford Weisberg

Mary Bonner-Rzeczynski, Naperville, Ill.

B.S.N. '79, Loyola University. Degree: Master of Science, December '90. Major: Nursing. Minor: Related Fields. Major Adviser: Sandra Edwardson

David Robert Brewer, The Dalles, Ore.

B.S. '88, B.A. with highest scholarship '88, Oregon State University. Degree: Master of Science, October '90. Major: Agricultural and Applied Economics. Minor: Related Fields. Major Adviser: Harald Vonwitzke

Peter Putnam Bundy, St. Paul

B.A. '72, Carleton College; MA. '75, University of Iowa. Degree: Master of Science, March '91. Major: Forestry. Minor: Related Fields. Major Adviser: Melvin J. Baughman

Lisa Lynn Burban, Chicago, Ill.

B.S. with high honors '88, University of Illinois. Degree: Master of Science, November '90. Major: Forestry. Minor: Related Fields. Major Advisers: Alan R. Ek and David W. French

David Vincent Burns, Eddington, Me.

B.S. Engr. Mech. '88, Johns Hopkins University. Degree: Master of Science in Mechanical Engineering, January '91. Major: Mechanical Engineering. Minor: Mathematics. Thesis: Local Mass Transfer in Turbulent Flow Downstream of a 90 Degree Bend in a Duct of Square Cross Section. Major Adviser: Richard J. Goldstein

David H. Bush

B.M.E. '87, University of Minnesota. Degree: Master of Science in Industrial Engineering, November '90. Major: Industrial Engineering. Minor: Related Fields. Major Adviser: Kevin J. Dooley

Deserae Lynette Bushong, Peoria, Ill.

B.S. '88, University of Illinois. Degree: Master of Science, January '91. Major: Fisheries. Minor: Statistics. Thesis: Fecundity and Egg Quality in Exploited Walleye (*Stizostedion Vitreum Vitreum*) Populations. Major Advisers: Ira R. Adelman and Agnes S. Csallany

Qingsheng Cai, Nanjing, People's Republic of China

B.S. '82, M.S. '84, Beijing Institute of Aeronautics and Astronautics. Degree: Master of Science, December '90. Major: Biomedical Engineering. Minor: Fluid Mechanics. Major Adviser: Theodore A. Wilson

Sanjeev Chaddha

M.Sc. '83, Rohilkhand University. Degree: Master of Science, March '91. Major: Entomology. Minor: Related Fields. Thesis: Influence of Placement of Western Corn Rootworm Eggs on Survivorship, Root Injury, and Yield. Major Adviser: Kenneth R. Ostlie

Ritu Chandan

M.S. Honours '80, Panjab University. Degree: Master of Science, February '91. Major: Veterinary Biology. Minor: Related Fields. Major Adviser: David R. Brown

Kai-Kuo Chang, Taipei, Taiwan

B.S. '77, National Chung-Hsing University. Degree: Master of Science in Civil Engineering, March '91. Major: Civil Engineering. Minor: Related Fields. Thesis: Optimal Ramp-Metering Control for Freeway Corridors. Major Adviser: Yorgos J. Stephanedes

Athanasios Chassiakos, Athens, Greece

Diploma '88, National Technical University of Athens. Degree: Master of Science in Civil Engineering, December '90. Major: Civil Engineering. Minor: Related Fields. Thesis: An Improved Time-Space Incident Detection Algorithm. Major Adviser: Yorgos J. Stephanedes

You-jun Chen, Shanghai, People's Republic of China

B.S. '86, University of Science and Technology of China. Degree: Master of Science, December '90. Major: Physics. Minor: Related Fields. Major Adviser: E. Dan Dahlberg

Li-Fang Tu Chou, Taipei, Taiwan

B.A. '77, National Taiwan University; M.A. '84, National Chengchi University; B.A. '89, University of Minnesota. Degree: Master of Science. January '91. Major: Health Informatics. Minor: Related Fields. Major Adviser: Lynda B. Ellis

Joselyn Sun Chua

D.D.M. '86, University of the Philippines. Degree: Master of Science, December '90. Major: Dentistry. Minor: Related Fields. Thesis: A Cephalometric Analysis on the Effects of High-Pull Headgear and Permanent First Molars Extraction in the Correction of Anterior Open Bite. Major Adviser: Thomas M. Speidel

Amy Church, Green Bay, Wis.

B.S. '88, University of Wisconsin. Degree: Master of Science, November '90. Major: Food Science. Minor: Related Fields. Thesis: Characterization of the Casein Breakdown in Cheese During Ripening. Major Adviser: Joseph J. Warthesen

David Lloyd Cochrane, Minneapolis

B.A. cum laude '76, College of St. Thomas. Degree: Master of Science, December '90. Major: Chemistry. Minor: Related Fields. Thesis: Simulation Methods for Molecular Collisions: Parallel Algorithms and Quantum Effective Potentials. Major Adviser: Donald G. Truhlar

Bruce D. Cook, Wheaton, Ill.

B.S. '86, Huntington College. Degree: Master of Science, October '90. Major: Soil Science. Minor: Related Fields. Thesis: Dissolved Organic Carbon and Nitrogen Fractions in Soils of an Old Field Successional Sequence: Relation to Decomposition and Net N-Mineralization During Aerobic Incubation. Major Adviser: Deborah L. Allan

Holly Joyce Cotner

B.M.E. '82, University of Minnesota. Degree: Master of Science in Mechanical Engineering, October '90. Major: Mechanical Engineering. Minor: Mathematics. Major Adviser: Arthur G. Erdman

Laura Cragin, Menomonie, Wis.

B.A. cum laude '79, College of St. Scholastica. Degree: Master of Science, January '91. Major: Nursing. Minor: Related Fields. Major Adviser: Kenneth R. Burns

John Kolin Dagg, Redford, Mich.

B.S.M.E. '87, GMI Engineering and Management Institute. Degree: Master of Science in Mechanical Engineering, March '91. Major: Mechanical Engineering. Minor: Related Fields. Major Adviser: Darrell A. Frohrib

Nancy Louise Dahlberg, Eagan

B.S.N. '75, St. Olaf College. Degree: Master of Science, March '91. Major: Nursing. Minor: Related Fields. Major Adviser: Kathleen G. Dineen

Mark Melvin Dale, Minneapolis

B.S. '84, Mankato State University; D.D.S. cum laude '88, Loyola University of Dentistry. Degree: Master of Science, November '90. Major: Dentistry. Minor: Related Fields. Thesis: Centric Relation-Intercuspal Position Bite Discrepancies as Related to Vertical Facial Morphology. Major Adviser: Richard R. Bevis

Haozhe Dong

B.S. '82, Zhejiang University. Degree: Master of Science, December '90. Major: Chemical Physics. Thesis: State-to-state Reaction Dynamics, Energy Transfer, and Scattering in Collisions of Hydrogen and Deuterium Atoms with Hydrogen Molecules. Major Adviser: Donald G. Truhlar

Constance Joan Dreyer, Aplington, Iowa

B.A. '80, College of St. Catherine. Degree: Master of Science, March '91. Major: Nursing. Minor: Related Fields. Major Adviser: Sandra R. Edwardson

Christine Elizabeth Eastman, Rochester

B.A. summa cum laude '86, St. Mary's College. Degree: Master of Science, October '90. Major: Chemistry. Minor: Related Fields. Thesis: Polymer and Probe Diffusion in Viscous Solutions by Forced Rayleigh Scattering. Major Adviser: Timothy P. Lodge

Timothy Allen Ebeling, Fargo, N.D.

B.S. with honor '89, North Dakota State University. Degree: Master of Science in Electrical Engineering, February '91. Major: Electrical Engineering. Minor: Related Fields. Thesis: Detection of Termites in Wood Using Active Ultrasonic Probing Methods. Major Adviser: William P. Robbins

Scott James Elliott, Rochester

B.E.E. '81, University of Minnesota. Degree: Master of Science in Electrical Engineering, October '90. Major: Electrical Engineering. Minor: Related Fields. Thesis: On Hardware Assisted Global Image Processing. Major Adviser: Frederick M. Waltz

Emiko Endo, Japan

Degree: Master of Science, December '90. Major: Nursing. Minor: Related Fields. Major Adviser: Ellen C. Egan

Kathy Marie Ensrud, Roseville

B.S. '75, Purdue University. Degree: Master of Science, January '91. Major: Cell and Developmental Biology. Minor: Related Fields. Thesis: Tolerization and Immunosuppression: A Novel Approach for the Production of Monoclonal Antibody Probes to Study Sperm Maturation. Major Adviser: David W. Hamilton

John B. Erdmann, Minneapolis

B.A. cum laude '72, Harvard College. Degree: Master of Science in Civil Engineering, December '90. Major: Civil Engineering. Minor: Related Fields. Major Adviser: Heinz G. Stefan

Paul David Ernst, St. Joseph, Mo.

B.S.Ag. summa cum laude and honors scholar '86, University of Missouri. Degree: Master of Science, December '90. Major: Agronomy. Minor: Related Fields. Thesis: The Effect of Abscisic Acid and Plant Water Deficit of Carbon Partitioning in Developing Soybean Embryos. Major Adviser: Robert J. Jones

William James Esler, Allentown, Pa.

B.A. '88, Carleton College. Degree: Master of Science in Mechanical Engineering, October '90. Major: Mechanical Engineering. Minor: Physics. Major Adviser: Perry L. Blackshear

Gabriel Pierre Forcier, Canada

B.Sc.A. '84, B.Sc.A. '87, Université Laval. Degree: Master of Science in Civil Engineering, November '90. Major: Civil Engineering. Minor: Related Fields. Thesis: A Parametric Study of Composite Frame Behavior. Major Adviser: Roberto Tomas Leon

Eleanor Rae Gardner, Victoria, B.C., Canada

B.S.F. with honours '84, University of British Columbia. Degree: Master of Science, January '91. Major: Forestry. Minor: Statistics. Thesis: Measuring Fertilizer Response: An Analysis and Comparison of Methods. Major Adviser: Thomas E. Burk

Nancy Gayle Gauthier, Minneapolis

B.S.N. cum laude '76, Loyola University. Degree: Master of Science, February '91. Major: Nursing. Minor: Related Fields. Major Adviser: Ruth D. Lindquist

John Martin Girard, Chicago, Ill.

B.S. with highest honors '84, University of Illinois. Degree: Master of Science, December '90. Major: Mechanics. Minor: Mathematics. Major Adviser: Scott D. Abrahamson

Paolo Giudici

Laurea '89, Università Commerciale "Luigi Bocconi". Degree: Master of Science, December '90. Major: Statistics. Minor: Related Fields. Major Adviser: Ronald C. Pruitt

Keith William Golke, Minneapolis

B.E.E. with distinction '80, University of Minnesota. Degree: Master of Science in Electrical Engineering, November '90. Major: Electrical Engineering. Minor: Related Fields. Major Adviser: David Lamb

Jeffrey Alan Groen

B.S. '86, Calvin College. Degree: Master of Science, December '90. Major: Geology. Minor: Ecology. Thesis: Lake-Level Reconstructions Based on Sediment Analyses: Holocene Climate Implications for West-Central Minnesota. Major Adviser: Herbert E. Wright

Andre Philippe Guirard, St. Paul

B.S. magna cum laude '82, University of Southwestern Louisiana. Degree: Master of Science, February '91. Major: Computer and Information Sciences. Minor: Mathematics. Major Adviser: Maria Gini

Pat A. Handler-Spratte

B.S. '81, College of St. Teresa. Degree: Master of Science, November '90. Major: Nursing. Minor: Related Fields. Major Adviser: Sandra R. Edwardson

Philip Jon Hankins, Albert Lea

B.A. cum laude '84, Augustana College; D.D.S. '88, University of Minnesota. Degree: Master of Science, January '91. Major: Dentistry. Minor: Related Fields. Thesis: The Effects of the Canal Master, Balanced Force and Step-Back Techniques on Instrumentation in Curved Canals. Major Adviser: Mahmoud E. Eldeeb

Joleen Renee Hanson, Robbinsdale

B.A. '79, Carleton College; B.S. '83, University of Minnesota. Degree: Master of Science, December '90. Major: Environmental Health. Minor: Related Fields. Major Adviser: Charles E. McJilton

Carol Diane Harber, Fort Wayne, Ind.

B.S.C.E. with highest distinction '89, Purdue University. Degree: Master of Science in Civil Engineering, February '91. Major: Civil Engineering. Minor: Related Fields. Thesis: Surface Films in Laboratory Flumes. Major Adviser: John S. Gulliver

Toni Tracy Havala, Minneapolis

B.S. with honors '84, Michigan State University. Degree: Master of Science, October '90. Major: Nutrition. Minor: Related Fields. Major Adviser: Dennis A. Savaiano

Ling He, Wuhan, Hubei, People's Republic of China

B.S. '83, Fudan University. Degree: Master of Science, November '90. Major: Fisheries. Minor: Related Fields. Thesis: Cloning and Characterization of Repetitive DNA Fragments from Zebrafish (*Brachydanio rerio*). Major Adviser: Anne R. D. Kapuscinski

Linda Marie Herrick

B.S. summa cum laude '79, Winona State University. Degree: Master of Science, February '91. Major: Nursing. Minor: Related Fields. Thesis: Comparison of Nursing Activities Between Primary and Non-Primary Nursing Units. Major Adviser: Sandra R. Edwardson

May Nah Ho

B.A. '87, University of Minnesota. Degree: Master of Science, December '90. Major: Statistics. Minor: Related Fields. Major Adviser: Luke Jon Tierney

Ryan Lynn Hockensmith, Newville, Pa.

B.S. with high distinction '88, Pennsylvania State University. Degree: Master of Science, January '91. Major: Agronomy. Minor: Related Fields. Thesis: Maturation Effects on Cool-Season Grass Leaf and Stem Forage Quality. Major Adviser: Craig C. Sheaffer

Douglas Duane Hongerholt, Whalan

B.S. '87, University of Minnesota. Degree: Master of Science, December '90. Major: Animal Science. Minor: Related Fields. Thesis: Effects of a Human Growth Hormone-Releasing Factor Analogue and an Estradiol/Trenbolone Acetate Implant on Plasma Endocrine and Metabolic Profiles in Growing Hereford Steers. Major Adviser: Brian A. Crooker

John Thomas Howe, LaCrescent

B.S. cum laude '86, Winona State University. Degree: Master of Science in Civil Engineering, January '91. Major: Civil Engineering. Minor: Related Fields. Thesis: The Fate and Transport of Agricultural Chemicals in a North Carolina Estuary. Major Adviser: Steven J. Eisenreich

Ching Hsu

B.S. '82, University of Science and Technology of China; M.S. '85, Institute of Applied Mathematics, CAS. Degree: Master of Science, March '91. Major: Statistics. Minor: Mathematics. Major Adviser: Morris L. Eaton

Po-Fu Huang, Taipei, Taiwan

B.E. '83, Tamkang University. Degree: Master of Science, December '90. Major: Mechanics. Minor: Related Fields. Major Adviser: Patarasp R. Sethna

Nancy Ruth Hunkeler, Kenosha, Wis.

B.S.Ch.E. '86, University of Wisconsin. Degree: Master of Science in Chemical Engineering, December '90. Major: Chemical Engineering. Minor: Related Fields. Thesis: Flow Cytometric Analysis of Antibody-Producing and Nonproducing Hybridomas. Major Adviser: Friedrich Srien

Anwar Hussain, Palai, Pakistan

M.A. '82, University of Peshawar. Degree: Master of Science, March '91. Major: Agricultural and Applied Economics. Minor: Related Fields. Major Adviser: Willis L. Peterson

Kristi Carol Ingram, Spruce Pine, N.C.

B.A. magna cum laude '87, St. Olaf College. Degree: Master of Science, December '90. Major: Botany. Minor: Ecology. Major Adviser: Edward J. Cushing

Jill Beth Jacoby

B.S. '81, Pennsylvania State University. Degree: Master of Science, March '91. Major: Forestry. Minor: Ecology. Major Adviser: James A. Perry

David Samuel Jenkin, Afton

B.S. with honors '82, New Mexico Institute of Mining and Technology. Degree: Master of Science, December '90. Major: Geology. Minor: Related Fields. Thesis: Stratigraphy and Base-Level Changes Across the Maastrichtian/Paleocene Boundary of Montana and North Dakota. Major Adviser: Robert E. Sloan

Frank Peter Jetter, Canada

B.A. '85, University of Lethbridge. Degree: Master of Science, October '90. Major: Agricultural and Applied Economics. Minor: Related Fields. Major Adviser: Reynold P. Dahl

Hongjun Ji

B.S. '85, Fudan University. Degree: Master of Science, March '91. Major: Animal Physiology. Minor: Related Fields. Thesis: Survey of Oncogene and Growth Factor Gene Expression in Cancer Cells by Intron-Differential RNA/PCR. Major Adviser: Benjamin S. Leung

Sean Terry Jiam, New York, N.Y.

B.S. summa cum laude '87, Texas A & M University. Degree: Master of Science, December '90. Major: Computer and Information Sciences. Minor: Related Fields. Major Adviser: Wei-Tek Tsai

Patrick Kayondo Jjemba

B.S.Ag. '85, Makerere University. Degree: Master of Science, March '91. Major: Soil Science. Minor: Related Fields. Thesis: Efficient Nitrogen Fixation, P Utilization and Low-P Tolerance in Common Bean Cultivars. Major Adviser: Peter H. Graham

Mary Katherine Johns, Silver Spring, Md.

B.A. '88, Johns Hopkins University. Degree: Master of Science, November '90. Major: Geology. Minor: Related Fields. Thesis: The Magnetic and Tectonic Fabric of the Thomson Formation. Major Adviser: Peter J. Hudleston

Jane M. Fischer Johnson, Holioway

B.A. with distinction '83, University of Minnesota. Degree: Master of Science, January '91. Major: Soil Science. Minor: Related Fields. Thesis: Soil Physical and Crop Responses to High Axle Load Wheel Traffic and Subsoil Tillage. Major Advisers: Raymond R. Allmaras and Ward B. Voorhees

Steven James Johnson, Wanamingo

B.S.Ag. '85, University of Wisconsin; B.S. '88, University of Minnesota. Degree: Master of Science, December '90. Major: Forestry. Minor: Related Fields. Major Adviser: Roland O. Gertjeansen

Hwayoun Kim Joo, Seoul, Korea

B.S. '85, M.S. '87, Ewha Womans University. Degree: Master of Science, February '91. Major: Health Informatics. Minor: Related Fields. Major Adviser: Stanley M. Finkelstein

Angelo James Juliano, Brooklyn Park

B.A.E.M. '88, University of Minnesota. Degree: Master of Science in Aerospace Engineering, February '91. Major: Aerospace Engineering. Minor: Mechanical Engineering. Major Adviser: Thomas S. Lundgren

Patricia Ann Moellers Kaiser, New Brighton

B.S.N. '83, University of Dubuque. Degree: Master of Science, March '91. Major: Nursing. Minor: Related Fields. Major Adviser: Ruth D. Lindquist

Woo-Tag Kang, South Korea

B.Eng. '88, Kwangwoon University. Degree: Master of Science in Electrical Engineering, October '90. Major: Electrical Engineering. Minor: Physics. Major Adviser: Ted K. Higman

Lauren Cay Kaplanek, Richfield

B.S.N. magna cum laude '76, University of Wisconsin. Degree: Master of Science, December '90. Major: Nursing. Minor: Related Fields. Major Adviser: Sheila A. Corcoran-Perry

Indra Sharan KC

Degree: Master of Science, December '90. Major: Forestry. Minor: Related Fields. Thesis: Radiometric Correction for Topographic Effects of Remotely Sensed Data Over Mountainous Country: A Case Study of Arun Valley, Nepal. Major Advisers: J. L. David Smith and Sean C. Ahearn

Bruce Homer KenKnight, Mound

B.M.E. '84, University of Minnesota. Degree: Master of Science, January '91. Major: Biomedical Engineering. Minor: Related Fields. Major Adviser: Perry L. Blackshear

Abdus Sami Khan, Karachi, Pakistan

B.S. '86, N.E.D. University. Degree: Master of Science, December '90. Major: Mechanics. Minor: Mechanical Engineering. Major Adviser: Philip G. Hodge, Jr.

Niaz Ali Khan, Karachi, Pakistan

B.E. '86, N.E.D. University of Engineering and Technology. Degree: Master of Science, March '91. Major: Mechanics. Minor: Mechanical Engineering. Major Adviser: Philip G. Hodge, Jr.

Sandra Soo-Har Khong, Malaysia

B.D.S. '86, University of Malaya. Degree: Master of Science, November '90. Major: Dentistry. Minor: Related Fields. Thesis: A Clinical and Radiographical Evaluation of the Periodontal Status of Autotransplanted and Surgically Exposed Impacted Maxillary Canines. Major Adviser: Thomas M. Speidel

Joonho Kim, Korea

B.Sc.Ag. '77, M.Sc.Ag. '82, Seoul National University. Degree: Master of Science, November '90. Major: Health Informatics. Minor: Related Fields. Major Adviser: Stephen S. Rich

Gregory David Kostuch, Oakdale

B.S. '83, North Dakota State University. Degree: Master of Science in Electrical Engineering, February '91. Major: Electrical Engineering. Minor: Related Fields. Major Adviser: Frederick M. Waltz

Amir Koubaa, Tunisia

B.C.E. '88, University of Minnesota. Degree: Master of Science in Civil Engineering, November '90. Major: Civil Engineering. Minor: Related Fields. Thesis: Numerical Assessment of Three-Dimensional Rigid Pavement Joints Under Impact Loads. Major Adviser: Theodor Krauthammer

David Michael Kranz, Minneapolis

B.E.E. '85, University of Minnesota. Degree: Master of Science in Electrical Engineering, February '91. Major: Electrical Engineering. Minor: Physics. Thesis: Frequency and Temporal Response of the Helium-Neon Discharge. Major Adviser: James A. Carruthers

Shawn Richard Kruse, Minneapolis

B.S. '88, St. John's University. Degree: Master of Science, November '90. Major: Environmental Health. Minor: Related Fields. Major Adviser: Charles E. McJilton

Thomas Lester Kubisiak, Midland, Mich.

B.S. '88, Michigan State University. Degree: Master of Science, December '90. Major: Forestry. Minor: Related Fields. Thesis: Transformation of *Populus tremuloides* by *Agrobacterium tumefaciens*. Major Adviser: Carl A. Mohn

Prakasha S. Kuppalli, India

B.E. '83, Bangalore University. Degree: Master of Science in Civil Engineering, December '90. Major: Civil Engineering. Minor: Related Fields. Thesis: Development of Simulation Software for Finite Element Modelling of Flexible Pavement Responses. Major Adviser: David E. Newcomb

Steven Richard Larson

B.S. '88, University of North Dakota. Degree: Master of Science, December '90. Major: Genetics. Minor: Related Fields. Thesis: Genetic Diversity in the *Tripsacum* and *Zea* Chloroplast Genome and Nuclear Ribosomal DNA: Phylogeny and Rates of Evolution. Major Adviser: Perry B. Hackett

Elizabeth Ann Lautner, Le Mars, Iowa

B.S. with high honor '76, D.V.M. with high honor '78, Michigan State University. Degree: Master of Science, December '90. Major: Veterinary Medicine. Minor: Related Fields. Thesis: Transmission of Pseudorabies Virus to Swine Through Feed. Major Adviser: Robert B. Morrison

Geoffrey Francis Lawrence, Pittsford, N.Y.

B.A. '80, B.S. '84, University of Rochester. Degree: Master of Science, January '91. Major: Physics. Minor: Related Fields. Thesis: Photometry of Masing and Non-masing OH/IR Stars. Major Adviser: Robert D. Gehrz

Gerald John Le Beau, Sturgeon Bay, Wis.

B.A.E.M. with distinction '89, University of Minnesota. Degree: Master of Science in Aerospace Engineering, December '90. Major: Aerospace Engineering. Minor: Related Fields. Thesis: The Finite Element Computation of Compressible Flows. Major Adviser: Tayfun E. Tezduyar

Eonseon Jin Lee

B.S. '85, M.S. '87, Yonsei University. Degree: Master of Science, November '90. Major: Plant Physiology. Minor: Related Fields. Thesis: Isolation and Characterization of a Natural Cyanobacterin Analogue. Major Adviser: Florence K. Gleason

Joel Thomas Lee, Columbia Heights

B.E.E. '82, University of Minnesota. Degree: Master of Science in Electrical Engineering, March '91. Major: Electrical Engineering. Minor: Computer and Information Sciences. Major Adviser: Kevin M. Buckley

Kyunggho Lee, Seoul, Korea

B.Sc. Eng. '84, Seoul National University. Degree: Master of Science in Electrical Engineering. November '90. Major: Electrical Engineering. Minor: Physics. Major Adviser: Stephen A. Campbell

Li-Shya Chen Lee

B.Com. '80, M.B.A. '82, National Chengchi University. Degree: Master of Science. December '90. Major: Statistics. Minor: Related Fields. Major Adviser: Seymour Geisser

Pi-Joen Lee

B.S. '78, Fu Jen Catholic University. Degree: Master of Science. December '90. Major: Statistics. Minor: Related Fields. Major Adviser: F. Kinley Larntz

Jon W. Lennander, Minneapolis

B.S. '89, North Dakota State University. Degree: Master of Science in Civil Engineering. November '90. Major: Civil Engineering. Minor: Related Fields. Major Adviser: Heinz G. Stefan

Hongmei Liang, Meng County, Henan, People's Republic of China

B.S. '82, M.S. '84, Nanjing Aeronautical Institute. Degree: Master of Science in Mechanical Engineering. October '90. Major: Mechanical Engineering. Minor: Related Fields. Major Adviser: Thomas H. Kuehn

Yea-Nah Anna Liao, Taichung, Taiwan

B.S.N. '83, Kaohsiung Medical College. Degree: Master of Science. November '90. Major: Nursing. Minor: Related Fields. Major Adviser: Sara S. Dehart

Janet Helen Lillemo

B.S. with distinction '83, University of Minnesota. Degree: Master of Science. December '90. Major: Food Science. Minor: Related Fields. Thesis: Inhibition of Polyphenol Oxidase by Proteolytic Enzyme Solutions. Major Adviser: Theodore P. Labuza

Wen Shih Lin

B.A. '80, Fu Jen Catholic University; B.A. '88, University of Minnesota. Degree: Master of Science. October '90. Major: Health Informatics. Minor: Related Fields. Major Adviser: Lael C. Gatewood

Xiaoqing Liu, Beijing, People's Republic of China

B.A. '89, State University of New York. Degree: Master of Science. March '91. Major: Biostatistics. Minor: Related Fields. Major Adviser: James D. Neaton

Xiaoyang Liu

Degree: Master of Science. January '91. Major: Statistics. Minor: Related Fields. Major Adviser: Kathryn M. Chaloner

Kelly Keopka Loell

B.S.H.E. '86, Ohio State University. Degree: Master of Science. December '90. Major: Design. Housing, and Apparel. Minor: Related Fields. Thesis: Museum Classification Systems for Computerized Costume Collections: A Case Study—Goldstein Gallery Costume Collection. Major Adviser: Margaret P. Grindereing

John Albert Lory, St. Paul

B.S. with distinction '86, Cornell University. Degree: Master of Science. December '90. Major: Soil Science. Minor: Related Fields. Thesis: Quantification of Symbiotically Fixed Nitrogen in the Soil Surrounding Alfalfa Roots and Nodules. Major Adviser: Michael P. Russelle

Steven Troy Lund, Cherry Hill, N.J.

B.S. '88, Michigan State University. Degree: Master of Science. November '90. Major: Forestry. Minor: Related Fields. Thesis: Isozyme Variation in Minnesota Quaking Aspen (*Populus Tremuloides* Michx.). Major Adviser: Carl A. Mohr

Zhen Fang Ma, Shandong, People's Republic of China

B.S. '83, Liaocheng Normal University; M.S. '86, Shandong Normal University. Degree: Master of Science. November '90. Major: Health Informatics. Minor: Related Fields. Major Adviser: Eugene Ackerman

Lukas Makris, Athens, Greece

Diploma '84, University of Patras; M.S. '91, University of Minnesota. Degree: Master of Science. February '91. Major: Statistics. Minor: Mathematics. Major Adviser: Bernard W. Lindgren

Joan Marie Mandt

B.S.H.Ec. summa cum laude '85, University of North Dakota. Degree: Master of Science. March '91. Major: Nutrition. Minor: Related Fields. Major Adviser: Joanne L. Slavik

Tore Markeset, Bergen, Norway

B.M.E. '89, University of Minnesota. Degree: Master of Science in Mechanical Engineering. March '91. Major: Mechanical Engineering. Minor: Related Fields. Major Adviser: Darrell A. Frohrib

Lisa Marie McCallum, St. Paul

B.A. '89, University of Minnesota. Degree: Master of Science. March '91. Major: Biostatistics. Minor: Related Fields. Major Adviser: Chap T. Le

John Preston McDonald, Blue Earth

B.S.C.E. with distinction '83, Iowa State University. Degree: Master of Science in Civil Engineering. December '90. Major: Civil Engineering. Minor: Related Fields. Thesis: Methane Tracer Technique for Gas Transfer at Hydraulic Structures. Major Adviser: John S. Gulliver

Jean Rowe Nordby McFarland

B.S. '86, University of Minnesota. Degree: Master of Science. January '91. Major: Technical Communication. Minor: Related Fields. Thesis: Supermarket Consumers' Decision-Making and Aspects of Communication: Immediate, Specific Nutrient Knowledge, Pictorial Graphics, and Nutrient/Health-Risk-Related Terminology. Major Adviser: Earl E. McDowell

Mark Francis McGuire, St. Paul

B.A. '83, College of St. Thomas. Degree: Master of Science, October '90. Major: Agricultural and Applied Economics. Minor: Related Fields. Major Adviser: Vernon W. Ruttan

Qi Mei

B.S. '83, Tsing Hua University. Degree: Master of Science, November '90. Major: Physics. Minor: Related Fields. Major Advisers: E. Dan Dahlberg and Paul R. Woodward

Brahim Mezghani, Sfax, Tunisia

B.E.E. with distinction '88, University of Minnesota. Degree: Master of Science in Electrical Engineering, November '90. Major: Electrical Engineering. Minor: Related Fields. Thesis: Noise Characterization of Gallium Arsenide Field Effect Transistors. Major Adviser: Arthur D. Vanrheenen

Harold Roger Mickelson, Goodridge

B.S. '88, North Dakota State University. Degree: Master of Science, December '90. Major: Plant Breeding. Minor: Related Fields. Thesis: Inheritance of the Semidwarf Character in Barley (*Hordeum vulgare* L.). Major Adviser: Donald C. Rasmusson

Michael James Miller, Minneapolis

B.A.E.M. '90, University of Minnesota. Degree: Master of Science in Aerospace Engineering, November '90. Major: Aerospace Engineering. Minor: Related Fields. Major Advisers: Thomas A. Posbergh and Yiyuan Zhao

Phillip Lewis Minerich, Austin

B.S. Food Tech. with distinction '76, Ohio State University. Degree: Master of Science, October '90. Major: Food Science. Minor: Related Fields. Thesis: Technological Studies of Wild Rice/Ground Beef Mixtures. Major Adviser: Paul B. Addis

Sanjay Mittal, Dehradun, India

B.Tech. '88, Indian Institute of Technology Kanpur. Degree: Master of Science in Aerospace Engineering, November '90. Major: Aerospace Engineering. Minor: Related Fields. Major Adviser: Tayfun E. Tezduyar

Marcelo Emilio Montero, Argentina

Licenciado '86, Universidad Nacional de Cordoba; M.S. '90, University of Minnesota. Degree: Master of Science, December '90. Major: Agricultural and Applied Economics. Minor: Business Administration. Major Adviser: Yacov Tsur

Robert Joseph Montero, Mounds View

B.E.E. '87, University of Minnesota. Degree: Master of Science in Electrical Engineering, March '91. Major: Electrical Engineering. Minor: Related Fields. Major Adviser: E. Bruce Lee

Philip Keith Moroukian

B.M.E. '89, University of Minnesota. Degree: Master of Science in Mechanical Engineering, February '91. Major: Mechanical Engineering. Minor: Biomedical Engineering. Thesis: A Biomechanical Investigation of the Penile Venous-occlusive Mechanism: Studies on a Rabbit Model. Major Adviser: Darrell A. Frohrib

Julie Ann Morrison, St. Paul

B.A. '76, Gustavus Adolphus College. Degree: Master of Science, January '91. Major: Nursing. Minor: Related Fields. Major Adviser: Kathleen Sodergren

Joseph Donald Muller, St. Cloud

B.S. cum laude '81, Bemidji State University. Degree: Master of Science, January '91. Major: Environmental Health. Minor: Related Fields. Major Adviser: Rexford D. Singer

James Harold Nelson, St. Paul

B.S. '81, University of Minnesota. Degree: Master of Science, October '90. Major: Environmental Health. Minor: Related Fields. Major Adviser: Orlando R. Ruschmeyer

Kyle Stewart Nelson, Minneapolis

B.A. '86, Colorado College. Degree: Master of Science, December '90. Major: Computer and Information Sciences. Minor: Related Fields. Major Adviser: Maria Gini

Jennifer Siu-Ping Ng, Roseville

B.S. cum laude '87, Mankato State University. Degree: Master of Science, October '90. Major: Computer and Information Sciences. Minor: Related Fields. Major Adviser: Maria Gini

Darrick Lee Niccum, Amery, Wis.

B.M.E. with distinction '88, University of Minnesota. Degree: Master of Science in Mechanical Engineering, December '90. Major: Mechanical Engineering. Minor: Related Fields. Thesis: The Influence of Velocity Ratio on a Counterflowing Circular Jet. Major Adviser: Paul J. Strykowski

Christie Lynn Nixon, Wichita, Kan.

B.S. '82, Emporia State University; B.S. '87, University of Arkansas. Degree: Master of Science, January '91. Major: Fisheries. Minor: Related Fields. Thesis: The First Foods of Smallmouth Bass in a Minnesota Stream: Potential Effect of BTI (*Bacillus thuringiensis israelensis*). Major Adviser: Thomas F. Waters

Susan Marie Ohlsen, Marshall

B.A. magna cum laude '87, Concordia College. Degree: Master of Science, October '90. Major: Animal Physiology. Minor: Related Fields. Thesis: Cloning of Ovine Insulin-Like Growth Factors I and II cDNAs. Major Adviser: Eric A. Wong

Larold Lee Olson, Lindstrom

B.E.E. with distinction '84, University of Minnesota. Degree: Master of Science in Electrical Engineering, October '90. Major: Electrical Engineering. Minor: Statistics. Major Adviser: John C. Kieffer

Gaudesius Opio, Soroti, Uganda

B.S.Eng. '77, Makerere University. Degree: Master of Science in Agricultural Engineering. November '90. Major: Agricultural Engineering. Minor: Related Fields. Thesis: Design, Development, and Testing of a Field Cultivator for East Africa. Major Adviser: Jonathan Chaplin

Tsuen Wai Or, Hong Kong

B.M.E. with distinction '88, University of Minnesota. Degree: Master of Science in Mechanical Engineering. December '90. Major: Mechanical Engineering. Minor: Related Fields. Thesis: Counter-Flow Liquid Injection Plasma Synthesis of Ceramic Powders. Major Adviser: Emil Pfender

Tianhong Ouyang, People's Republic of China

B.Eng. '82, M.Eng. '85, Tianjin University. Degree: Master of Science in Mechanical Engineering. December '90. Major: Mechanical Engineering. Minor: Related Fields. Thesis: Analysis of One-Dimensional Inverse and Parameter Estimation Stefan Problems Using the Finite Element Method. Major Adviser: Nicholas J. Zabaraz

Doowon Paik, Korea

B.S. '83, Seoul National University. Degree: Master of Science. October '90. Major: Computer and Information Sciences. Minor: Related Fields. Major Adviser: Sartaj K. Sahni

Susan Beth Panzer, Brainerd

B.A. summa cum laude '87, College of St. Scholastica. Degree: Master of Science. January '91. Major: Biomedical Engineering. Minor: Related Fields. Major Adviser: Perry L. Blackshear

Dwayne J. Patritto, New London, Wis.

B.S. '85, D.D.S. '87, University of Minnesota. Degree: Master of Science. November '90. Major: Dentistry. Minor: Related Fields. Thesis: A Cephalometric Evaluation of the Sagittal Appliance in Orthodontic Treatment. Major Adviser: Richard R. Bevis

Paul Richard Peterson

B.S. with distinction '87, University of Wisconsin. Degree: Master of Science. October '90. Major: Agronomy. Minor: Related Fields. Thesis: Moisture Deficit Effects on Perennial Forage Legume Yield and Quality. Major Adviser: Craig C. Sheaffer

Jacques Pirenne, Liege, Belgium

M.D. '87, Universite de Liege. Degree: Master of Science in Experimental Surgery. December '90. Major: Experimental Surgery. Minor: Microbiology. Thesis: Study of Graft-Versus-Host Disease Following Small Bowel Transplantation. Major Adviser: David L. Dunn

Mary Theresa Poss, Willmar

B.A. '86, College of St. Scholastica. Degree: Master of Science. March '91. Major: Clinical Laboratory Science. Minor: Related Fields. Thesis: MP30-1: A Monoclonal Antibody of RH Related Specificity. Major Adviser: Daniel A. Vallera

Charles Edward Praska, Oakes, N.D.

B.S. with high distinction '86, D.D.S. '88, University of Minnesota. Degree: Master of Science. November '90. Major: Dentistry. Minor: Related Fields. Thesis: A Retrospective Cephalometric Study of Relapse After Sagittal Split Osteotomy Advancement of the Mandible. Major Adviser: Richard R. Bevis

James Robert Pray, Minneapolis

B.S. '86, University of Minnesota. Degree: Master of Science. February '91. Major: Biomedical Engineering. Minor: Related Fields. Major Adviser: Robert T. Tranquillo

Siti Kusmardiyani Purwono, Bandung, Indonesia

Sarjana '85, Institut Teknologi Bandung. Degree: Master of Science. October '90. Major: Pharmacognosy. Minor: Related Fields. Thesis: Extraction of Single Cell Protein from Mixed Microbial Cultures. Major Adviser: W. Thomas Shier

Jill Snead Quinn, Kokomo, Ind.

B.S. with distinction '88, Purdue University. Degree: Master of Science. February '91. Major: Food Science. Minor: Related Fields. Thesis: The Influence of Cultivar, Storage Time, and the Pectic Substances on the Prewarming Effect in Potatoes. Major Adviser: H. William Schafer

Maria J. Ramirez, Carolina, Puerto Rico

B.A. '86, University of Minnesota. Degree: Master of Science. December '90. Major: Veterinary Microbiology. Minor: Related Fields. Thesis: The Effect of Different Strains of Pseudorabies Virus on Phagocytosis and Killing of Different Serotypes of Actinobacillus pleuropneumoniae by Porcine Alveolar Macrophages. Major Adviser: Carlos Pijoan

Pippalla S. Rao, Bhimavaram, India

B.Pharm. '67, M.Pharm. '80, Andhra University. Degree: Master of Science. January '91. Major: Social and Administrative Pharmacy. Minor: Related Fields. Major Adviser: Albert I. Wertheimer

Yugal Kishore Rathi, Pakistan

B.E. '85, Mehran University of Engineering and Technology. Degree: Master of Science. January '91. Major: Computer and Information Sciences. Minor: Business Administration. Major Adviser: Wei-Tek Tsai

Palamandadige Chandralatha Ratnayake, Sri Lanka

B.A. '80, University of Colombo. Degree: Master of Science. March '91. Major: Agricultural and Applied Economics. Minor: Related Fields. Major Adviser: Jerome W. Hammond

Keith Burton Reed, Ramsey

B.S. '81, Virginia Commonwealth University; B.S.E.E. magna cum laude '86, Wayne State University. Degree: Master of Science in Electrical Engineering. March '91. Major: Electrical Engineering. Minor: Computer and Information Sciences. Major Adviser: William P. Robbins

Jenny Lynn Reinertsen

B.M.E. '88, University of Minnesota. Degree: Master of Science in Mechanical Engineering, November '90. Major: Mechanical Engineering. Minor: Related Fields. Thesis: Electrostatic Collection and Agglomeration of Diesel Particles. Major Advisers: David B. Kittelson and David Y. H. Pui

Debra Joan Reinisch, Minneapolis

B.S.N. '85, University of North Dakota. Degree: Master of Science, March '91. Major: Nursing. Minor: Related Fields. Major Adviser: Kathleen G. Dineen

David Wynn Richardson, Pocasset, Okla.

B.S. '89, Oklahoma State University. Degree: Master of Science, March '91. Major: Agricultural and Applied Economics. Minor: Related Fields. Thesis: Implementing a Neural Network Model as an Economic Predictor. Major Adviser: Richard A. Levins

Nancy Jean Roberts, Leo, Ind.

B.S. '85, Purdue University. Degree: Master of Science, December '90. Major: Nutrition. Minor: Related Fields. Major Adviser: Joanne L. Slavin

Kirsten Pauly Rojina, Chanhassen

B.A. '83, Colorado College. Degree: Master of Science in Civil Engineering, November '90. Major: Civil Engineering. Minor: Related Fields. Major Adviser: Walter J. Maier

June Ellen Russell, Ames, Iowa

B.A. '85, Iowa State University of Science and Technology. Degree: Master of Science, December '90. Major: Chemistry. Minor: Related Fields. Major Adviser: Paul G. Gassman

Daniel William Ryan, Richfield

B.S.E. magna cum laude '87, University of Michigan. Degree: Master of Science in Electrical Engineering, November '90. Major: Electrical Engineering. Minor: Related Fields. Thesis: Design of a Tunable LSI Filter for a Hard Disc Drive Read Data Channel: A Feasibility Study. Major Adviser: Dennis L. Polla

Fanny Santosa, Jakarta, Indonesia

Ir. '83, University of Indonesia. Degree: Master of Science, November '90. Major: Computer and Information Sciences. Minor: Related Fields. Major Adviser: Jaideep Srivastava

Thomas John Schaal, Bloomington

B.E.E. with distinction '89, University of Minnesota. Degree: Master of Science in Electrical Engineering, March '91. Major: Electrical Engineering. Minor: Related Fields. Thesis: Acoustic Emission Testing to Detect Termites in Structural Timbers. Major Adviser: William P. Robbins

Susan Mary Schmitt, Shoreview

B.A.E.M. '89, University of Minnesota. Degree: Master of Science in Aerospace Engineering, January '91. Major: Aerospace Engineering. Minor: Related Fields. Major Adviser: Thomas A. Posbergh

Shelly Ann Schneider, Germantown, Wis.

B.S. '87, University of Wisconsin. Degree: Master of Science, December '90. Major: Food Science. Minor: Related Fields. Thesis: Study of the Stability of Vitamin D in Milk. Major Adviser: Joseph J. Warthesen

James Alan Schnepf

B.A. '74, St. John's University. Degree: Master of Science, January '91. Major: Computer and Information Sciences. Minor: Related Fields. Major Adviser: Anastasios S. Vergis

Donald Arthur Schupp, Minneapolis

B.S. summa cum laude '89, Rensselaer Polytechnic Institute. Degree: Master of Science in Chemical Engineering, March '91. Major: Chemical Engineering. Minor: Related Fields. Thesis: Effects of Film Thickness on the Work of Fracture Between Adhesives and Glass. Major Adviser: William W. Gerberich

Andrew Lorne Schwab, Canada

B.S.A. '87, University of Saskatchewan. Degree: Master of Science, December '90. Major: Agricultural and Applied Economics. Minor: Related Fields. Major Adviser: Philip M. Raup

Ruth Ann Schwalbe, Chaska

B.S. '84, Phillips University; B.S. '89, University of Minnesota. Degree: Master of Science, December '90. Major: Biochemistry. Minor: Related Fields. Thesis: Interactions of C4b-Binding Protein. Major Adviser: Gary L. Nelsestuen

Lora A. Schweers

B.S. '87, Indiana University. Degree: Master of Science, October '90. Major: Biochemistry. Minor: Related Fields. Thesis: Characterization of a Steroid-Dependent Regulatory Element in the Ovalbumin Gene. Major Adviser: Michel M. Sanders

Vernon Robert Scott, St. Paul

B.E.E. with high distinction '86, University of Minnesota. Degree: Master of Science in Electrical Engineering, January '91. Major: Electrical Engineering. Minor: Computer and Information Sciences. Thesis: Zinc Oxide Thin Films for Stress Sensors. Major Adviser: William P. Robbins

Jay G. Shake

B.A. '88, University of Minnesota. Degree: Master of Science, February '91. Major: Physiology. Minor: Related Fields. Thesis: Renin Synthesis Inhibition in the in-vivo Blood Perfused Rabbit Kidney. Major Adviser: Stephen A. Katz

Maureen Jenelle Sherlock, Omaha, Neb.

B.S. '88, University of Nebraska. Degree: Master of Science, January '91. Major: Food Science. Minor: Business Administration. Major Adviser: Theodore P. Labuza

Anne M. Sherman, Rhinelander, Wis.

B.S.N. '84, University of Minnesota. Degree: Master of Science, October '90. Major: Nursing. Minor: Related Fields. Major Adviser: Ruth D. Lindquist

Joyce Arleen Sinding

B.S.N. with distinction '79, University of Minnesota. Degree: Master of Science, March '91. Major: Nursing. Minor: Related Fields. Major Adviser: Kenneth R. Burns

N. Sivashankar, Madras, India

B.Tech. '88, Indian Institute of Technology, Madras. Degree: Master of Science in Electrical Engineering, February '91. Major: Electrical Engineering. Minor: Related Fields. Major Adviser: Pramod P. Khargonekar

Robert Sven Skoglund, St. Paul

B.A. magna cum laude '83, Bethel College. Degree: Master of Science, November '90. Major: Environmental Health. Minor: Related Fields. Major Adviser: Jeffrey B. Stevens

John David Smith

A.B. cum laude '85, Ripon College. Degree: Master of Science, February '91. Major: Physics. Minor: Related Fields. Major Adviser: Roger H. Stuewer

Sheryl Ann Smith

B.S.N. '81, B.S. '81, University of Washington. Degree: Master of Science, March '91. Major: Nursing. Major Adviser: Kathleen G. Dineen

Gabriela Natalia Sofis, Mexico

Degree: Master of Science, March '91. Major: Geology. Minor: Related Fields. Thesis: Fluctuations of Temperature and Salinity During Growth of the Santa Elena Vein, Fresnillo District, Zacatecas, Mexico. Major Adviser: Frederick J. Sawkins

Tamara Jane Spier, Janesville, Iowa

B.S. '83, College of St. Francis. Degree: Master of Science, February '91. Major: Nursing. Minor: Related Fields. Thesis: Hours of Work: Effect on Job Satisfaction in Hospital Staff Nurses. Major Adviser: Sandra R. Edwardson

Brian Patrick Spott, Milwaukee, Wis.

B.A.E.M. with distinction '84, University of Minnesota. Degree: Master of Science in Mechanical Engineering, March '91. Major: Mechanical Engineering. Minor: Related Fields. Major Adviser: Ephraim M. Sparrow

Kent Alan Spriggs, Moorhead

B.S. '81, North Dakota State University; D.D.S. '85, University of Minnesota. Degree: Master of Science, January '91. Major: Dentistry. Minor: Related Fields. Thesis: Evaluation of a New Method for Silver Point Removal. Major Adviser: James R. Jensen

Alexandra Thayer Spurlock, Burlington, Vt.

B.S. magna cum laude '88, University of Vermont. Degree: Master of Science, December '90. Major: Food Science. Minor: Related Fields. Thesis: Control of Listeria Monocytogenes in Simulated Food Processing Plant Environments. Major Adviser: Edmund A. Zottola

Sylvia Stevenson, Colombia

Ingeniero Mecanico '84, Universidad de los Andes. Degree: Master of Science in Industrial Engineering, December '90. Major: Industrial Engineering. Minor: Related Fields. Major Adviser: Patrick J. Starr

Roger Malcolm Strand, Willmar

B.A. '85, Gustavus Adolphus College. Degree: Master of Science, February '91. Major: Entomology. Minor: Related Fields. Thesis: A Review of the Neotropical Lepidostoma (Trichoptera: Lepidostomatidae). Major Adviser: Ralph W. Holzenthal

Elizabeth Ann Strong, Apple Valley

B.S. '78, University of North Dakota. Degree: Master of Science, November '90. Major: Computer and Information Sciences. Minor: Related Fields. Major Adviser: Maria Gini

Min Peter Sun, Taiwan

B.S. '76, M.S. '78, National Tsing Hua University. Degree: Master of Science, November '90. Major: Computer and Information Sciences. Minor: Related Fields. Major Adviser: Wei-Tek Tsai

Marie Elaine Sutherlin

B.A. '83, University of Kansas. Degree: Master of Science, October '90. Major: Biochemistry. Minor: Related Fields. Thesis: Yolk Glycoprotein Complexes of *Caenorhabditis elegans*. Major Adviser: William J. Sharrock

Yong Tai, Malaysia

B.D.S. '83, University of Malaya. Degree: Master of Science, September '90. Major: Dentistry. Minor: Related Fields. Thesis: Leaching of Nickel, Chromium and Beryllium Ions from an Artificial Oral Environment. Major Adviser: Richard D. Goodrich

Sister Mary Anne Thielmann, Minneapolis

B.A. '81, College of St. Catherine. Degree: Master of Science, February '91. Major: Nursing. Minor: Related Fields. Major Adviser: Kathleen G. Dineen

Jerold Paul Thiessen

B.S. '85, Wheaton College. Degree: Master of Science, November '90. Major: Physics. Minor: Related Fields. Thesis: Photoacoustic Detector System. Major Adviser: Cheng-Cher Huang

Trina Overgaard Toups, Pineville, La.

B.S. '83, Louisiana State University. Degree: Master of Science, March '91. Major: Chemistry. Minor: Related Fields. Major Adviser: Wilmer G. Miller

Menexia Nickolaos Tsoubeli, Athens, Greece

Diploma '88, National Technical University of Athens. Degree: Master of Science, December '90. Major: Food Science. Minor: Related Fields. Thesis: Effect of Milk Proteins on Aspartame Degradation Kinetics. Major Adviser: Theodore P. Labuza

Ching Tsui

B.Eng. '84, Beijing Institute of Computer Science.
Degree: Master of Science, March '91. Major: Computer Science. Minor: Related Fields. Thesis: Gamma—A Backward Defeasible Reasoning System. Major Adviser: Timothy R. Colburn

Diane Kay Ullmann, Minneapolis

B.S. cum laude '79, Winona State University. Degree: Master of Science, December '90. Major: Nursing. Minor: Related Fields. Major Adviser: Ruth D. Lindquist

Nikos V. Vairamidis, Athens, Greece

Diploma '88, National Technical University of Athens. Degree: Master of Science in Civil Engineering, December '90. Major: Civil Engineering. Minor: Related Fields. Thesis: Classification of Transit Needs in the State of Minnesota. Major Adviser: Yorgos J. Stephanedes

David Andrew Van Deusen

B.Geo.E. '89, University of Minnesota. Degree: Master of Science, March '91. Major: Civil Engineering. Minor: Related Fields. Thesis: Laboratory and Field Performance of Soil-Stress Cells. Major Adviser: David E. Newcomb

Paul Justen Wagner, Eau Claire, Wis.

B.A. '77, B.A. '85, J.D. '81, University of Wisconsin. Degree: Master of Science, December '90. Major: Computer and Information Sciences. Minor: Related Fields. Major Adviser: James P. Held

Beth Marie Webster, Minneapolis

B.S.N. magna cum laude '82, St. Olaf College. Degree: Master of Science, October '90. Major: Nursing. Minor: Gerontology. Major Adviser: Ruth D. Lindquist

Mark Anthony Winslow, Bloomington

B.S. '88, South Dakota School of Mines and Technology. Degree: Master of Science in Mechanical Engineering, December '90. Major: Mechanical Engineering. Minor: Related Fields. Thesis: Control System Design for a Robotic Manipulator Enabling Human Strength Amplification Through Physical Integration of Human and Machine. Major Adviser: Homayoon Kazerooni

Wai Y. Wong

B.Chem. with distinction '86, University of Minnesota. Degree: Master of Science, December '90. Major: Computer and Information Sciences. Minor: Related Fields. Major Adviser: Shashi Shekhar

Chun Yi Wu, People's Republic of China

Degree: Master of Science in Mechanical Engineering, March '91. Major: Mechanical Engineering. Minor: Physics. Thesis: Particle Size Measurement in Plasma Synthesis. Major Adviser: Steven L. Girshick

Kang Wu, Beijing, People's Republic of China

B.S.E.E. '82, Beijing Polytechnic University. Degree: Master of Science, October '90. Major: Physics. Minor: Electrical Engineering. Major Adviser: John H. Broadhurst

David Todd Yagnesak, Buffalo, N.Y.

B.S. '88, B.S. '89, University of Notre Dame. Degree: Master of Science in Industrial Engineering, February '91. Major: Industrial Engineering. Minor: Environmental Health. Major Adviser: Tarald O. Kvalseth

Wael Sami Younes

B.Sc. '86, Hebrew University of Jerusalem. Degree: Master of Science, December '90. Major: Animal Physiology. Minor: Related Fields. Major Adviser: Benjamin S. Leung

Jie Yun, People's Republic of China

B.S. '83, M.S. '86, Sichuan University. Degree: Master of Science, March '91. Major: Mathematics. Minor: Related Fields. Major Adviser: Hans F. Weinberger

Thomas John Zbaracki, Duluth

B.S. '73, D.D.S. '75, University of Minnesota. Degree: Master of Science, January '91. Major: Dentistry. Minor: Related Fields. Thesis: Systemic Distribution of Corticosteroids from Root Canals. Major Adviser: James R. Jensen

Kimberly Kay Zemke, Rochester

B.S. cum laude '79, Winona State University. Degree: Master of Science, September '90. Major: Nursing. Minor: Related Fields. Major Adviser: Mariah Snyder

Shaoqi Zhang, Shanghai, People's Republic of China

B.Med. '83, Shanghai Second Medical University. Degree: Master of Science, January '91. Major: Physiology. Minor: Related Fields. Major Adviser: Dwight A. Burkhardt

Shiwei Zhang, Beijing, People's Republic of China

B.S. '82, Harbin Institute of Electrical Technology. Degree: Master of Science in Agricultural Engineering, November '90. Major: Agricultural Engineering. Minor: Related Fields. Thesis: Dynamic Temperatures in a Thermostatically Controlled Mechanically Ventilated Swine Nursery. Major Adviser: Kevin A. Janni

Wenbing Zhang

B.Ag.Sci. '82, Shanxi Agricultural University. Degree: Master of Science, January '91. Major: Animal Science. Minor: Related Fields. Thesis: Studies on the Oxidation of Cholesterol in Heated Tallow. Major Adviser: Paul B. Addis

Habib Adnan Zien, St. Paul

B.S. '86, Iowa State University of Science and Technology. Degree: Master of Science in Electrical Engineering, January '91. Major: Electrical Engineering. Minor: Related Fields. Major Adviser: Ted K. Higman

Master of Science

University of Minnesota, Duluth

Phyllis April Barnidge, Duluth

B.A.S. '88, University of Minnesota. Degree: Master of Science, March '91. Major: Applied and Computational Mathematics. Minor: Related Fields. Major Adviser: Ronald R. Regal

Mary Katherine Berigan, Duluth

B.S. with distinction '87, University of Illinois. Degree: Master of Science, December '90. Major: Biology. Minor: Related Fields. Thesis: Abundance, Production, and Resistance to Mercury of Bacteria in the Surface Microlayers and Water Columns of Lake Superior, the Duluth Harbor, and the St. Louis River. Major Adviser: Randall E. Hicks

Jeanne Bauer Dezell, Duluth

B.S. magna cum laude '88, University of Minnesota. Degree: Master of Science, October '90. Major: Computer Science. Minor: Applied and Computational Mathematics. Thesis: Clustering and Partitioning Techniques for Creating Rectilinear Steiner Trees. Major Adviser: Linda L. Deneen

William James Dunlap, Minneapolis

B.A. with distinction '85, Carleton College. Degree: Master of Science, November '90. Major: Geology. Minor: Related Fields. Thesis: Genesis of Mylonite and Structure of Francis Peak, Wasatch Mountains, Utah. Major Adviser: James A. Grant

Jalal Banafshehvargh Fatehi

B.S. cum laude '83, North Caroe, March '91. Major: Chemistry. Minor: Related Fields. Thesis: Synthesis and Reactions of Arylsilver Compounds. Major Adviser: Brian L. Groh

Scott Alan Hollatz, Duluth

B.A. '83, University of Minnesota. Degree: Master of Science, March '91. Major: Applied and Computational Mathematics. Minor: Related Fields. Major Adviser: Duane E. Anderson

Arlette Faye Kreager

B.S. '88, University of Minnesota. Degree: Master of Science, October '90. Major: Chemistry. Minor: Related Fields. Thesis: Stereospecific Synthesis of Vinyl Stannanes. Major Adviser: Brian L. Groh

Chicheng Lin, Kaohsiung, Taiwan

B.S. '85, National Chiao Tung University. Degree: Master of Science, March '91. Major: Applied and Computational Mathematics. Minor: Related Fields. Major Adviser: Kang Ling James

Irene Mae Moser, Duluth

B.S. '87, University of Minnesota. Degree: Master of Science, November '90. Major: Chemistry. Minor: Related Fields. Thesis: Single Crystal X-Ray Diffraction Studies of Four Cobalt Complexes. Major Adviser: Vincent R. Magnuson

Eric Allen Smith, Pittsburgh, Pa.

B.S. '87, University of Pittsburgh. Degree: Master of Science, January '91. Major: Geology. Minor: Related Fields. Thesis: Mercury Geochemistry of Four Watersheds in Northeast Minnesota. Major Adviser: George R. Rapp, Jr.

Yanhua Sun, Tianjin, People's Republic of China

B.S. '85, Nankai University. Degree: Master of Science, February '91. Major: Applied and Computational Mathematics. Minor: Related Fields. Major Adviser: Kang Ling James

Ningjian Wang

Degree: Master of Science, October '90. Major: Computer Science. Minor: Applied and Computational Mathematics. Thesis: The Intelligent and Visual Modelling of Linear Programming. Major Adviser: Donald B. Crouch

Master of Arts

Nancy Inez Aarsvold, Northfield

B.A. summa cum laude '83, Pacific Lutheran University. Degree: Master of Arts, December '90. Major: Scandinavian. Minor: Education. Major Adviser: Kaaren E. Grimstad

Ambrose Alexandrakis, Athens, Greece

Diploma '83, National Academy of Physical Education; M.A. '87, University of Alberta. Degree: Master of Arts, December '90. Major: Anthropology. Minor: Related Fields. Major Adviser: William L. Rowe

Ruth Anne Andersen, Marine on St. Croix

B.S.Ed. with distinction '81, George Mason University. Degree: Master of Arts, January '91. Major: Elementary Education. Minor: Related Fields. Major Adviser: Robert Dykstra

Anita Jane Anderson, Brooklyn Center

B.A. summa cum laude '80, Concordia College. Degree: Master of Arts, January '91. Major: Art Education. Minor: Educational Psychology. Major Adviser: Margaret K. Diblasio

Nancy Beckett Anderson, Minneapolis

B.A. with distinction '82, University of Virginia. Degree: Master of Arts, October '90. Major: Educational Psychology. Minor: Related Fields. Major Adviser: W. Wesley Tennyson

Fredrick Karl Arons, Minneapolis

B.A. magna cum laude '79, Yale College. Degree: Master of Arts, February '91. Major: Hispanic Linguistics. Minor: Related Fields. Major Adviser: Carol A. Klee

Joanne Caladine Bailey, Ilkley, Yorkshire, England

B.A. '87, Cambridge University. Degree: Master of Arts, November '90. Major: Speech-Communication. Minor: Related Fields. Major Adviser: Josef A. Mestenhauser

Daniel Jeffery Baker, Chicago, Ill.

B.A. cum laude '87, Carleton College. Degree: Master of Arts, March '91. Major: Educational Psychology. Minor: Related Fields. Major Adviser: Robert H. Bruininks

James Albin Bauman, Hopkins

B.S. '84, University of Minnesota. Degree: Master of Arts, March '91. Major: Educational Administration. Minor: Related Fields. Major Adviser: Karen S. Louis

Heather Anne Beal, Minneapolis

B.A. cum laude '83, Carleton College. Degree: Master of Arts, December '90. Major: Mass Communication. Minor: Related Fields. Major Adviser: Nancy L. Roberts

Sara Imholte Beckstrand, Morris

B.A. '80, University of Minnesota. Degree: Master of Arts, December '90. Major: Industrial Relations. Minor: Related Fields. Major Adviser: Dennis A. Ahlburg

Denise E. Bernstein

B.A. '80, University of Minnesota. Degree: Master of Arts, February '91. Major: Russian Area Studies. Major Adviser: Gary R. Jahn

John C. Bishop

B.A. summa cum laude '85, Washington University. Degree: Master of Arts, October '90. Major: English. Minor: Related Fields. Major Adviser: Robert L. Brown, Jr.

Susana Blanco-Iglesias, Bilbao, Spain

Degree: Master of Arts, November '90. Major: Hispanic Linguistics. Minor: Related Fields. Major Adviser: Carol A. Klee

Margaret Lee Blevins

B.A. '84, Berea College. Degree: Master of Arts, December '90. Major: Theatre Arts. Minor: Related Fields. Major Adviser: Monty K. Neely

Jeffrey Frederick Boevers, Faribault

B.A. cum laude '84, Mankato State University. Degree: Master of Arts, January '91. Major: Educational Psychology. Minor: Related Fields. Major Adviser: Robert H. Bruininks

Michael Joseph Bona, New Brighton

B.S.B. '81, University of Minnesota. Degree: Master of Arts, December '90. Major: Industrial Relations. Minor: Related Fields. Major Adviser: Raymond A. Noe

Jean Marie Brady

B.S. '78, University of Minnesota. Degree: Master of Arts, February '91. Major: Business Education. Minor: Related Fields. Major Adviser: Gary N. McLean

Patricia Jean Brenneman, Minneapolis

B.A. '79, University of Massachusetts. Degree: Master of Arts, December '90. Major: Educational Psychology. Minor: Related Fields. Major Adviser: Patricia R. McCarthy

Fred M. Brick, Owatonna

B.A. magna cum laude '86, College of St. Thomas. Degree: Master of Arts, December '90. Major: History. Minor: Political Science. Thesis: Britain and the Italian-Ethiopian Crisis, 1935-1936. Major Adviser: David O. Kieft

James Henry Brownlee

B.A. '83, Wheaton College. Degree: Master of Arts, December '90. Major: English. Minor: Related Fields. Major Adviser: Robert D. Solotaroff

Barbara Anne Carlier

B.A. cum laude '71, St. Olaf College. Degree: Master of Arts, February '91. Major: French. Minor: History. Major Adviser: Maria F. Paganini

William Raymond Casey

A.B. magna cum laude '69, Lafayette College. Degree: Master of Arts, February '91. Major: Geography. Minor: Related Fields. Thesis: Changes in the Distribution of Manufacturing Establishments in the Upper Midwest Between 1960 and 1989. Major Adviser: Philip J. Gersmehl

Kurt David Chatfield, Burnsville

B.S. '86, University of Minnesota. Degree: Master of Arts, March '91. Major: Geography. Minor: Related Fields. Thesis: Development Cycles and Single Family Land Subdivision at the Urban Fringe. Major Adviser: John R. Borchert

Anne Marie Clancy, Eagan

B.S. cum laude '78, University of Wisconsin. Degree: Master of Arts, December '90. Major: Industrial Relations. Minor: Related Fields. Major Adviser: Raymond A. Noe

Ronald Francis Clark, Jr., Oxford, Mass.

B.A. magna cum laude '81, Assumption College. Degree: Master of Arts, December '90. Major: English. Minor: Related Fields. Major Adviser: Philip G. Furtia

Michael Steven Cole, Minneapolis

B.A. '86, St. Olaf College. Degree: Master of Arts, February '91. Major: American Studies. Major Adviser: Clarke A. Chambers

Julia Barton Corbett, St. Paul

B.A. '78, Indiana University. Degree: Master of Arts. November '90. Major: Mass Communication. Minor: Related Fields. Thesis: Conflict, Community, and Bureaucracy in Wildlife Coverage: A Content Analysis of Six Minnesota Area Newspapers. Major Adviser: Phillip J. Tichenor

Richard Earl Cunningham, Jr., St. Paul

B.A. '70, College of St. Thomas. Degree: Master of Arts. March '91. Major: Business Education. Minor: Related Fields. Major Adviser: Charles R. Hopkins

Robert Day Davis

B.A.F.A. '81, University of New Mexico. Degree: Master of Arts. March '91. Major: Museology. Minor: Related Fields. Major Adviser: Michael W. Stoughton

Perry Russell Dean, Minneapolis

B.A. '70, University of Minnesota. Degree: Master of Arts. February '91. Major: Geography. Minor: Related Fields. Major Adviser: Connie H. Weil

Julie Edith Dee, Minneapolis

B.A. '85, Gustavus Adolphus College. Degree: Master of Arts. December '90. Major: Mass Communication. Minor: Related Fields. Major Adviser: Robert L. Craig

Peter Brian Ditmanson, St. Paul

B.A. summa cum laude '85, University of Minnesota. Degree: Master of Arts. September '90. Major: Chinese. Minor: Related Fields. Thesis: Stalking Dragons in Search of Pearls: Narrative and Hagiography in the Shen-Hsien T'ung-Chien. Major Adviser: Ann B. Waltner

Daniel Lynn Doughty, St. Paul

B.S.S. cum laude '75, Cornell College; M.B.A. '81, University of Denver. Degree: Master of Arts. February '91. Major: Industrial Relations. Minor: Related Fields. Major Adviser: Paul R. Sackett

Halil Dundar, Akhisar, Manisa, Turkey

Diploma '86, Ankara University. Degree: Master of Arts. November '90. Major: Educational Administration. Minor: Related Fields. Major Adviser: Darrell R. Lewis

Monica Marie Eden, Eau Claire, Wis.

B.A. magna cum laude '87, University of Louisville. Degree: Master of Arts. December '90. Major: German. Minor: Related Fields. Major Adviser: Ruth-Ellen B. Joeres

Laura Elaine Elletson

B.A. cum laude '82, Concordia College. Degree: Master of Arts. January '91. Major: Industrial Relations. Minor: Related Fields. Major Adviser: Mario F. Bognanno

Cristina Enriquez-De-Salamanca, Madrid, Spain

Licenciada '76, Universidad Autonoma de Madrid. Degree: Master of Arts. November '90. Major: Hispanic Literature. Minor: Feminist Studies. Thesis: Gender and the Literary Canon: The Case of Nineteenth-Century Spanish Women Novelists. Major Adviser: Rene Jara

Andrew Mark Erickson, Minneapolis

B.A. '81, Carroll College. Degree: Master of Arts. January '91. Major: Public Affairs. Major Adviser: James E. Jernberg

Kent Jon Fenske, Mahtomedi

B.S. '80, University of Wisconsin. Degree: Master of Arts. January '91. Major: Music. Minor: Related Fields. Thesis: A Winter Birth. Major Adviser: Paul Fetler

Jeanine Carol Ferguson, Minneapolis

B.A. '81, University of Minnesota. Degree: Master of Arts. November '90. Major: Art History. Minor: Comparative Literature. Major Adviser: Michael W. Stoughton

Angela Kay Ponessa Filer, Minneapolis

B.S. with high distinction '76, University of Minnesota. Degree: Master of Arts. October '90. Major: Industrial Education. Minor: Related Fields. Major Adviser: David J. Pucel

Helen Marie Fisk, St. Paul

B.S. with high distinction '79, B.A. summa cum laude '80, University of Minnesota. Degree: Master of Arts. October '90. Major: Secondary Education. Minor: Related Fields. Major Adviser: James A. Mackey

Diane Louise Fjelland, Eden Prairie

B.A. '69, San Fernando Valley State College. Degree: Master of Arts. March '91. Major: Elementary Education. Minor: Related Fields. Major Adviser: John J. Cogan

Sarah Elizabeth Flynn, Minneapolis

B.A. summa cum laude '84, Marymount Manhattan College. Degree: Master of Arts. November '90. Major: Psychology. Minor: Related Fields. Major Adviser: John P. Campbell

Daniel Brophy Focht

B.S. '86, University of Minnesota. Degree: Master of Arts. March '91. Major: Kinesiology. Minor: Related Fields. Thesis: Ankle Stabilization and Its Effect on Knee Flexor and Extensor Performance. Major Adviser: Robert C. Serfass

Julie Marie Ford, Minneapolis

B.A. '85, University of Minnesota. Degree: Master of Arts. October '90. Major: Sociology. Minor: Related Fields. Thesis: Tilting at Themes: The Metamorphosis of "Don Quixote". Major Adviser: Gary A. Fine

Sarah Kathlyn Foster, St. Paul

B.A. '74, Macalester College. Degree: Master of Arts. October '90. Major: English. Minor: Related Fields. Major Adviser: Michael Hancher

David LeRoy Gardner, Montevideo

B.S. with distinction '71, University of Minnesota. Degree: Master of Arts. December '90. Major: American Studies. Major Adviser: Gayle Graham Yates

Vivien Sarah Gorham, Minneapolis

B.A. with distinction '82, University of Wisconsin. Degree: Master of Arts, December '90. Major: Geography. Minor: Law. Thesis: Wilderness and the Bureau of Land Management. Major Adviser: Roderick H. Squires

Joseph John Gredler, Erie, Pa.

B.A. magna cum laude '85, Mercyhurst College. Degree: Master of Arts, December '90. Major: English. Minor: Related Fields. Major Adviser: Robert L. Brown, Jr.

Ann Kennedy Grossman

B.A. '74, Augustana College. Degree: Master of Arts, March '91. Major: Public Affairs. Major Adviser: Nancy N. Eustis

Carol Ellen Habstritt, Brooklyn Park

B.A. '70, Miami University. Degree: Master of Arts, January '91. Major: Industrial Relations. Minor: Related Fields. Major Adviser: Mahmood A. Zaidi

Paul Michael Hammer, Minneapolis

B.A. summa cum laude '87, University of Minnesota. Degree: Master of Arts, October '90. Major: Public Affairs. Major Adviser: James E. Jernberg

Matthew William Hankes, Setauket, N.Y.

B.A. cum laude '79, Macalester College. Degree: Master of Arts, March '91. Major: Industrial Relations. Minor: Related Fields. Major Adviser: Ross E. Azevedo

Daniel Steven Hanson, Minneapolis

B.A. magna cum laude '86, Augsburg College. Degree: Master of Arts, December '90. Major: Speech-Communication. Minor: Related Fields. Major Adviser: Marshall S. Poole

Monte Jerome Hanson, Chaseburg, Wis.

B.S. '77, Wisconsin State University. Degree: Master of Arts, December '90. Major: Mass Communication. Minor: Related Fields. Major Adviser: Hazel Dicken-Garcia

Tim Harcourt, Adelaide, S.A. Australia

B.Econ. (honours) '87, University of Adelaide. Degree: Master of Arts, February '91. Major: Industrial Relations. Minor: Related Fields. Thesis: Structural Explanations for the Divergence in U.S. and Australian Unemployment Rates in the 1980s. Major Adviser: Dennis A. Ahlburg

Mary Elizabeth Haugh, St. Paul

B.A. summa cum laude '87, College of St. Thomas. Degree: Master of Arts, February '91. Major: Mass Communication. Minor: Related Fields. Major Adviser: Ronald J. Faber

Clifford Allen Hausman, Minneapolis

B.A. '84, University of Hawaii. Degree: Master of Arts, December '90. Major: Theatre Arts. Minor: Related Fields. Major Adviser: Charles M. Nolte

Sara Elaine Hayden

B.A. with distinction '87, University of Wisconsin. Degree: Master of Arts, March '91. Major: Speech-Communication. Minor: Related Fields. Thesis: Saying the Unsayable: An Interpretive Analysis of the Communication Processes of the Chronically Ill. Major Adviser: George L. Shapiro

Michelle R. Hecht

B.A. '85, Vassar College. Degree: Master of Arts, October '90. Major: Educational Psychology. Minor: Related Fields. Major Adviser: Scott R. McConnell

Ann Catherine Hedahl, Bismarck, N.D.

B.A. summa cum laude '86, University of North Dakota. Degree: Master of Arts, December '90. Major: French. Minor: Related Fields. Major Adviser: Eileen B. Sivert

Lucy Mathews Heegaard

A.B. '86, Dartmouth College. Degree: Master of Arts, February '91. Major: Public Affairs. Major Adviser: James W. Vaupel

Richard Michael Henry, Ramsey

B.A. '79, St. Lawrence University; M.F.A. '83, Bowling Green State University. Degree: Master of Arts, December '90. Major: English. Minor: Related Fields. Major Adviser: Michael Hancher

Martha Jeanne Hobbs, Maplewood

B.S.B. '82, University of Minnesota. Degree: Master of Arts, December '90. Major: Industrial Relations. Minor: Related Fields. Major Adviser: Richard D. Arvey

Barbara Downs Hodne, Minneapolis

B.A. '82, University of Minnesota. Degree: Master of Arts, January '91. Major: English. Minor: Related Fields. Major Adviser: Edward M. Griffin

Claudia Agnes Honeywell, New York, N.Y.

B.A. '86, University of Chicago. Degree: Master of Arts, February '91. Major: Classics. Minor: Related Fields. Major Adviser: Robert P. Sonkowsky

Michele Horner Jackson, St. Paul

B.A. cum laude '87, Macalester College. Degree: Master of Arts, December '90. Major: Speech-Communication. Minor: Related Fields. Thesis: Confrontation Through Connection: The Theory and Rhetoric of Catharine A. MacKinnon. Major Adviser: Karlyn K. Campbell

Barbara Jo Jeanetta, St. Paul

B.A. cum laude '79, Hamline University. Degree: Master of Arts, January '91. Major: Public Affairs. Major Adviser: James E. Jernberg

Lori Lynn Jervis, Minneapolis

B.A. '87, University of Minnesota. Degree: Master of Arts, November '90. Major: Anthropology. Minor: Feminist Studies. Thesis: Mistresses and Mothers: Sexuality and Reproduction Among Working-Class Afro-Jamaican Women. Major Adviser: David M. Lipset

Ann Michelle Johnson, Minneapolis

B.A. '84, Augustana College. Degree: Master of Arts, February '91. Major: English. Minor: Related Fields. Major Adviser: Toni A. H. McNaron

Brett Richard Johnson, Alvarado

B.A. cum laude '88, University of Minnesota. Degree: Master of Arts, February '91. Major: Theatre Arts. Minor: Related Fields. Major Adviser: Glen W. Gadberr

Susan Dianne Johnson, Minneapolis

B.A. magna cum laude '85, Gustavus Adolphus College. Degree: Master of Arts, March '91. Major: Educational Psychology. Minor: Related Fields. Major Adviser: Robert H. Bruininks

Joyce Ellen Johnston, Annapolis, Md.

B.G.S. cum laude '81, University of Maryland. Degree: Master of Arts, November '90. Major: Mass Communication. Minor: Related Fields. Major Adviser: Nancy L. Roberts

Anne Catherine Jones

B.A. '83, Carleton College. Degree: Master of Arts, October '90. Major: Latin. Minor: Related Fields. Thesis: Palaestrio In Plautus' Miles Gloriosus: Grecian Formula or Roman Knows?. Major Adviser: Nita Krevans

Ann Powell Judge, Cascade, Iowa

B.S. '88, Iowa State University of Science and Technology. Degree: Master of Arts, February '91. Major: Industrial Relations. Minor: Related Fields. Thesis: A Policy-Capturing Investigation of Benefits as Recruiting Tools for College Students. Major Adviser: Ross E. Azevedo

Ellen Marie Katsoulis, Minneapolis

B.A. '84, University of Minnesota. Degree: Master of Arts, March '91. Major: English. Minor: Related Fields. Major Adviser: Michael Hancher

Sook Young Kim, Seoul, Korea

B.A. '82, M.A. '84, Ewha Womans University. Degree: Master of Arts, February '91. Major: Educational Psychology. Minor: Related Fields. Major Adviser: W. Wesley Tennyson

Thurman Lawrence Knight, Minneapolis

B.A. '83, University of Minnesota. Degree: Master of Arts, March '91. Major: Speech-Communication. Minor: Related Fields. Major Adviser: Ernest G. Bormann

Hsu-Yun Kuang, Taiwan

B.A. '86, National Taiwan University. Degree: Master of Arts, December '90. Major: Mass Communication. Minor: Related Fields. Major Adviser: Ronald J. Faber

George Harry Kubik, Eagan

B.A. '66, College of St. Thomas. Degree: Master of Arts, December '90. Major: Social and Philosophical Foundations of Education. Minor: Related Fields. Major Adviser: Arthur M. Harkins

Lydia V. Kulesov, Minneapolis

B.S. with distinction '78, University of Minnesota. Degree: Master of Arts, December '90. Major: Design, Housing, and Apparel. Minor: Related Fields. Major Adviser: Marian O. Bagley

Ari Kuncoro, Indonesia

Sarjana '86, University of Indonesia. Degree: Master of Arts, October '90. Major: Economics. Minor: Related Fields. Major Adviser: Vernon W. Ruttan

thomas peter kunes, Sartell

B.A. '83, University of Minnesota. Degree: Master of Arts, March '91. Major: Religious Studies. Minor: Art History. Thesis: The Pseudo-zygodactylous Gesture of the Lactating Goddess: Evolution and Migration. Major Adviser: Robert B. Tapp

Christine Mary Larsen

B.A. '85, Carleton College. Degree: Master of Arts, December '90. Major: Industrial Relations. Minor: Related Fields. Major Adviser: Cheri Ostroff

Mary Catherine Larson, Spring Lake Park

B.Comp.Sc. with distinction '72, University of Minnesota. Degree: Master of Arts, December '90. Major: Child Psychology. Minor: Related Fields. Major Adviser: Megan R. Gunnar

Junghi Lee, Chonju, Chonbuk, Korea

B.A. '78, Chonbuk National University. Degree: Master of Arts, February '91. Major: Mass Communication. Minor: Related Fields. Thesis: Toward the Alternative Journalism in Hegemony Process: The Case of the Korean Daily U.S.A. in Chicago. Major Adviser: Robert L. Craig

Rae Ann Lesmeister

B.A. summa cum laude '81, Mount Mercy College. Degree: Master of Arts, October '90. Major: Industrial Relations. Minor: Related Fields. Major Adviser: Raymond A. Noe

Yi-Te Lin, Taiwan

B.A. '87, Fu Jen Catholic University. Degree: Master of Arts, March '91. Major: Mass Communication. Minor: Related Fields. Major Adviser: Ronald J. Faber

Santiago H. Lopez-Maguina

Licenciado '81, Universidad Nacional Mayor de San Marcos. Degree: Master of Arts, October '90. Major: Hispanic Literature. Minor: Related Fields. Thesis: La Logica De La Significacion Indigena En Relacion De Indias De Ramon Pane. "Primer Informe Etnografico De America". Major Adviser: Rene Jara

Kathleen Louise Lowry, Minneapolis

B.A. '77, University of Minnesota. Degree: Master of Arts, March '91. Major: English. Minor: Related Fields. Major Adviser: Robert L. Brown, Jr.

Charles E. Lyons, Minneapolis

B.A. '73, Mankato State College. Degree: Master of Arts, March '91. Major: Industrial Relations. Minor: Related Fields. Major Adviser: Ross E. Azevedo

Kathryn Jean Manion, St. Paul

B.A. '84, University of Minnesota. Degree: Master of Arts, January '91. Major: Business Education. Minor: Related Fields. Major Adviser: Gary N. McLean

Elizabeth Ann Mathre

B.A. '86, Grinnell College. Degree: Master of Arts, December '90. Major: American Studies. Major Adviser: Thomas M. Scanlan

Judy Ann Mayland, Bloomington

B.A. '86, University of Minnesota. Degree: Master of Arts, January '91. Major: Speech-Communication. Minor: Educational Psychology. Major Adviser: Richard E. Sykes

Lucinda Kirchner McCormack, St. Paul

B.A. cum laude '83, St. Olaf College. Degree: Master of Arts, October '90. Major: English as a Second Language. Minor: Related Fields. Major Adviser: Elaine E. Tarone

Sherry Lynne McDonald, Excelsior

B.S. '77, University of Wisconsin. Degree: Master of Arts, October '90. Major: Industrial Relations. Minor: Related Fields. Major Adviser: Richard D. Arvey

Reid B. McLean, St. Paul

B.A. '72, Macalester College. Degree: Master of Arts, December '90. Major: Speech-Communication. Minor: Related Fields. Major Adviser: George L. Shapiro

Susan Jeanne Mendesh-Fitzgerald, Minneapolis

B.S. '81, University of Minnesota. Degree: Master of Arts, February '91. Major: Public Affairs. Major Adviser: Paul C. Light

Bruce Alan Messelt, Verona, Wis.

B.A. summa cum laude '88, Concordia College. Degree: Master of Arts, January '91. Major: Public Affairs. Major Adviser: Robert T. Kudrle

Deirdre Michael-Mechelke, Apple Valley

B.A. with highest honor '77, Hamline University. Degree: Master of Arts, January '91. Major: Communication Disorders. Minor: Related Fields. Thesis: A Study of the Relationship of Pitch Discrimination and Vocal Pitch Production Accuracy in Accurate and Inaccurate Singers. Major Adviser: Clark D. Starr

Maria Begona Miguel-Perez, Bilbao, Spain

Degree: Master of Arts, November '90. Major: Hispanic Linguistics. Minor: Related Fields. Major Adviser: Carol A. Klee

Gail Elizabeth Miller, St. Louis Park

B.A. with high honor '75, Hamline University. Degree: Master of Arts, December '90. Major: Educational Psychology. Minor: Related Fields. Major Adviser: Byron Egeland

Kitty Judith Millet

B.A. '86, University of California. Degree: Master of Arts, March '91. Major: Comparative Literature. Major Adviser: Wladyslaw Godzich

S. Bruce Moffat

A.B. '75, Vassar College. Degree: Master of Arts, March '91. Major: Public Affairs. Major Adviser: John E. Brandl

Maxwell Laurence Moon, Minneapolis

B.F.A. '77, Minneapolis College of Art and Design. Degree: Master of Arts, March '91. Major: American Studies. Major Adviser: Edward M. Griffin

Ann Louise Neuendorf, Minneapolis

B.S. with high distinction '71, University of Minnesota. Degree: Master of Arts, October '90. Major: Design, Housing, and Apparel. Minor: Related Fields. Major Adviser: Marian O. Bagley

Mark Riley Neuzil, Solon, Iowa

B.A. '80, Iowa State University of Science and Technology. Degree: Master of Arts, January '91. Major: Mass Communication. Minor: Related Fields. Thesis: On the Front Burner: How the Greenhouse Effect Entered the Public Arena of the Mass Media. Major Adviser: Phillip J. Tichenor

Joan Marie Nichols

B.A. '84, University of Minnesota. Degree: Master of Arts, October '90. Major: South Asian Languages. Minor: Related Fields. Major Adviser: Muhammad A. Barker

Janis Marie Niemi

B.A. '72, Macalester College. Degree: Master of Arts, October '90. Major: Psychology. Minor: Related Fields. Major Adviser: Rene V. Dawis

Tomoko Nishiyama, Niigata, Japan

B.A. '87, Niigata University. Degree: Master of Arts, October '90. Major: English as a Second Language. Minor: Related Fields. Major Adviser: Elaine E. Tarone

Susan E. Nyhus, Minneapolis

B.A. magna cum laude '85, St. Olaf College. Degree: Master of Arts, January '91. Major: Education. Minor: Educational Psychology. Major Adviser: Rosemarie J. Park

Henry Aigbehi Oboh, Ekpoma, Nigeria

B.S. '86, University of Wisconsin. Degree: Master of Arts, December '90. Major: Industrial Education. Minor: Related Fields. Major Adviser: David C. Bjorkquist

Maureen Bridget O'Brien, St. Paul

B.A. '80, University of Minnesota. Degree: Master of Arts, December '90. Major: Educational Psychology. Minor: Related Fields. Thesis: Evaluating Management Information Systems: Factors Affecting End-User Satisfaction. Major Adviser: Wayne W. Welch

Julie Ann Ohman

B.S. summa cum laude '81, University of Wisconsin. Degree: Master of Arts, February '91. Major: Elementary Education. Minor: Related Fields. Major Adviser: Dianne L. Monson

Catherine Ann O'Meara, St. Paul

B.A. '88, College of St. Benedict. Degree: Master of Arts, March '91. Major: English. Minor: Related Fields. Major Adviser: Robert L. Brown, Jr.

Ronald Todd Osterman, Elk River

B.S. '87, St. Cloud State University. Degree: Master of Arts, October '90. Major: Recreation, Park, and Leisure Studies. Minor: Related Fields. Major Adviser: Bruce D. Anderson

Karen Lynn Peckels, Plymouth

B.S. with distinction '87, University of Minnesota. Degree: Master of Arts, March '91. Major: Home Economics Education. Minor: Related Fields. Major Adviser: Jerry McClelland

Debra Stevens Peterson, Windom

B.A. '82, B.S. '83, University of Minnesota. Degree: Master of Arts, December '90. Major: Elementary Education. Minor: Related Fields. Major Adviser: Harlan S. Hansen

William Jay Picconatto

B.S. with high honors '77, B.S. '79, University of Wisconsin. Degree: Master of Arts, March '91. Major: Physical Education. Minor: Related Fields. Thesis: The Relationship Between Isokinetic Leg Strength and Skating Performance in Bantam Ice Hockey Players. Major Adviser: Robert C. Serfass

Roxann F. Pierce, Dallas, Tex.

B.F.A. '73, University of Texas. Degree: Master of Arts, December '90. Major: Geography. Minor: Related Fields. Thesis: An Historical Geography of Ojibway Land Cessions. Major Adviser: Roderick H. Squires

Maria Jesus Plaza, Barcelona, Spain

Licenciado '84, Universidad Autonoma de Barcelona. Degree: Master of Arts, January '91. Major: Education. Minor: Related Fields. Major Adviser: Helen L. Jorstad

James Brian Pogue, St. Paul

B.A. with distinction '82, Whitman College. Degree: Master of Arts, December '90. Major: Economics. Minor: Related Fields. Major Adviser: Edward C. Prescott

Kirsti Hannele Pohjavare, Helsinki, Finland

Kandidat '87, University of Jyvaskyla. Degree: Master of Arts, February '91. Major: Mass Communication. Minor: Related Fields. Major Adviser: Irving E. Fang

Louise Ombres Pope, Minneapolis

B.A.S. '77, University of Minnesota. Degree: Master of Arts, January '91. Major: Education. Minor: Gerontology. Major Adviser: Harlan G. Copeland

Alex Richard Portelli, Copperas Cove, Tex.

B.A. '81, University of Tampa. Degree: Master of Arts, January '91. Major: Scandinavian Studies. Minor: Related Fields. Major Adviser: Michael F. Metcalf

Elizabeth Marie Pruden, St. Paul

B.A. '73, College of Mount St. Joseph. Degree: Master of Arts, November '90. Major: History. Minor: Feminist Studies. Major Adviser: Clarke A. Chambers

Polly Sue Prunuske, Minneapolis

B.S. '79, University of Wisconsin. Degree: Master of Arts, January '91. Major: Social and Philosophical Foundations of Education. Minor: Related Fields. Major Adviser: Ayers Bagley

Joan Oslund Raaen, St. Paul

B.A. '78, Augsburg College. Degree: Master of Arts, January '91. Major: Educational Psychology. Minor: Related Fields. Major Adviser: Frank Henderson Wood

Anita Marie Rees

B.A. '87, Bethel College. Degree: Master of Arts, October '90. Major: Industrial Relations. Minor: Related Fields. Major Adviser: Avner Ben-Ner

Judith Ann Reese, Eagan

B.S. with distinction '72, University of Minnesota. Degree: Master of Arts, January '91. Major: Business Education. Minor: Related Fields. Major Adviser: Gary N. McLean

Bonnie Joan Reimann, Minneapolis

B.A. '85, College of St. Catherine. Degree: Master of Arts, December '90. Major: Kinesiology. Minor: Related Fields. Thesis: A Kinematic Analysis of Running with a Running Stroller. Major Adviser: Nancy L. Greer

Amy Jo Roberts, West Fargo, N.D.

B.A. '83, Kent State University. Degree: Master of Arts, March '91. Major: English. Minor: Related Fields. Major Adviser: Robert L. Brown, Jr.

Amanda Shelley Roll, United Kingdom

Degree: Master of Arts, December '90. Major: English. Minor: Related Fields. Major Adviser: Kent R. Bales

Ricardo Roque, El Salvador

Licenciado '88, Universidad Centroamericana Jose Simeon Canas. Degree: Master of Arts, February '91. Major: Comparative Literature. Minor: Hispanic Literature. Major Adviser: Ronald W. Sousa

Karen Jean Roschelle, Wayne, N.J.

B.A. with general honors '88, Vassar College. Degree: Master of Arts, October '90. Major: Educational Psychology. Minor: Related Fields. Major Adviser: Sandra L. Christenson

Shirley Mae Rutherford, St. Paul

B.S. '71, University of Minnesota. Degree: Master of Arts, January '91. Major: Educational Psychology. Minor: Related Fields. Major Adviser: John L. Romano

Mark A. Ryan, Bloomington

B.A. '85, University of Minnesota. Degree: Master of Arts, October '90. Major: East Asian Studies. Minor: Related Fields. Major Adviser: Edward L. Farmer

Sally Ann Koc Sailer, Vadnais Heights

B.A. '72, South Dakota State University. Degree: Master of Arts, December '90. Major: English. Minor: German. Major Adviser: Robert L. Brown, Jr.

Toshiyuki Sakuragi, Japan

B.A. '88, Kobe City University of Foreign Studies. Degree: Master of Arts, March '91. Major: Speech-Communication. Minor: Related Fields. Major Adviser: J. Vernon Jensen

John Louis Salsini, Minneapolis

B.M. with high honors '85, Wisconsin Conservatory of Music. Degree: Master of Arts, December '90. Major: Music. Minor: Related Fields. Thesis: The Guitar and the Ideal of Femininity in Nineteenth Century America. Major Adviser: Susan K. McClary

Karen Lee Sand, Roseville

B.S. magna cum laude '88, University of Minnesota. Degree: Master of Arts, December '90. Major: Communication Disorders. Minor: Related Fields. Major Adviser: Timothy N. Doyle

William Jon Satterness, Bloomington

B.A. '78, Gustavus Adolphus College. Degree: Master of Arts, October '90. Major: Geography. Minor: Related Fields. Thesis: International Travel by Norwegians: A Behavioral Analysis. Major Adviser: Russell B. Adams

Sue Ann Savran, Minneapolis

B.A. '82, University of Minnesota. Degree: Master of Arts, October '90. Major: Business Education. Minor: Related Fields. Major Adviser: Gary N. McLean

Sarah Jayne Schultz, Minneapolis

B.A. cum laude '83, Bucknell University; M.B.A. '85, State University of New York. Degree: Master of Arts, January '91. Major: Art History. Minor: Related Fields. Major Adviser: Gabriel P. Weisberg

Andrew Nathan Silberman

B.A. '79, Carleton College. Degree: Master of Arts, December '90. Major: Mass Communication. Minor: Related Fields. Major Adviser: Phillip J. Tichenor

Norma Jean Sims, Richfield

B.S. '75, University of Minnesota. Degree: Master of Arts, January '91. Major: Educational Psychology. Minor: Related Fields. Major Adviser: Lorraine S. Hansen

Nancy Elizabeth Slocum, Minneapolis

B.A. '66, Duke University. Degree: Master of Arts, January '91. Major: English. Minor: Related Fields. Major Adviser: Robert L. Brown, Jr.

Heidi Erspamen Smith, Amery, Wis.

B.A. '79, College of St. Benedict. Degree: Master of Arts, November '90. Major: Psychology. Minor: Related Fields. Major Adviser: John P. Campbell

Linda Jean Smith, Roseville

B.A. cum laude '83, Gustavus Adolphus College. Degree: Master of Arts, February '91. Major: Industrial Relations. Minor: Related Fields. Major Adviser: John A. Fossum

Tammy Lynn Sorenson, Pelican Rapids

B.A. summa cum laude '82, B.S. '82, Moorhead State University. Degree: Master of Arts, March '91. Major: Music Education. Minor: Related Fields. Major Adviser: Robert L. Borg

Gail Edith Spande, Burnsville

B.S. with highest honors '79, University of Wisconsin. Degree: Master of Arts, March '91. Major: Public Affairs. Major Adviser: Richard S. Bolan

Shew-Jiuan Blanka Su, Pingtung, Taiwan

B.A. '86, National Taiwan Normal University. Degree: Master of Arts, December '90. Major: Geography. Minor: Related Fields. Major Adviser: Helga M. Leitner

Margaret F. Sullivan, Minneapolis

B.A. cum laude '85, Carleton College. Degree: Master of Arts, December '90. Major: Latin. Minor: Related Fields. Major Adviser: Nita Krevans

Hiroko Suzuki, Fukushima, Japan

B.A. '83, Tokyo International University. Degree: Master of Arts, December '90. Major: Educational Psychology. Minor: Related Fields. Major Adviser: John E. Stecklein

Kari Ann Swingle, St. Paul

B.A. '85, University of Minnesota. Degree: Master of Arts, November '90. Major: Linguistics. Minor: Related Fields. Major Adviser: Nancy J. Stenson

Martha Ross Taylor, Burnsville

A.B. cum laude '81, Bryn Mawr College. Degree: Master of Arts, March '91. Major: Design, Housing, and Apparel. Minor: Museum Studies. Major Adviser: Timothy T. Blade

Cynthia R. Thompson, Minneapolis

B.A. '84, Carleton College. Degree: Master of Arts, December '90. Major: Educational Psychology. Minor: Related Fields. Major Adviser: James E. Turnure

Judith Rann Thompson, New Orleans, La.

B.S. '68, Xavier University; M.Ed. '73, Central State University; Ph.D. '83, University of Minnesota. Degree: Master of Arts, March '91. Major: Education. Minor: Related Fields. Major Adviser: Caroline Turner

Patricia Ann Thompson, Newark Valley, N.Y.

B.A. '82, University Center at Binghamton. Degree: Master of Arts, January '91. Major: Mass Communication. Minor: Related Fields. Thesis: New Technologies and Workplace Change: The Case of Desktop Publishing. Major Adviser: Robert L. Craig

Helga Mae Thorson, Northfield

B.A. '87, Earlham College. Degree: Master of Arts, October '90. Major: German. Minor: Scandinavian Studies. Major Adviser: Gerhard H. Weiss

Mary Elizabeth Tickle, Minneapolis

B.S. cum laude '79, University of Colorado. Degree: Master of Arts, November '90. Major: Mass Communication. Minor: Related Fields. Major Adviser: Willard L. Thompson

Rafael M. Tilton

B.A. '59, College of St. Teresa; M.A. '63, Fordham University. Degree: Master of Arts, January '91. Major: English. Minor: Related Fields. Major Adviser: Michael D. Browne

Tomiko Tofuku, Japan

B.A. '84, Aoyama Gakuin University. Degree: Master of Arts, November '90. Major: Education. Minor: Related Fields. Major Adviser: Rosemarie J. Park

Tod Andrew Tollefson, Windom

B.A. '84, University of Minnesota. Degree: Master of Arts, December '90. Major: Industrial Relations. Minor: Related Fields. Thesis: The Evolution of Work Among Farm Residents in Norway, 1945-1990. Major Adviser: James G. Scoville

Kimberly Kaye Taylor Townsønd

B.A. magna cum laude '84, Alfred University. Degree: Master of Arts, March '91. Major: English as a Second Language. Minor: Related Fields. Major Adviser: Elaine E. Tarone

Hossein Vanaki

B.S. '80, Winona State University. Degree: Master of Arts, December '90. Major: Political Science. Minor: Related Fields. Major Adviser: Edwin Fogelman

Barbara Jo VanDrasek, Minneapolis

B.A. '83, University of Minnesota. Degree: Master of Arts, January '91. Major: Geography. Minor: Related Fields. Thesis: Social Structure and Residence in Minneapolis, 1860-1940. Major Adviser: John S. Adams

David Alan VanDyke, Seattle, Wash.

B.A. '84, Calvin College. Degree: Master of Arts, March '91. Major: German. Minor: Theatre Arts. Major Adviser: Ruth-Ellen B. Joeres

Christina Therese Vlachos, New York, N.Y.

B.A. cum laude '87, New York University. Degree: Master of Arts, October '90. Major: Comparative Literature. Major Adviser: Nancy H. Kobrin

Richard Lee Warzecha, Minneapolis

B.A. '86, St. John's University. Degree: Master of Arts, January '91. Major: Philosophy. Minor: Related Fields. Major Adviser: Joseph I. Owens

Laura May Wasenius, Waterloo, Iowa

B.A. summa cum laude '87, University of Minnesota. Degree: Master of Arts, October '90. Major: Hispanic Literature. Minor: Hispanic Linguistics. Thesis: La Funcion Social De Imagenes Literarias: El Caso De La Celestina. Major Adviser: Anthony N. Zahareas

Laura M. Weaver, Stevens Point, Wis.

B.B.A. '87, University of Wisconsin. Degree: Master of Arts, February '91. Major: Industrial Relations. Minor: Related Fields. Major Adviser: Raymond A. Noe

Elledean C. W. Webster, Minneapolis

B.S.B. '82, University of Minnesota. Degree: Master of Arts, December '90. Major: Public Affairs. Major Adviser: John E. Brandl

Kirsten Anne Wedes

B.A. '81, Macalester College. Degree: Master of Arts, March '91. Major: Design, Housing, and Apparel. Minor: Related Fields. Major Adviser: Marian O. Bagley

Eileen Marie Wicker, Storm Lake, Iowa

B.S. '84, University of Iowa. Degree: Master of Arts, October '90. Major: Communication Disorders. Minor: Related Fields. Thesis: Anatomical Correlates of Kanamycin-Bumetanide and Heat-Probe Induced Lesions. Major Adviser: David A. Nelson

Lisa Ann Wicktor, Princeton

B.S. summa cum laude '88, St. Cloud State University. Degree: Master of Arts, November '90. Major: Communication Disorders. Minor: Related Fields. Major Adviser: Charles E. Speaks

Stephanie Anne Wildes, Minneapolis

B.A. '88, University of Minnesota. Degree: Master of Arts, February '91. Major: Speech-Communication. Minor: Related Fields. Major Adviser: Ernest G. Bormann

Julianne Marie Willemin, Minneapolis

B.A. with honor '79, Wheaton College. Degree: Master of Arts, November '90. Major: English. Minor: Related Fields. Major Adviser: Edward M. Griffin

Denise Marie Wilson, Minneapolis

B.S. '81, University of Minnesota. Degree: Master of Arts, October '90. Major: Industrial Relations. Minor: Related Fields. Major Adviser: Richard D. Arvey

Victoria Lynn Wise

B.A. '86, University of Minnesota. Degree: Master of Arts, December '90. Major: Agricultural Education. Minor: Related Fields. Thesis: Women's Contribution to Small-Scale Farming Operations and Implications for Extension Programming in Central Morocco. Major Adviser: Edgar A. Persons

Mariken Wogstadhansen, Minneapolis

B.S.N. with high distinction '76, University of Minnesota. Degree: Master of Arts, October '90. Major: Educational Psychology. Minor: Related Fields. Major Adviser: Lorraine S. Hansen

Denise Carol Wyttenbach, New Brighton

B.A. cum laude '76, College of St. Benedict. Degree: Master of Arts, December '90. Major: Industrial Relations. Minor: Related Fields. Major Adviser: Dennis A. Ahlburg

Lih-Hwa Yeh, Taiwan

B.A. '86, National Taiwan University. Degree: Master of Arts, October '90. Major: Mass Communication. Minor: Related Fields. Thesis: Press Ideology and the Shift in U.S.-China Foreign Policy: Coverage of the Nation. Newsweek, Time, and National Review on China and on U.S.-China Relations 1967-1974. Major Adviser: Chin-Chuan Lee

Joni Ellen Katz Zalasky, Edina

B.S. '83, University of Minnesota. Degree: Master of Arts, February '91. Major: Education. Minor: Related Fields. Major Adviser: Harlan S. Hansen

Xiao Xian Zhang

B.S. '82, Southwest Teachers College; M.S. '85, Huazhong University of Science and Technology. Degree: Master of Arts, October '90. Major: Economics. Minor: Related Fields. Major Adviser: Neil Wallace

Yao Zhu

M.A. '83, East China Normal University. Degree: Master of Arts, March '91. Major: Linguistics. Minor: Related Fields. Major Adviser: Nancy J. Stenson

Linda Carol Zimney

B.S. magna cum laude '82, University of Minnesota. Degree: Master of Arts, October '90. Major: Educational Psychology. Minor: Related Fields. Major Adviser: James R. Rest

*Master of Arts***University of Minnesota, Duluth****Jill Diane Jensen, Duluth**

B.A. magna cum laude '80, Concordia College. Degree: Master of Arts, November '90. Major: English. Minor: Related Fields. Major Adviser: Kenneth C. Risdon

Linda Sue Rindo, Solon Springs, Wis.

B.M. '71, Wisconsin State University. Degree: Master of Arts, October '90. Major: Education-Music. Minor: Related Fields. Major Adviser: Phillip H. Coffman

Deborah Dawn Saxhaug, Virginia

B.A. cum laude '81, University of Minnesota. Degree: Master of Arts, October '90. Major: Educational Psychology. Minor: Related Fields. Major Adviser: Moy F. Gum

Laura Kathrine Sovinec, Winona

B.A. '84, St. Cloud State University. Degree: Master of Arts, November '90. Major: Educational Psychology. Minor: Related Fields. Major Adviser: Marlowe H. Smaby

Elizabeth Ann Wagner, Ely

B.A. cum laude '87, College of St. Scholastica. Degree: Master of Arts, December '90. Major: Educational Psychology. Minor: Related Fields. Major Adviser: Marlowe H. Smaby

*Specialist Certificate in Education***Michelle R. Hecht**

B.A. '85, Vassar College. Degree: Certificate of Specialist in Education, November '90. Major: Educational Psychology. Field: School Psychological Services. Major Adviser: Scott R. McConnell

Daryl Erwin Miller, Crystal

B.A. '70, Augsburg College; M.A. '81, University of Minnesota. Degree: Certificate of Specialist in Education, March '91. Major: Educational Administration. Field: General Educational Administration. Major Adviser: Gary F. Alkire

Gail Elizabeth Miller, St. Louis Park

B.A. with high honor '75, Hamline University. Degree: Certificate of Specialist in Education, November '90. Major: Educational Psychology. Field: School Psychological Services. Major Adviser: Byron Egeland

Nadya Elida Parker

B.A. '68, St. John's University; M.S. Admin. '79, Pace University. Degree: Certificate of Specialist in Education, January '91. Major: Educational Administration. Field: Secondary School Administration. Major Adviser: Neal C. Nickerson

Doctor of Education

Willarene Pearl Wilson Beasley

B.A. '62, Philander Smith College; M.A. '76, Spec.Ed. '81, University of Minnesota. Degree: Doctor of Education, December '90. Major: Educational Administration. Minor: Supporting Program. Project: A Comparison of Current and Former Students' Satisfaction and Involvement in Related Activities in a Minneapolis Magnet School Program. Major Adviser: Neal C. Nickerson

Richard Warren Duncan, Minnetonka

B.A. '48, M.Ed. '73, University of Minnesota. Degree: Doctor of Education, January '91. Major: Physical Education. Minor: Supporting Program. Project: Adult Day Care in Minnesota: Leadership Education and Program Issues. Major Adviser: Caroline Ruth Weiss

Eloise Peters Nelson, North Oaks

B.S. '63, Macalester College; M.A. '71, Ed.Spec. '77, College of St. Thomas. Degree: Doctor of Education, November '90. Major: Educational Administration. Minor: Supporting Program. Project: The Impact of the Springfield Development Program on Principals' Administrative Behavior. Major Adviser: Neal C. Nickerson

James Karlos Tenorio, Menomonie, Wis.

B.S. '75, Stout State University; M.S. '78, Rochester Institute of Technology. Degree: Doctor of Education, November '90. Major: Vocational Education. Minor: Supporting Program. Project: Selected Color Electronic Prepress Systems Job Positions for the Graphic Communications Industry: A Subject Matter Analysis and Worker Characteristics Survey. Major Advisers: Stephen J. Miletich and David C. Bjorkquist

Doctor of Musical Arts

Bruce D. Thornton, Dickinson, N.D.

B.S. '80, Dickinson State College; M.M. '84, University of Minnesota. Degree: Doctor of Musical Arts, December '90. Major: Music. Minor: Supporting Program. Major Adviser: John E. Anderson

Doctor of Philosophy

Sharon Rose Aarons, Kingston, Jamaica

B.Sc. '82, University of the West Indies. Degree: Doctor of Philosophy, December '90. Major: Soil Science. Minor: Supporting Program. Thesis: Responses of *Rhizobium leguminosarum* bv. *phaseoli* to pH. Major Adviser: Peter H. Graham

Macedonio Alanis, Monterrey, Mexico

Ingeniero '83, Instituto Tecnológico y de Estudios Superiores de Monterrey. Degree: Doctor of Philosophy, December '90. Major: Business Administration. Minor: Supporting Program. Thesis: A Simulated User for Laboratory Investigation of Information Systems Requirements Determination. Major Adviser: J. David Naumann

Phil Stewart Allen

B.S. '83, M.S. '85, Brigham Young University. Degree: Doctor of Philosophy, November '90. Major: Horticulture. Minor: Supporting Program. Thesis: Germination of Perennial Ryegrass (*Lolium perenne* L.) and Annual Bluegrass (*Poa annua* L.) Seeds Subjected to Hydration-Dehydration Cycles. Major Adviser: Donald B. White

Mohammad Amjed, Peshawar, Pakistan

M.Sc.Ag. '79, University of Peshawar. Degree: Doctor of Philosophy, December '90. Major: Animal Science. Minor: Supporting Program. Thesis: Attempts to Improve Sugarcane Bagasse and Pith as Energy Sources for Ruminant Animals. Major Advisers: John D. Donker and Hans-Joachim G. Jung

James Bryan Anderson, Toledo, Ohio

B.S. '77, M.S. '80, University of Toledo; M.S.E.E. '88, University of Minnesota. Degree: Doctor of Philosophy, February '91. Major: Operations Research. Minor: Supporting Program. Thesis: IMB: An Intelligent Advisor for Computer Aided Model Building in Linear System Dynamics. Major Adviser: Patrick J. Starr

Melissa Susan Anderson, Minneapolis

B.A. *summa cum laude* '76, St. Olaf College; M.S. '78, University of Iowa. Degree: Doctor of Philosophy, October '90. Major: Education. Minor: Supporting Program. Thesis: Resource Dependencies of Academic Departments: A Demographic Perspective. Major Adviser: James C. Hearn, Jr.

Muhammad Anzar, Lahore, Punjab, Pakistan
D.V.M. '81, M.Sc. '84, University of Agriculture,
Faisalabad. Degree: Doctor of Philosophy, October '90.
Major: Theriogenology. Minor: Supporting Program.
Thesis: Filtration of Bovine Semen with Sephadex Ion-
Exchange Filter. Major Adviser: Edmund F. Graham

Jose S. Mendez Arevalo, Minneapolis
Licenciado '79, Universidad Nacional Autonoma de
Mexico; M.A. '82, University of Minnesota. Degree:
Doctor of Philosophy, March '91. Major: Educational
Psychology. Minor: Supporting Program. Thesis: The
Effects of Using Different Problem Types in a Feedback
Training Technique on Proportional Reasoning Task
Performance Among Primary School Children. Major
Adviser: William M. Bart

Robert Andrew Ariel, Cambridge, Mass.
A.B. summa cum laude '73, Dartmouth College; B.A.
'75, University of Oxford. Degree: Doctor of Philosophy,
December '90. Major: Philosophy. Minor: Supporting
Program. Thesis: Scientific Laws with Application to
Scientific Explanation. Major Adviser: Ronald N. Giere

Susan Sealy Arquette, Minneapolis
B.A. cum laude '78, Beloit College. Degree: Doctor of
Philosophy, December '90. Major: Psychology. Minor:
Supporting Program. Thesis: Vocational Needs, Need
Fulfillment, and Job Satisfaction Among Registered
Nurses. Major Adviser: Rene V. Dawis

Mary Ellen Athey, Cambridge, Mass.
B.A. '68, Drake University; M.A. '74, University of
Minnesota. Degree: Doctor of Philosophy, November '90.
Major: Educational Administration. Minor: Supporting
Program. Thesis: Student Involvement in High School
Disciplinary Decision Making. Major Adviser: Neal C.
Nickerson

Bruce Edward Auerbach, Short Hills, N.J.
B.A. '77, M.A. '79, Drew University. Degree: Doctor of
Philosophy, March '91. Major: Political Science. Minor:
Supporting Program. Thesis: Intergenerational Justice: A
Conceptual History and Analysis. Major Adviser: Terence
W. Ball

Mostafa Ayoub, Alexandria, Egypt
B.S. '77, Alexandria University; M.S. '83, Suez Canal
University. Degree: Doctor of Philosophy, December '90.
Major: Animal Science. Minor: Supporting Program.
Thesis: Studies on in vitro Maturation and Fertilization of
Bovine Follicular Oocytes. Major Adviser: Alan G.
Hunter

Diane Patricia Barrett, Medford, Mass.
B.A. cum laude '69, M.Ed. '77, Boston University;
M.A.T. '70, Oberlin College. Degree: Doctor of
Philosophy, December '90. Major: Educational
Psychology. Minor: Supporting Program. Thesis: The
Relationships Among Ego Development, Intuition, and
Death Anxiety in a Sample of Death Educators and
Health Care Providers Working with the Dying and Their
Families. Major Advisers: Martin L. Snoke and Thomas
M. Skovholt

Michael Eugene Bartolo, Pueblo, Colo.
B.S. with distinction '84, M.S. '86, Colorado State
University. Degree: Doctor of Philosophy, November '90.
Major: Plant Physiology. Minor: Supporting Program.
Thesis: Effects of Freezing and Cold Acclimation on
Microtubules and Tubulin in Mesophyll Cells of Spinach.
Major Adviser: John V. Carter

Peter Caldwell Bates, New Canaan, Conn.
B.S. with honors '77, University of Montana; M.S. '81,
Montana State University. Degree: Doctor of Philosophy,
December '90. Major: Forestry. Minor: Soil Science.
Thesis: Quaking Aspen Regeneration in Northern
Minnesota: Effects of Harvest Season and Site
Conditions. Major Adviser: Charles R. Blinn

Arthur Hal Beesley, St. Paul
B.S. '74, B.S. '74, M.E. '75, Rensselaer Polytechnic
Institute. Degree: Doctor of Philosophy, December '90.
Major: Chemical Engineering. Minor: Physiology. Thesis:
Surfactant Micelles Under Unusual Conditions. Major
Adviser: D. Fennell Evans

Darlene Louise Page Bell, Bloomington
B.A. cum laude '73, M.A. '74, University of Minnesota.
Degree: Doctor of Philosophy, December '90. Major:
Educational Administration. Minor: Supporting Program.
Thesis: Voluntary and Mandatory Elementary School
Standards in Minnesota. Major Adviser: Van Dyck
Mueller

Betty Ann Bergland, Minneapolis
B.A. '65, St. Olaf College; M.S. '68, University of
Wisconsin. Degree: Doctor of Philosophy, December '90.
Major: American Studies. Thesis: Reconstructing the
'Self' in America: Patterns in Immigrant Women's
Autobiographies. Major Adviser: Edward M. Griffin

Bruce Allen Bernhardt, Des Moines, Iowa
B.S. with honors '83, Iowa State University of Science
and Technology; M.S.E.E. '87, University of Minnesota.
Degree: Doctor of Philosophy, December '90. Major:
Electrical Engineering. Minor: Physics. Thesis: Accurate
Timing Simulation of Digital Gallium Arsenide Circuits.
Major Adviser: Gerald E. Sobelman

Wolfgang Horst Bielefeld, Minneapolis
B.S. '69, Michigan State University; M.B.A. '77, M.A.
'78, University of Minnesota. Degree: Doctor of
Philosophy, October '90. Major: Sociology. Minor:
Supporting Program. Thesis: Nonprofit Response to
Resource Environment Change. Major Adviser: Joseph
Galaskiewicz

John Clarence Bohannon, Chattanooga, Tenn.
B.S. cum laude '84, University of Tennessee. Degree:
Doctor of Philosophy, November '90. Major: Business
Administration. Minor: Supporting Program. Thesis:
Financial Crises and the Stock Market in the United
States, 1886-1928. Major Adviser: Patrick J. Hess

Catherine Ann Borbas, Minneapolis

B.A. '70, M.S.W. '72, M.P.H. '83, University of Minnesota. Degree: Doctor of Philosophy. March '91. Major: Social Work. Minor: Supporting Program. Thesis: The Precipitating Factors of Caregiver Stress. Major Adviser: Neil F. Bracht

Lakmal Wasantha Boteju, Sri Lanka

B.S. '84, University of Colombo. Degree: Doctor of Philosophy. December '90. Major: Medicinal Chemistry. Minor: Chemistry. Thesis: Bioactivation of N-Arylhydroxamic Acids: Studies on the Relationships Between Physicochemical Properties and Covalent Binding to Biological Macromolecules. Major Adviser: Patrick E. Hanna

John Michael Bouldin, Naperville, Ill.

B.A. magna cum laude '82, North Central College; M.A. '87, University of Minnesota. Degree: Doctor of Philosophy. October '90. Major: Linguistics. Minor: Supporting Program. Thesis: The Syntax and Semantics of Postnominal Adjectives in English. Major Adviser: Gerald A. Sanders

Zine-Eddine Boutaghou, Algeria

Diplome d'Ingenieur d'Etat '84, Ecole Nationale Polytechnique; M.S.M.E. '88, University of Minnesota. Degree: Doctor of Philosophy, February '91. Major: Mechanical Engineering. Minor: Supporting Program. Thesis: A Methodology for the Dynamic Analysis and Design of Flexible Bodies Under Large Overall Motion. Major Adviser: Arthur G. Erdman

Jane Marilyn Braaten

B.A. '79, St. Olaf College. Degree: Doctor of Philosophy. December '90. Major: Philosophy. Minor: Supporting Program. Thesis: Habermas's Critical Theory: Epistemological and Methodological Foundations. Major Adviser: Naomi B. Scheman

Sheldon Lee Braaten, Arden Hills

B.A. '69, Augustana College; M.A. '75, University of Minnesota. Degree: Doctor of Philosophy. November '90. Major: Educational Administration. Minor: Supporting Program. Thesis: Role-Related Stress in Special Education Teachers of Students with Emotional and Behavioral Disorders. Major Adviser: Vernon L. Hendrix

Benjamin Erwin Braverman, Minneapolis

B.A. '66, M.A. '74, University of Minnesota. Degree: Doctor of Philosophy. October '90. Major: Education. Minor: Supporting Program. Thesis: On the Comprehension of Art Exhibitions: A Comparison of Two Instructional Models. Major Advisers: Robert D. Tennyson and Margaret K. Diblasio

Karen Larson Burgoyne, St. Paul

B.A. summa cum laude '81, Hamline University. Degree: Doctor of Philosophy. December '90. Major: Psychology. Minor: Supporting Program. Thesis: An Examination of Models for Predicting Personal and Work-related Adjustment and Involvement in Family Work among Male and Female Working Parents. Major Adviser: Rene V. Dawis

Ingrid Kittridge Buxton, Brookfield, Wis.

B.A. '75, M.S. '79, University of Wisconsin. Degree: Doctor of Philosophy. March '91. Major: Microbiology. Minor: Genetics. Thesis: Immunomodulation of the Murine Immune System by Lactate Dehydrogenase-Elevating Virus. Major Adviser: Peter G. W. Plagemann

Elizabeth Kersch Bye, Chanhassen

B.S. '82, M.S. '84, Virginia Polytechnic Institute and State University. Degree: Doctor of Philosophy. December '90. Major: Design, Housing, and Apparel. Minor: Supporting Program. Thesis: A Visual Sensory Evaluation of Two Pattern Grading Methods. Major Adviser: Marilyn R. DeLong

Graham Paul Cameron, Rosemount

B.A. '78, Carleton College. Degree: Doctor of Philosophy. March '91. Major: Electrical Engineering. Minor: Physics. Thesis: A Study of the Micromagnetic Structures of Recorded Transitions in High Coercivity Thin Film Media. Major Adviser: Jack H. Judy

Anthony Charles Caputa

B.S. '81, University of Wisconsin; M.S. '85, University of Minnesota. Degree: Doctor of Philosophy. February '91. Major: Veterinary Microbiology. Minor: Supporting Program. Thesis: Cloning of a 110 Kilodalton Recombinant Protein and Its Use in the Diagnosis and Protection from Lyme Borreliosis. Major Adviser: Russell F. Bey

Angeline Marie Carlson, Bloomington

B.S.Pharm. '76, University of Minnesota. Degree: Doctor of Philosophy. December '90. Major: Social and Administrative Pharmacy. Minor: Educational Psychology. Thesis: The Influence of Occupational Inheritance on the Orientation of Minnesota Pharmacists to the Professional/Business Dichotomy. Major Adviser: Albert I. Wertheimer

Bruce Alan Champ, Des Moines, Iowa

B.S. with highest distinction '78, University of Iowa. Degree: Doctor of Philosophy. December '90. Major: Economics. Minor: Supporting Program. Thesis: The Underissuance of National Banknotes During the Period 1875-1913. Major Adviser: Neil Wallace

Chien Lu Chan, Taipei, Taiwan

B.S. '80, National Cheng Kung University; M.S. '83, Purdue University. Degree: Doctor of Philosophy. December '90. Major: Geology. Minor: Supporting Program. Thesis: The Minnesota River Valley Peridotites and Other Selected Mantle Materials. Major Adviser: Paul W. Weiblen

Joseph Mulakara Chandy, Cochin, Kerala, India

M.A. '83, University of Kerala; M.A. '85, Tata Institute of Social Sciences. Degree: Doctor of Philosophy. December '90. Major: Social Work. Minor: Public Health. Thesis: Teenage Children of Alcohol Abusers: Risk Outcomes and Resiliency Factors. Major Adviser: Jean K. Quam

Manas Kumar Chattopadhyay, Howrah W.B., India
M.Stat. '77, Indian Statistical Institute. Degree: Doctor of Philosophy, February '91. Major: Statistics. Minor: Supporting Program. Thesis: Dirichlet Bandit Problems. Major Adviser: Donald A. Berry

Noureddine Cheikh, Fridley
Diplome d'Agronomie Generale '79, Institut Agronomique et Veterinaire Hassan II; M.S. '81, University of Minnesota. Degree: Doctor of Philosophy, March '91. Major: Plant Physiology. Minor: Supporting Program. Thesis: Study of Some Control Mechanisms of Biosynthesis of Non-Structural Carbohydrates in Glycine max (L) Merr and Spinacia oleracea (L) Role of Plant Hormones. Major Adviser: Mark L. Brenner

Mary Knop Chelberg, Clifton, Ill.
B.S. with high distinction '84, University of Illinois. Degree: Doctor of Philosophy, October '90. Major: Pathobiology. Minor: Genetics. Thesis: The Role of a Sequence From Type IV Collagen in Mediating Tumor Cell Adhesion and Motility. Major Advisers: James B. McCarthy and Effie C. Tsilibary

Chung-Nien Chen
B.S. '77, National Central University; M.S. '83, University of Iowa. Degree: Doctor of Philosophy, October '90. Major: Statistics. Minor: Mathematics. Thesis: New Diagnostic Measures in the Linear Model. Major Adviser: Seymour Geisser

Keqin Chen, Shanghai, People's Republic of China
M.S. '83, Shanghai Institute of Biochemistry (CAS). Degree: Doctor of Philosophy, October '90. Major: Genetics. Minor: Supporting Program. Thesis: Molecular Characterization of the Transcripts of Maize Ubiquitin Genes. Major Adviser: Irwin Rubenstein

Hanping Chiu, Taiwan
B.A. '74, M.A. '80, National Taiwan Normal University. Degree: Doctor of Philosophy, February '91. Major: English. Minor: Supporting Program. Thesis: Nonfiction Novel, Historical Novel, and the Crisis of the Novel. Major Adviser: Robert D. Solotaroff

Soonok Cho, Korea
B.S. '81, Kyungpook National University. Degree: Doctor of Philosophy, February '91. Major: Botany. Minor: Cell and Developmental Biology. Thesis: The Cytoskeleton in Differentiation of the Stomatal Complex of Grasses. Major Adviser: Susan M. Wick

Kyun Rak Chong, Korea
B.S. '78, Seoul National University; M.S. '80, Korea Advanced Institute of Science and Technology. Degree: Doctor of Philosophy, March '91. Major: Computer and Information Sciences. Minor: Supporting Program. Thesis: Algorithms for Floorplanning and Module Orientation. Major Adviser: Sartaj K. Sahni

Chihhsiang Chou, Taipei, Taiwan
B.S. '80, National Tsing Hua University. Degree: Doctor of Philosophy, November '90. Major: Computer and Information Sciences. Minor: Supporting Program. Thesis: Uni-Directional Hypercubes. Major Adviser: David H. Du

Donna Hendrickson Christensen
B.B.A. '83, University of Wisconsin; M.A. '88, University of Minnesota. Degree: Doctor of Philosophy, November '90. Major: Family Social Science. Minor: Supporting Program. Thesis: The Use of Self-Report in Understanding Perception During the Transition to Parenthood: A Multimethod Approach. Major Adviser: M. Geraldine Gage

Mark Robert Christensen, Wilton
B.A. with highest honors '75, Wisconsin State University; M.A. '82, University of Minnesota. Degree: Doctor of Philosophy, October '90. Major: Education. Minor: Supporting Program. Thesis: Interpersonal Cognitive Complexity and Abstractness, Degree of Self Disclosure, and Solidarity with Addressee as Factors in the Quality of College Students' Autobiographical Writing. Major Adviser: Gene L. Piche

Paul Dominic Christian, Le Center
B.S. '84, St. John's University. Degree: Doctor of Philosophy, October '90. Major: Chemistry. Minor: Supporting Program. Thesis: Isolation and Characterization of Electrogenerated Tetraalkylammonium-Metals. Major Adviser: Essie Kariv-Miller

David Lee Christopherson, Minnetonka
B.A. with honor '70, Hamline University; M.B.A. '76, University of Minnesota. Degree: Doctor of Philosophy, December '90. Major: Business Administration. Minor: Supporting Program. Thesis: Toward the Development of Disability-Escalating Retirement Annuities. Major Adviser: C. Arthur Williams, Jr.

Gee Hyun Chung
B.A. '78, Sogang University; M.A. '82, University of Minnesota. Degree: Doctor of Philosophy, September '90. Major: Mass Communication. Minor: Supporting Program. Thesis: Transnationalization of Korean Advertising: A Qualitative and Quantitative Analysis. Major Adviser: Roy E. Carter, Jr.

Heetaik Chung, Seoul, Korea
B.Econ. '81, M.Econ. '83, Seoul National University. Degree: Doctor of Philosophy, November '90. Major: Economics. Minor: Supporting Program. Thesis: Did Policy Makers Really Believe in the Phillips Curve?: An Econometric Test. Major Adviser: Christopher A. Sims

John Louis Clay, St. Paul
B.A. '85, University of Minnesota. Degree: Doctor of Philosophy, December '90. Major: Communication Disorders. Minor: Supporting Program. Thesis: The Relation Between Monotic and Dichotic Syllable-Recognition Scores. Major Adviser: Charles E. Speaks

Maureen Cleary

B.S. '77, University of Health Sciences, The Chicago Medical School; M.A. '89, University of Minnesota. Degree: Doctor of Philosophy, November '90. Major: Educational Psychology. Minor: Supporting Program. Thesis: Reintegration of Students Who are Emotionally Disturbed/Behaviorally Disordered into Less Restrictive Programs. Major Adviser: James E. Ysseldyke

David Maxwell Collins, Wellington, New Zealand

M.S. '86, University of Minnesota. Degree: Doctor of Philosophy, November '90. Major: Social and Administrative Pharmacy. Minor: Educational Psychology. Thesis: An Investigation of Role Associated Social Desirability Bias in Mail Survey Research. Major Adviser: Theodor J. Litman

John Dorschel Corbett, Denver, Colo.

A.B. with honors '84, Dartmouth College; M.A. '87, University of Minnesota. Degree: Doctor of Philosophy, December '90. Major: Geography. Minor: Supporting Program. Thesis: Agricultural Potential from an Agro-Climatic Analysis for a Semiarid Area of Kitui District, Kenya. Major Adviser: Philip W. Porter

Gordon Jack Curphy, Two Harbors

B.S. '78, United States Air Force Academy. Degree: Doctor of Philosophy, February '91. Major: Psychology. Minor: Supporting Program. Thesis: An Empirical Evaluation of Bass' (1985) Theory of Transformational and Transactional Leadership. Major Adviser: John P. Campbell

Sandra Kay Darling

B.S. '71, M.Ed. '76, M.Ed. '81, University of Minnesota. Degree: Doctor of Philosophy, October '90. Major: Educational Administration. Minor: Supporting Program. Thesis: A Study to Identify and Analyze the Relationship Between (1) Transformational Leadership and Collaboration, and (2) Transactional Leadership and Collaboration in Selected Minnesota Elementary Schools. Major Advisers: William M. Ammentorp and Richard F. Weatherman

Alekha Kumar Dash, India

Degree: Doctor of Philosophy, December '90. Major: Pharmaceutics. Minor: Supporting Program. Thesis: Development of Implantable Polymeric Drug Delivery Systems to Treat Bone Infections. Major Advisers: Raj Suryanarayanan and Gilbert S. Banker

Juan Manuel deSantos, Guadalajara, Jalisco, Mexico

Degree: Doctor of Philosophy, February '91. Major: Chemical Engineering. Minor: Supporting Program. Thesis: Two-Phase Cocurrent Downflow Through Constricted Passages. Major Adviser: L. E. Scriven

Victor Gary Devinatz, Wilmette, Ill.

B.S. Educ. '79, M.A. '80, Northwestern University; M.S. '86, University of Massachusetts. Degree: Doctor of Philosophy, October '90. Major: Industrial Relations. Minor: Supporting Program. Thesis: A History of UAW Local 6, 1941-1981: A Study in the Development of Trade Union Bureaucratization. Major Adviser: James G. Scoville

Rached Dhaouadi

Ingenieur Diplome '85, Ecole Nationale d'Ingenieurs de Tunis; M.S.E.E. '88, University of Minnesota. Degree: Doctor of Philosophy, October '90. Major: Electrical Engineering. Minor: Supporting Program. Thesis: Application of Stochastic Filtering to a Permanent Magnet Synchronous Motor Drive System Without Electromechanical Sensors. Major Adviser: Ned Mohan

Rajkumar Sureshkumar Doshi, Bombay, India

B.Chem. '81, M.S. '85, University of Minnesota. Degree: Doctor of Philosophy, October '90. Major: Computer and Information Sciences. Minor: Supporting Program. Thesis: Task Planning for 'Simple' Assembly. Major Adviser: Maria Gini

James Gerald Drewett, Duluth

B.S. summa cum laude '86, University of Minnesota. Degree: Doctor of Philosophy, December '90. Major: Pharmacology. Minor: Supporting Program. Thesis: Modulatory Influence of Atrial Natriuretic Factor on Adrenergic Neurotransmission. Major Advisers: Ben G. Zimmerman and George J. Trachte

Sergio Jorge Duffy, Buenos Aires, Argentina

D.V.M. '77, Universidad de Buenos Aires; M.S. '88, University of Minnesota. Degree: Doctor of Philosophy, November '90. Major: Veterinary Medicine. Minor: Epidemiology. Thesis: Incidence of Pseudorabies Virus Infection in Swine Breeding Herds. Major Adviser: David G. Thawley

Daniel Joseph Dummer, St. Paul

B.Phys. '84, University of Minnesota. Degree: Doctor of Philosophy, February '91. Major: Physics. Minor: Supporting Program. Thesis: Electrical Transport Measurements of Thallium and Magnetization of PrNi5 at Very Low Temperatures. Major Adviser: Walter V. Weyhmann

David Alan Duncan

B.A. '76, Boston University; A.M. '79, Dartmouth College. Degree: Doctor of Philosophy, December '90. Major: Philosophy. Minor: Supporting Program. Thesis: A Cognitive Account of Scientific Explanation. Major Adviser: Ronald N. Giere

Laurie Ann Dunn, Minneapolis

B.S. magna cum laude '81, Texas A & M University. Degree: Doctor of Philosophy, November '90. Major: Psychology. Minor: Supporting Program. Thesis: Personality Correlates of Bipolar Mood Disorder Course Types. Major Advisers: Richard A. Depue and James N. Butcher

Karl Friedrich Eckner, La Grange, Ill.

B.A. cum laude '83, Lawrence University; M.S. '85, Illinois Institute of Technology. Degree: Doctor of Philosophy, March '91. Major: Food Science. Minor: Supporting Program. Thesis: The Microbiology of Dairy Products Manufactured from Ultrafiltration-Concentrated Milk and the Mathematical Modelling of Flux and Component Partitioning During Membrane Processing of Dairy Products. Major Adviser: Edmund A. Zottola

Sally Steckart Ehlinger, Green Bay, Wis.

B.S. with honors '68, Wisconsin State University; M.A. '82, University of Minnesota. Degree: Doctor of Philosophy, October '90. Major: Physical Education. Minor: Supporting Program. Thesis: Gender Similarities and Differences in Preschoolers' Physical Activity Choices and Aspects of Motor Behavior. Major Adviser: Jacqueline M. Shick

Daryoush Ekhterae, Iran

B.S. '82, George Washington University. Degree: Doctor of Philosophy, December '90. Major: Physiology. Minor: Supporting Program. Thesis: In utero Gene Transfer and Expression in Sheep and Monkeys. Major Adviser: Esmail D. Zanjani

Ahmed Hamzi Elidrissi, Marrakech, Morocco

D.V.M. '82, Institut Agronomique et Veterinaire Hassan II. Degree: Doctor of Philosophy, March '91. Major: Veterinary Microbiology. Minor: Supporting Program. Thesis: Bacteriologic Evaluation of Sudden Death of Sheep in Morocco and Development of ELISA for the Diagnosis of Enterotoxemias. Major Adviser: Gilbert E. Ward

Jane Margaret Elkington, Minneapolis

B.S. with honors '82, University of New South Wales; M.P.H. '86, University of Minnesota. Degree: Doctor of Philosophy, December '90. Major: Environmental Health. Minor: Supporting Program. Thesis: A Case-Control Study of Farmwork Related Injuries in Olmsted County, Minnesota. Major Adviser: Susan G. Gerberich

Mark Francis Ellis, Minneapolis

B.Math. '82, B.Ch.E. '82, University of Minnesota; M.S. '85, Texas A & M University. Degree: Doctor of Philosophy, December '90. Major: Chemical Engineering. Minor: Supporting Program. Thesis: On-Line Control and Estimation of the Molecular Weight Distribution in a Batch Polymerization Reactor. Major Adviser: Klavs F. Jensen

Leslie G. Faricy, Minneapolis

B.A. '63, Miami University; M.A. '65, Michigan State University. Degree: Doctor of Philosophy, October '90. Major: Family Social Science. Minor: Supporting Program. Thesis: The Role of Obesity in Marital Relationships. Major Adviser: William J. Doherty

Zaichun Feng, People's Republic of China

M.S. '86, University of Minnesota. Degree: Doctor of Philosophy, October '90. Major: Mechanics. Minor: Supporting Program. Thesis: Bifurcation Analysis of Surface Waves. Major Adviser: Patarasp R. Sethna

Christopher Ferrall, Cheyenne, Wyo.

B.A. with honor '84, University of Wyoming. Degree: Doctor of Philosophy, December '90. Major: Economics. Minor: Supporting Program. Thesis: Agents Becoming Principals: Theory and Estimation of a Tournament Model of Promotions in Partnerships. Major Adviser: Kenneth I. Wolpin

Marilyn E. Ferrari, Rochester, N.Y.

B.S. '81, University of Minnesota. Degree: Doctor of Philosophy, October '90. Major: Biochemistry. Minor: Supporting Program. Thesis: Light Scattering Studies of Mononucleosomal DNA. Major Adviser: Victor A. Bloomfield

Karin Marta Fladmoe-Lindquist, Minneapolis

B.S. with high honor '77, Michigan State University; M.Plan. '84, University of Minnesota. Degree: Doctor of Philosophy, January '91. Major: Business Administration. Minor: Supporting Program. Thesis: Ownership and Control Patterns of International Service Companies: A Principal-Agent Framework. Major Advisers: Laurent L. Jacque and Philip Bromiley

William Stanhope Foster, Knoxville, Tenn.

B.A. with high honors '69, University of Tennessee. Degree: Doctor of Philosophy, December '90. Major: Psychology. Minor: Supporting Program. Thesis: Remedial Procedures and Phonological Changes in Misarticulating Children. Major Adviser: Travis I. Thompson

Amy Susan Fried, Lebanon, N.Y.

B.A. cum laude '84, San Francisco State University. Degree: Doctor of Philosophy, February '91. Major: Political Science. Minor: Supporting Program. Thesis: Political Heroism and Political Culture in the United States. Major Adviser: John L. Sullivan

Michael Jed Fuhrman

A.B. '82, Cornell University. Degree: Doctor of Philosophy, March '91. Major: Psychology. Minor: Supporting Program. Thesis: Language Ability in Alzheimer's Disease: Relative Effects of Lexical Frequency and Categorical Dominance on Name Production and Category Recognition. Major Advisers: Manfred J. Meier and Richard A. Depue

Joan Roberta Fulton, Edmonton, Alberta, Canada

B.Comm. with distinction '79, University of Saskatchewan; M.A. '80, University of Western Ontario. Degree: Doctor of Philosophy, December '90. Major: Agricultural and Applied Economics. Minor: Economics. Thesis: Centralization Versus Decentralization of Decision Making Authority in Grain Marketing Cooperatives. Major Adviser: Robert Philip King

Miguel Cerrutti Garcia, Peru

M.S. '82, M.S. '87, University of Minnesota. Degree: Doctor of Philosophy, March '91. Major: Agricultural and Applied Economics. Minor: Economics. Thesis: Bioeconomics of Interdependent Fishery and Forestry Resources. Major Advisers: Wilbur R. Maki and Theodore D. Graham-Tomasi

Mary Grace Garry, Farmington Hills, Mich.

B.A. '81, North Park College. Degree: Doctor of Philosophy, January '91. Major: Anatomy. Minor: Supporting Program. Thesis: Peptides of Primary Afferent Neurons: Quantitative Immunohistochemical and Autoradiographic Studies. Major Adviser: Virginia S. Seybold

Stephen Garton, West Jordan, Utah

B.S. with honors '76, University of Nottingham. Degree: Doctor of Philosophy, October '90. Major: Horticulture. Minor: Supporting Program. Thesis: In vitro Propagation of Salix Spp. and the Effects of Nitrogen, Phosphorus, and Potassium on Growth, Propagability, and Foliar Nutrient Composition of Salix Stock Plants. Major Adviser: Paul E. Read

Esra F. Gencturk

B.S. '81, University of Southern California; M.B.A. '83, University of Minnesota. Degree: Doctor of Philosophy, October '90. Major: Business Administration. Minor: Supporting Program. Thesis: Explaining International Marketing Involvement: A Multidisciplinary Perspective. Major Adviser: Terry L. Childers

Irvyn Gayle Gilbertson, Bloornington

B.S. magna cum laude '81, M.A. '84, University of Minnesota. Degree: Doctor of Philosophy, November '90. Major: Education. Minor: Supporting Program. Thesis: Alphabet Books in the United States From 1875-1975. Major Adviser: R. Norine Odland

James Francis Glassman

B.A. cum laude '81, St. Olaf College. Degree: Doctor of Philosophy, November '90. Major: Philosophy. Minor: Supporting Program. Thesis: Radical Social Ecology and the Interpretation of Modern U.S. History. Major Adviser: Naomi B. Scheman

Linda Ann Good, Cleveland

B.S. cum laude '75, M.S. '80, M.A.T. '84, Mankato State University. Degree: Doctor of Philosophy, October '90. Major: Education. Minor: Supporting Program. Thesis: Kindergarten Assessments as Predictors of Primary School Performance. Major Adviser: Harlan S. Hansen

William F. Griswold, Jr., Athens, Ga.

B.A. '72, Georgia State College; M.A. '82, University of Georgia. Degree: Doctor of Philosophy, December '90. Major: Mass Communication. Minor: Supporting Program. Thesis: Community Structure, Reporter Specialization, and Content Diversity Among Midwest Daily Newspapers. Major Adviser: Phillip J. Tichenor

Nancy Lee Grossman, Saint Charles, Ill.

B.S. with great distinction '82, Clarkson College of Technology. Degree: Doctor of Philosophy, February '91. Major: Physics. Minor: Supporting Program. Thesis: Search for CP Symmetry Violation in the 3-Pion Decay Mode of the K-Zero Meson. Major Adviser: Kenneth Heller

Nancy Gayle Guilbeault, St. Paul

B.A. '72, M.A. '81, University of Minnesota. Degree: Doctor of Philosophy, December '90. Major: Educational Psychology. Minor: Supporting Program. Thesis: The Effects of Human Sexuality Instruction on Developmental Change of College Students. Major Advisers: John L. Romano and Dorothy R. Loeffler

Kevin Lee Haglin, Staples

B.A. magna cum laude '85, Hamline University. Degree: Doctor of Philosophy, October '90. Major: Physics. Minor: Supporting Program. Thesis: One-Boson-Exchange Approach to Dilepton Production in Nucleon-Nucleon Collisions. Major Adviser: Joseph I. Kapusta

Muhammad Mahmoud Haj-Yahia, Taibeh-Triangle

B.S.W. '81, Hebrew University of Jerusalem. Degree: Doctor of Philosophy, January '91. Major: Social Work. Minor: Supporting Program. Thesis: Perceptions About Wife-Beating and the Use of Different Conflict Tactics Among Arab-Palestinian Engaged Males in Israel. Major Adviser: Jeffrey L. Edieson

Glenn Hallam, Minneapolis

A.B. with distinction '84, Stanford University. Degree: Doctor of Philosophy, November '90. Major: Psychology. Minor: Supporting Program. Thesis: Development and Assessment of Psychometric Indices for the Detection of Faking on a Biodata and Temperament Instrument. Major Adviser: Marvin D. Dunnette

Mark Henry Hansen, St. Paul

B.S. with high distinction '76, University of Minnesota; M.S. '77, University of Wisconsin. Degree: Doctor of Philosophy, December '90. Major: Forestry. Minor: Supporting Program. Thesis: A Comprehensive Sampling System for Forest Inventory Based on an Individual Tree Growth Model. Major Adviser: Alan R. Ek

Susan Lee Harms, Minneapolis

B.S.Pharm. '76, Drake University; M.P.H. '85, University of Minnesota. Degree: Doctor of Philosophy, February '91. Major: Social and Administrative Pharmacy. Minor: Supporting Program. Thesis: Psychosocial Correlates of Active Medication Information-Seeking Behavior: A Study of Three Types of Pharmacies. Major Advisers: Judith M. Garrard and Ronald S. Hadsall

Diane Lacy Harr, Edina

B.S. with distinction '76, University of Minnesota; M.A. '78, College of St. Thomas. Degree: Doctor of Philosophy, November '90. Major: Educational Administration. Minor: Supporting Program. Thesis: Teacher Job Satisfaction and Involvement in Staff Development Programs. Major Adviser: Van Dyck Mueller

Muhammad Mahmood Hassan, Pakistan

D.V.M. '74, University of Agriculture Lyallpur; M.S. '82, University of Agriculture Faisalabad. Degree: Doctor of Philosophy, January '91. Major: Theriogenology. Minor: Supporting Program. Thesis: The Effects of Heat Stable Proteins on Preservation of Bovine Spermatozoa. Major Adviser: Edmund F. Graham

Susan M. Rickey Hatfield, Winona

B.S.Ed. '80, M.A. '81, Miami University. Degree: Doctor of Philosophy, November '90. Major: Speech-Communication. Minor: Supporting Program. Thesis: An Exploratory Comparison of Communication and Family Outcomes in Single Father and Intact Families. Major Adviser: Marshall S. Poole

Alan Robert Hauser, Sleepy Eye

B.A. magna cum laude '82, St. John's University; M.S.M.E. '85, University of Minnesota. Degree: Doctor of Philosophy, December '90. Major: Microbiology. Minor: Supporting Program. Thesis: Molecular Studies of Streptococcal Pyrogenic Exotoxins. Major Adviser: Patrick M. Schlievert

Nancy Ann Hedberg, St. Paul

B.A. '79, University of Minnesota. Degree: Doctor of Philosophy, October '90. Major: Linguistics. Minor: Supporting Program. Thesis: Discourse Pragmatics and Cleft Sentences in English. Major Advisers: Michael B. Kac and Jeanette K. Gundel

David Martin Heine, Minneapolis

B.A. magna cum laude '83, St. Olaf College. Degree: Doctor of Philosophy, November '90. Major: Psychology. Minor: Supporting Program. Thesis: Clinical Versus Mechanical Scoring of a Simulation Instrument: A Comparative Study. Major Adviser: Marvin D. Dunnette

Joan Renee Hembree

B.S.Ag. with honors '81. M.S. '83, University of Tennessee. Degree: Doctor of Philosophy, December '90. Major: Nutrition. Minor: Biochemistry. Thesis: Development and Characterization of a Porcine Primary Muscle Cell Culture System. Major Adviser: William R. Dayton

Louise Williams Hermanson, Mobile, Ala.

B.A. '78, M.A. '80, University of South Carolina. Degree: Doctor of Philosophy, October '90. Major: Mass Communication. Minor: Law. Thesis: News Councils as Alternative Dispute Resolution. Major Adviser: Donald M. Gillmor

Erik Klyver Hobbie

B.Phys. with high distinction '82, University of Minnesota. Degree: Doctor of Philosophy, November '90. Major: Physics. Minor: Supporting Program. Thesis: Anomalous Thermal Transport in Liquid Crystal Systems. Major Adviser: Cheng-Cher Huang

Steven James Hoff, Hastings

B.S. '83, University of Wisconsin; B.Ag.E. with high distinction '85, M.S.Ag.E. '87, University of Minnesota. Degree: Doctor of Philosophy, December '90. Major: Agricultural Engineering. Minor: Supporting Program. Thesis: Three-Dimensional Airspeed and Temperature Distributions in a Scale-Model Livestock Confinement Facility. Major Adviser: Kevin A. Janni

Yukie Horiba, Nagoya-shi, Aichi-ken, Japan

B.Ed. '80, Nagoya University; M.A. '85, Ohio State University. Degree: Doctor of Philosophy, October '90. Major: Education. Minor: Supporting Program. Thesis: The Role of Language Competence and Causal Thinking in Second Language Narrative Comprehension: A Comparative Study of Non-native Intermediate, Non-native Advanced, and Native Readers of Japanese. Major Adviser: Dale L. Lange

Jane Covey Hovland, Duluth

B.S.N. with distinction '71, University of Minnesota; M.S. '76, University of Wisconsin. Degree: Doctor of Philosophy, January '91. Major: Educational Psychology. Minor: Supporting Program. Thesis: The Interaction of Personality, Behavioral, and Family Variables in Offspring of Alcohol-Problem Families Versus Controls. Major Advisers: Marlowe H. Smaby and Sara S. Dehart

Kathleen Howe, Burnsville

B.S. '82, M.A. '86, University of Minnesota. Degree: Doctor of Philosophy, December '90. Major: Education. Minor: Supporting Program. Thesis: Children's Literature and Its Effects on Cognitive and Noncognitive Behaviors in Elementary Social Studies. Major Adviser: Dianne L. Monson

German Percy Hoyos, Cartagena, Colombia

Ingeniero Agronoma '82, Universidad Nacional de Colombia; M.S. '87, University of Minnesota. Degree: Doctor of Philosophy, December '90. Major: Plant Pathology. Minor: Supporting Program. Thesis: Vascular Colonization of Potato by *Verticillium dahliae* and Its Relationship to Disease and Host Resistance. Major Adviser: Neil A. Anderson

Ker-Ching Hsieh

B.S.Ag. '82, National Taiwan University; M.S.M.E. '86, University of Minnesota. Degree: Doctor of Philosophy, February '91. Major: Mechanical Engineering. Minor: Aerospace Engineering. Thesis: Studies of Particle Reentrainment/Detachment from Flat Surface. Major Adviser: Benjamin Y. H. Liu

Yongjun Hu, Nanning, Guangxi, China

M.S. '86, University of Science and Technology of China. Degree: Doctor of Philosophy, October '90. Major: Materials Science and Engineering. Minor: Supporting Program. Thesis: Inverse Photoemission, Soft-X-Ray Emission, and Structural Studies of Metal Clusters, Thin Films, and Epitaxial Overlayers. Major Adviser: John H. Weaver

Chen-Hsing Huang, Kaohsiung, Taiwan

B.Ed. '63, National Taiwan Normal University; M.S. '81, Eastern Illinois University. Degree: Doctor of Philosophy, February '91. Major: Kinesiology. Minor: Supporting Program. Thesis: A Comparative Study of Selected Socialization Factors in Sports Participation of Athletes and Non-Athletes at Universities in the Republic of China. Major Adviser: Michael Wade

Tze-Hsi Huang, Taiwan

B.S. '73. M.S. '75. Tamkang University. Degree: Doctor of Philosophy, October '90. Major: Statistics. Minor: Supporting Program. Thesis: A Study of Change Points in Mean and Variance. Major Adviser: Douglas M. Hawkins

John Edward Hummel, Annandale, Va.

B.S. magna cum laude '86. Mary Washington College. Degree: Doctor of Philosophy, December '90. Major: Psychology. Minor: Cognitive Science. Thesis: A Neural Network Model of Visual Shape Recognition that Solves the Binding Problem Through Temporal Synchrony. Major Adviser: Irving Biederman

Gregory Kent Hutchins, Falcon Heights

B.S. '72. Kansas State University; M.S. '77. Colorado State University. Degree: Doctor of Philosophy, November '90. Major: Education. Minor: Supporting Program. Thesis: Implementing an Administrative Innovation in the Minnesota Extension Service: Three Case Studies. Major Advisers: Gary W. Leske and Richard A. Krueger

Timothy Paul Ikeda, Kennett Square, Pa.

B.S. '84. Haverford College. Degree: Doctor of Philosophy, February '91. Major: Biochemistry. Minor: Internal Minor. Thesis: The Structure and Biological Function of Isocitrate Dehydrogenase Kinase/Phosphatase. Major Adviser: David C. Laporte

Abdelillah Ilham, Khouribga, Morocco

Diplome d'Agronomie '78. Diplome d'Ingenieur d'Etat '80. Institut Agronomique et Veterinaire Hassan II. Degree: Doctor of Philosophy, February '91. Major: Animal Science. Minor: Supporting Program. Thesis: Net Availability for Ruminants of Dietary Calcium and Calcium Requirements of Growing Lambs. Major Adviser: Richard D. Goodrich

Daniel Joseph Illg, Cottage Grove

B.S. with distinction '82. Iowa State University; M.S. '86. South Dakota State University. Degree: Doctor of Philosophy, November '90. Major: Animal Science. Minor: Supporting Program. Thesis: Influence of Protein Degradation and Lipid Source on Ruminant Fermentation in Continuous Culture System. Major Advisers: Marshall D. Stern and Brian A. Crooker

Karim Jamal, Alberta, Canada

B.Comm. '81. University of Manitoba. Degree: Doctor of Philosophy, March '91. Major: Business Administration. Minor: Psychology. Thesis: Detecting Framing Effects in Audit Judgment. Major Advisers: Paul E. Johnson and R. Glen Berryman

Jaeduck Jang, Seoul, Korea

B.S. '81. M.S. '83. Seoul National University. Degree: Doctor of Philosophy, February '91. Major: Mathematics. Minor: Supporting Program. Thesis: On Spike Solutions of Singularly Perturbed Semilinear Dirichlet Problem. Major Adviser: Wei-Ming Ni

Patrick L. Jarvis, Faribault

B.A. magna cum laude '72. College of St. Thomas; J.D. '75. University of Minnesota. Degree: Doctor of Philosophy, October '90. Major: Computer and Information Sciences. Minor: Supporting Program. Thesis: Parallel Algorithms for Design Automation. Major Adviser: Sartaj K. Sahni

Dean Curtis Johnson, Woodbury

B.M.E. with distinction '72. M.S.M.E. '78. University of Minnesota. Degree: Doctor of Philosophy, March '91. Major: Mechanical Engineering. Minor: Supporting Program. Thesis: Measurement of the Radial Heat Flux Distribution in High Intensity Pulsed Electric Arcs. Major Adviser: Emil Pfender

Deidre Ann Johnson, Villa Park, Ill.

B.A. cum laude '74. Knox College; M.A. '79. Eastern Michigan University. Degree: Doctor of Philosophy, January '91. Major: American Studies. Thesis: Continued Success: The Early Boys' Fiction of Edward Stratemeyer and the Stratemeyer Syndicate. Major Adviser: Chester G. Anderson

Jill Rebecca Johnson, Minneapolis

B.S. summa cum laude '80. University of Wisconsin; M.S. '88. University of Minnesota. Degree: Doctor of Philosophy, November '90. Major: Food Science. Minor: Statistics. Thesis: Factors Influencing Sensory-Specific Satiety. Major Adviser: Zata M. Vickers

Martin Andrew Johnson, Lebanon, Ore.

B.A. '82. Pacific Lutheran University; M.S. '86. Oregon State University. Degree: Doctor of Philosophy, December '90. Major: Agricultural and Applied Economics. Minor: Economics. Thesis: Agricultural Policies as Nash Equilibria. Major Adviser: Terry L. Roe

Barbara Jean Johnston, Minneapolis

B.A. summa cum laude '51. Macalester College; M.A. '54. University of North Carolina. Degree: Doctor of Philosophy, October '90. Major: Sociology. Minor: Anthropology. Thesis: The Professional and the Client: A Study of the Organizational Effectiveness of Agencies Dealing with Problem Youths. Major Adviser: Roberta G. Simmons

Barbara Joyce, Prescott, Wis.

B.A. '74. University of Minnesota. Degree: Doctor of Philosophy, December '90. Major: Sociology. Minor: Supporting Program. Thesis: Social Motivation. Major Adviser: Donald G. McTavish

Sanjay Kapil

B.V.Sc. '83. M.V.Sc. '87. Haryana Agricultural University. Degree: Doctor of Philosophy, January '91. Major: Veterinary Microbiology. Minor: Supporting Program. Thesis: Intestinal Immune Response(s) of Newborn Calves to Bovine Enteric Coronavirus Infection. Major Adviser: Sagar M. Goyal

Muhammad Kosim Kardin, Indonesia

Sarjana '73, Bandung Institute of Technology; M.S. '82, University of Minnesota. Degree: Doctor of Philosophy, December '90. Major: Plant Pathology. Minor: Supporting Program. Thesis: Genetics of Resistance and Density-Dependent Pathogen Fitness Interactions in the Bean-Bean Rust Pathosystem. Major Adviser: James V. Groth

Irene E. Karpiak, Winnipeg, Canada

B.A. '65, M.S.W. '68, University of Manitoba. Degree: Doctor of Philosophy, December '90. Major: Education. Minor: Supporting Program. Thesis: Social Workers at Midlife: An Interpretive Study of Their Patterns of Developmental Change, with Implications for Continuing Professional Education. Major Adviser: Howard Y. Williams

James Strother Kent, Battle Lake

B.S. with honor '73, M.S. '76, North Dakota State University. Degree: Doctor of Philosophy, March '91. Major: Fisheries. Minor: Ecology. Thesis: Effects of Exploitation on Populations of *Daphnia pulex*. Major Advisers: Anne R. D. Kapuscinski and George R. Spangler

Margaret Ann Keyes, Edina

B.A. '75, University of Minnesota. Degree: Doctor of Philosophy, December '90. Major: Psychology. Minor: Supporting Program. Thesis: A Study of the Relationship Between Reaction Time and Mental Ability. Major Advisers: Matthew K. McGue and Thomas J. Bouchard, Jr.

Michael Alan Kilgore, Vadnais Heights

B.S. with distinction '82, M.S. '84, University of Minnesota. Degree: Doctor of Philosophy, December '90. Major: Forestry. Minor: Supporting Program. Thesis: Coordinating State Natural Resource and Environmental Policies and Programs: Analysis of Coordination Mechanisms Used in Forestry. Major Adviser: Paul V. Ellefson

Danny Kilis

B.E.E. '85, M.S. '89, University of Minnesota. Degree: Doctor of Philosophy, October '90. Major: Computer and Information Sciences. Minor: Supporting Program. Thesis: An Artificial Neural Network with Added Physiological Features. Major Advisers: Eugene Ackerman and James R. Slagle

Anthony Alexander Killeen, Galway, Ireland

B.S. '80, M.B. '84, B.Ch. '84, B.A.O. '84, National University of Ireland. Degree: Doctor of Philosophy, December '90. Major: Pathobiology. Minor: Supporting Program. Thesis: A Molecular-Genetic and Physiologic Study of Classic Steroid 21-Hydroxylase Deficiency. Major Adviser: Harry T. Orr

Bongoh Kim, Seoul, Korea

B.Law '78, Seoul National University. Degree: Doctor of Philosophy, January '91. Major: Business Administration. Minor: Supporting Program. Thesis: A Computational Model of Hueristic Reasoning Under Uncertainty. Major Advisers: Paul E. Johnson and Shawn P. Curley

Gyenam Kim, South Korea

B.A. '82, Yonsei University; M.A. '90, University of Minnesota. Degree: Doctor of Philosophy, January '91. Major: Educational Psychology. Minor: Supporting Program. Thesis: Multiple Comparisons of Means with an Emphasis on Recent Developments: Applications in Simple Repeated Measures Designs. Major Advisers: Douglas H. Anderson and Lynne K. Edwards

Hun Kim, Seoul, Korea

B.A. honors '82, M.A. '84, Yonsei University. Degree: Doctor of Philosophy, October '90. Major: Agricultural and Applied Economics. Minor: Economics. Thesis: Information in the Term Structure of Commodity-Specific Interest Rates in the Chicago Wheat Futures Market. Major Adviser: Terry L. Roe

Hyun Soo Kim, Korea

B.V.M. '76, Kyungpook National University. Degree: Doctor of Philosophy, January '91. Major: Veterinary Medicine. Minor: Supporting Program. Thesis: Viral Characteristics and Pathogenesis of Encephalomyocarditis Virus Infection in Swine. Major Adviser: Han S. Joo

Seong-Hak Kim, Seoul, Korea

B.A. '81, M.A. '83, Ewha Womans University. Degree: Doctor of Philosophy, March '91. Major: History. Minor: Supporting Program. Thesis: Michel de L'Hopital: The Political Vision of a Reformist Chancellor, 1560-1568. Major Advisers: Paul W. Bamford and James D. Tracy

Brian Karl Kinkle, St. Paul

B.S. '80, M.S. '86, University of Maryland. Degree: Doctor of Philosophy, November '90. Major: Soil Science. Minor: Supporting Program. Thesis: Gene Transfer and Stability in Soil Populations of Rhizobia. Major Adviser: Edwin L. Schmidt

Chad John Kolaskie, Sauk Centre

B.A. '85, St. Olaf College. Degree: Doctor of Philosophy, October '90. Major: Chemistry. Minor: Supporting Program. Thesis: Electrochemically Driven Ion Transport in Conducting Polymers and Skin. Major Adviser: Larry L. Miller

Ann Therese Kotchevar, Minneapolis

B.S. '85, M.S. '88, University of Minnesota. Degree: Doctor of Philosophy, November '90. Major: Chemistry. Minor: Supporting Program. Thesis: Solvent Dynamics of Hydride Transfer Between NADH Analogues. Major Adviser: Maurice M. Kreevoy

Mary Jo Kreitzer, Shoreview

B.A. magna cum laude '73, Augustana College; M.A. '74, University of Iowa. Degree: Doctor of Philosophy, December '90. Major: Health Services Research, Policy, and Administration. Minor: Supporting Program. Thesis: Impact of Staff Nurse Participation in Decision-Making on Job Satisfaction and Organizational Commitment. Major Adviser: Theodor J. Litman

Kui Chiu Kwok, Minneapolis

B.M.E. with high distinction '73. M.S.M.E. '75. University of Minnesota. Degree: Doctor of Philosophy, January '91. Major: Mechanical Engineering. Minor: Supporting Program. Thesis: A Fundamental Study of Air Spray Painting. Major Adviser: Benjamin Y. H. Liu

Mark Leonard Larson, New Brighton

B.A. '79. M.S. '85. St. Cloud State University. Degree: Doctor of Philosophy, December '90. Major: Education. Minor: Supporting Program. Thesis: Barriers to Education as Perceived by Adult Students and Administrators in Minnesota Community Colleges and Technical Colleges. Major Adviser: Rosemarie J. Park

Richard Alan Larson, St. Paul

B.S. with distinction '81. B.V.S. '84. D.V.M. '86. University of Minnesota. Degree: Doctor of Philosophy, October '90. Major: Animal Science. Minor: Supporting Program. Thesis: Safety and Efficacy of Sustained-Release Recombinantly Derived Bovine Somatotropin Administered to Lactating Dairy Cows. Major Adviser: Donald E. Otterby

Carolyn Mary Laudon, Oshkosh, Wis.

B.S. magna cum laude '84. University of Wisconsin. Degree: Doctor of Philosophy, October '90. Major: Geophysics. Minor: Supporting Program. Thesis: Analysis and Interpretation of Surface Waves from Mine Blasts Recorded on the Central Minnesota Seismic Array. Major Advisers: David A. Yuen and Frederick R. Schult

Che-Leung Law, Hong Kong

B.Sc. '82. M.Phil. '86. University of Hong Kong. Degree: Doctor of Philosophy, November '90. Major: Pathobiology. Minor: Supporting Program. Thesis: Analysis of Expression and Function of CD40, CD23, and IL-4 Receptor on Normal and Leukemic Human B Cell Precursors. Major Adviser: Tucker W. LeBien

Loralie Lawson, Williamson, W.Va.

B.S. cum laude '79. Boise State University. M.A. '84. University of Minnesota. Degree: Doctor of Philosophy, January '91. Major: Psychology. Minor: Supporting Program. Thesis: The Measurement of Flexibility, Activeness, and Reactiveness Using an Iterative Scale Construction Method. Major Adviser: Rene V. Dawis

Jaejin Lee, Seoul, Korea

B.S. '80. M.S. '82. Seoul National University; M.S. '88. University of Minnesota. Degree: Doctor of Philosophy, November '90. Major: Mathematics. Minor: Supporting Program. Thesis: The Combinatorics of the Spin Characters of the Symmetric Group. Major Adviser: Dennis E. White

Kaidee Lee, Taiwan

B.S. '74. National Tsing Hua University. Degree: Doctor of Philosophy, December '90. Major: Chemistry. Minor: Supporting Program. Thesis: The Photoionization of N,N,N',N'-Tetramethyl-p-Phenylenediamine (TMPD) in Nonpolar Liquids. Major Adviser: Sanford Lipsky

Nancy Hecht Leffert, Edina

A.B. '72. M.S.W. '73. San Diego State College. Degree: Doctor of Philosophy, March '91. Major: Child Psychology. Minor: Supporting Program. Thesis: Psychological Correlates of the Effects of Pubertal Development in Boys with Attention Deficit Hyperactivity Disorder. Major Adviser: W. Andrew Collins

Thomas Devney Legg, Minneapolis

B.Ac. magna cum laude '75. University of Minnesota. Degree: Doctor of Philosophy, March '91. Major: Agricultural and Applied Economics. Minor: Economics. Thesis: Farm Level Effects of Environmental Policies Aimed at Nitrogen Management. Major Adviser: K. William Easter

Sizheng Lei, Beijing, People's Republic of China

Degree: Doctor of Philosophy, October '90. Major: Pharmacology. Minor: Neuroscience. Thesis: Actions of Excitatory and Inhibitory Neurotransmitters on Nociceptive Spinal Processing in Rat. Major Adviser: George L. Wilcox

Rodrick David Lentz

B.S. with honors '74. Portland State University; B.S. '79. M.S. '85. Oregon State University. Degree: Doctor of Philosophy, March '91. Major: Soil Science. Minor: Supporting Program. Thesis: A Landscape Perspective of Ephemeral Erosion: Topographic Parameters Associated with Soil Property, Soil Productivity, and Precipitation Patterns. Major Advisers: Richard H. Rust and Robert H. Dowdy

William Robert Leonard, Jr., Watchung, N.J.

B.A. cum laude '81. St. Olaf College. Degree: Doctor of Philosophy, March '91. Major: Chemistry. Minor: Supporting Program. Thesis: The Use of (Phenylseleno)-Alanes and-Boranes in a Tandem Aldol Condensation—Free-Radical Addition Annulation and a 1-Acylethenyl Anion Equivalent. Major Adviser: Thomas R. Hoye

Tongchuan Li, Yongtai, Fujian, People's Republic of China

B.Med. '82. Fujian Medical College. Degree: Doctor of Philosophy, November '90. Major: Pharmacology. Minor: Supporting Program. Thesis: Local Vascular Generation of Angiotensins and Their Potential Functional Role. Major Adviser: Ben G. Zimmerman

Ture Tina Liu, Taiwan

B.S. '82. National Taiwan University; M.S. '87. University of Minnesota. Degree: Doctor of Philosophy, October '90. Major: Physiology. Minor: Supporting Program. Thesis: Characterization of a Large Conductance Cation Channel in Planar Bilayers, and Isolation of Its Activation Factor from Sea Urchin Eggs. Major Adviser: David G. Levitt

Ichiang Lin, Taipei, Taiwan

B.Sc. '81. M.Sc. '83. National Taiwan Institute of Technology. Degree: Doctor of Philosophy, October '90. Major: Computer and Information Sciences. Minor: Supporting Program. Thesis: Studies on VLSI Performance-Driven Layout, Gate Matrix Layout, and Wafer Packing Problem. Major Adviser: David H. Du

Ya-lih Lin, Taipei, Taiwan

B.S. '83, M.S. '87, National Taiwan University. Degree: Doctor of Philosophy, March '91. Major: Forestry. Minor: Supporting Program. Thesis: Storage Characteristics of Compression-Dewatered Aspen Fuel Chip Bales. Major Adviser: Elmer L. Schmidt

Jinkui Liu, Wuqing, Tianjin, People's Republic of China

M.S. '87, University of Minnesota. Degree: Doctor of Philosophy, March '91. Major: Animal Science. Minor: Supporting Program. Thesis: Significance of Electrolytes, Carbonate, and Bicarbonate in Diet of Young Turkeys. Major Adviser: Paul E. Waibel

Pi Ying Liu

M.A. '86, University of Minnesota. Degree: Doctor of Philosophy, January '91. Major: Education. Minor: Supporting Program. Thesis: The Perceptions of Minnesota County Extension Agents on the Criteria for Judging their Qualities of Excellence. Major Adviser: Edgar A. Persons

Bernardita Pia Llanos

Profesora de Ingles '84, Pontificia Universidad Catolica de Chile; M.A. '84, University of California. Degree: Doctor of Philosophy, November '90. Major: Hispanic and Luso-Brazilian Literature and Linguistics. Minor: Comparative Literature. Thesis: America y la defensa de Espana en el teatro popular del siglo XVIII espanol. Major Adviser: Nicholas Spadaccini

David Michael Loffredo, III.

B.S. '84, University of Illinois. Degree: Doctor of Philosophy, October '90. Major: Chemistry. Minor: Supporting Program. Thesis: Electroreductive Formation of Tetraalkylammonium-Metal Composites, and Application to the Reduction of Organic Compounds. Major Adviser: Essie Kariv-Miller

Franco Lombardo, Rome, Italy

Laurea '84, Universita Degli Studi di Roma. Degree: Doctor of Philosophy, February '91. Major: Chemistry. Minor: Supporting Program. Thesis: Synthetic and Mechanistic Aspects in the Electroreductive Mono and Tandem Cyclization of Ketones. Major Adviser: Essie Kariv-Miller

Mark Joseph Lowe, Minneapolis

B.S. with high honor '86, Michigan State University. Degree: Doctor of Philosophy, March '91. Major: Physics. Minor: Supporting Program. Thesis: Astronomical Point Sources of Underground Muons. Major Adviser: Marvin Marshak

Tze hong Lu, Beijing, China

M.S. '84, University of Minnesota. Degree: Doctor of Philosophy, January '91. Major: Cell and Developmental Biology. Minor: Supporting Program. Thesis: An Immunolocalization Study and Topological Analysis of the Lens Main Intrinsic Protein, MIP. Major Adviser: Ross G. Johnson

Caliann Tsuitsin Lum, San Antonio, Tex.

M.D. '73, Tufts University. Degree: Doctor of Philosophy in Surgery, January '91. Major: Surgery. Minor: Cell and Developmental Biology. Thesis: Experimental and Clinical Studies on the Significance of the Enzyme Adenosine Deaminase in Transplantation Biology. Major Adviser: John S. Najarian

Kristina Linda Lund, St. Paul

B.S. Skidmore College; M.S.Ed. '75, Bank Street College of Education. Degree: Doctor of Philosophy, March '91. Major: Educational Psychology. Minor: Supporting Program. Thesis: Self Examination, Self Concept, and Divorce Adjustment of Mothers. Major Adviser: Richard A. Weinberg

Mitchell John Macenski, Hammond, Ind.

B.A. '86, Purdue University. Degree: Doctor of Philosophy, March '91. Major: Psychology. Minor: Supporting Program. Thesis: Effects of Methadone and Buprenorphine on Food Maintained Responding Under a Progressive Ratio Schedule: an Examination of Reinforcement Efficacy. Major Adviser: Travis I. Thompson

Diane Lucille Madden, St. Paul

B.S. with distinction '75, M.A. '81, University of Minnesota. Degree: Doctor of Philosophy, December '90. Major: Educational Administration. Minor: Supporting Program. Thesis: A Policy Analysis of Community-Based Group Home Development for Mentally Retarded Clients. Major Adviser: Richard F. Weatherman

Lukas Makris, Athens, Greece

Diploma '84, University of Patras; M.S. '91, University of Minnesota. Degree: Doctor of Philosophy, March '91. Major: Statistics. Minor: Supporting Program. Thesis: Modeling Uncertainty in the Predictive Causality Assessment Problem for Adverse Drug Reactions. Major Adviser: David Lane

Silvestra Mariniello, Florence, Italy

Laurea '79, Universita di Firenze. Degree: Doctor of Philosophy, December '90. Major: Comparative Literature. Thesis: Film and Modernity: The Kuleshov Case. Major Advisers: Wladyslaw Godzich and Reda Bensmaia

Santiago Marin-Malave, Malaga, Spain

Licenciado '81, Universidad de Malaga. Degree: Doctor of Philosophy, November '90. Major: Mathematics. Minor: Supporting Program. Thesis: Fatou Theorems for Some Nonlinear Elliptic Partial Differential Equations. Major Adviser: Eugene B. Fabes

Cheinan Mordechai Marks, Wilmington, Del.

B.Ch.E. '84, University of Delaware. Degree: Doctor of Philosophy, October '90. Major: Chemical Engineering. Minor: Supporting Program. Thesis: OH Radical Desorption from Reacting Surfaces. Major Adviser: Lanny D. Schmidt

Lorelei Carson Marshall, Lisle, Ill.

A.B. '81, Ripon College; M.S. '87, University of Minnesota. Degree: Doctor of Philosophy, October '90. Major: Plant Breeding. Minor: Supporting Program. Thesis: Characterization of Maize Genotypes Tolerant to Herbicides that Inhibit Acetyl-CoA Carboxylase. Major Adviser: David A. Somers

Paul Simmons Marshall, Minneapolis

A.B. magna cum laude '72, Middlebury College. Degree: Doctor of Philosophy, October '90. Major: Psychology. Minor: Supporting Program. Thesis: Allergy and Affective Disorders: A Test of a Neurochemical Model of the Relation Between the Illnesses. Major Adviser: Auke Tellegen

Karl Edward Martin, Nampa, Idaho

B.A. magna cum laude '81, Point Loma College; M.A. '88, University of Minnesota. Degree: Doctor of Philosophy, March '91. Major: American Studies. Thesis: The Ethical Implications of Flannery O'Connor's "Prophetic Imagination." Major Adviser: David W. Noble

Joao Palhoto Matos, Portugal

Licenciatura '79, Universidade Tecnica de Lisboa; M.S. '87, University of Minnesota. Degree: Doctor of Philosophy, January '91. Major: Mathematics. Minor: Supporting Program. Thesis: Some Mathematical Methods of Mechanics. Major Adviser: David S. Kinderlehrer

Laura Jeanne Mauro, Farmingdale, N.Y.

B.S. magna cum laude '80, State University of New York; M.S. '84, University of Minnesota. Degree: Doctor of Philosophy, December '90. Major: Animal Physiology. Minor: Neuroscience. Thesis: The Role of Hypothalamic Vasoactive Intestinal Peptide (VIP) in the Regulation of Prolactin Secretion in the Female Turkey. Major Adviser: Mohamed E. El-Halawani

Deborah Gail McCullough, Flagstaff, Ariz.

B.S. cum laude '81, M.S.F. '85, Northern Arizona University. Degree: Doctor of Philosophy, October '90. Major: Entomology. Minor: Forestry. Thesis: Differences in Foliar Nitrogen and Monoterpenes of Young Jack Pine (*Pinus banksiana* Lamb.) on Previously Burned and Clearcut Sites and Effects of Fertilization: Relation to Survival and Weight Gain of Jack Pine Budworm (*Choristoneura pinus pinus* Freeman). Major Adviser: Herbert M. Kulman

Virginia Derus McFerran, Minneapolis

B.A. '62, College of St. Benedict; M.A. '82, University of Minnesota. Degree: Doctor of Philosophy, February '91. Major: Theatre Arts. Minor: Supporting Program. Thesis: Chicana Voices in American Drama: Silviana Wood, Estela Portillo Trambley, Cherrie Moraga, Milcha Sanchez-Scott, Josefina Lopez. Major Adviser: Jean G. Congdon

Robert Brian McKane, Minneapolis

B.S. with distinction '76, University of Minnesota; M.S. '83, University of Washington. Degree: Doctor of Philosophy, March '91. Major: Soil Science. Minor: Supporting Program. Thesis: Regulation of Carbon and Nitrogen Cycling and Plant Community Structure During Old-Field Succession. Major Adviser: David F. Grigal

Kathryn Evans McLane, Fond du Lac, Wis.

A.B. with distinction '75, Stanford University. Degree: Doctor of Philosophy, February '91. Major: Biochemistry. Minor: Pharmacology. Thesis: Identification of Sequence Segments Forming the Binding Sites For Alpha-Bungarotoxin and Kappa-Bungarotoxin on Different Alpha Subunits of the Vertebrate Nicotinic Acetylcholine Receptor. Major Adviser: Bianca M. Conti-Tronconi

Marjorie Leigh McLellan, Middletown, Ohio

B.A. '75, Miami University; M.A. '83, State University of New York. Degree: Doctor of Philosophy, February '91. Major: American Studies. Thesis: Bread and Glue: Celebration and Ritual in Four American Families. Major Adviser: Riv-Ellen Prell

Mary Ann McLeod, St. Paul

A.B. with distinction '62, Duke University. Degree: Doctor of Philosophy, March '91. Major: Educational Psychology. Minor: Supporting Program. Thesis: Correlates of Coping Responses to Failure in Mathematics in College Women. Major Adviser: Lorraine S. Hansen

Peter Louis McSwiggen, St. Paul

B.S. Geol. '76, University of Minnesota; M.S. '78, University of Maine. Degree: Doctor of Philosophy, December '90. Major: Geology. Minor: Supporting Program. Thesis: Carbonate Solution Model. Calc-Silicate Phase Equilibrium Calculations and the Metamorphism of the Eastern Penokean Orogen, East-Central Minnesota. Major Adviser: James H. Stout

Karl Everett Merlin-Molstad

B.A. '74, University of Minnesota. Degree: Doctor of Philosophy, January '91. Major: English. Minor: Supporting Program. Thesis: Images of Masculinity: A Study of Male Identity in Nineteenth-Century British Novels. Major Adviser: Gordon D. Hirsch

Barbara Jean Meyer

B.S. '81, University of Minnesota. Degree: Doctor of Philosophy, December '90. Major: Microbiology. Minor: Supporting Program. Thesis: Regulation of cat Messenger RNA Turnover in *E. coli*. Major Advisers: Palmer Rogers and Janet L. Schottel

Stephen Paul Miller, Minneapolis

B.S. cum laude '85, University of Minnesota. Degree: Doctor of Philosophy, December '90. Major: Biochemistry. Minor: Supporting Program. Thesis: The Ribosomal "Achilles Heel" of the Elongation Cycle: A Study of the Ribosomal Target Sites of the Protein Cytotoxins. Major Adviser: James W. Bodley

Vaughn Paul Miller, Pine Island

B.A. cum laude '85, St. Olaf College. Degree: Doctor of Philosophy, March '91. Major: Chemistry. Minor: Supporting Program. Thesis: I. CDP-6-Deoxy-Delta-3,4-Glucose Reductase: Enzyme Purification and Mechanistic Studies. II. Studies of the Mechanistic Diversity of Sodium Cyanoborohydride Reduction of Tosylhydrazones. Major Adviser: Hung-Wen Liu

Lawrence Dalton Moe, Minneapolis

B.A. summa cum laude '73, University of Minnesota. Degree: Doctor of Philosophy, December '90. Major: English. Minor: Supporting Program. Thesis: The Christian Passages of Beowulf. Major Adviser: Calvin B. Kendall

Jose Dario Mogollon Galvis, Bogota, Colombia

D.V.M. '73, M.S. '76, Universidad Nacional de Colombia; M.S. '79, University of Edinburgh. Degree: Doctor of Philosophy, January '91. Major: Veterinary Medicine. Minor: Supporting Program. Thesis: Evaluation of the Use of Genetic Markers in the Study of the Epidemiology of Streptococcus suis. Major Adviser: Carlos Pijoan

Mary Ruth Moster, Liberty, Ind.

B.S. cum laude '77, Marian College. Degree: Doctor of Philosophy, January '91. Major: Psychology. Minor: Supporting Program. Thesis: Stressful Life Events: Genetic and Environmental Components and Their Relationship to Affective Symptomatology. Major Adviser: Thomas J. Bouchard, Jr.

Khalid Naeem, Gujrat, Punjab, Pakistan

D.V.M. '76, University of Agriculture, Lyallpur; M.Sc. '82, University of Agriculture, Faisalabad. Degree: Doctor of Philosophy, December '90. Major: Veterinary Microbiology. Minor: Supporting Program. Thesis: Pathogenesis, Persistence, and Diagnosis of Bovine Herpesvirus-4 (Bovine Cytomegalovirus). Major Advisers: Sagar M. Goyal and Thomas W. Molitor

Suzanne Marie Narayan, Arden Hills

B.A. summa cum laude '72, B.S.N. with honors '73, M.S.N. '77, Case Western Reserve University. Degree: Doctor of Philosophy, October '90. Major: Educational Psychology. Minor: Supporting Program. Thesis: Heuristic Reasoning About Uncertainty in a Clinical Nursing Task. Major Adviser: Paul E. Johnson

Craig Allen Nelson, St. Peter

B.A. '70, Gustavus Adolphus College; M.S. '79, Mankato State University. Degree: Doctor of Philosophy, January '91. Major: Education. Minor: Supporting Program. Thesis: A Content Analysis of Female and Male Authors' Portrayals of Sex Roles in Science Fiction for Children from 1970 to 1990. Major Adviser: Arthur M. Harkins

Jane Merriam Nelson, St. Joseph, Mo.

B.A. '65, Scripps College; M.F.A. '68, M.A. '72, University of Kansas. Degree: Doctor of Philosophy, October '90. Major: Art History. Minor: Studio Arts. Thesis: Carl Milles in the United States: The Circumstances of His Immigration and Success. Major Adviser: Marion J. Nelson

John Christian Nelson, Maplewood

B.S. with honors '83, University of Texas. Degree: Doctor of Philosophy, December '90. Major: Materials Science and Engineering. Minor: Supporting Program. Thesis: Stress Generation in Thin Anodic Oxide Films on Titanium, Aluminum, and Nickel. Major Adviser: Richard A. Oriani

Kevin Lyle Nelson, Hector

B.S. '79, M.S. '80, University of Minnesota. Degree: Doctor of Philosophy, February '91. Major: Environmental Health. Minor: Supporting Program. Thesis: Health Risk Assessment of Irradiated Topaz. Major Adviser: Donald E. Barber

Michael Edward Nelson

B.S. with distinction '73, M.S. '77, University of Minnesota. Degree: Doctor of Philosophy, December '90. Major: Wildlife Conservation. Minor: Supporting Program. Thesis: Gene Flow, Effective Population Size, and Genetic Population Structure in White-Tailed Deer (*Odocoileus virginianus*) in Northeastern Minnesota. Major Adviser: L. David Mech

William Bert Nelson, Minneapolis

B.A. '84, University of Minnesota. Degree: Doctor of Philosophy, November '90. Major: Physiology. Minor: Supporting Program. Thesis: Pressure, Flow, and Tissue Elastic Properties in the Isolated Perfused Kidney. Major Adviser: Eugene D. Grim

Sharon Ann Nero

A.B. '71, M.A. '74, University of Illinois. Degree: Doctor of Philosophy, January '91. Major: Education. Minor: Supporting Program. Thesis: The Professional Socialization of Women's Studies Scholars: A Case Study of the University of Wisconsin System. Major Adviser: Karen S. Louis

Kingman Ng, Hong Kong

B.S. with honors '84, M.Phil. '86, Chinese University of Hong Kong. Degree: Doctor of Philosophy, November '90. Major: Biophysical Sciences. Minor: Supporting Program. Thesis: Protein Structural Fluctuations and Chemical Dynamics in Mixed Solvent Systems. Major Adviser: Andreas Rosenberg

Xiaoguang Ni, Beijing, China

Degree: Doctor of Philosophy, January '91. Major: Economics. Minor: Supporting Program. Thesis: Two Models of Asset Pricing: Explaining the Yield Differential Anomaly. Major Adviser: Christopher A. Sims

Steven Edward Nizielski, Minneapolis

B.S. '79, M.S. '85, University of Minnesota. Degree: Doctor of Philosophy, December '90. Major: Nutrition. Minor: Supporting Program. Thesis: Regulation of Brown Adipose Tissue Thermogenesis in 13-Lined Ground Squirrels (*Spermophilus tridecemlineatus*). Major Adviser: Allen S. Levine

Hee-Bang Noh, Seoul, Korea

B.A. '77, Seoul National University; M.A. '85, University of Minnesota. Degree: Doctor of Philosophy, February '91. Major: Geography. Minor: Supporting Program. Thesis: The Spatial Pattern and Process of Migration in Korea, 1960-1985. Major Adviser: John R. Borchert

Daniel Karl Nordby, Minneapolis

A.B. '67, George Washington University; M.B.A. '69, Harvard University. Degree: Doctor of Philosophy, October '90. Major: Educational Psychology. Minor: Supporting Program. Thesis: Derivation of an Experimental MMPI Scale to Identify Women at Risk for Substance Abuse. Major Adviser: Dorothy R. Loeffler

Robert Alan Novy, Minneapolis

B.S.Ch.E. with highest distinction '85, Purdue University. Degree: Doctor of Philosophy, October '90. Major: Chemical Engineering. Minor: Supporting Program. Thesis: Studies in the Theory of Two-Phase Flow in Porous Media. Major Advisers: L. E. Scriven and H. Ted Davis

Cynthia Marie Ocamb

B.S. cum laude '83, M.S. '87, North Carolina State University. Degree: Doctor of Philosophy, February '91. Major: Plant Pathology. Minor: Supporting Program. Thesis: Ecology of Soilborne Fusarium Species Associated with Roots and the Rhizosphere of Zea mays. Major Adviser: Thor Kommedahl

Rick Mathew Odland, Houghton, S.D.

B.S. '77, South Dakota State University; M.D. '81, Creighton University. Degree: Doctor of Philosophy in Otolaryngology, November '90. Major: Otolaryngology. Minor: Supporting Program. Thesis: Measurement of Tissue Compliance in Skin Flaps. Major Adviser: Arndt J. Duvall III

Gbadebo Olaye, Igbato, Oyo State, Nigeria

B.Agric. '83, University of Ife. Degree: Doctor of Philosophy, October '90. Major: Plant Breeding. Minor: Supporting Program. Thesis: Evaluation of Three Methods of Inbred Line Development in Two Maize Populations. Major Adviser: Robert H. Busch

Kay Elsinore Oring, Grand Forks, N.D.

B.S. '61, University of Idaho; M.S. '65, University of Oklahoma. Degree: Doctor of Philosophy, February '91. Major: Education. Minor: Supporting Program. Thesis: Student Perception of Professional Dietetics Curriculum. Major Adviser: Jane E. Plihal

Kay JoAnn Owen, Wayzata

B.A. magna cum laude '71, Augsburg College. Degree: Doctor of Philosophy, November '90. Major: Psychology. Minor: Supporting Program. Thesis: An Evaluation of the Short-Term Outcomes of an Experiential Training Intervention. Major Adviser: Marvin D. Dunnette

Nathaniel John Page, Cavalier, N.D.

B.S. with honor '86, North Dakota State University; M.S. '88, University of Minnesota. Degree: Doctor of Philosophy, February '91. Major: Plant Breeding. Minor: Supporting Program. Thesis: A Computer Simulation Evaluation of the Utility of Marker-Assisted Selection. Major Advisers: Franklin D. Enfield and Robert E. Stucker

Donald Francis Palme II, St. Paul

B.S. '82, University of Minnesota. Degree: Doctor of Philosophy, October '90. Major: Microbiology. Minor: Supporting Program. Thesis: Studies of the Immunological and Non-immunological Factors that Influence the Targeting of Solid Human Tumors with Monoclonal Antibodies. Major Advisers: Beulah H. Gray and Robert L. Vessella, Jr.

Panos Charilaou Papanastasiou, Cyprus

M.S.C.E. '87, University of Minnesota. Degree: Doctor of Philosophy, November '90. Major: Civil Engineering. Minor: Supporting Program. Thesis: Numerical Analysis of Localization Phenomena with Application in Deep Boreholes. Major Adviser: Ioannis Vardoulakis

Vinod Kumar Pareek, India

B.Eng. '70, University of Rajasthan; M.S. '88, University of Minnesota. Degree: Doctor of Philosophy, November '90. Major: Materials Science and Engineering. Minor: Supporting Program. Thesis: Oxidation of Silicon Carbide in the Presence of Alkali Salt Vapors. Major Adviser: David A. Shores

Sonia Elizabeth Patten, Minneapolis

B.A. magna cum laude '60, University of Minnesota; M.S. '74, Iowa State University of Science and Technology. Degree: Doctor of Philosophy, December '90. Major: Anthropology. Minor: Supporting Program. Thesis: The Avuncular Family, Gender Asymmetry, and Patriline: The Anlo Ewe of Southeastern Ghana. Major Adviser: Stephen F. Gudeman

Beatriz Alida Perez, Saenz Pena, Chaco, Argentina

Ingenieria Agronomica '77, Universidad Nacional del Nordeste; M.S. '88, University of Minnesota. Degree: Doctor of Philosophy, December '90. Major: Plant Pathology. Minor: Supporting Program. Thesis: Durable Resistance to Leaf Rust in South American Wheat Cultivars. Major Adviser: Alan P. Roelfs

Berta Elena Perez, Caracas, Venezuela

B.A. cum laude '80, Hamline University; M.A. '82, University of Minnesota. Degree: Doctor of Philosophy, November '90. Major: Anthropology. Minor: Supporting Program. Thesis: Ideology of the Animal Rights Movement. Major Adviser: Frank C. Miller

Delores Ann Peters, Minneapolis

A.B. summa cum laude '74, Wilson College; M.A. '77, University of Minnesota. Degree: Doctor of Philosophy, January '91. Major: History. Minor: Supporting Program. Thesis: Social Catholic Sources of Family Reform in France: Contributions to the National Debate, 1920-1947. Major Adviser: John K. Munholland

Alfred Maxmillion Pheley, St. Anthony

B.A. with distinction '82, Indiana University; M.S. '84, North Dakota State University. Degree: Doctor of Philosophy, December '90. Major: Physiological Hygiene. Minor: Supporting Program. Thesis: Weight Management Skills for the Primary Care Physician: Evaluation of a Minimal Contact Education Intervention. Major Advisers: Henry W. Blackburn, Jr. and Robert W. Jeffery

Richard Carl Pleus

B.S. with honor '77, Michigan State University; M.S. '83, University of Minnesota. Degree: Doctor of Philosophy, March '91. Major: Environmental Health. Minor: Supporting Program. Thesis: Neurobehavioral Assessment in Offspring of the Influence of Maternal Hypoxia/Hypercapnia Induced by Injection of Methadone in Pregnant Rats. Major Adviser: Sheldon B. Sparber

Jodie Marie Plumert, Hudsonville, Mich.

B.A. magna cum laude '85, Kalamazoo College. Degree: Doctor of Philosophy, December '90. Major: Child Psychology. Minor: Supporting Program. Thesis: Children's Use of Categorical and Spatial Clustering Strategies for Recalling Objects. Major Adviser: Herbert L. Pick, Jr.

Victoria Pope, Decatur, Ga.

B.S. '69, Bowling Green State University; M.S. '80, Georgia State University. Degree: Doctor of Philosophy, December '90. Major: Microbiology. Minor: Supporting Program. Thesis: Numerical Analysis of Leptospiral Sodium Dodecyl Sulfate-Polyacrylamide Gel Electrophoresis Patterns for Determination of Phenotypic Relatedness. Major Adviser: Russell C. Johnson

Priscilla Young Pratt, St. Paul

B.A. cum laude '61, M.A. '82, University of Minnesota. Degree: Doctor of Philosophy, February '91. Major: English. Minor: Feminist Studies. Thesis: "Then Sunrise Kissed My Chrysalis": Figurations of the Erotic in the Poetry of Emily Dickinson. Major Adviser: Toni A. H. McNaron

Wendy Marie Rahn, Spencer, Iowa

B.A. summa cum laude '84, Creighton University. Degree: Doctor of Philosophy, December '90. Major: Political Science. Minor: Supporting Program. Thesis: Perception and Evaluation of Political Candidates: A Social-Cognitive Perspective. Major Adviser: John L. Sullivan

Cheryl Jane Rainaldi, Edina

B.S. with high scholastic honors '70, M.S. '75, St. Cloud State Univer. Degree: Doctor of Philosophy, October '90. Major: Educational Administration. Minor: Supporting Program. Thesis: Preservice Training Programs for Principals: Preferences of Practitioners. Major Adviser: Neal C. Nickerson

Buddhavarapu Sailesh Ramamurtie, India

M.B.M. '81, Asian Institute of Management. Degree: Doctor of Philosophy, October '90. Major: Business Administration. Minor: Economics. Thesis: Rational Expectations Equilibrium in a Large Economy with Segmented Asset Markets. Major Adviser: Amin H. Amershi

Nagaraja Padunanur Rao, Bombay, India

M.S. '85, University of Rhode Island. Degree: Doctor of Philosophy, November '90. Major: Mechanical Engineering. Minor: Supporting Program. Thesis: Particle Formation in Chemically Reacting Systems: Nucleation Theory, Particle Detection by Low Pressure Impaction, and LPCVD of Aluminum. Major Advisers: Peter H. McMurry and David B. Kittelson

Korise Elaine Rasmusson, Watchung, N.J.

B.A. cum laude '84, St. Olaf College. Degree: Doctor of Philosophy, January '91. Major: Genetics. Minor: Supporting Program. Thesis: Genetic and Molecular Analysis of P Element-Mediated Hybrid Dysgenesis in *Drosophila melanogaster*. Major Adviser: Michael J. Simmons

Thomas Donald Raverty, Collegeville

B.A. '72, M.A. '79, University of Minnesota; M.A. '77, St. John's University. Degree: Doctor of Philosophy, December '90. Major: Anthropology. Minor: Supporting Program. Thesis: Kristina: A Charismatic in the New Age. Major Adviser: Robert F. Spencer

Gretchen Mary Rehberg, Pullman, Wash.

B.S. with honors '86, University of the South. Degree: Doctor of Philosophy, November '90. Major: Chemistry. Minor: Supporting Program. Thesis: Synthetic and Mechanistic Studies of the Reactions of Fischer Carbene Complexes with Enynes, Alkenes, and Alkynes. Major Adviser: Thomas R. Hoye

James Robert Reinardy, Urbana, Ill.

B.A. '64, St. Paul Seminary; M.A.T. '67, College of St. Thomas; M.S.W. '78, University of Minnesota. Degree: Doctor of Philosophy, March '91. Major: Social Work. Minor: Supporting Program. Thesis: Personal Control in the Decision to Enter a Nursing Home as a Predictor of Post-Admission Well Being. Major Adviser: Rosalie Ann Kane

Stephen Joseph Reynolds, St. Paul

B.A. '77, Carleton College; M.S. '83, University of Minnesota. Degree: Doctor of Philosophy, October '90. Major: Environmental Health. Minor: Supporting Program. Thesis: Respiratory Disease in Turkey Farmers: A Cross Sectional Epidemiological and Environmental Study. Major Advisers: Donald Vesley and Charles E. McJilton

Kyehan Rhee

B.S.Eng. '84, Seoul National University; M.S.M.E. '86, University of Minnesota. Degree: Doctor of Philosophy, October '90. Major: Mechanical Engineering. Minor: Biomedical Engineering. Thesis: Left Ventricular Assist: Pulsatile with a Switcher and Nonpulsatile with a Jet Pump. Major Adviser: Perry L. Blackshear

Alan Jon Rindels, Bloomington

B.C.E. with distinction '81, M.S.C.E. '84, University of Minnesota. Degree: Doctor of Philosophy, December '90. Major: Civil Engineering. Minor: Fluid Mechanics. Thesis: Gas Transfer at Spillways, Hydraulic Jumps, and Overfalls. Major Adviser: John S. Gulliver

Kevin Richard Ringhofer, Minnetonka

B.A. magna cum laude '74, M.A. '81, University of Minnesota. Degree: Doctor of Philosophy, March '91. Major: Physical Education. Minor: Supporting Program. Thesis: Effects of Coronary Heart Disease Risk Factor Reduction on Exercise Performance in Men at High Risk of Future Coronary Heart Disease. Major Adviser: Robert C. Serfass

Karen Louise Beckstead Rogers, Burnsville

A.B. '65, University of California; M.A. '82, University of Minnesota. Degree: Doctor of Philosophy, March '91. Major: Education. Minor: Supporting Program. Thesis: A Best Evidence Synthesis of the Research on Types of Accelerative Programs for Gifted Students. Major Adviser: Richard D. Kimpston

Eleni Roulis, Golden Valley

B.A. '69, St. John's University; M.A. '73, New York University. Degree: Doctor of Philosophy, March '91. Major: Education. Minor: Supporting Program. Thesis: The Relative Effect of Gender-Linked Language Effect and a Sex Role Stereotype Effect on Readers' Responses to Male and Female Argumentative-Persuasive Writing. Major Adviser: Gene L. Piche

Suellen Olson Rundquist, Arden Hills

B.A. '66, St. Olaf College; M.A. '85, M.A. '87, University of Minnesota. Degree: Doctor of Philosophy, January '91. Major: Linguistics. Minor: Supporting Program. Thesis: Flouting Grice's Maxims: A Study of Gender-Differentiated Speech. Major Adviser: Jeanette K. Gundel

Sr. Del Marie Rysavy, Mankato

B.A. '65, Mount Mary College; M.S. '71, University of Oregon. Degree: Doctor of Philosophy, February '91. Major: Education. Minor: Supporting Program. Thesis: Method and Frequency of Drill and Practice in Acquisition of Declarative Knowledge Using a Computer-Based Drill. Major Advisers: Carol A. Carrier and Gregory C. Sales

Mohammed Sadiki, Rabat, Morocco

Ingenieur d'Etat en Agronomie '84, Institut Agronomique et Veterinaire Hassan II. Degree: Doctor of Philosophy, October '90. Major: Plant Breeding. Minor: Supporting Program. Thesis: Germplasm Development and Breeding for Improved Biological Nitrogen Fixation of Faba Bean in Morocco. Major Adviser: Donald K. Barnes

Christopher Eugene Sager, San Diego, Calif.

A.B. summa cum laude '85, San Diego State University. Degree: Doctor of Philosophy, December '90. Major: Psychology. Minor: Supporting Program. Thesis: A Component Model of Halo: Peer and Supervisory Ratings of Job Performance. Major Adviser: John P. Campbell

Bouchta Saidi, Morocco

Diplome d'Ingenieur d'Application '77, Institut Agronomique et Veterinaire Hassan II; M.S. '82, University of Minnesota. Degree: Doctor of Philosophy, October '90. Major: Food Science. Minor: Supporting Program. Thesis: Effect of Heat and Other Processing Treatments on Total and Selected Nonprotein Nitrogen in Milk. Major Adviser: Joseph J. Warthesen

Stephen Louis Sain, Albuquerque, N.M.

B.S. '81, University of New Mexico. Degree: Doctor of Philosophy, December '90. Major: Plant Physiology. Minor: Supporting Program. Thesis: Bidirectional Selection for Phosphorus Efficiency in Alfalfa (*Medicago sativa* L.) Using Hydroponic Whole Plant and Callus Tissue Culture Screening Techniques. Major Adviser: David D. Biesboer

Francisco Jose Sanchez, Spain

Licenciado '82, Universidad Autonoma de Madrid; M.A. '85, University of Minnesota. Degree: Doctor of Philosophy, December '90. Major: Hispanic and Luso-Brazilian Literature and Linguistics. Minor: Comparative Literature. Thesis: El Discurso Dramatico de las Novelas Ejemplares de Cervantes. Major Adviser: Nicholas Spadaccini

Ronald Douglas Sands, Roseville

B.E.E. with distinction '78, B.S. '79, University of Minnesota. Degree: Doctor of Philosophy, November '90. Major: Economics. Minor: Supporting Program. Thesis: Estimating Trade Demand for West Germany. Major Adviser: John S. Chipman

Luigi Sartor, Pordenone, Italy

B.Eng. summa cum laude '84, Manhattan College. Degree: Doctor of Philosophy, October '90. Major: Chemical Engineering. Minor: Supporting Program. Thesis: Slot Coating: Fluid Mechanics and Die Design. Major Adviser: L. E. Scriven

Mark Theodore Schelske, Minneapolis

B.A. '76, Carleton University; M.A. '80, College of St. Thomas; M.A. '81, University of Minnesota. Degree: Doctor of Philosophy, November '90. Major: Educational Psychology. Minor: Supporting Program. Thesis: A Comparison of the Effects of Three Approaches to Student Teaching Seminars: Personal Coping Skills Training, Classroom Management Training, and General Educational Discussions. Major Adviser: Stanley L. Deno

David Karl Schisla

B.S. with distinction '86, University of Wisconsin. Degree: Doctor of Philosophy, December '90. Major: Chemical Engineering. Minor: Supporting Program. Thesis: Hollow-Fiber Liquid Chromatography. Major Advisers: Edward L. Cussler and Peter W. Carr

Ralph Arthur Schmoldt, Portland, Ore.

B.A. '69, Valparaiso University; M.A. '71, St. Louis University; M.A. '82, Portland University. Degree: Doctor of Philosophy, March '91. Major: Sociology. Minor: Supporting Program. Thesis: Physician Burnout in a Prepaid Group Practice Health Maintenance Organization. Major Adviser: Theodor J. Litman

Carl John Schoenbeck, Roseville

B.A. '65, M.A. '69, Concordia Teachers College. Degree: Doctor of Philosophy, March '91. Major: Educational Administration. Minor: Supporting Program. Thesis: Teacher Perceptions of Lutheran Elementary School Principal Effectiveness as Related to Instructional Leadership Style. Major Advisers: Gary F. Alkire and Vernon L. Hendrix

Lydia Agnes Schultz, New Kensington, Pa.

B.A. with general honors '79, University of Chicago; M.A. '81, John Carroll University. Degree: Doctor of Philosophy, November '90. Major: English. Minor: Supporting Program. Thesis: Perceptions from the Periphery: Fictional Form and Twentieth-Century American Women Novelists. Major Adviser: Peter J. Reed

Chris E. Scott, Orrville, Ohio

B.S.E. with highest honors '85, M.S. '86, Case Western Reserve University. Degree: Doctor of Philosophy, December '90. Major: Chemical Engineering. Minor: Supporting Program. Thesis: Characterization of the Reactive Polymer Blending Process. Major Adviser: Christopher W. Macosko

Geoffrey Owen Seltzer, Minneapolis

B.A. '82, Carleton College; M.S. '87, University of Minnesota. Degree: Doctor of Philosophy, February '91. Major: Geology. Minor: Supporting Program. Thesis: Glacial History and Climate Change in the Peruvian-Bolivian Andes. Major Adviser: Herbert E. Wright

Brian Philip Shapiro, Minneapolis

B.A. cum laude '81, University of Minnesota. Degree: Doctor of Philosophy, December '90. Major: Business Administration. Minor: Psychology. Thesis: Auditors' Causal Reasoning in Preliminary Analytical Review: An Empirical Investigation. Major Adviser: Edward J. Joyce

Fang-Miin Sheen, Taiwan

B.S. '80, National Taiwan University. Degree: Doctor of Philosophy, November '90. Major: Genetics. Minor: Supporting Program. Thesis: Genetic and Molecular Analysis of Mutations Derived from an Unstable X Chromosome in *Drosophila melanogaster*. Major Adviser: Michael J. Simmons

Li Sheng, Hang Zhou, China

B.S. '82, Zhejiang University. Degree: Doctor of Philosophy, December '90. Major: Mathematics. Minor: Supporting Program. Thesis: Fluid Dynamics of Sedimentation of Spherical Particles with Inertial Effects. Major Adviser: Mitchell B. Luskin

Melissa Ann Shepard, Minneapolis

B.A. magna cum laude '82, St. Olaf College; M.S. '87, University of Minnesota. Degree: Doctor of Philosophy, December '90. Major: Mathematics. Minor: Supporting Program. Thesis: Some Calculations in K-Theory with an Application to the Image of the Stable Hurewicz Homomorphism in K-Homology of Infinite Quaternionic Projective Space. Major Adviser: Hillel H. Gershenson

Dong Cheon Shin, Korea

B.Econ. '79, M.Econ. '84, Yonsei University. Degree: Doctor of Philosophy, January '91. Major: Economics. Minor: Supporting Program. Thesis: Essays on the Transfer Problem, Import Restrictions, and the Political Economy of Voluntary Export Restraints. Major Adviser: John S. Chipman

Iain Graeme Shuker, Kearsney, South Africa

B.Sc. '81, University of Natal. Degree: Doctor of Philosophy, December '90. Major: Agricultural and Applied Economics. Minor: Business Administration. Thesis: The Economics of Information Production and Use: An Application to Agribusiness Cooperatives. Major Adviser: Robert Philip King

Amy Tanick Shulkin, St. Louis Park

B.A. '79, University of Minnesota; M.S. '82, Colorado State University. Degree: Doctor of Philosophy, November '90. Major: Educational Psychology. Minor: Supporting Program. Thesis: Separation-Individuation and Identity Status Among Late Adolescent College Students. Major Advisers: Patricia R. McCarthy and James R. Rest

Donald Reginald Singh, Minneapolis

B.Eng. '72, University of Jabalpur; M.S.E.E. '80, University of Minnesota. Degree: Doctor of Philosophy, December '90. Major: Electrical Engineering. Minor: Supporting Program. Thesis: GaAs Schottky Contact Coplanar Waveguide with Applications to Monolithic Microwave Integrated Circuits. Major Adviser: Keith S. Champlin

Michael William Sinz, Eau Claire, Wis.

B.S. cum laude '86, University of Wisconsin. Degree: Doctor of Philosophy, February '91. Major: Pharmacognosy. Minor: Supporting Program. Thesis: Animal Model Systems for the Study of Selected Antiepileptic Drug Interactions. Major Advisers: W. Thomas Shier and Rory P. Remmel

Jianjian Song, Wuhan City, Hubei, People's Republic of China

M.S.E.E. '85, University of Minnesota. Degree: Doctor of Philosophy, March '91. Major: Electrical Engineering. Minor: Supporting Program. Thesis: Totally Asynchronous Computation for Finite Element Method. Major Adviser: Larry L. Kinney

Michele Roxanne Spoont, Binghamton, N.Y.

B.A. '83, State University of New York. Degree: Doctor of Philosophy, October '90. Major: Psychology. Minor: Supporting Program. Thesis: The Effects of Full Spectrum Light on the Circadian Rhythms of Individuals with Seasonal Affective Disorder and Normal Controls. Major Adviser: Richard A. Depue

Michael Patrick Sullivan, Portland, Ore.

B.S. '83, M.S. '84, University of Oregon. Degree: Doctor of Philosophy, January '91. Major: Communication Disorders. Minor: Supporting Program. Thesis: Predictability and Consistency of Naming by Aphasic Adults with a Predominantly Lexical Impairment. Major Adviser: Robert H. Brookshire

Lawrence Anthony Susanka, Portland, Ore.

B.S. '78, University of Oregon. Degree: Doctor of Philosophy, January '91. Major: Mathematics. Minor: Supporting Program. Thesis: Potential Theoretic and ping Time Methods for Converse Mean Value Theorems. Major Adviser: John R. Baxter

Suphachai Sutanthavibul, Bangkok, Thailand

B.Eng. '83, Chulangkorn University; M.S. '87, University of Minnesota. Degree: Doctor of Philosophy, November '90. Major: Computer and Information Sciences. Minor: Electrical Engineering. Thesis: Algorithms for Performance-Driven Physical Designs of VLSI. Major Adviser: Eugene B. Shragowitz

Barbara Lynne Swanson, St. Paul

B.S. with distinction '64, M.A. '69, Spec.Cert. '74, University of Minnesota. Degree: Doctor of Philosophy, October '90. Major: Education. Minor: Supporting Program. Thesis: The Development and Assessment of a Model for Planning, Monitoring, and Evaluating Curriculum Implementation. Major Adviser: Richard D. Kimpston

Jack Sim Eddy Tan, Singapore

B.Comp.Sc. '83, M.S. '86, University of Minnesota. Degree: Doctor of Philosophy, November '90. Major: Computer and Information Sciences. Minor: Supporting Program. Thesis: On Efficient Matching and Optimization of Rule Sets in AI and Databases. Major Advisers: Jaideep Srivastava and Wei-Tek Tsai

Julie Ann Teggatz, Marion, Iowa

B.S. with honors '87, Iowa State University of Science and Technology. Degree: Doctor of Philosophy, December '90. Major: Food Science. Minor: Supporting Program. Thesis: Rheological and Microstructural Characteristics of Yogurt Made with Exopolymer-Producing Cultures. Major Adviser: Howard A. Morris

Gnanarasa Thambo, Jaffna, Sri Lanka

Degree: Doctor of Philosophy, October '90. Major: Chemistry. Minor: Supporting Program. Thesis: The Conformation and Dynamics of Polymers at Solid Interfaces. Major Adviser: Wilmer G. Miller

Robert John Tholkes, Columbia Heights

B.S. '71, Spec.Ed. '78, M.A. '81, University of Minnesota. Degree: Doctor of Philosophy, February '91. Major: Educational Administration. Minor: Supporting Program. Thesis: Economies of Scale in Rural School District Reorganization. Major Adviser: Charles H. Sederberg

You Tian

M.S. '84, University of Minnesota. Degree: Doctor of Philosophy, December '90. Major: Geo-Engineering. Minor: Supporting Program. Thesis: Boundary Element Methods in Elastodynamics. Major Adviser: Steven L. Crouch

Brian Michael Trafas, Hopkins

B.S. magna cum laude '85, St. John's University. Degree: Doctor of Philosophy, December '90. Major: Materials Science and Engineering. Minor: Physics. Thesis: Scanning Tunneling Microscopy and Synchrotron Photoemission Spectroscopy of Metal-Semiconductor Interfaces. Major Adviser: John H. Weaver

Craig Lyons Uchiyama, West Des Moines, Iowa

B.A. '82, University of Minnesota. Degree: Doctor of Philosophy, October '90. Major: Psychology. Minor: Supporting Program. Thesis: The Use of the American Sign Language MMPI with Hearing-Impaired Persons. Major Advisers: Auke Tellegen and Susan Rose

Jean-Pierre Vaillancourt, Montreal, Quebec, Canada

D.V.M. '83, M.Sc. '86, Universite de Montreal. Degree: Doctor of Philosophy, November '90. Major: Veterinary Medicine. Minor: Supporting Program. Thesis: Validation of a Swine Production Database and Its Use in a Study of Temporal Patterns in Prewearing Mortality. Major Adviser: Gary D. Dial

James Russell Valentine, Worcester, Mass.

B.S. '83, Southeast Massachusetts University. Degree: Doctor of Philosophy, November '90. Major: Chemistry. Minor: Supporting Program. Thesis: Cation Transport in Electrically Conducting Polymer Composites. Major Adviser: Larry L. Miller

Javier Valles, Zaragoza, Spain

Licenciatura '83, Universidad de Zaragoza. Degree: Doctor of Philosophy, October '90. Major: Economics. Minor: Supporting Program. Thesis: Aggregate Investment and Its Price in a Growth Model with Adjustment Costs. Major Adviser: Christopher A. Sims

Nikolaos Spyridon Vassilas, Corfu, Greece

Diploma '83, Aristotelian University of Thessaloniki; M.S.E.E. '87, University of Minnesota. Degree: Doctor of Philosophy, November '90. Major: Electrical Engineering. Minor: Supporting Program. Thesis: Performance of Neural Associative Memories for Character Recognition and Associative Database Retrieval. Major Adviser: Vladimir Cherkassky

Thomas W. Volek, Kansas City, Mo.

B.J. '73, University of Missouri; M.A. '85, University of Wisconsin. Degree: Doctor of Philosophy, February '91. Major: Mass Communication. Minor: Supporting Program. Thesis: Examining Radio Receiver Technology through Magazine Advertising in the 1920s and 1930s. Major Adviser: Hazel Dicken-Garcia

Martin J. Vos, Netherlands

Ir. '86, Universiteit Twente. Degree: Doctor of Philosophy, November '90. Major: Electrical Engineering. Minor: Supporting Program. Thesis: Noise in Thin-Film Magnetic Recording Media. Major Adviser: Jack H. Judy

David Wayne Waggoner, Ames, Iowa

B.S. with distinction '83, Iowa State University of Science and Technology; M.S. '87, University of Minnesota. Degree: Doctor of Philosophy, December '90. Major: Nutrition. Minor: Biochemistry. Thesis: Characterization of Fatty Acid Uptake and Utilization in Cultured Cells: The Involvement of Soluble Intracellular Protein Carriers. Major Adviser: Mary E. Dempsey

Gwendolyn Lee Walker, Beloit, Wis.

B.S. with honors '70, Wisconsin State University; M.A. '75, University of Minnesota. Degree: Doctor of Philosophy, October '90. Major: Educational Administration. Minor: Supporting Program. Thesis: The Effectiveness of a Learning Resource Center on Academic Performance and Self-Esteem of Low Achieving Students. Major Adviser: Neal C. Nickerson

Martha Tibbetts Wallace, Lonsdale

B.A. summa cum laude '75, St. Olaf College; M.A. '84, University of Minnesota. Degree: Doctor of Philosophy, December '90. Major: Education. Minor: Mathematics. Thesis: How do Teachers Know Geometry? A Multi-Case Study of Secondary School Geometry Teachers' Subject-Matter and Pedagogical Content Knowledge. Major Adviser: Peggy A. House

Niels Gordon Waller, Boston, Mass.

B.M. '82, New England Conservatory of Music. Degree: Doctor of Philosophy, November '90. Major: Psychology. Minor: Supporting Program. Thesis: Genetic Tobit Factor Analysis: Quantitative Genetic Modeling with Censored Data. Major Adviser: Auke Tellegen

Yale Wang, Taiwan

B.A. '84, Fu Jen Catholic University; M.S.E. '86, University of Wisconsin. Degree: Doctor of Philosophy, December '90. Major: Vocational Education. Minor: Supporting Program. Thesis: Examination of the Relationship Between Entrepreneurial Personality, Other Determinants of Job Performance, and Job Performance of Salespeople in Taiwan. Major Advisers: James R. Stone III and Charles R. Hopkins

Barbara Ann Warren, Burnsville

B.A. '61, Iowa State College; M.A. '78, University of Minnesota. Degree: Doctor of Philosophy, March '91. Major: Education. Minor: Supporting Program. Thesis: Contemporary Philosophies of Adult Education: A Comparative Analysis. Major Adviser: Howard Y. Williams

Alan Gordon Watson, Johannesburg, South Africa

B.Sc. with honors '86, M.Sc. '88, University of Witwatersrand. Degree: Doctor of Philosophy, November '90. Major: Geo-Engineering. Minor: Supporting Program. Thesis: Infill Sample Network Design for Characterization of Extremes in Geo-Engineering. Major Adviser: Randal J. Barnes

Theresa Marie Weigel, Duluth

B.A. '85, Northwestern University. Degree: Doctor of Philosophy, February '91. Major: Chemistry. Minor: Supporting Program. Thesis: Mechanistic Studies of the Biosynthesis of CDP-Ascarlyose: Purification and Characterization of CDP-4-Keto-6-Deoxy-D-Glucose-3-Dehydrase. Major Adviser: Hung-Wen Liu

Patricia Ann Welter, St. Cloud

B.A. cum laude '70, College of St. Benedict; M.A. '79, St. Cloud State University. Degree: Doctor of Philosophy, November '90. Major: Educational Administration. Minor: Supporting Program. Thesis: Collaborative Work Cultures and Teacher Efficacy in Selected Minnesota Secondary Schools. Major Adviser: Van Dyck Mueller

Mark Edward Westling, Seattle, Wash.

B.S. '81, University of Washington. Degree: Doctor of Philosophy, October '90. Major: Chemistry. Minor: Supporting Program. Thesis: The Synthesis of Nitrogenous Heterocycles via Silver Mediated Cyclization of Alpha-Ketoimidoyl Chlorides: An Application to the Synthesis of the Erythrina and Dendrobine Alkaloid Skeletal Systems. Major Adviser: Thomas S. Livinghouse

Carl Thomas Whalen, Eau Claire, Wis.

B.S. cum laude '84, University of Wisconsin. Degree: Doctor of Philosophy, December '90. Major: Chemistry. Minor: Supporting Program. Thesis: Electrochemical Reduction of Aliphatic Chlorides and Substituted Aliphatic Chlorides at Lead and Mercury Electrodes. Major Adviser: Essie Kariv-Miller

Christopher Gerard White, Woodridge, Ill.

B.S. '86, University of Illinois. Degree: Doctor of Philosophy, December '90. Major: Physics. Minor: Supporting Program. Thesis: Wide Angle Exclusive Hadronic Interactions at 6 GeV/c Incident Momentum. Major Adviser: Marvin Marshak

Jesdawan Wichitwechkarn, Bangkok, Thailand

B.S. '80, Mahidol University. Degree: Doctor of Philosophy, March '91. Major: Microbiology. Minor: Supporting Program. Thesis: Bacteriophage PHI-29 Prohead RNA: Studies on Structure and Function in DNA Packaging. Major Adviser: Dwight L. Anderson

Ruth Shaaron Williams Morris

B.A. '78, Oakwood College; M.A. '79, Andrews University. Degree: Doctor of Philosophy, December '90. Major: Educational Psychology. Minor: Supporting Program. Thesis: The Relationship Between Field Independence-Dependence and Proportional Reasoning Among Elementary and Secondary School Students in Saint Lucia. Major Adviser: William M. Bart

Andrew Michael Wowchak, Minneapolis

B.E.E. with high distinction '84, M.S.E.E. '87, University of Minnesota. Degree: Doctor of Philosophy, December '90. Major: Electrical Engineering. Minor: Physics. Thesis: The Growth of Ultrathin Intermetallic Films by MBE. Major Adviser: Philip I. Cohen

David J. Wu

Diploma '60, Shanghai Physical Education College; M.S. '82, Northern Michigan University. Degree: Doctor of Philosophy, March '91. Major: Kinesiology. Minor: Supporting Program. Thesis: The Biomechanical Analysis of the Tai Chi Fixed-Step, Single, Push-Hand Movement. Major Adviser: Lela J. Stoner

Laosheng Wu, Hangzhou, People's Republic of China

B.S. '82, Zhejiang Agricultural University; M.S. '87, Oregon State University. Degree: Doctor of Philosophy, March '91. Major: Soil Science. Minor: Supporting Program. Thesis: Soil Water and Solute Movement as Affected by Tillage Treatments. Major Adviser: James B. Swan

Xin Xu, People's Republic of China

Diploma '85, Institutul Politehnic Bucuresti. Degree: Doctor of Philosophy, October '90. Major: Computer and Information Sciences. Minor: Supporting Program. Thesis: A Neural Network Model: Its Properties and Applications. Major Adviser: Wei-Tek Tsai

Lucy Chun-Kun Yao, Taichung, Taiwan

B.A. '62, National Taiwan Normal University; M.A. '68, University of Minnesota; A.M. '80, University of Michigan. Degree: Doctor of Philosophy, January '91. Major: Education. Minor: Supporting Program. Thesis: Writing in English for Academic Purposes: Case Studies of Four Taiwanese Graduate Students. Major Advisers: Helen L. Jorstad and Diane J. Tedick

Insill Yi, Korea

B.Econ. '81, Yonsei University. Degree: Doctor of Philosophy, March '91. Major: Economics. Minor: Supporting Program. Thesis: The Effects of Taxes and Money on Capital in an Intertemporal General Equilibrium Model. Major Adviser: Timothy Kehoe

Mansik Yoo

B.Econ. '70, Yonsei University; M.S. '78, University of Illinois. Degree: Doctor of Philosophy, October '90. Major: Agricultural and Applied Economics. Minor: Economics. Thesis: An Application of a Linear-Quadratic Regulator Optimal Control Problem for a Beef Cattle Operator and Its Implications. Major Adviser: Terry L. Roe

Mary Ellen Young, St. Paul

B.A. '58, Gustavus Adolphus College; M.A. '66, University of Minnesota. Degree: Doctor of Philosophy, December '90. Major: Music. Minor: Supporting Program. Thesis: Tashi Gomang Pauline Oliveros: A Biography and Descriptive Catalog of Compositions. Major Adviser: Johannes Riedel

Xinqiu Zhang, Jiangxi, People's Republic of China

M.S.M.E. '85, University of Minnesota. Degree: Doctor of Philosophy, January '91. Major: Mechanical Engineering. Minor: Supporting Program. Thesis: Measurements of Size Resolved Atmospheric Aerosol Chemical Composition with Impactors: Data Integrity and Applications. Major Adviser: Peter H. McMurry

Xingui Zhao

B.S. '82, Guanjia University. Degree: Doctor of Philosophy, December '90. Major: Chemical Physics. Thesis: Chemical Dynamics of Energy Transfer Collisions and Reactions of Microhydrated Ions. Major Adviser: Donald G. Truhlar

Zhangqing Zhuo, People's Republic of China

B.E. '82, East China Institute of Textile Science and Technology; M.S. '88, University of Minnesota. Degree: Doctor of Philosophy, March '91. Major: Health Informatics. Minor: Supporting Program. Thesis: Expert Support System to Select, Model, and Interpret Cardiac Risk Functions. Major Adviser: Eugene Ackerman

Kresimir Zic, Split, Yugoslavia

Diploma '80, University of Split; Post-Graduate Diploma '85, University of Belgrade. Degree: Doctor of Philosophy, November '90. Major: Civil Engineering. Minor: Supporting Program. Thesis: Analysis and Simulation of Mixing of Stratified Lakes or Reservoirs by Air Bubble Plumes. Major Adviser: Heinz G. Stefan

Eileen Howell Zito, Menomonie, Wis.

B.S. cum laude '71, Lock Haven State College; A.M. '72, University of Illinois. Degree: Doctor of Philosophy, January '91. Major: Education. Minor: Supporting Program. Thesis: Student Financial Aid and Major Choice Among Undergraduates: A National Study. Major Adviser: James C. Hearn, Jr.

Imran Ahmed Zualkernan, Ranalpindi, Pakistan

B.Comp.Sc. with high distinction '83, University of Minnesota. Degree: Doctor of Philosophy, March '91. Major: Computer and Information Sciences. Minor: Supporting Program. Thesis: Representational Breakdown in Expert System Development. Major Advisers: William B. Thompson and Paul E. Johnson

Kaye Lynne Zuengler

B.S. '66, University of Wisconsin; M.S.N. '73, Wayne State University. Degree: Doctor of Philosophy, October '90. Major: Home Economics. Minor: Supporting Program. Thesis: Perception of Self as a Parent: A Childfree Sample. Major Adviser: Richard N. Hey

Degrees Pending

The following individuals had not completed all the requirements for their degrees as of March 29, 1991. Upon completion of degree requirements, graduates will be listed under Degrees Awarded in a subsequent Graduate

School commencement program. Degrees are listed as follows: professional master's, master of science, and master of arts degrees, specialist certificates, and doctoral degrees.

Professional Master's Degrees

Anthony Brent Adams, Oil Springs, Ky.

B.A. '85, University of Kentucky. Degree: Master of Fine Arts. Major: Theatre Arts.

Gitika Agrawal, Minneapolis

M.M.S. '86, University of Bombay. Degree: Master of Business Administration. Major: Business Administration.

Thomas Alberg, White Bear Lake

B.A. cum laude '87, Macalester College. Degree: Master of Business Administration. Major: Business Administration.

Dan Nels Anderson, Barron, Wis.

B.S. with distinction '87, University of Wisconsin. Degree: Master of Business Administration. Major: Business Administration.

Julia Olson Augdahl, Minneapolis

B.B.A. '88, University of Minnesota. Degree: Master of Business Administration. Major: Business Administration.

Helge Austgulen, Bergen, Norway

B.S.C.E. '88, South Dakota School of Mines and Technology. Degree: Master of Business Administration. Major: Business Administration.

Martha Jean Hanson Bacon, San Diego, Calif.

B.S. cum laude '84, Augsburg College. Degree: Master of Social Work. Major: Social Work.

Curtis Jay Bailey, Bloomington

B.B.A. with honors '82, University of Notre Dame. Degree: Master of Business Administration. Major: Business Administration.

Susan Marie Banal, Minneapolis

B.A. '84, College of St. Benedict. Degree: Master of Social Work. Major: Social Work.

Elizabeth Adair Banz, Minneapolis

B.S. '85, St. Cloud State University. Degree: Master of Social Work. Major: Social Work.

Jay R. Barnes, Omaha, Neb.

B.F.A. '83, University of Nebraska. Degree: Master of Fine Arts. Major: Studio Arts.

Cynthia Marie Baune, Golden Valley

B.Acct. '85, University of Minnesota. Degree: Master of Business Administration. Major: Business Administration.

Margaret A. Beaudoin, Plymouth

B.A. '83, College of St. Benedict. Degree: Master of Business Administration. Major: Materials Science and Engineering.

Robert James Benson, Bloomington

B.S. with distinction '74, San Jose State University. Degree: Master of Business Administration. Major: Business Administration.

James Eugene Bird, Minneapolis

B.S. '82, University of Minnesota. Degree: Master of Business Administration. Major: Business Administration.

Don L. Birmingham, Minneapolis

B.A. '73, M.A. '74; University of North Dakota. Degree: Master of Business Administration. Major: Business Administration.

James Lawrence Buchholz, Golden Valley

B.S. cum laude '84, St. Cloud State University. Degree: Master of Business Administration. Major: Business Administration.

Kathryn Grace Buckley, St. Paul

B.S. '86, Marquette University. Degree: Master of Business Administration. Major: Business Administration.

John Douglas Bullough, Minneapolis

B.S. cum laude '80, Utah State University. Degree: Master of Social Work. Major: Social Work.

Deborah Ann Burnell, Rockford, Ill.

B.A. '80, George Williams College. Degree: Master of Social Work. Major: Social Work.

Andrew Cecere, Mounds View

B.A. cum laude '82, College of St. Thomas. Degree: Master of Business Administration. Major: Business Administration.

Holly Maurine Church, Minneapolis

B.A. '82, University of Minnesota. Degree: Master of Social Work. Major: Social Work.

Robert John Cigalio, Duluth

B.A. '73, University of Minnesota. Degree: Master of Social Work. Major: Social Work.

Deanna Marie Cook, Deer Park, Wis.

B.A. '87, University of Wisconsin. Degree: Master of Business Administration. Major: Business Administration.

Cynthia Simmons Cooper, Tallahassee, Fla.

B.S. '72, Florida A. & M. University. Degree: Master of Social Work. Major: Social Work.

Rami Farouk Daher, Amman, Jordan

B.S.Arch. '88, University of Jordan. Degree: Master of Architecture. Major: Architecture.

Michael Albert Donahue, New Brighton

B.S.B. '84, University of Minnesota. Degree: Master of Business Administration. Major: Business Administration.

Kelly Kuhn Donohue, Bloomington

B.S. with distinction '83, University of Iowa. Degree: Master of Social Work. Major: Social Work.

David William Dosland, St. Paul

B.A. cum laude '85, Concorcía College. Degree: Master of Business Administration. Major: Business Administration.

Timothy Donald Dye, Greene, Iowa

B.B.A. '87, Iowa State University of Science and Technology. Degree: Master of Business Administration. Major: Business Administration.

Joanne Gale Eekhoff

B.A. '87, University of Minnesota. Degree: Master of Social Work. Major: Social Work.

Timothy Alan Ehde, Luverne

B.S.B.A. highest honors '90, University of South Dakota. Degree: Master of Business Administration. Major: Business Administration.

Linda Louise Ell, Minneapolis

B.A. '83, College of St. Catherine. Degree: Master of Social Work. Major: Social Work.

John March Ellenberger, Edina

B.A. '89, University of Minnesota. Degree: Master of Business Administration. Major: Business Administration.

James Francis Ennis, Bakersfield, Calif.

B.S. '82, University of California. Degree: Master of Business Administration. Major: Business Administration.

Margaret McCloy Essling, Apple Valley

B.A. '68, M.A. '69, San Francisco State College. Degree: Master of Business Administration. Major: Business Administration.

Joseph Matthew Febel, St. Louis Park

B.A. '83, St. Mary's College. Degree: Master of Business Administration. Major: Business Administration.

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Master of Arts

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