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# COMMENCEMENT 1969 MICHIGAN STATE UNIVERSITY

### THE COMMENCEMENT COMMITTEE

HERMAN L. KING, Chairman

LLOYD R. CHAMPION

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JOHN G. LAETZ

GLENN PETERS Student Representative

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KERMIT H. SMITH

DOYLE TARWATER Student Representative

Following the close of the 1969 Fall term, approximately seven weeks are required to complete the processing of academic records and the preparation of diplomas. Based on this schedule, diplomas will be mailed in February, 1970.



# COMMENCEMENT 1969

Saturday, December 6 University Auditorium, East Lansing

# ACADEMIC COSTUME

The pageantry and color at commencement exercises reveal a record of academic achievement of the various individuals taking part in the exercises. The following brief description is given that the audience might more readily interpret such achievement

In 1895, the Intercollegiate Commission, a group of leading American educators, met at Columbia University to draft a code which would serve to regulate the design of gowns and hoods indicating the various degrees as well as the colors to indicate the various faculties. This code has been adopted by most of the colleges and universities in America and its use has made identification of scholastic honors an immediate activity.

Three types of gowns are indicated by the code. Those worn by the bachelors have long, pointed sleeves. Those worn by masters have long, closed sleeves with the arc of a circle near the bottom. The arm goes through a slit, giving the appearance of short sleeves for the master's gown. Doctors' gowns are faced with velvet. The sleeves are full, round and open with three bars of velvet on each sleeve. The velvet facing of bars on the sleeves may be black or the same color as the binding of the hood.

Hoods are made of material identical with the gown and are lined in the official academic color of the institution conferring the degree. If the institution has more than one color, the chevron is used to introduce the second color. Colored velvet or velveteen binds the hoods and indicates the department or faculty to which the degree pertains.

Historical associations of color have been continued to signify the various faculties. Arts and letters can be recognized by the white, taken from the traditional white fur trimming of the Oxford and Cambridge Bachelor of Arts hoods. Red, long traditional of the church, indicates theology. The royal purple of the King's court signifies law. The green of medicinal herbs immediately identifies a medical degree. Philosophy is signified by the color of wisdom and truth, blue. Because through research untold wealth has been released to the world, science is identified by golden yellow. Oxford pink indicates music and russet brown, the color of dress worn by ancient English foresters, indicates forestry.

The color of the velvet of the hood is distinctive of the subject to which the degree pertains. For example, the trimming for the degree of Master of Science in Agriculture should be maize, representing agriculture, rather than golden yellow, representing science.

At Michigan State University, it is customary to identify the bachelors graduating from the different departments of study by tassels of the official department color as established by the Intercollegiate Code.

College of Agriculture
AND NATURAL RESOURCES Maize
Forest Products,
Forestry, PackagingRusset
College of Arts and
LETTERSWhite
MusicPink
PhilosophyNavy Blue
College of
BUSINESSSapphire Blue
EconomicsCopper
College of
COMMUNICATION ARTS Royal Blue
JournalismCrimson
SpeechSilver Gray
College of Education. Light Blue

# ORDER OF CEREMONIES

#### PROCESSIONAL

#### PRAYER

DR. HARRY H. KIMBER Chairman, Department of Religion, Michigan State University

#### ADDRESS

KINGMAN BREWSTER, JR., LL.B., LL.D. President, Yale University

#### **OVERTURE**

#### CONFERRING OF DEGREES

WALTER ADAMS, Ph.D. Professor of Economics and Acting President

ALMA MATER.....

M.S.U., we love thy shadows When from When twilight silence falls, And twilig Flushing deep and softly paling Our mem'r O'er ivy-covered halls. Where ligh Beneath the pines we'll gather In the even To give our faith so true, And pledg Sing our love for Alma Mater Sing our le And thy praises, M.S.U. And thy pr (The Band and Audience)

#### PRAYER

DR. KIMBER

#### RECESSIONAL

TRIUMPHAL MARCH FROM "AIDA"......Verdi

The escorts for the procession are members of Mortar Board, Tower Guard and Alpha Lambda Delta, honor societies for women.

The audience is requested to remain seated while those in the procession are entering and leaving the auditorium.

# BOARD OF TRUSTEES

Michigan State University operates under the jurisdiction of a constitutional body known as the Board of Trustees. The eight elected members serve eight-year terms. Two are elected biennially from the state at large.

The President of the University is appointed by the Board and is by constitutional provision the presiding member of the body.

The Board likewise appoints a Secretary and a Treasurer.

The Board has general supervision of the University and the control and direction of all expenditures of University funds.

THE HONORABLE	Don Stevens, Chairman	Okemos
THE HONORABLE	Stephen S. Nisbet	Fremont
THE HONORABLE	FRANK HARTMAN	Flint
THE HONORABLE	CLAIR WHITE	Bay City
THE HONORABLE	FRANK MERRIMAN, Vice Chairman	Deckerville
THE HONORABLE	Kenneth W. Thompson	Lansing
THE HONORABLE	WARREN M. HUFF	Plymouth
THE HONORABLE	BLANCHE MARTINE	ast Lansing

WALTER ADAMS, Ex Off	icio, Acting President	East	Lansing
JACK BRESLIN, Secretary		East	Lansing

# MICHIGAN STATE UNIVERSITY

Michigan State University, one of the leading land-grant universities and the first agricultural college in America, strives for excellence in affording liberal and practical education for its students in a broad range of human endeavors

MSU also serves people of the state, nation and world through its numerous research, extension and international programs.

Now in its 115th year, Michigan State has grown from three buildings and six faculty members to one of the ten largest universities in the nation. It has approximately 3,000 staff members engaged in teaching, research and public service, 439 buildings, and approximately 5,000 acres of land of which 2,010 acres are in existing or planned campus development.

Founded in 1855 to educate youth for the major occupation of that day — farming — MSU has broadened its offerings to meet the educational needs of today. Michigan State now has the School for Advanced Graduate Studies and 15 colleges — Agriculture and Natural Resources, Arts and Letters, Business, Communication Arts, Education, Engineering, Home Economics, Human Medicine, James Madison, Justin S. Morrill, Lyman J. Briggs, Natural Science, Social Science, Veterinary Medicine and the University College. Nearly 200 areas of specialization are available to undergraduates; approximately 300 are offered for graduate students.

The Honors College, which enables superior students to waive normal graduation requirements and undertake individual programs, attracts many of the nation's finest young scholars. The Merit Scholarship Program, of which Michigan State University is a prominent sponsor, enrolled 200 Merit Scholars in this year's freshman class. This figure represents approximately seven percent of the nation's total of this unusually select group.

One of the newest of many innovations in higher education made by Michigan State University is its coeducational academic-residence halls. Incorporation of classrooms and faculty offices with living, dining and recreational facilities has given these giant dormitories, now nine in number, a stimulating academic environment. Each of these halls is the center of curricular and noncurricular activities, creating a "college within a college" atmosphere.

The "small college within the larger university" concept was introduced recently at MSU by the establishment of the Justin S. Morrill College, which offers a limited enrollment liberal education program with an international emphasis. The concept was expanded by the establishment and opening of the James Madison College and the Lyman J. Briggs College. James Madison offers a curriculum for the study of public policy problems within the framework of the social sciences and related disciplines. Lyman Briggs makes available a liberal curriculum for students especially interested in science and mathematics.

## MICHIGAN STATE UNIVERSITY (continued)

Today, nearly 41,000 students attend the University at East Lansing. About 80 percent are from Michigan, representing every section of the state. Students also come from every state in the nation and 85 foreign countries.

Looking to the future, Michigan State University is preparing to meet the challenge of increasingly larger enrollments by revising curriculums and developing new teaching techniques through its Educational Development Project.

In the land-grant tradition it pioneered, Michigan State University is concerned with research and service as well as teaching.

All colleges and the Agricultural Experiment Station are engaged in a wide range of research. Approximately 2,000 individual projects are in progress. The University's research tools include the Control Data 3600 and 6500 Computers and a 50-million-volt cyclotron. Modern facilities include the following new buildings: chemistry, biochemistry, psychology research, veterinary medicine, plant science research, and natural resources.

Through an agreement with the Atomic Energy Commission, MSU will become a national center for basic research on plants and their reactions to radiation. Involved is construction of a \$2 million building, a staff of approximately 90 persons and an annual budget of approximately \$1 million when the program is fully underway.

Benefits of the University are brought to every county in Michigan by the Cooperative Extension Service and the Continuing Education Service. Their programs, on and off campus, provide a wide range of technical information and formal course work for hundreds of thousands of Michigan citizens. The Kellogg Center for Continuing Education, one of the finest conference centers in the nation, annually hosts nearly 50,000 adults who come to the campus for some 600 conferences and other educational meetings.

Michigan State University's land-grant concept of service is international. Supported by grants from the federal government and private foundations, Michigan State Unitversity maintains research and technical assistance projects in Asia, Africa and Latin America. International projects have given many faculty members overseas experience, adding a new dimension to their teaching.

With more than a century of educational achievement behind it, Michigan State University continues to apply its academic and physical resources to the problems of today and the challenges of the future.

# HONORARY DEGREES

KINGMAN BREWSTER, JR.

Your distinguished career as a professor of law, legal scholar, and most recently as president of one of America's most prestigious universities has earned for you widespread recognition. During your terms of service with government agencies and on important federal commissions by appointment of two presidents of the United States, and as president of Yale University, you have given abundantly of your talents, energies, and counsel on questions of national and international import. Your publications on Antitrust and American Business Abroad and on the Law of International Transactions and Relations reveal the breadth of your intellectual concerns and accomplishments. As academic administrator, you have assumed an active and courageous leadership role in bridging the gap between ancient tradition and modern relevance in American academic life. Most notably, you have demonstrated an uncommon talent for understanding and articulating the beliefs and aspirations of this generation of American college students. Because of your many and significant contributions as scholar, as distinguished servant to our government, and as effective spokesman for higher education in America during this most critical period of its history, Michigan State University proudly confers upon you the degree of Doctor of Laws.

#### JOHN ARTHUR GARRATY

Teacher, biographer, historian, and humanist. As author and editor of more than twenty books and scores of articles in learned journals and popular magazines, you have made your mark among the most productive members of your profession. Your biographies of Henry Cabot Lodge, Woodrow Wilson, and George W. Perkins, as well as your analytical treatise on the Nature of Biography, have given you national renown among specialists in the field. In your capacity as President of the Society of American Historians, you have advanced and supported the writing of history as literature for the benefit not only of scholars, but a wider public of educated men and women. Your text, the American Nation, has become a standard of enlightenment and inspiration for literally hundreds of thousands of students of American history. Through your writings and your scintillating performance in the classroom, you have interpreted the American dream and made it relevant to the young people of our time. For these achievements and distinctions, and in recognition of your faithful service as our colleague at this institution, Michigan State University is pleased to grant you the degree of Doctor of Humane Letters.

#### JOHN HOPE FRANKLIN

You have achieved uncommon success as an author and educator. Your scholarly books on the ante-bellum South, the reconstruction period, and especially your pioneering work on the Negro's struggle from slavery to freedom have had a far-reaching impact on the study of American history and culture. Both as a writer and a teacher at Howard University, Brooklyn College, and the University of Chicago, you have demonstrated to your many students the virtues of meticulous scholarship and the uses of historical truth to bring meaning and value to our human condition. You have given freely of your time and energy to professional organizations and national educational endeavors, serving with distinction as president of the American Studies Association and chairman of the board of Foreign Scholarships. Your teaching assignments in England, Australia, and other lands have enabled you to interpret America to the world with wisdom, sensitivity, and candor. Because of your dedication to humane learning and because you have enriched our understanding of America's pluralistic heritage, Michigan State University is proud to confer upon you the degree of Doctor of Humane Letters.

# THE CANDIDATES FOR DEGREES

# 1969 CLASS ROSTER

This includes the names of candidates for degrees as of the close of the 1969 Fall term, as well as the names of the recipients of the Doctoral and Master degrees at the close of the 1969 Summer term.

Candidates are listed by School for Advanced Graduate Studies and by colleges. The colleges are arranged in the order in which they were established.

MILTON E. MUELDER, DEAN

#### DOCTORAL DEGREES — GRADUATED SUMMER TERM, 1969

PAUL ALBERT AIKIN, Ph.D.

YOSHIHIRO AKUTSU, Ph.D.

ROBERT EDWARD ALBERTI, Ph.D.

JAMES ANDERSON, Ph.D.

LOWELL DEAN ANDERSON, Ph.D.

JOSEPH RAYMOND ASCROFT, Ph.D.

B.A., M.A., Michigan State University. Psychology. Major Professor: Norman Abeles, Professor Thesis: The Effectiveness of a Behavior Oriented Therapy and an Insight Oriented Therapy on the Academic Achievement of "Educationally-Disadvantaged" Students.

B.A., International Christian Institute; M. A., Christian University. Communication. Major Professor: Hideya Kumata, Professor. Thesis: Commitment, Self-Evaluation and Communication Activity in a Dissonant Situation: A Study of Foreign Students With English Language Deficiency.

B.S., California State Polytechnic College; M.A., Los Angeles State College. Education. Major Professor: W. Harold Grant, Professor. Thesis: The Impact on College Student Development of Short-Term, Informal Faculty-Student Small Group Interaction.

B.S., College of Wooster; M.A. Central Michigan University. Education. Major Professor: Calhoun C. Collier, Professor. Thesis: The Relationship of Teacher Belief Systems to Teacher and Pupil Factors Related to School Goals Cathexis.

B.S., M.S., St. Cloud State College. Education. Major Professor: George W. Ferns, Associate Professor. Thesis: A Comparison of the Professional Attitudes of Active Industrial Education Teachers to Those Who Leave the Profession.

B.A., University of Capetown; M.A., Michigan State University. Communication. Major Professor: Everett M. Rogers, Professor. Thesis: Modernization and Communication: Controlling Environmental Change.

#### DOCTORAL DEGREES — GRADUATED SUMMER TERM, 1969 (Continued)

HENRY RICHMOND ASKEW, Ph.D.

DAVID CHARLES BAILEY, Ph.D.

ROGER ERVIN BAUER, Ph.D.

ALFRED BERNER, Ph.D.

MICHAEL WESLEY BIRD, Ph.D.

JACK BRUCE BOHANNON, Ph.D.

STEPHEN BERT BONDY, Ph.D.

ARTHUR FRANKLIN BORDEAUX, JR., Ph.D.

RONALD JAMES BORTON, Ph.D.

B.S., M.A., Michigan State University. Psychology. Major Professor: Stanley C. Ratner, Professor. Thesis: Effects of Stimulus Intensity and Intertrial Intervals on Habituation of the Head-shake Response in the Rat.

B.A., Western Michigan University; M.A., University of Notre Dame. History. Major Professor: Charles C. Cumberland, Professor. Thesis: The Cristero Rebellion and the Religious Conflict in Mexico, 1926-1929.

B.A., Northern Illinois University. Education. Major Professor: William W. Farquhar, Professor. Thesis: The Effects of Cognitive Structuring on the Outcomes of Group Counseling.

B.A., Roberts Wesleyan College; M.S., Michigan State University. Fisheries and Wildlife. Major Professor: Leslie W. Cysel, Professor. Thesis: Habitat Analysis and Management Considerations for Ruffed Grouse on a Multiple Use Area in Michigan.

B.S., M.S., Michigan State University. Electrical Engineering. Major Professor: Richard C. Dubes, Associate Professor. Thesis: Asymptotic Convergence of Non-Linear, Continuous-Time Filters.

B.A., Southern Missionary College; M.A., Andrews University. Speech. Major Professor: Kenneth G. Hance, Professor. Thesis: Two-Way Telephone Evangelism: An Adaptation of Electronic Answering Services.

B.A., M.A., Eastern New Mexico University. Education. Major Professor: Bill L. Kell, Professor. Thesis: Completed Psychotherapies: An Investigation of the Communication of Values, Therapeutic Outcome, and Selected Therapist Variables.

B.S., M.S., North Carolina State University. Agricultural Economics. Major Professor: Dale E. Hathaway, Professor. Thesis: Resource Productivity and Returns in Apple and Tart Cherry Production on Michigan Fruit Farms.

B.S., The Ohio State University; M.S., Michigan State University. Food Science. Major Professor: Lyman J. Bratzler, Professor. Thesis: The Effects of Four Species of Bacteria on Some Properties of Porcine Muscle Proteins.

#### DOCTORAL DEGREES — GRADUATED SUMMER TERM, 1969 (Continued)

GEORGE LORIS BRINKMAN, Ph.D. B.S., M.S., Washington State University. Agricultural Economics. Major Professor: Dale E. Hathaway, Professor. Thesis: Reconciling Proposed Public Investments in Agricultural Education, Infrastructure and Production in Nigeria, 1969-85. RICHARD WILEY BROWNLEE, Ph.D. A.B., University of Michigan; M.A., Michigan State University. Education. Major Professor: John H. Suehr, Associate Professor. Thesis: Communication Networks Among the Professional Staff of Michigan's State Department of Education. B.S., Indiana State University; M.Ed., Loyola University; M.A.T., LARRY R. BRUCE, Ph.D. Michigan State University. Education. Major Professor: Wayne Taylor, Professor. Thesis: A Determination of the Relationships Among SCIS Teachers' Personality Traits, Attitude Toward Teacher-Pupil Relationships, Understanding of Science Process Skills and Question Types. LAMAR EUGENE BULLOCK, Ph.D. B.S., M.A., Western Michigan University. Physics. Major Professor: Clarence D. Hause, Professor. Thesis: Simultaneous Analysis of the First Positive Band System of  $N_2$  in the Near Infrared Excited by a Hollow Cathode Discharge. ROBERT L. BURKE, Ph.D. B.A., North Texas State University; M.A., State University of Iowa. History. Major Professor: Warren I. Cohen, Associate Professor. Thesis: Franklin D. Roosevelt and the Far East: 1913-1941. B.A., Kalamazoo College; M.S., Michigan State University. Zoology. Major Professor: Ralph A. Pax, Associate Professor. CHARLES ROBERT BURSEY, Ph.D. Thesis: Morphological and Physiological Studies of the Limulus Polyphemus Hearts: Microscopic Anatomy of the Cardiac Ganglion and Role of the Cardioregulatory Nerves. ALEXANDER DUANE BUTHERUS, Ph.D. B.S., Andrews University. Chemistry. Major Professor: Harry A. Eick, Professor. Thesis: Lanthanide Oxycarbides: Phase and Equilibrium Studies. B.S., Alabama Polytechnic Institute: M.S., University of Wisconsin. DONALD RALPH CAIN, Ph.D. Speech. Major Professor: Sidney L. Berger, Associate Professor. Thesis: Wagner and Brecht as Major Theorists of Aesthetic Distance in the Theatre. B.A., University of Washington; M.Ed., University of Oregon. Education. Major Professor: Floyd G. Parker, Professor. CHARLES F. CARDINELL, Ph.D. Thesis: Relationship of Interaction of Selected Personality Characteristics of School Principal and Custodian With Sociological Variables to School Vandalism.

#### DOCTORAL DEGREES - GRADUATED SUMMER TERM, 1969 (Continued)

DAVID ALLEN CAVINS, Ph.D.

Poo Chow, Ph.D.

BRUCE ROBERT CHRISTIE, Ph.D.

ANTHONY R. COLLINS, Ph.D.

OLIVER COSTICH, Ph.D.

JERRY BLICKMAN CRITTENDEN, Ph.D.

A. STEPHEN DAHMS, JR., Ph.D.

STEVEN JOHN DANISH, Ph.D.

NEIL GORDON DAVEY, Ph.D.

B.A., DePauw University; M.S., Indiana University. Education. Major Professor: Norman R. Stewart, Associate Professor. Thesis: The Comparative Performance of Support Personnel With Systems Approach Instruction and Elementary School Counselors and Teachers.

B.S., Taiwan Provincial College of Agriculture; M.F., Louisiana State University. Forestry. Major Professor: Otto Suchsland, Associate Professor. Thesis: The Deflection of Composite Furniture Panels Under Constant Bending Stress.

B.V.Sc., Sydney University; M.S., Michigan State University. Pathology. Major Professor: Glenn L. Waxler, Professor. Thesis: The Pathogenesis of Colibacillary Diarrhea of the Newborn. An Electron Microscopic and Histochemical Study of the Disease in Neonatal Gnotobiotic Pigs.

B.A., University of Arizona; M.A., State University of Iowa. Comparative Literature. Major Professor: Lawrence E. Babb, Professor. Thesis: Paradise Lost as a Baroque Poem.

B.S., Northern Illinois University; M.S., Michigan State University. Mathematics. Major Professor: Kyung W. Kwun, Professor. Thesis: Poincare Duality Spaces.

B.S., Eastern Michigan University; M.A., Michigan State University. Education. Major Professor: Clessen J. Martin, Professor. Thesis: An Empirical Investigation of the Behavioral Dimensions of Four Tests of Learning Disabilities.

B.S., College of St. Thomas. Biochemistry. Major Professor: Richard L. Anderson, Associate Professor. Thesis: Metabolism of D-fucose and L-arabinose in a Pseudomonad.

A.B., Bucknell University; M.S., Springfield College. Education. Major Professor: Bob B. Winborn, Associate Professor. Thesis: The Influence of Leader Empathy (Affective Sensitivity), Participant Motivation to Change and Leader-Participant Relationship on Changes in Affective Sensitivity of T-Group Participants.

B.S., University of Melbourne; M.B.A., Michigan State University. Business Administration (Management). Major Professor: Harold H. Wein, Professor. Thesis: Influences on an External Consultant's Effectiveness in Assisting Organizational Change.

#### DOCTORAL DEGREES — GRADUATED SUMMER TERM, 1969 (Continued)

ARTHUR DALE DAYTON, Ph.D.

CHARLES RICHARD DENTON, Ph.D.

Adolph Otto DiLoreto, Ph.D.

W. ROBERT DOCKING, Ph.D.

RICHARD BOWDITCH DOES, Ph.D.

DAVID THOMAS DREES, Ph.D.

DOROTHY E. DREYER, Ph.D.

LEO DWORKIN, Ph.D.

KHOSROW EBTEHADI, Ph.D.

B.S., Berea College; M.S., Michigan State University. Dairy. Major Professor: Lon D. McGilliard, Professor. Thesis: The Effects of Inbreeding on Heritable Traits in a Herd of Jersey Cattle.

A.B., M.S., Kansas State University. History. Major Professor: Frederick D. Williams, Professor. Thesis: American Unitarians, 1830-1865: A Study of Religious Opinion on War, Slavery, and the Union.

A.B., A.M., Wayne State University. Education. Major Professor: Gregory A. Miller, Professor. Thesis: A Comparison of the Relative Effectiveness of Systematic Desensitization, Rational-Emotive and Client-Centered Group Psychotherapy in the Reduction of Interpersonal Anxiety in Introverts and Extroverts.

B.A., Eastern Michigan University; M.Ed., Wayne State University. Education. Major Professor: John H. Suehr, Associate Professor. Thesis: A Descriptive and Evaluative Study of a Secondary School Dropout Program.

B.A., Rockford College; M.A., Michigan State University. Psychology. Major Professor: Arthur Seagull, Associate Professor. Thesis: A Process Analysis of Supervision in Psychotherapy/Counseling Training: On the Dimensions of Interpersonal Perception, Conflict Confrontation, and Levels of Supervisor Offered Conditions.

D.V.M., Iowa State University; M.S., Michigan State University. Pathology. Major Professor: Glenn L. Waxler, Professor. Thesis: Enteric Colibacillosis in Gnotobiotic Swine: Fluorescence and Electron Microscopic Studies.

B.S., M.A., Kent State University. Audiology and Speech Science. Major Professor: Herbert J. Oyer, Professor. Thesis: Listening Performance Related to Selected Academic and Psychological Measures.

A.B., M.Ed., Wayne State University. Education. Major Professor: Charles A. Blackman, Professor. Thesis: A Systems Theory Approach Toward the Reconceptualization of Curriculum.

B.Sc., Birmingham University, England. Geology. Major Professor: Aureal T. Cross, Professor. Thesis: Palynology of the Subsurface Frio Formation in Liberty and Chambers Counties, Texas.

#### DOCTORAL DEGREES - GRADUATED SUMMER TERM, 1969 (Continued)

ALEXANDER EMODI, Ph.D.

B.S., University of Agrarian Science; M.S., Michigan State University. Food Science. Major Professor: Richard V. Lechowich, Associate Professor. Thesis: Chromatographic Purification and Molecular Dimensions of Type E Clostridium botulinum Toxin.

DAVID LLOYD ERB, Ph.D.

B.A., Wheaton College; M.A., Michigan State University. Education. Major Professor: John E. Jordan, Professor. Thesis: Racial Attitudes and Empathy: A Guttman Facet Theory Examination of Their Relationships and Determinants.

CHARLES DRESSLER ERTLE, Ph.D.

B.A., M.A., Michigan State University. Speech. Major Professor: James C. McCroskey, Assistant Professor. Thesis: A Study of the Effect of Homogeneous Grouping on Systematic Desensitization for the Reduction of Interpersonal Communicative Apprehension.

HANS RUDOLF FANKHAUSER, Ph.D.

Diploma, Swiss Federal Institute of Technology. Physics. Major Professor: Frank J. Blatt, Professor.

Effect of Phonon and Electron-Electron Induced Thesis: Part I. Interband Transitions on the Thermopower of the Transition Metals.

> Part II. Lattice Dynamics of Crystals With Molecular Impurity Centers.

WILHELMINA JOVEN FERNANDEZ, Ph.D.

RICHARD C. FORCIER, Ph.D.

JAMES EDGAR FOY, Ph.D.

ROLAND GERALD FRANK, Ed.D.

vate College. B.S.E., State College; M.Ed., University of Massachusetts.

B.S., University of the Philippines; M.S., Eastern Illinois University.

Thesis: A Case Study of Administrative Policies in a Philippine Pri-

Education. Major Professor: Max R. Raines, Professor.

Education. Major Professor: Carl L. Midjaas, Assistant Professor. Thesis: A Pilot Study Concerned with the Design of an Educational Belief Inventory Instrument.

A.B., M.A., University of Alabama. Education. Major Professor: William Harold Grant, Professor. Thesis: Career Patterns of Student Personnel Administrators.

B.S., M.A., Ed.S., Central Michigan University. Education. Major Professor: Louis Romano, Associate Professor. Thesis: An Analysis of the Communications Patterns of Selected Elementary Principals in Michigan.

DOCTORAL DEGREES — GRADUATED SUMMER TERM, 1969 (Continued)		
MARTIN SHELTON FREDERIXON, Ph.D.	B.S., Purdue University; M.B.A., Michigan State University. Business Administration (Marketing). Major Professor: Adolph E. Grunewald, Professor.	
	Thesis: An Investigation of the Product Life Cycle Concept and Its Application to New Product Proposal Evaluation Within the Chemical Industry.	
RICHARD LANHAM FREMON, Ph.D.	B.A., Columbia College; M.S., Michigan State University. Mathematics. Major Professor: Kyung W. Kwun, Professor. Thesis: Finite Cyclic Group Actions on S <sup>1</sup> X S <sup>n</sup> .	
Donald Owen Fries, Ph.D.	B.A., M.A., University of Michigan. History. Major Professor: Marjorie E. Gesner, Associate Professor. Thesis: William Roy: A Study in Early Sixteenth-Century Protestant- Lollard Relationships.	
David Emanuel Galewski, Ph.D.	B.S., M.S., Michigan State University. Mathematics. Major Professor: Patrick H. Doyle, Professor. Thesis: The Essential P. L. Character of Certain Compact Sets in Topological Manifolds.	
David Allan Gilbart, Ph.D.	B.S., Ontario Agricultural College; M.S., Michigan State University. Horticulture. Major Professor: Kenneth C. Sink, Associate Professor. Thesis: Physiological Studies of Bract Keeping Quality in Poinsettia.	
Roy Franklin Gilbert, Ph.D.	B.A., M.A., Michigan State University. Economics. Major Professor: Thomas R. Saving, Professor. Thesis: The Demand for Money: An Analysis of Specification Error.	
Peter Lee Gillett, Ph.D.	<ul> <li>B.A., B.S., The Ohio State University; M.B.A., Washington State University.</li> <li>Business Administration (Marketing). Major Professor: Bernard J. La Londe, Professor.</li> <li>Thesis: An Analysis of Demographic, Socioeconomic and Attitudinal Characteristics of the Urban In-Home Shopper.</li> </ul>	
Charles William Given, Ph.D.	B.S., M.S., The Ohio State University Sociology. Major Professor: Philip M. Marcus, Associate Professor. Thesis: Integration and Conflict in Educational Organizations: An Examination of Secondary School Systems.	
OTIS WEBSTER GODFREY, Ph.D.	B.A., Syracuse University; M.S., Michigan State University. Microbiology and Public Health. Major Professor: Delbert E. Schoen- hard, Professor. Thesis: Chromosome Transfer in Salmonella Pullorum Mediated by F-Prime Factors Carrying Salmonella Genes.	

#### DOCTORAL DEGREES — GRADUATED SUMMER TERM, 1969 (Continued)

B.S., M.A., Michigan State University. DANIEL LAWRENCE GOLDSMITH, Ed.D. Education. Major Professor: Troy L. Stearns, Professor. Thesis: An Investigation of the Health Practices of Fourth and Sixth Grade Elementary Children in the Public Schools of Hillsdale County, Michigan. B.Sc.F., University of Toronto; M.S., Michigan State University. WALTER STEPHEN GOOD, Ph.D. Forestry. Major Professor: Otto Suchsland, Associate Professor. Thesis: Consumer Life Styles and Their Relationship to Market Behavior Regarding Household Furniture. DUANE WESLEY GREENE, Ph.D. B.A., Colgate University; M.S., Michigan State University. Horticulture. Major Professor: Martin J. Bukovac, Professor. Thesis: Factors Influencing the Foliar Penetration of Naphthaleneacetic Acid and Naphthaleneacetamide Into Leaves of Pear (Pyrus Communis L.) B.A., University of Montana; Ed.M., Washington State University. Education. Major Professor: David C. Smith, Associate Professor. PERRY KEITH GREGG, Ed.D. Thesis: A Case Study of the Public School Collective Negotiations Process Designed for the Use of Administrators-In-Training. MAX GILBERT GRUENDL, Ph.D. B.S., University of Dayton; M.S., Michigan State University. Mathematics. Major Professor: Joseph Adney, Professor. Thesis: A Permutation Representation of the Automorphisms of a Group. B.A., Eastern Illinois University; M.A., Michigan State University. BARRY JOSEPH GUINAGH, Ph.D. Education. Major Professor: Lee S. Shulman, Professor. Thesis: An Experimental Study of Basic Learning Ability and Intelligence in Low Socioeconomic Populations. JERRY LEE HAMELINK, Ph.D. B.S., Michigan State University. Fisheries and Wildlife. Major Professor: Robert C. Ball, Professor. Thesis: The Dynamics of DDT in the Lentic Environment. RICHARD JOHN HAMERSMA, Ph.D. A.B., Calvin College; M.A., Michigan State University. Education. Major Professor: John E. Jordan, Professor. Thesis: Construction of an Attitude Behavior Scale of Negroes and Whites Toward Each Other Using Guttman Facet Design and Analysis. B.S., Nebraska State Teachers College. JAMES FRANKLIN HAMPTON, Ph.D. Chemistry. Major Professor: Robert N. Hammer, Associate Professor. Thesis: The Chemistry and Kinetics of Silvlchromate Formation.

DOCTORAL DEGREES — GRADU	ATED SUMMER TERM, 1969 (Continued)
STANLEY THOMAS HARDY Ph.D.	B.S., Purdue University; M.B.A., University of Akron. Business Administration (Management). Major Professor: John H. Hoagland, Professor. Thesis: Vertical and Horizontal Structures in the Copper Industry.
RAGAA ABDEL-RASSOUL HASSAN, Ph.D.	B.S., Alexandria University; M.S., Cairo University. Agricultural Economics. Major Professor: Harold M. Riley, Professor. Thesis: An Analysis of the Demand for Food in Egypt.
DAVID ROGER HAWKINS, Ph.D.	B.S., M.S., The Ohio State University. Animal Husbandry. Major Professor: Hugh E. Henderson, Professor. Thesis: The Effect of Dry Matter Levels of Alfalfa Silage on Intake and Metabolism in the Ruminant.
THOMAS HOLLINGER HENRIKSEN, Ph.D.	B.A., Virginia Military Institute; M.A., Michigan State University. History: Major Professor: Donald Lammers, Associate Professor. Thesis: The British Press and Italian Fascism, 1922-1932.
John Harold Herr, Ph.D.	B.S., Western Michigan University; M.A., University of California. Theatre. Major Professor: Elwin C. Reynolds, Professor. Thesis: Thomas Wignell and the Chestnut Street Theatre.
Paul Dale Hoeksema, Ph.D.	A.B., Calvin College; M.S., Michigan State University. Education. Major Professor: John M. Mason, Professor. Thesis: Audio-tutorial Biology in Lyman Briggs College at Michigan State University.
James David Hoeschele, Ph.D.	B.S., Franklin and Marshall College. Chemistry. Major Professor: Carl H. Brubaker, Professor. Thesis: The Photochemical Acceleration of the Uranium (IV)- Uranium (VI) Electron Exchange Reaction.
Alan John Hoffman, Ph.D.	B.S., M.S., Wisconsin State University. Education. Major Professor: William W. Joyce, Associate Professor. Thesis: Application of Social Science Structural Generalizations as a Function of Previous Social Science Coursework.
James Irvie Hoffman, III, Ph.D.	B.S., Allegheny College; M.S., Michigan State University. Geology. Major Professor: Robert Ehrlich, Assistant Professor. Thesis: The Nature of Calcium-Organic Complexes in Natural Solu- tions and Its Implications on Mineral Equilibria.
Bruce William Hozeski, Ph.D.	B.A., Aquinas College; M.A., Michigan State University. English. Major Professor: Arnold Williams, Professor. Thesis: Ordo Virtutum: Hildegard of Bingen's Liturgical Morality Play.

## DOCTORAL DEGREES — GRADUATED SUMMER TERM, 1969 (Continued)

Jack Leroy Hruska, Ph.D.	B.A., Michigan State University; M.A., Colorado State College. Education. Major Professor: Marvin E. Grandstaff, Assistant Professor. Thesis: An Analysis of Paul Goodman's Conception of the Nature of Man as a Perspective on His Educational Proposals: A Study in the Philosophical Foundations of Radical Educational Thought.
Joshua Shelton Hull, III, Ph.D.	B.A., M.A., Seton Hall University. Education. Major Professor: Gregory A. Miller, Professor. Thesis: An Investigation of Identification of Male College Students With Their Fathers as a Variable Influencing Vocational Interests and Vocational Counseling.
Jackson Richard Huntley, Ph.D.	B.S., Wisconsin State University; M.A., Kent State University. Speech. Major Professor: James C. McCroskey, Assistant Professor. Thesis: An Investigation of the Relationships Between Personality and Types of Instructor Criticism in the Beginning Speech-Communication Course.
Robert Lee Jennings, Ph.D.	B.M.Ed., Augustana College; M.A., Western Michigan University. Music. Major Professor: Robert G. Sidnell, Associate Professor. Thesis: A Study of the Historical Development of Choral Ensembles at Selected Lutheran Liberal Arts Colleges in the United States.
Jorge Victor Jiménez, Ph.D.	D.D.S., Universidad de Costa Rica; M.S., Michigan State University. Zoology. Major Professor: Rollin H. Baker, Professor. Thesis: Comparative Post-Natal Growth in Cotton Rats (Genus Sigmodon).
Merlyn Lloyd Jones, Ph.D.	B.S., Wisconsin State University; M.S., University of Wisconsin. Crop Science. Major Professor: Fred C. Elliott, Professor. Thesis: Evaluation of Alfalfa Plants for Saponins.
ARTHUR DAVID KATSER, Ed.D.	B.S., M.Ed., Wayne State University. Education. Major Professor: Charles F. Schuller, Professor. Thesis: Activities and Attitudes of Instructional Media Building Co- ordinators: A Follow-Up to Two M.S.U. Summer Institutes.
Jonathan David Kazsuk, Ph.D.	B.S., Central Michigan University; M.A., Michigan State University. Psychology. Major Professor: S. Howard Bartley, Professor. Thesis: Some Effects of Limited Pulse Trains on Critical Fusion Fre- quency for Pigeon and Human Subjects.
Sun Chun Kim, Ph.D.	B.Engr., Yonsei University; M.S., University of Georgia. Food Science. Major Professor: Laurence G. Harmon, Professor. Thesis: Relationship Between Some Insecticides and Lactic Culture Organisms in Milk.

DOCTORAL DEGREES — GRADUATED SUMMER TERM, 1969 (Continued)		
Gordon Laidlaw Kirkland, Jr., Ph.D.	B.S., Cornell University; M.S., Michigan State University. Zoology. Major Professor: George J. Wallace, Professor. Thesis: Avian Utilization of Small Woodlots in Southeastern Michigan.	
Thomas Albert Klaasen, Ph.D.	A.B., Hope College; M.A., Indiana University. Economics. Major Professor: John R. Moroney, Associate Professor. Thesis: Alternative Models of Regional Comparative Advantage in the United States.	
Isaac Klein, Ph.D.	B.S., Hebrew University; M.S., Michigan State University. Horticulture. Major Professor: David R. Dilley, Professor. Thesis: Malic Enzyme in Pome Fruits; Some Properties and Relation to Fruit Ripening.	
Franklin Albert Knutson, Ph.D.	B.A., Atlantic Union College; M.A., Andrews University. Speech. Major Professor: Kenneth G. Hance, Professor. Thesis: A Survey of Religious Radio Broadcasting in St. John's, New- foundland.	
Duane Elmer Koch, Ph.D.	B.S., University of Wisconsin; M.S., Michigan State University. Food Science. Major Professor: Robert A. Markel, Professor. Thesis: The Relationship of Some Biochemical and Physiological Fac- tors to Postmortem Changes in Porcine Muscle.	
George William Krieger, Ph.D.	B.A., City College of New York; M.A., University of Illinois. Education. Major Professor: Gregory A. Miller, Professor. Thesis: An Exploratory Study of the Effect of Model-Reinforcement Counseling on the Vocational Behavior of a Group of Male Retarded Adolescents.	
Judith Lee Kuipers, Ph.D.	B.S., Michigan State University; M.A., Central Michigan University. Education. Major Professor: Jean M. LePere, Professor. Thesis: The Differential Effects of Three Parent Education Programs on the Achievement of Their Children Enrolled in an Experimental Head Start Program.	
Norbert Anthony Kuntz, Ph.D.	B.A., St. Joseph's College; M.A., John Carroll University. History. Major Professor: Frederick D. Williams, Professor. Thesis: The Electoral Commission of 1877.	
William Ronald Landis, Ph.D.	A.B., Miami University; M.S., Michigan State University. Botany and Plant Pathology. Major Professor: John H. Hart, Assistant Professor. Thesis: Changes in Ulmus Americana in Response to Infection by Ceratocystis Ulmi.	

DOCTORAL DEGREES — GRADUATED SUMMER TERM, 1969 (Continued)		
John Nelson LaRue, Ph.D.	B.S., Alma College; M.S., Michigan State University. Biochemistry. Major Professor: John C. Speck, Jr., Professor. Thesis: The Preparation and Amino Acid Sequence of Crystalline Turkey Egg White Lysozyme.	
LAURENCE VINCENT LAUTH, Ph.D.	M.A., Fordham University. Education. Major Professor: Van C. Johnson, Professor. Thesis: An Investigation of Selected Factors Which Contribute to Its Prolongation of Doctoral Programs at Michigan State University.	
Lowell Vincent LeClair, Ph.D.	B.A., M.A., University of Michigan. Education. Major Professor: Floyd G. Parker, Professor. Thesis: A Study of the Relationship of Three Factors Perceived Need Deficiency, Importance of Need Fulfillment, Perception of Edu- cation as a Mobility Facilitator to Participation in Educational Activi- ties.	
Bruce Carl Leibrecht, Ph.D.	B.A., Eastern Washington State College; M.A., Michigan State Uni- versity. Psychology. Major Professor: Stanley C. Ratner, Professor. Thesis: Dishabituation of the Head-shake Response in the Rat.	
Clyde Edward LeTarte, Ed.D.	A.B., Hope College; M.A., Michigan State University. Education. Major Professor: James E. Heald, Professor. Thesis: A Comparative Study of Selected Federal Programs and the Funds Received by Urban and Rural School Districts.	
LAWRENCE WILLIAM LEZOTTE, Ph.D.	B.S., M.A., Western Michigan University. Education. Major Professor: William W. Farquhar, Professor. Thesis: The Relationship Between Cognitive Styles, Scholastic Ability and the Learning of Structured and Unstructured Materials.	
Edward Grant Little, Ph.D.	A.B., Hiram College; M.A., University of Michigan. Comparative Literature. Major Professor: John A. Yunck, Professor. Thesis: Epic Moderation: Structure, Narrative Texture, and Purpose in Heroic Literature.	
William Frederick Long, Ph.D.	B.S., William Jewell College; M.S., Michigan State University. Physics. Major Professor: Julius S. Kovacs, Professor. Thesis: Chiral Dynamics Calculations of Single Pion Production in Pion-Nucleon Inelastic Scattering.	
Michael James Loupe, Ph.D.	B.A., M.A., Michigan State University. Education. Major Professor: Lee S. Shulman, Professor. Thesis: The Training of Problem-Solving and Inquiry.	

DOCTORAL DEGREES — GRAD	UATED SUMMER TERM, 1969 (Continued)
William Anthony Lovett, Ph.D.	B.A., Wabash College; L.L.B., New York University; M.A., Harvard. Economics. Major Professor: Robert F. Lanzillotti, Professor. Thesis: Patents and Headstarts: A Study of the Polyolefin Plastics.
Phyllis Elizabeth Lueck, Ph.D.	B.S., Tufts University; M.S., Iowa State University. Education. Major Professor: Lee S. Shulman, Professor. Thesis: The Form-Color Preferences of 2½-, 3½-, and 4½-Year-Olds.
Richard Allan Margoles, Ph.D.	B.S., University of North Carolina; A.B., M.Ed., University of Miami. Education. Major Professor: Charles F. Schuller, Professor. Thesis: A Study of Media Use, Attitudes, and Barriers as Measure- ments for Evaluating the Influence of Extra-Media Support Service for Faculty Teaching in Large Classrooms.
Abdelhay Abdelhay Marie, Ph.D.	M.B.A., Michigan State University. Business Administration (Accounting). Major Professor: Herbert E. Miller, Professor. Thesis: A Critical Study of Asset Valuation and Income Determination Under the New Uniform UAR (Egypt) Accounting System Relative to the Objectives of Economic Planning.
John Dancer Mason, Ph.D.	B.A., Kalamazoo College. Economics. Major Professor: Jack Stieber, Professor. Thesis: The Aftermath of the Bracero: A Study of the Economic Impact on the Agricultural Hired Labor Market of Michigan from the Termination of Public Law 78.
John Henry Mathews, Ph.D.	B.S., Portland State College; M.A., Michigan State University. Mathematics. Major Professor: Peter A. Lappan, Professor. Thesis: Normal Light Interior Functions Defined in the Unit Disk.
William Ward Mautz, Ph.D.	B.S., Wisconsin State University; M.S., Michigan State University. Fisheries and Wildlife. Major Professor: George A. Petrides, Professor. Thesis: Investigation of Some Digestive Parameters of the White- Tailed Deer Using the Radioisotope <sup>51</sup> chromium.
Horace Pierce Maxcy, Jr., Ph.D.	B.S., Farmington State College; M.A., Michigan State University. Education. Major Professor: Carl L. Midjaas, Assistant Professor. Thesis: Dimensions of the Educational Planning Process: A Study of Educational Planning Processes in Selected Michigan School Districts.

WALTER WILLIAM MCCARLEY, Ph.D.

B.S., M.S., Oklahoma State University. Education. Major Professor: Guy E. Timmons, Professor. Thesis: An Experimental Study to Evaluate the Effectiveness of an Individualized Instructional Method and the Lecture-Discussion Method for Teaching Vocational Agriculture Classes.

DOCTORAL DEGREES — GRADUATED SUMMER TERM, 1969 (Continued)		
John Charles McCollister, Ph.D.	B.A., Capital University; B.D., Evangelical Lutheran Theological College. Speech. Major Professor: Kenneth G. Hance, Professor. Thesis: A Study of the Theories of Homiletics of the American Lutheran Church.	
FLOYD LEE MCKINNEY, Ph.D.	B.S., M.Ed., University of Missouri. Education. Major Professor: Raymond A. Garner, Associate Professor. Thesis: Citizens Perceptions and Professional Educators Expectations Regarding the Vocational Citizens Advisory Committee.	
William Jan McKinney, Ph.D.	B.A., Knox College. Chemistry. Major Professor: Alexander I. Popov, Professor. Thesis: Spectroscopic Studies of Complex Compounds in Nonaqueous Solvents.	
Dan Pyle Millar, Ph.D.	B.A., Wabash College; M.A., Northwestern University. Speech. Major Professor: William B. Lashbrook, Assistant Professor. Thesis: An Exploratory Study of the Effect of Varying Modes of Posi- tive Reinforcement on Student Animation in the Beginning Speech Class.	
Joe A. Miller, Ph.D.	A.B., Butler University; B.D., Christian Theological Seminary; M.A., Butler University. Sociology. Major Professor: Philip M. Marcus, Associate Professor. Thesis: Organization Size and Administration in National Labor Unions: A Comparative Analysis.	
Dallice Ivan Mills, Ph.D.	B.S., Wisconsin State University; M.S., Syracuse University. Botany and Plant Pathology. Major Professor: Albert H. Ellingboe, Associate Professor. Thesis: The Induction of Recessive Suppressor Mutations and Somatic Recombination in the Common-AB Diploid of Schizophyllum com- mune.	
LEONARD LOUIS MITCHELL, Ph.D.	B.S., Ferris State College; M.A., Eastern Michigan University. Education. Major Professor: Samuel A. Moore, II, Associate Professor. Thesis: The Expressed Perceptions and Expectations of Selected Prospective Secondary School Teachers as They View the Leader Behavior of the Secondary School Principal.	
THOMAS CHARLES MOON, Ph.D.	B.A., Kalamazoo College; M.A.T., Oberlin College. Education. Major Professor: Wayne Taylor, Professor. Thesis: A Study of Verbal Behavior Patterns in Primary Grade Class- rooms During Science Activities.	

DOCTORAL DEGREES — GRADUATED SUMMER TERM, 1969 (Continued)		
Benson Scott Munger, Ph.D.	B.A., Michigan State University. Education. Major Professor: David C. Smith, Associate Professor. Thesis: A Study of the Relationship Between Selected Variables and the Attitudes of Michigan Principals Toward Organizing for Nego- tiations.	
Tracy W. Murray, Ph.D.	B.A., Washington State University; M.A., Michigan State University. Economics. Major Professor: Jan Kmenta, Professor. Thesis: Data Errors and Economics Parameter Estimation: A Case Study of International Trade Data.	
Thomas Scott Nagel, Ph.D.	B.S., University of Idaho. Education. Major Professor: Norman T. Bell, Associate Professor. Thesis: A Descriptive Study of Cognitive and Affective Variables Associated With Achievement in a Computer-Assisted Instruction Learning Situation.	
Chris Vasisht Narayan, Ph.D.	B.S., M.S., University of Guelph. Agricultural Engineering. Major Professor: Bill A. Stout, Professor. Thesis: Mechanical Checking of Navy Beans.	
Larry Ray Nyhoff, Ph.D.	B.A., Calvin College; M.S., University of Michigan. Mathematics. Major Professor: W. Eugene Deskins, Professor. Thesis: The Influence on a Finite Group of the Cofactors and Sub- factors of Its Subgroups.	
Allan Oaten, Ph.D.	B.A., Melbourne University; M.S., Michigan State University. Statistics. Major Professor: James F. Hannan, Professor. Thesis: Approximation to Bayes Risk in Compound Decision Prob- lems.	
John Arthur Oman, Ph.D.	B.A., MacMurray College; M.A., Michigan State University. Mathematics. Major Professor: Leroy M. Kelly, Professor. Thesis: Characterizations of Inner Product Spaces.	
Daniel John O'Neill, Ph.D.	B.A., Wayne State University; M.A., Bowling Green University. Speech. Major Professor: Gordon L. Thomas, Professor. Thesis: A Critical Analysis of the UAW Constitutional Convention Speeches of Walter Philip Reuther.	

ALFRED ESIMATEMI OPUBOR, Ph.D.

B.A., University of London; M.A., University of California. Communication. Major Professor: Erwin P. Bettinghaus, Professor. Thesis: "Vocal" Communication: The Effects of Rate (Speed) and Intensity (Loudness) on Response to Spoken Messages.

DOCTORAL DEGREES — GRADUATED SUMMER TERM, 1969 (Continued)	
James Edward Parker, Ph.D.	M.P.A., University of Texas. Business Administration (Accounting). Major Professor: George C. Mead, Associate Professor. Thesis: A Study of the Predictive Significance of Several Income Measures Relative to the Accounting for Extraordinary Items and Prior Period Adjustments.
George Lyle Parrott, Ph.D.	A.B., Chico State College; M.A., Michigan State University. Psychology. Major Professor: Donald M. Johnson, Professor. Thesis: The Effects of Instructions, Transfer, and Content on Reason- ing Time.
Kenneth John Payne, Ph.D.	B.S., College of St. Thomas. Biochemistry. Major Professor: John A. Boezi, Associate Professor. Thesis: The Purification and Characterization of ATP: RNA Adenylyl- transferase from <i>Pseudomonas Putida</i> .
Roy Eston Peterson, Ph.D.	B.S., Northern Michigan University; M.A., Eastern Michigan University. Education. Major Professor: Samuel A. Moore, II, Associate Professor. Thesis: Anthropometric, Physiometric and Health History Compari- sons of High and Low Academic Achievement Motivated Early Adolescent Boys.
RICHARD MALCOLM PIPER, Ph.D.	B.D., Berkeley Baptist Divinity School; B.A., Pepperdine College; M.A., Michigan State University. Education. Major Professor: Lee S. Shulman, Professor. Thesis: The Training of Openness and Its Effects on Inquiry.
M. Randall Rathjen, Ph.D.	B.S., M.A., University of Utah. Geography. Major Professor: Daniel Jacobson, Professor. Thesis: Evolution and Development of the Morman Welfare Farms.
Lois A. Redmond, Ph.D.	B.S., University of Minnesota; M.A., Eastern Michigan University. Education. Major Professor: Charles A. Blackman, Professor. Thesis: A Comparison of Teachers' Perceptions of Curriculum De- velopment in Selected Districts With and Without Curriculum Coun- cils.
Kenneth Warren Rhoads, Ph.D.	B.A., University of Michigan; M.A., Michigan State University. English. Major Professor: Sam S. Baskett, Professor. Thesis: The Musical Elements of T.S. Eliot's <i>Four Quartets</i> .
D. Paul Rillema, Ph.D.	B.S., Hope College. Chemistry. Major Professor: Carl H. Brubaker, Professor. Thesis: The Preparation and Properties of Some d <sup>1</sup> Molybdenum and Tungsten Compounds.

#### DOCTORAL DEGREES - GRADUATED SUMMER TERM, 1969 (Continued)

FRANK ROCCO, Ph.D.

KENNETH LEROY ROWE, Ph.D.

EDWIN W. RUBEL, Ph.D.

MICHAEL THOMAS RUITER, Ph.D.

JAMES THOMAS RYAN, Ph.D.

VIRGINIA L. SAPICO, Ph.D.

SHYAMALENDU SARKAR, Ph.D.

CHARLES A. SHOUP, Ph.D.

DIANE MARIE SILVERT, Ph.D.

B.S., Clarion State College; M.Ed., Boston College. Education. Major Professor: James E. Keller, Professor. Thesis: The Effect of Added Pause Time Upon the Comprehensibility of Compressed Speech.

B.A., M.A., State College of Iowa. Education. Major Professor: Peter G. Haines, Professor. Thesis: Development of Selected Marketing Competencies Through Utilization of Two Methods of Teaching in the Secondary School.

B.S., M.A., Michigan State University. Psychology. Major Professor: John I. Johnson, Associate Professor. Thesis: A Comparison of Somatotopic Organization in Sensory Axeocortex of Newborn Kittens and Adult Cats.

B.A., Calvin College; M.A., University of Michigan. Education. Major Professor: Fred J. Vescolani, Professor. Thesis: Educaid, A Rationale and a Model for Granting Financial Aid to the Nonpublic School Students in Michigan.

B.C.E., Villanova University; M.A., Augustinian College. Education: Major Professor: William H. Grant, Professor. Thesis: A Biographical and Attitudinal Study of the Class of 1972 of Villanova University.

B.S., Holy Ghost College. Biochemistry. Major Professor: Richard L. Anderson, Associate Professor.

- Thesis: Properties and Functions of Three Bacterial Kinases.
- Part I. A Hexokinase Specific for D-Mannose and D-Fructose From Leuconostoc Mesenteroides.

Part II. 1-Phosphofructokinase and 6-Phosphofructokinase From Aerobacter aerogenes.

B.S., M.S., Ranchi Agricultural College. Agricultural Economics. Major Professor: Glenn L. Johnson, Professor. Thesis: The Copper Country Medical Industry of Michigan as It Serves Rural People.

B.S., M.S., Cornell University. Education. Major Professor: Eldon R. Nonnamaker, Professor. Thesis: A Study of Faculty Collective Bargaining in Michigan Community Colleges.

B.A., University of California; M.A., Michigan State University. Psychology. Major Professor: Lucy R. Ferguson, Professor. Thesis: Cortical Arousal in Russian Paranoid Schizophrenics as a Function of a Word Association Task.

## DOCTORAL DEGREES - GRADUATED SUMMER TERM, 1969 (Continued)

Ronald Stephen Slesinski, Ph.D.	B.S., Michigan State University. Botany and Plant Pathology. Major Professor: Albert H. Ellingboe, Associate Professor. Thesis: Genetic Control of Primary Interactions During Infection of Wheat by <i>Erysiphe graminis</i> f. sp. <i>tritici</i> .
Charles Frank Smith, Jr., Ed.D.	B.S., Bowling Green State University; Ed.M., Kent State University; C.A.S., Harvard University. Education. Major Professor: Donald J. Leu, Professor. Thesis: A Study of the Attitudes of Teachers in Title I and Non-Title I Depressed Area Elementary Schools Toward Pupil-Teacher Relations as Measured by the Minnesota Teacher Attitude Inventory.
David Martin Smith, Ph.D.	B.S., Nyack Missionary College; M.A., Hartford Seminary Foundation. Anthropology. Major Professor: Alfred B. Hudson, Assistant Professor. Thesis: The Kapsiki Language.
HAROLD STANLEY SOMMERSCHIELD, Ph.D.	<ul><li>B.A., University of Michigan; M.A., Michigan State University; B.D., Northern Baptists Theological Seminary.</li><li>Psychology. Major Professor: Joseph Reyher, Professor.</li><li>Thesis: Posthypnotic Conflict, Repression and Psychopathology.</li></ul>
RUSSELL MELVIN SPANGLER, Ph.D.	B.Th., Canadian Union College; B.D., M.A., Andrews University. Speech. Major Professor: Kenneth G. Hance, Professor. Thesis: A Rhetorical Study of the Preaching of Pastor David Wilker- son.
PAUL STEPHEN SPECE, Ph.D.	M.B.A., University of Detroit. Business Administration (Accounting). Major Professor: Charles J. Gaa, Professor. Thesis: The Impact of Computers on Federal Income Taxation.
Glenn Leslie Starner, Ed.D.	B.S., Iowa State Teachers College; M.S., Drake University. Education. Major Professor: Walter F. Johnson, Professor. Thesis: A Study of Single Students Living in University Owned, On Campus Apartments at Central Michigan University.
John David Stoffels, Ph.D.	<ul><li>B.A., M.B.A., Northwestern University.</li><li>Business Administration (Finance). Major Professor: Roland I. Robinson, Professor.</li><li>Thesis: The Use of Margin Credit in the Trading of Securities.</li></ul>
RICHARD BLAIN STRATTON, Ph.D.	B.S., M.S., Brigham Young. Electrical Engineering. Major Professor: Robert O. Barr, Jr., Associate Professor. Thesis: Computation of Optimal Controls for Nonlinear Systems Via Geometric Search.

#### DOCTORAL DEGREES — GRADUATED SUMMER TERM, 1969 (Continued)

B.S., University of Missouri; M.S., Indiana University. HARLEY HASTINGS THOMAS, III, Ph.D. Forestry. Major Professor: Eldon A. Behr, Professor. Thesis: A Marketing Study of Fine Wood Residue in Southern Lower Michigan. GARY GENE THOMPSON, Ph.D. B.S., University of North Dakota. Geology. Major Professor: Aureal T. Cross, Professor. Thesis: Paleoecology of Palynomorphs in the Mancos Shale, Southwestern Colorado. RONALD JAY VANDERMOLEN, Ph.D. B.A., Calvin College; M.A., DePaul University. History. Major Professor: Marjorie E. Gesner, Associate Professor. Thesis: Richard Cox (1499-1581), Bishop of Ely: An Intellectual Biography of a Renaissance and Reformation Administrator. B.A., Western Michigan University; M.A., M.Ed., University of Florida. THEODORE GRANT VAN ISTENDAL, Ph.D. Education: Major Professor: Max R. Raines, Professor. Thesis: A Study of Community College Institutional Research. B.S., M.A., Ball State University. JOHN WARREN VAUGHN, Ed.D. Education. Major Professor: Jean M. LePere, Professor. Thesis: Implications of Physical and Intellectual Growth Characteristics, Interests, and Cultural Forces for Improvement of the Middle School Program. B.S.A., M.S.A., Ontario Agricultural College. JOHN MOFFAT WALLACE, Ph.D. Communication. Major Professor: Hideya Kumata, Professor. Thesis: Factors Affecting Perceived Ability to Introduce Change Among Agency for International Development Trainees. B.S., M.A., Michigan State University. JAMES WILLIAM WALTERS, Ph.D. Psychology. Major Professor: S. Howard Bartley, Professor. Thesis: An Investigation of Rod-cone Interaction as a Possible Mechanism for Explaining the Desaturation Found in Intermittent 510 NM Monochromatic Light. WALTER CHIA-MO WAN, Ph.D. B.S., M.S., National Taiwan University. Physiology. Major Professor: E. Paul Reineke, Professor. Thesis: Comparative Studies of Thyroid Function. B.S., University of Akron; M.S., Michigan State University. DAVID LEE WARDER, Ph.D. Civil Engineering. Major Professor: Orlando B. Andersland, Professor. Thesis: Behavior and Analysis of a Model Soil-Ice Barrier. B.S., M.S., Stout State College. DONALD CARL WATERSTREET, Ph.D. Education. Major Professor: William W. Farquhar, Professor. Thesis: Effects Associated With Technical Summer Employment of Engineering Students.

DOCTORAL DEGREES — GRADUATED SUMMER TERM, 1969 (Continued)	
THOMAS ROBERT WEBB, Ph.D.	B.A., M.B.A., Michigan State University. Business Administration (Marketing). Major Professor: Charles C. Slater, Professor. Thesis: Systems Model for Market Development Planning: Northeast Brazil.
RICHARD A. WEISMILLER, Ph.D.	B.S., M.S., Purdue University. Soil Science. Major Professor: Max M. Mortland, Professor. Thesis: Effect of N-Ethylacetamide (NEA) Upon Some Physico- Chemical Properties of Montmorillonite and Vermiculite.
John Raymond Wenburg, Ph.D.	B.A., Nebraska State College; M.A., University of South Dakota. Speech. Major Professor: James C. McCroskey, Assistant Professor. Thesis: The Relationships Among Audience Adaptation, Source Credibility and Types of Message Cues.
BRUCE ERICKSON WENZEL, Ph.D.	B.S., Tulane University. Chemistry. Major Professor: Max T. Rogers, Professor. Thesis: A Variable Temperature Nuclear Magnetic Double Resonance Study of Aqueous Alkylammonium Ions.
ARTHUR THOMAS WHITE, II, Ph.D.	B.A., Oberlin College; M.S., Michigan State University. Mathematics. Major Professor: Edward A. Nordhaus, Professor. Thesis: The Genus of Cartesian Products of Graphs.
Gary Charles White, Ph.D.	B.M.E., B.M., M.M., University of Kansas. Music. Major Professor: Paul Harder, Professor. Thesis: Symphony.
Harland William Whitmore, Jr., Ph.D.	B.A., Lawrence College; M.B.A., Michigan State University. Economics. Major Professor: Jan Kmenta, Associate Professor. Thesis: Empirical Testing of the Friedman-Meiselman Hypothesis.
Howard Edwin Wildey, Ph.D.	B.S., The Ohio State University; M.S., Michigan State University. Poultry Science. Major Professor: Theo H. Coleman, Professor. Thesis: The Laying House Performance of Chickens Brooded and Reared on Floors and in Cages.
Peter Lee Willson, Ph.D.	B.S., Eastern Illinois University; M.S., Michigan State University. Physics. Major Professor: Thomas H. Edwards, Professor. Thesis: Electric Field Induced Spectra of Linear and Axially Sym- metric Molecules.
Norman Edward Wingard, Ph.D.	B.S., Bowling Green State University; M.S., Michigan State University. Geology. Major Professor: James W. Trow, Professor. Thesis: Economic and Petrographic Evaluation of Gravel Resources in Southern Michigan.

#### DOCTORAL DEGREES - GRADUATED SUMMER TERM, 1969 (Continued)

RAY WYATT WINTERS, Ph.D.

JOHN ALAN WINTERTON, Ph.D.

MARTIN RANDOLPH WONG, Ph.D.

B.S., M.A., Michigan State University. Psychology. Major Professor: S. Howard Bartley, Professor. Thesis: Transient and Steady State Responses of Cat Optic Tract Fibers to Changes in Luminance and Size of Stimuli.

B.A., M.A., University of Colorado. Communication. Major Professor: Everett M. Rogers, Professor. Thesis: Paths Toward Modernization in Traditional Brazilian Communities.

B.A., San Jose State College; M.A., Michigan State University. Education. Major Professor: Robert C. Craig, Professor. Thesis: Similarity and Prompting Effects in Retroactive Facilitation of Meaningful Learning.

Chemistry. Major Professor: Alexander I. Popov, Professor.

B.A., Western Michigan University.

in Non-Aqueous Solvents.

JOHN LYNN WUEPPER, Ph.D.

DAVID BENNETT YOUST, Ph.D.

B.S., New York State College for Teachers; M.S., Syracuse University. Education. Major Professor: Richard G. Johnson, Assistant Professor. Thesis: Stimulating Vocational Exploratory Behavior Through Use of Life-Career Studies.

Thesis: Spectroscopic Studies of Alkali and Ammonium Ion Solvation

LI SHIN YUAN, Ph.D.

B.S., National Taiwan University; M.S., North Dakota State. Electrical Engineering. Major Professor: John B. Kreer, Professor. Thesis: Modern System Theory Applied to Urban Freeway Control.

## EDUCATIONAL SPECIALIST DEGREE - GRADUATED SUMMER TERM, 1969

Susan Marie Aikenhead, Ed.S.	B.A., Lycoming College. Education. Major Professor: James W. Costar, Professor.
James John Alexander, Ed.S.	B.S., Central Michigan University; M.A., Michigan State University. Education. Major Professor: Dale V. Alam, Associate Professor.
JOYCE ARLENE BAYLOR, Ed.S.	B.S., Oshkosh State College; M.A., Northern Michigan University. Education. Major Professor: Charles A. Blackman, Professor.
ROBERT WILLIAM BOECK, Ed.S.	B.A., Valparaiso University; M.A., Marquette University. Education. Major Professor: Peter G. Haines, Professor.
EDITH MCNEELY BUCKINGHAM, Ed.S.	B.E., Wisconsin State University; M.A., Michigan State University. Education. Major Professor: William K. Durr, Professor.
DAVID EDWARD COX, Ed.S.	B.A., M.A., Michigan State University. Education. Major Professor: Joyce W. William, Associate Professor.
JACQUELINE ANNE DEEB, Ed.S.	B.S., Aquinas College; M.A., Michigan State University. Education. Major Professor: Dale V. Alam, Associate Professor.
JAMES WALTER GOOD, Ed.S.	B.A., Northland College; M.A., Western Michigan University. Education. Major Professor: John H. Suehr, Associate Professor.
JOHN RUSSELL HIRSCHMANN, JR., Ed.S.	B.S., Memphis State University; M.A., Peabody College. Education. Major Professor: Robert O. Nolan, Associate Professor.
Benjamin J. Koepke, Ed.S.	B.A., Emmanual Missionary College; M.A., Michigan State University. Education. Major Professor: Robert E. Gustafson, Assistant Professor.
Henry McShan, Ed.S.	B.S., Stillman College; M.A., Michigan State University. Education. Major Professor: Norman Kagan, Professor.
JANET MCCANN ROBINSON, Ed.S.	B.S., Bowling Green State University; M.A., University of Michigan. Education. Major Professor: Vivian M. Stevenson, Ed.S.
RICHARD CARL ROELOFS, Ed.S.	B.A., Western Michigan University; M.A., Michigan State University. Education. Major Professor: George R. Myers, Professor.
DONALD MORRISON WALLIS, Ed.S.	B.S., M.A., Michigan State University. Education. Major Professor: Herbert C. Rudman, Professor.
DIPLOMA FOR ADVANCED GRA	ADUATE STUDIES — GRADUATED SUMMER TERM, 1969

GARY LEE WISMER, D.A.G.S.

B.S., University of Detroit; M.S., Michigan State University. Physics. Major Professor: Peter Signell, Professor.

#### CANDIDATES FOR THE DOCTORAL DEGREES - FALL TERM, 1969

TINUOYE MICHAEL ADENIRAN, Ph.D.

HAROLD LEROY ALLEN, Ph.D.

LILYAN MAE ALSPAUCH, Ph.D.

WILTON THOMAS ANDERSON, JR., Ph.D.

CHRISTOPHER OTIS ANDREW, Ph.D.

CHARLES GARO ASHIJAN, Ph.D.

SATINDER KHURANA BAJAJ, Ph.D.

STEVEN M. BARNES, Ph.D.

SUZANNE ELIZABETH BARNETT, Ph.D.

B.S., Xavier College; M.S., Michigan State University. Mathematics. Major Professor: Patrick H. Doyle, Professor. Thesis: Monotone Union Properties in Topological Spaces.

B.S., Redlands University; F. K., Uppsala University. Botany and Plant Pathology. Major Professor: Robert Wetzel, Associate Professor. Thesis: Primary Productivity, Chemo-organotrophy, and Nutritional Interactions of Epiphytic Algae and Bacteria on Macrophytes in the Littoral of a Lake.

B.A., University of Chicago; M.A, The Ohio State University. Speech. Major Professor: Kenneth G. Hance, Professor. Thesis: General Alfred M. Gruenther: Dedicated Spokesman for NATO.

B.A., M.B.A., Oklahoma State University. Business Administration (Marketing). Major Professor: Bernard J. La Londe, Professor. Thesis: An Analysis of the Correlates of Convenience-Oriented Consumer Behavior: With Special Emphasis on Selected Convenience Foods and Durable Goods.

B.S., Colorado State University; M.S., Michigan State University. Agricultural Economics. Major Professor: Laurence W. Witt, Professor.

Thesis: Improving Performance of the Production-Distribution System for Potatoes in Colombia.

B.S., St. Joseph's College; M.A., Pennsylvania State University. Arts and Letters, Interdisciplinary. Major Professor: John A. Yunck, Professor. Thesis: The Playwright as Priest: The Religious and Philosophical Significance of Dramatic Art.

B.S., M.S., Lady Irwin College. Nutrition. Major Professor: Olaf Mickelsen, Professor. Thesis: Biological Value of Pea Proteins as Influenced by Genetic Variation.

B.A., Central College; M.A.T., Michigan State University. Education. Major Professor: John M. Mason, Professor. Thesis: The Reactions of Selected Elementary Teachers to the Training for and Implementation of the Science Curriculum Improvement Study in Selected Schools in Michigan.

B.A., University of Maryland; M.A., Columbia University; M.A., Smith College; Ph.D., Indiana University.
Psychology. Major Professor: Bill L. Kell, Professor.
Thesis: Anxiety and Negative Feeling: Children's Perceptions of Family Members.

## CANDIDATES FOR THE DOCTORAL DEGREES - FALL TERM, 1969 (Continued)

LESLIE ROHIT BARRAN, Ph.D.

DAVID WINFIELD BASH, JR., Ph.D.

DWIGHT BEECHER BEERY, Ph.D.

THOMAS EUGENE BELLAVANCE, Ph.D.

JOHN DURAND BENSON, Ph.D.

ROBERT DEANE BEREMAN, Ph.D.

WALLACE GEORGE BERGER, Ph.D.

EDWARD E. BIRCH, Ph.D.

IDA BLACKSIN, Ph.D.

B.S., M.S., MacGill University. Biochemistry. Major Professor: Willis A. Wood, Professor. Thesis: An Investigation Into the Structure and Function of 2-Keto-3-Deoxy-6-Phosphogluconate Aldolase of *Pseudomonas Putida* Using 1, Fluoro, 2,4-Dinitrobenzene.

B.A., DePauw University; M.A., Michigan State University. Mathematics. Major Professor: Peter A. Lappan, Professor. Thesis: Normalcy of Sums and Products of Normal Functions and Real and Complex Harmonic Normal Functions.

B.A., Manchester College; M.S., University of Indiana. Physics. Major Professor: William H. Kelly, Professor. Thesis: Gamma Ray Spectroscopy Studies of the Excited States of Odd Proton (Odd Mass) Nuclei in the Z=50-62, N=64-82 Region.

B.A., University of Connecticut; M.A., Northwestern University. English. Major Professor: Russel B. Nye, Professor. Thesis: The Periodical Prose of Henry Wadsworth Longfellow.

B.S., University of Delaware; M.S., Michigan State University. Dairy and Institute of Nutrition. Major Professor: Roy S. Emery, Professor. Thesis: Lipid Metabolism in Bovine Liver and Adipose Tissue.

B.S., Butler University.
Chemistry. Major Professor: Carl H. Brubaker, Jr., Professor.
Thesis: Part I: The Preparation and Optical and Electron Spin Resonance Spectra of Some Hexachloro and Pentachloro-alkoxo Vanadates(IV).
Part II: The Investigation of the Apparent Thermochromism of Some Vanadium(III) Complexes.

A.A.S., State University of New York; B.S., M.A., Michigan State University. Psychology. Major Professor: Henry C. Smith, Professor. Thesis: Some Correlates of Attitude Change, Retention of the Attitude Message, and Evaluation of the Communicator.

B.S., State University of New York; M.A., Ohio University. Education. Major Professor: Walter F. Johnson, Professor. Thesis: An Investigation of Selected Assumptions and Beliefs of Chief Student Personnel Administrators.

B.S., L.L.M., M.A., New York University. Comparative Literature. Major Professor: Russel B. Nye, Professor. Thesis: Law and Literature: Dreiser and the Courts.

CANDIDATES FOR THE DOCTORAL DEGREES — FALL TERM, 1969 (Continued)	
WAYNE MITCHELL BLEDSOE, Ph.D.	B.A., Tennessee Temple College; M.A., Michigan State University History. Major Professor: Richard E. Sullivan, Professor. Thesis: Problems in Medieval Historiography: A Selective Study.
Thelma R. Boca, Ph.D.	B.A., M.A., Michigan State University. Education. Major Professor: William K. Durr, Professor. Thesis: Characteristics of Prospective Teachers Related to Inner-City Teaching Preferences.
Martin Bolt, Ph.D.	A.B., Calvin College; M.A., Michigan State University. Psychology. Major Professor: Gordon Wood, Assistant Professor. Thesis: Imagery in Associative Learning and Memory.
Raymond Lee Boozer, Ph.D.	B.A., Western Michigan University; M.A., University of Michigan. Education. Major Professor: Richard L. Featherstone, Professor. Thesis: A Study of the Voting Publics in Grand Rapids, Michigan, to Provide the Basis for Planning and Conducting Future Public School Operating Millage Elections in That District.
Ellen Ann Raisanen Brown, Ph.D.	B.S., Wisconsin State University; M.A., Bowling Green State University. English. Major Professor: Russel B. Nye, Professor. Thesis: The Uneasy Balance: A Study of Polarity in the Work of Stephen Crane.
Richard Allan Brown, Ph.D.	B.S., Illinois State Normal University; M.A., Michigan State University. Psychology. Major Professor: Dozier W. Thornton, Associate Professor. Thesis: The Effect of Alternating Social Approval Comments and Tangible Rewards on Task Performance of Kindergarten Children.
Robert Edward Brown, Ph.D.	B.S., M.S., Michigan State University. Fisheries and Wildlife. Major Professor: Gilbert W. Mauser, Professor. Thesis: Analysis of Attitude Changes in Adults After Participating in a Conservation-Oriented Biology Course.
William J. Bruin, Ph.D.	B.S., Michigan State University. Biochemistry. Major Professor: N. Edward Tolbert, Professor. Thesis: An Examination of Glycolate Metabolism in Plants.
Gerald Henry Brusewitz, Ph.D.	B.S.A.E., M.S.M.E., M.S.A.E., University of Wisconsin. Agricultural Engineering. Major Professor: Bill A. Stout, Professor. Thesis: Consideration of Plant Material As an Interacting Continuum.
ROBERT WILLIAM BUND, Ph.D.	A.B., Middlebury College; M.S., Harvard University. Mechanics. Major Professor: Lawrence E. Malvern, Professor. Thesis: Earing in Cupping Experiments Related to Anisotropic Plas- ticity Theory.

CANDIDATES FOR THE DOCTORAL DEGREES — FALL TERM, 1969 (Continued)	
DAVID STEPHEN CANAVERA, Ph.D.	B.S., Michigan Technological University; M.S., Michigan State University. Forestry. Major Professor: Jonathan W. Wright, Professor. Thesis: Geographic and Stand Variation in Jack Pine ( <i>Pinus banksiana</i> Lamb.).
TERRENCE JOSEPH CAREY, Ph.D.	B.S., Central Michigan University; A.M., University of Michigan. Education. Major Professor: Edward B. Blackman, Professor. Thesis: Educational Patterns and Reactions of Michigan Public Community College Students Denied Admission to Michigan State University.
Laurence Alan Carr, Ph.D.	B.S., University of Michigan; M.S., Michigan State University. Pharmacology. Major Professor: Kenneth E. Moore, Associate Pro- fessor. Thesis: A Cerebroventricular Perfusion Technique for Studying Drug- induced Release of Brain Catecholamines.
Ross Edward Carter, Ph.D.	B.A., San Jose State College; M.A., Michigan State University. Psychology. Major Professor: Albert I. Rabin, Professor. Thesis: Rorschach Signs, Thinking Disorganization, and Withdrawal in Process and Reactive Schizophrenics.
Mangal Dass Chawla, Ph.D.	<ul> <li>B.A., L. K. College; B.S., Punjab Engineering College; M.S., University of Alberta.</li> <li>Mechanical Engineering. Major Professor: Merle C. Potter, Associate Professor.</li> <li>Thesis: The Stability of Boundary Layer Flow Subject to Rotation.</li> </ul>
Chao-Ling Chen, Ph.D.	B.S., National Taiwan University; M.S., State University of Iowa. Physiology. Major Professor: Joseph Meites, Professor. Thesis: Effects of Hypothalamic Extract, Pituitary Hormones and Ovarian Hormones on Pituitary Prolactin Secretion.
RAYMOND STRONG COLLADAY, Ph.D.	B.S., M.S., Michigan State University. Mechanical Engineering. Major Professor: James V. Beck, Associate Professor. Thesis: Inverse Problems Related to Transient Convection in the Thermal Entrance Region Between Parallel Plates.
Roger Wooldridge Coon, Ph.D.	B.A., La Sierra College; M.A., Potomac University. Speech. Major Professor: Kenneth G. Hance, Professor. Thesis: The Public Speaking of Dr. William A. Fagal of "Faith for Today": America's First Television Pastor.
John J. Cragun, Ph.D.	B.S., Kansas State University; M.Ed., Colorado State University. Education. Major Professor: Raymond Garner, Associate Professor. Thesis: Preferred Pattern of Preparation for Teachers of Technical Agriculture at the Post-High School Level.

CANDIDATES FOR THE DOCTORA	AL DEGREES — FALL TERM, 1969 (Continued)
Nicholas Paul Dario, Ph.D.	BME, General Motors Institute; M.S., Case Institute of Technology. Mechanics. Major Professor: William A. Bradley, Professor.
	Thesis: A Comparison of Finite Element and Finite Difference Methods in Elastostatic Problems.
Peter Howard Daum, Ph.D.	B.S., Drexel Institute of Technology. Chemistry. Major Professor: Christie G. Enke, Associate Professor. Thesis: Analysis and Application of Current Pulse Techniques in Electrochemical Kinetics.
James Richard Davis, Ph.D.	A.B., Oberlin College; B.D., Yale University. Education. Major Professor: Edward B. Blackman, Professor. Thesis: An Examination of the Views of Senator Wayne Morse on Federal Aid to Higher Education.
Joseph Francis Dominic, Ph.D.	B.A., M.A., Michigan State University. English. Major Professor: George R. Price, Professor. Thesis: The Troublesome Reign of King John: A Critical Edition.
Brant Lee Doty, Ph.D.	B.A., M.A., The Cincinnati Bible Seminary. English. Major Professor: Arnold Williams, Professor. Thesis: An Edition of British Museum Manuscript Additional 37049: A Religious Miscellany.
Norris Allen Edney, Ph.D.	B.S., Tougaloo College; M.S., Antioch College. Fisheries and Wildlife. Major Professor: Gilbert W. Mouser, Professor. Thesis: Studies of Infections of Fish by Certain Saprolegniaceous Fungi.
Ronald Kenneth Edwards, Ph.D.	B.S., Ferris State College; M.S., University of Tennessee. Education. Major Professor: Helen H. Green, Professor. Thesis: An Experimental Study in the Teaching of Business Machines Utilizing an Audio-Visual-Tutorial Laboratory Approach With Con- tinuous-Loop Sound Films.
Sister Marie Therese Emery, O.P., Ph.D.	B.A., Siena Heights College; M.A., University of Detroit; M.A., Michi- gan State University. Education. Major Professor: Robert O. Nolan, Associate Professor. Thesis: A Study of Certain Factors Related to the Patterns of Driving Accident and Violation Rates of 436, 17 and 18-Year-Old Licensed Drivers From Two Lansing Catholic Schools.
Hani Issa Fakhouri, Ph.D.	B.S., M.A., Wayne State University. Anthropology. Major Professor: Iwao Ishino, Professor. Thesis: Kafr El-Elow: An Egyptian Village in Transition.
John Patrick Fallon, Ph.D.	A.B., Fordham College; M.A., Columbia University. Education. Major Professor: Patricia J. Cianciolo, Professor. Thesis: A Comparison of Transescent Male Development in Two Organizational Patterns Centering on Middle School Grade Reorganization.

CANDIDATES FOR THE DOCTORAL DEGREES — FALL TERM, 1969 (Continued)		
Alfred M. Falthzik, Ph.D.	B.S., M.B.A., Northeastern University. Business Administration (Marketing). Major Professor: Bernard J. LaLonde, Professor. Thesis: Analysis of Selected Socio-Economic Variables and Their Effect on Consumer Temporal Behavior in Different Sized Shopping Areas.	
Daniel Reese Farnell, Ph.D.	D.V.M., M.S., Auburn University. Pathology. Major Professor: Charles K. Whitehair, Professor. Thesis: Influence of Porcine Thyrocalcitonin in Magnesium Deficient and Normal Rats.	
David John Fenoglio, Ph.D.	B.S., University of Illinois. Chemistry. Major Professor: Gerasimos J. Karabatsos, Professor. Thesis: Conformational Analysis of $\alpha$ -Heteroatom Substituted Alde- hydes by Nuclear Magnetic Resonance Spectroscopy.	
James Alan Fetzer, Ph.D.	B.S., M.A., Illinois State University. History. Major Professor: Warren I. Cohen, Associate Professor. Thesis: Congress and China, 1941-1950.	
Thomas Charles Fitch, Ph.D.	B.S., Central Michigan University; M.A., University of Michigan. Education. Major Professor: W. Robert Houston, Professor. Thesis: Role Expectations for Intern Consultants: Views of Intern Teachers and Intern Consultants in the Michigan State University Elementary Intern Program.	
James William Foley, Ph.D.	B.A., University of Cincinnati; M.A., Miami University. Economics. Major Professor: John M. Hunter, Professor. Thesis: The Balance of Payments and Import Substituting Indus- trialization in Argentina 1945-61.	
Elizabeth J. Force, Ph.D.	B.A., M.A., Michigan State University. Psychology. Major Professor: John R. Hurley, Professor. Thesis: Personal Changes Attributed to Human Relations Training by Participants, Intimates and Job Colleagues.	
CHARLES CHRISTOPHER FORD, JR., Ph.D.	B.S., Bridgewater State College; M.A., University of Hawaii. Education. Major Professor: Harry L. Case, Professor. Thesis: A Case Study of the Adaptational Patterns of Asian Graduate Students in Education at Michigan State University.	
RICHARD FRANCIS FOWLER, Ph.D.	B.S., University of Rhode Island; M.S., University of Michigan. Forestry. Major Professor: Louis F. Wilson, Assistant Professor. Thesis: The White Grub in Upper Michigan and Northern Wisconsin 1-2 Year Old Red Pine Plantations.	

CANDIDATES FOR THE DOCTOR	AL DEGREES — FALL TERM, 1969 (Continued)
WILLIAM MEASEY FULKERSON, JR., Ph.D.	B.A., William Jewell College. Speech. Major Professor: David Ralph, Professor. Thesis: A Rhetorical Study of the Appropriation Speaking of Clarence Andrew Cannon in the House of Representatives: 1923-1964.
RICHARD COATE GEBHARDT, Ph.D.	B.A., Heidelberg College; M.A., Michigan State University. English. Major Professor: Clyde E. Henson, Professor. Thesis: Denial and Affirmation of Values in the Fiction of Ernest Hemingway.
Ram Parkash Goel, Ph.D.	B.S., Punjab University; M.S., Michigan State University. Mechanics. Major Professor: Lawrence E. Malvern, Professor. Thesis: Plastic Wave Propagation With Combined Stresses.
August Golden, Jr., Ph.D.	B.S., M.S., Michigan State University. Electrical Engineering. Major Professor: Kun-Mu Chen, Professor. Thesis: Radiation From Dielectrically Coated Spherical Antennas.
Hassan Golparvar, Ph.D.	B.S., Teheran Polytechnic; M.S., Wayne State University. Civil Engineering. Major Professor: Gail C. Blomquist, Associate Professor. Thesis: Soil-Ice Properties of Frost-Susceptible Soils, Made Hydro- phobic.
Barry D. Graff, Ph.D.	B.A., University of Michigan; M.A., Michigan State University. Psychology. Major Professor: John R. Hurley, Professor. Thesis: Group Therapy and Individual Therapy: A Comparison.
Jack Greenstein, Ph.D.	B.A., M.A., University of Michigan. Education. Major Professor: David C. Smith, Associate Professor. Thesis: A Comparison of Graduates of the Central Michigan Univer- sity Teacher Intern Program With Graduates of the Central Michigan University Regular Teacher Preparation Program.
Margaret Whitehurst Grimes, Ph.D.	A.B., University of North Carolina; M.A., Michigan State University. Comparative Literature. Major Professor: Arnold Williams, Professor. Thesis: Metamorphosis as a Literary Device.
WILLARD LOUIS GROSS, Ph.D.	B.S., Valparaiso University; M.S., Michigan State University Fisheries and Wildlife. Major Professor: Eugene W. Roelofs, Professor. Thesis: Distribution and Elimination of Dieldrin by Green Sunfish ( <i>Lepomis cyanellus</i> Rafinesque) Following Administration of a Single Oral Dose.
SCOTT BATES GUTHERY, Ph.D.	A.B., M.A., Miami University; M.S., Michigan State University. Statistics. Major Professor: John R. Kinney, Professor. Thesis: An Inversion Algorithm for One-Dimensional F-Expansions.

CANDIDATES FOR THE DOCT	ORAL DEGREES — FALL TERM, 1969 (Continued)
William Elliott Hall, Ph.D.	M.S., Oregon State University. Crop Science. Major Professor: Carter M. Harrison, Professor. Thesis: Crown and Tiller Formation in Wheat and Barley.
Thomas Earl Hanson, Ph.D.	B.A., Southern Illinois University. Biochemistry. Major Professor: Richard L. Anderson, Associate Pro- fessor. Thesis: The Metabolism of D-Fructose in <i>Aerobacter aerogenes</i> .
Donald Fred Harden, Ph.D.	B.A., M.A., Michigan State University. Education. Major Professor: Walter F. Johnson, Professor. Thesis: Selected Affective and Cognitive Characteristics of Students in the Lyman Briggs College and the College of Natural Science at Michigan State University.
Chesley Leon Hargrave, Ph.D.	B.S., Missouri State College; M.Ed., University of Missouri. Education. Major Professor: John H. Suehr, Associate Professor. Thesis: The Principal's Divergent Thinking Ability in Interpersonal Relationships: Its Relatedness to the Organizational Climate of Selected High Schools.
Robert Charles Harris, Ph.D.	B.A., M.A., Western Michigan University. History. Major Professor: Frederick D. Williams, Professor. Thesis: Austin Blair of Michigan: A Political Biography.
David Arthur Hart, Ph.D.	L.A., Northern Michigan University. Biochemistry. Major Professor: Paul K. Kindel, Assistant Professor. Thesis: Apiogalacturonans From the Cell Wall of <i>Lemna minor</i> L.
Gary A. Heidt, Ph.D.	B.S., Manchester College; M.S., Michigan State University. Zoology. Major Professor: Rollin H. Baker, Professor. Thesis: Ontogeny of the Least Weasel ( <i>Mustela nivalis</i> L.).
Gary Howard Heinz, Ph.D.	B.S., Lehigh University; M.S., Michigan State University. Fisheries and Wildlife. Major Professor: Leslie W. Gysel, Professor. Thesis: Responses of Ring-Necked Pheasant Chicks to Conspecific Calls.
Robert Gordon Helgesen, Ph.D.	B.A., University of Michigan; M.S., North Dakota State University. Entomology. Major Professor: Dean L. Haynes, Associate Professor. Thesis: The Within-Generation Population Dynamics of the Cereal Leaf Beetle, <i>Oulema melanopus</i> (L.).
Donald Gardner Hill, Ph.D.	B.S., Michigan State University. Geology. Major Professor: William J. Hinze, Professor. Thesis: A Laboratory Investigation of Conductivity and Dielectric Constant Tensors of Rocks.

CANDIDATES FOR THE DOCTO	ORAL DEGREES — FALL TERM, 1969 (Continued)
Hsiu-Hwang Ho, Ph.D.	B.A., M.A., National Taiwan University. Philosophy. Major Professor: Gerald J. Massey, Professor. Thesis: Some Semantical Problems in Deontic Logic and Imperative Logic.
Randall Herbert Hoemke, Ph.D.	B.A., University of Detroit; M.A., Michigan State University. Economics. Major Professor: Robert F. Lanzillotti, Professor. Thesis: State Branch Banking Laws–Their Effect on Economic Ac- tivity.
Ermon Owens Hogan, Ph.D.	B.S., University of Minnesota; M.S., Atlanta University. Education. Major Professor: Troy L. Stearns, Professor. Thesis: The Influence of an In-Service Workshop Experience of Teachers' Ability to Positively Modify the Self-Concepts of Educa- tionally and Economically Disadvantaged Students.
A. THOMAS HOLLINGSWORTH, Ph.D.	B.S., M.B.A., University of Delaware. Business Administration (Management). Major Professor: Dalton E. McFarland, Professor. Thesis: Relationships Between the Informal Organization and the Effectiveness of Formal Leaders.
Buford Reid Holt, Ph.D.	B.S., University of Tennessee. Botany and Plant Pathology. Major Professor: John E. Cantlon, Pro- fessor. Thesis: Effect of Immigration Time on the Establishment of Wild Carrot Populations in Early Old-Field Succession.
Joao Carlos Hopp, Ph.D.	B.E.S., Sao Paulo University; M.A., Michigan State University. Business Administration (Finance). Major Professor: Adolph E. Grunewald, Professor. Thesis: A Study of the Investment Policy and Performance of Sub- sidiaries of U.S. Manufacturing Corporations in Brazil.
Leland Wright Howe, Ph.D.	B.A., M.A., Michigan State University. Education. Major Professor: Dale V. Alam, Associate Professor. Thesis: Toward a Humanistic Model of School Organization Develop- ment.
Dan Myron Johnson, Ph.D.	B.S., Emory and Henry College; M.S., Michigan State University. Zoology. Major Professor: William E. Cooper, Associate Professor. Thesis: The Influence of Damselfly Naiad Predation on the Dynamics of Prey Populations.
George Samuel Johnson, Ph.D.	B.A., Augsburg College. Biochemistry. Major Professor: William C. Deal, Jr., Associate Pro- fessor. Thesis: Rabbit Muscle Pyruvate Kinase: Structural and Catalytic Studies.

# CANDIDATES FOR THE DOCTORAL DEGREES - FALL TERM, 1969 (Continued)

Anthony Lawrence Kadlec, Ph.D.	<ul> <li>B.A., Montana State University; M.F.A., University of Utah.</li> <li>Audiology and Speech Science. Major Professor: E. C. Reynolds, Professor.</li> <li>Thesis: A Descriptive Study of Scenic Styles in the Productions of Successful, Serious American Drama on the New York Stage of the 1920's.</li> </ul>
KAREN SUE KAMERSCHEN, Ph.D.	B.A., M.A., Michigan State University. Psychology. Major Professor: Bill L. Kell, Professor. Thesis: Multiple Therapy: Variables Relating to Co-Therapist Satis- faction.
ROBERT G. KEESEY, Ph.D.	B.A., Kent State University; M.A., Michigan State University. English. Major Professor: Arthur Sherbo, Professor. Thesis: Arthur Murphy's Theatrical Criticism: A Critical Edition.
THOMAS RANDOLPH KILIAN, Ph.D.	B.A., Augustana College; M.S., Boston University. Education. Major Professor: Van C. Johnson, Professor. Thesis: Power Constructs in Higher Education.
Herman Clark Kissiah, Jr., Ph.D.	A.B., Wheaton College; M.A., Michigan State University. Education. Major Professor: Edward B. Blackman, Professor. Thesis: The College Student in the American Novel: 1930-1939 and 1964-1967.
Rocer Erwin Klein, Ph.D.	A.B., Bates College; M.A., Michigan State University. Economics. Major Professor: Thomas G. Moore, Professor. Thesis: The Personal Income Tax, Dividends, Capital Gains, and the Allocation of Capital.
Frank Richard Krajewski, Ph.D.	B.A., Providence College; M.A., Michigan State University. Education. Major Professor: Frank H. Blackington, III, Professor. Thesis: A Study of the Relationship of an Overseas-Experienced Population Based on Sponsorship of Parent and Subsequent Academic Adjustment to College in the United States.
Doelas Randy Landes, Ph.D.	B.S., M.S., University of Arkansas. Food Science. Major Professor: Lawrence E. Dawson, Professor. Thesis: Tenderness and Changes in pH and Protein Extractability of Turkey Breast Muscle Exhibiting Different Rates of Post-Mortem Glycolysis.
Tchuoc Wei Lee, Ph.D.	B.S., National Taiwan University; M.S., McGill University. Mechanics. Major Professor: David H. Y. Yen, Associate Professor. Thesis: Free Periodic Vibrations of Continuous Systems Governed by Coupled Nonlinear Partial Differential Equations.
Arthur Lifshin, Ph.D.	B.S., City College of New York. Geology. Major Professor: Harold B. Stonehouse, Associate Professor. Thesis: Element Migration Across Granitic Dikes.

## CANDIDATES FOR THE DOCTORAL DEGREES - FALL TERM, 1969 (Continued)

CHENG-CHI LIN, Ph.D.	B.S., Cheng Kung University; M.S., Michigan State University. Electrical Engineering. Major Professor: Kun-Mu Chen, Professor. Thesis: Radiation of Spherical and Cylindrical Antennas in Incom- pressible and Compressible Plasmas.
Peter Charles List, Ph.D.	B.A., M.A., Michigan State University. Philosophy. Major Professor: Rhoda H. Kotzin, Associate Professor. Thesis: The Theory of Sense-Data in Twentieth-Century British Phi- losophy.
Robert Earl MacDonald, Ph.D.	B.S., M.A., Central Michigan University. Education. Major Professor: George W. Ferree, Professor. Thesis: The Psychology of Abraham Maslow in Educational Perspec- tive: Selected Criticisms and Applications.
GERTRUDE CECILE MACFARLANE, Ph.D.	B.M., University of Toronto; M.S., University of Kentucky. Sociology. Major Professor: J. Allan Beegle, Professor. Thesis: Certain Factors Affecting Mobility and the Relationship Be- tween Spatial and Social Mobility of University Faculty, Particularly Scientists, Ontario, 1967-68.
John Paul Maierle, Ph.D.	B.A., M.S., University of Dayton. Education. Major Professor: John E. Jordan, Professor. Thesis: An Application of Guttman Facet Analysis to Attitude Scale Construction: A Methodological Study.
PHILIP NEAL MARCUS, Ph.D.	B.A., M.A., Michigan State University. Political Science. Major Professor: Baljit Singh, Associate Professor. Thesis: The Development of Systemic Concepts in Comparative Political Analysis: An Emerging Paradigm.
Mary Ramona Mattingly, Ph.D.	B.A., University of Dayton; M.A., St. Louis University. Political Science. Major Professor: Harold J. Spaeth, Professor. Thesis: The Hughes Court 1931-1936: Psychological Dimensions of Decision Making.
RAYMOND RICHARD MCGUIRE, Ph.D.	B.S., Pennsylvania State University. Chemistry. Major Professor: Robert D. Schuetz, Professor. Thesis: The Photochemical Reactions of Heptachlor: Kinetics and Mechanisms.
James Charles McKeown, Ph.D.	B.A., Michigan State University. Business Administration (Accounting). Major Professor: Roland F. Salmonson, Professor. Thesis: An Application of a Current Market Value Accounting Model.
BLAINE EDWARD MCKINLEY, Ph.D.	A.B., Hope College; M.A., Michigan State University. History. Major Professor: Douglas T. Miller, Associate Professor. Thesis: "The Stranger in the Gates": Employer Reactions Toward Domestic Servants in America, 1825-1875.

CANDIDATES FOR THE DOCTO	DRAL DEGREES — FALL TERM, 1969 (Continued)
William John Medve, Ph.D.	B.S., M.Ed., Temple University. Education. Major Professor: Robert E. Gustafson, Assistant Professor. Thesis: A Driver Attitude Inventory Designed to Ascertain Topics Requiring Instructional Emphasis.
Harvey Charles Mellinger, Ph.D.	B.A., Goshen College. Botany and Plant Pathology. Major Professor: William J. Hooker, Professor. Thesis: Pathogenesis of Sclerotinia Sclerotiorum (Lib.) de Bary on Potato.
Marilyn Marie Meyer, Ed.D.	B.S., University of Wisconsin; M.A., Syracuse University. Education. Major Professor: Norman R. Stewart, Associate Professor. Thesis: Patterns of Perceptions and Attitudes Toward Traditionally Masculine and Feminine Occupations Through Childhood and Ado- lescence.
Robert Louis Meyer, Ph.D.	B.S., M.A., University of Missouri. Mathematics. Major Professor: Norman L. Hills, Associate Professor. Thesis: Bounds on the Discretization Error for the Numerical Solution of the Dirichlet Problem for Laplace's Equation.
MICHAEL DAVID MILLER, Ph.D.	B.S., Pennsylvania State University; M.S., Michigan State University. Physics. Major Professor: Peter S. Signell, Professor. Thesis: Model Dependence of the Binding Energy of Nuclear Matter.
Lawrence Edward Mintz, Ph.D.	B.A., University of South Carolina; M.A., Michigan State University. English. Major Professor: Russel B. Nye, Professor. Thesis: Brother Jonathan's City Cousin: The Urban Wise Fool in Twentieth Century American Social and Political Satire.
Nevil Leslie Moore, Ph.D.	B.S., M.Ed., Ohio University. Education. Major Professor: Robert O. Nolan, Associate Professor. Thesis: A Study to Determine the Responsibilities, Training and Time Involvement of Traffic Safety Education Workers in Selected Michigan Schools.
Mounir Aziz Morcos, Ph.D.	B.S., M.S., Cairo University; B.S., Michigan State University. Agricultural Engineering. Major Professor: Chester J. Mackson, Pro- fessor. Thesis: Relationship Between Fluid Flow in Cellulose and the Gener- ated Electric Energy With Application to Water Movement in Plants.
Kenneth Noah Morin, Ph.D.	B.S., Northern Michigan University; M.A., University of Kentucky. Education. Major Professor: John E. Jordan, Professor. Thesis: Attitudes of Texas Mexican-Americans Toward Mental Re- tardation: A Guttman Facet Analysis.

CANDIDATES FOR THE DOCTORAL DEGREES — FALL TERM, 1969 (Continued)		
John Andrew Mullen, Ph.D.	B.A., M.A., Michigan State University. Psychology. Major Professor: Norman Abeles, Professor. Thesis: An Investigation of the Variable of Liking in Therapy: Its Relation to the Variables of Outcome, Empathy, and Therapist Ex- perience.	
Gurramkonda Munaswamy Naidu, Ph.D.	B.A., Sri Venkateswara University; M.S., Indiana Statistical Institute. Business Administration (Marketing). Major Professor: Richard J. Lewis, Professor. Thesis: Systems Approach to the Marketing Aspects of Higher Edu- cation.	
George Gregory Nakos, Ph.D.	B.S., University of Thessaloniki; M.S., Michigan State University. Soil Science. Major Professor: Arthur R. Wolcott, Professor. Thesis: Cultural Studies and Effects of Pesticides in Nitrifying Systems.	
Patrick Obi Ngoddy, Ph.D.	B.S., California State Polytechnic College; M.S., Michigan State University. Agricultural Engineering. Major Professor: Fred W. Bakker-Arkema, Associate Professor. Thesis: A Generalized Theory of Sorption Phenomena in Biological Materials.	
VINCENT ALVIN NICELY, Ph.D.	B.S., West Virginia Wesleyan College. Chemistry. Major Professor: James L. Dye, Professor. Thesis: An ESR Study of Linewidths in Metal-Amine Solutions and an <i>AB INITIO</i> Investigation of the Lithium-Ammonia Interaction.	
Jack Galen Nichols, Ph.D.	B.S., M.A., University of Minnesota. Speech. Major Professor: James C. McCrosky, Professor. Thesis: An Investigation of the Effects of Varied Rates of Training on Systematic Desensitization for Interpersonal Communication Appre- hension.	
James Richard Nord, Ph.D.	B.S., United States Naval Academy; M.A., Michigan State University. Education. Major Professor: Elwood E. Miller, Associate Professor. Thesis: An Exploratory Study Into the Criteria by Which Educational Objectives May Be Evaluated.	
John Thomas Norman, Jr., Ph.D.	B.S., Wake Forest College; M.A.T., Michigan State University. Education. Major Professor: Julian R. Brandou, Associate Professor. Thesis: An Investigation of the Suitability of Various Types of Biology Laboratory Designs for Certain Instructional Practices.	
John Robert Osborne, Ph.D.	B.S., M.A., Ball State University. Education. Major Professor: Charles A. Blackman, Professor. Thesis: A Model for the Development of Instructional Improvement Services at the Intermediate School District Level in Michigan.	

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# CANDIDATES FOR THE DOCTORAL DEGREES — FALL TERM, 1969 (Continued)

ROBERT ALTON PADDOCK, Ph.D.	B.S., Washington and Lee University; M.S., Michigan State University. Physics. Major Professor: Walter Benenson, Associate Professor. Thesis: A Study of the Energy Levels of <sup>18</sup> Ne, <sup>22</sup> Mg, <sup>26</sup> Si, <sup>30</sup> S, <sup>34</sup> Ar, and <sup>38</sup> Ca by the (p,t) Reaction.
BARBARA DALLAS PALMER, Ph.D.	B.A., Chatham College; M.A., Michigan State University. English. Major Professors: Clyde E. Henson, Professor; Arnold Wil- liams, Professor.
	Thesis: The Guide and Leader: Studies in a Narrative Structural Motif.
WAYNE DAVID PANYAN, Ph.D.	B.S., M.S., Wayne State University. Electrical Engineering. Major Professor: John B. Kreer, Professor. Thesis: Urban Traffic System Simulation and Control.
Joyce Young Passos, Ph.D.	B.S., Simmons College; M.S., Boston University. Education. Major Professor: Troy L. Stearns, Professor. Thesis: A Method for Analyzing the Problem Identification Behavior of Basic Baccalaureate Nursing Students and Its Relationship to Stu- dent Preparation Strategies, Student Role Satisfaction and Faculty
	Role Satisfaction.
WILMA L. PATTERSON, Ph. D.	<ul> <li>B.A., William Jewell College; M.A., Northeast Missouri State Teachers College.</li> <li>Education. Major Professor: Bill L. Kell, Professor.</li> <li>Thesis: Imagery Characteristics as Related to Picture-Word Stimulus Variables and Presentation Rates in Paired-Associate Learning.</li> </ul>
HARRY ARCHIBALD PEARSON, Ph.D.	B.S., B.A., University of Western Australia. Education. Major Professor: Ted W. Ward, Professor. Thesis: Programmed Instruction for Groups of Teachers in Remote Locations: Prototype Development.
Louis Allen Penner, Ph.D.	B.A., M.A., Miami University. Psychology. Major Professor: Milton Rokeach, Professor. Thesis: The Functional Relationship Between Values and Interper- sonal Behavior.
Fred Harold Pepper, Ph.D.	B.S., M.S., Colorado State University. Food Science. Major Professor: Albert M. Pearson, Professor. Thesis: Composition of the Aqueous Extract of Beef Adipose Tissue.
Cereta Elizabeth Perry, Ph.D.	B.S., Howard University; M.S., University of Wisconsin. Education. Major Professor: William W. Farquhar, Professor. Thesis: Client Internalizing and/or Client Externalizing Consistency or Change: Its Effect on Therapeutic Process and Outcome.
Richard Wayne Peterson, Ph.D.	B.S., Wisconsin State University; M.S., Michigan State University. Physics. Major Professor: Thomas H. Edwards, Professor. Thesis: Determination of A <sub>0</sub> for Deuterated Methyl Halides.

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CANDIDATES FOR THE DOCTORAL DEGREES — FALL TERM, 1969 (Continued)		
Peter Kimon Petro, Ph.D.	B.A., M.A., Iowa State Teachers College. Education. Major Professor: Peter G. Haines, Professor. Thesis: The Deviation of Learning Hierarchies and Instructional Ob- jectives in Accounting With Implications for Developing Instructional Systems for Post-High School Programs.	
Michael Petschel, Jr., Ph.D.	<ul> <li>B.A., Rutgers University.</li> <li>Chemistry. Major Professor: Harold Hart, Professor.</li> <li>Thesis: Part I: The Photorearrangement of 1,3,3,4,5,6-Hexamethyl- bicyclo [2.2.2]oct-5-ene-2,7- and -2,8-dione.</li> <li>Part II: The Synthesis and Low Temperature NMR Spectrum of 1,4-Diethyl-2,3,5,6,7,8-Hexamethylnaphthalene.</li> </ul>	
Phillip James Plauger, Ph.D.	A.B., Princeton University. Physics. Major Professor: Edwin Kashy, Professor. Thesis: Spectroscopy in the Titanium Isotopes Via (p,d) and (p,t) Reactions.	
John Victor Polomsky, Ph.D.	B.S., M.A., Michigan State University. Education. Major Professor: Lawrence Borosage, Professor. Thesis: Evaluations by Students, Teachers, and Managers of the Ben- ton Harbor-St. Joseph, Michigan Industrial Management Training Program.	
HOWARD KIRK PORTER, Ph.D.	B.S., Augustana College; M.A., Michigan State University. Psychology. Major Professor: Dozier W. Thornton, Associate Professor. Thesis: Prison Homosexuality: Locus of Control and Femininity.	
MICHAEL ROBERT POWELL, Ph.D.	B.S., M.S., Michigan State University. Biophysics. Major Professor: Barnett Rosenberg, Professor. Thesis: Electronic/Protonic Change Carrier Ratios in Solvated Bio- macromolecules.	
CHARLES RADANOVICS, Ph.D.	B.S., University of Budapest; M.S., University of California. Food Science. Major Professor: Charles M. Stine, Professor. Thesis: The Loss of Volatile Constituents and Storage Stability of Freeze-Dried Sour Cream.	
William Leigh Raiser, Ph.D.	B.A., Graceland College; M.A., Michigan State University. Sociology. Major Professor: J. Allan Beegle, Professor. Thesis: Metropolitan Growth and Socioeconomic Residential Segre- gation.	
PEEP PETER REBANE, Ph.D.	A.B., Upsala College; M.A., Michigan State University. History. Major Professor: Richard E. Sullivan, Professor. Thesis: Denmark and the Baltic Crusade, 1150-1227.	

#### CANDIDATES FOR THE DOCTORAL DEGREES — FALL TERM, 1969 (Continued)

AUDREY LOUISE RENTZ, Ph.D.

KHEE CHOON RHEE, Ph.D.

MARY RUTH RHOADS, Ph.D.

WILLIAM E. ROPER, Ph.D.

RICHARD CARROL ROSE, Ph.D.

TIMOTHY LOWELL Ross, Ph.D.

SR. M. ROSARII MARY SAUNDERS, Ph.D.

MICHAEL BISHOP SCHERBA, Ph.D.

ROBERT MOREN SCHNEIDER, Ed.D.

A.B., College of Mount St. Vincent; M.S., Pennsylvania State University. Education. Major Professor: Laurine E. Fitzgerald, Professor. Thesis: A Perceptual Study of the Sorority Image at Michigan State University.

B.S., M.S., Seoul National University. Food Science. Major Professor: J. Robert Brunner, Professor. Thesis: Isolation and Characterization of Lacteal Immunoglobulins.

B.M., M.M., University of Michigan. Music. Major Professor: Paul O. Harder, Professor. Thesis: Influences of Japanese Hogaku Manifest in Selected Compositions by Peter Mennin and Benjamin Britten.

B.S., M.S., University of Wisconsin. Agricultural Engineering. Major Professor: Merle L. Esmay, Professor. Thesis: Heat and Moisture Transfer in the Avian Respiratory System.

B.A., Augsburg College; M.S., Michigan State University. Physiology. Major Professor: William L. Frantz, Associate Professor. Thesis: Factors Affecting the Potential, Current and Resistance of the Pigeon Crop Membrane In Vivo and In Vitro.

B.S., M.B.A., Bowling Green State University. Business Administration (Accounting). Major Professor: Gardner M. Jones, Professor. Thesis: The Accountant's Role in Participative Decision-Making.

B.S., M.S., DePaul University. Education. Major Professor: Max R. Raines, Professor. Thesis: Perceptions of Members of the Health Team in Sectarian and Non-Sectarian Hospitals.

B.S., Wayne State University; M.S., University of Michigan. Electrical Engineering. Major Professor: Gerald L. Park, Associate Professor. Thesis: Optimal Singular Control Theory With Application to Vehicular Braking.

B.S., M.S., Kansas State University. Education. Major Professor: Guy E. Timmons, Professor. Thesis: Perceptions of the Role of the Agriculture Equipment Industry in the Agricultural Mechanization Education of Developing Countries.

SHIRISHCHANDRA BHAGWANDAS SETH, Ph.D. B.Com., M.Com., University of Bombay; M.B.A., Texas Christian University. Business Administration (Accounting). Major Professor: Gardner M. Jones, Professor. Thesis: Costing Methods for Materials Processing in the Metals Service Center Industry.

#### CANDIDATES FOR THE DOCTORAL DEGREES — FALL TERM, 1969 (Continued)

B.S., Pennsylvania State University; M.S., Michigan State University. Crop Science. Major Professor: Fred C. Elliott, Professor. JOHN S. SHENK, Ph.D. Thesis: Selection and Characterization of Digestibility Differences in Alfalfa by Chemical and Bioassay Procedures. B.S., Michigan State University; M.S., Purdue University. ISAAC SHEPPARD, JR., Ph.D. Agricultural Engineering. Major Professor: Merle L. Esmay, Professor. Thesis: An Analytical and Experimental Investigation of Contact Area Stress Distribution and Buckling Strength of Light Gauge Punched Metal Heel Plates for Timber Trusses. ROBERT GEORGE SHERMAN, Ph.D. B.S., Alma College; M.S., Michigan State University. Zoology. Major Professor: Ralph A. Pax, Associate Professor. Thesis: Electrophysiological and Pharmacological Studies of the Heart of the Tarantula Éurypelma Marxi Simon. B.S., M.S., Governmental Agricultural College; M.S., University of DAULAT SINGH, Ph.D. Guelph. Soil Science. Major Professor: Boyd G. Ellis, Professor. Thesis: Equilibrium Concentrations of Inorganic Phosphorus and Adsorbed Phosphorus in Soils. DAYA RAM SINGH, Ph.D. B.Com., M.Com., Banaras Hindu University. Business Administration (Finance). Major Professor: Adolph E. Grunewald, Professor. Thesis: Investment Policy and Performance of U.S. Subsidiaries in India. B.A., M.Ed., Wayne State University. Education. Major Professor: William A. Mann, Professor. AARON SINKOFF, Ed.D. Thesis: A Comparison of Two Cultural Groups Through the Use of the Mann Inventory. B.A., Hope College; M.S., Michigan State University. JAMES DUANE SLEE, Ph.D. Chemistry. Major Professor: Eugene LeGoff, Associate Professor. Thesis: Part I: Synthetic Approaches to 8b, 8c-Dimethylpyracyclene. Part II: A Study of Bis-Diels-Alder Adducts of Dimethyl Acetylenedicarboxylate and Certain Furans. MARTHA LUCILE SMITH, Ph.D. B.M., Western Michigan University; M.A., University of Michigan. Education. Major Professor: Charles A. Blackman, Professor. Thesis: A Study of Elementary Student Teacher Confidence in and Attitudes Toward Music and Changes That Occur in a Student Teaching Experience. B.A., Lawrence College; M.A., Michigan State University. Philosophy. Major Professor: Gerald J. Massey, Professor. IAN M. SMUCKER, Ph.D. Thesis: A Study of the Problem of Determining Ontological Commitments in Wittgenstein's Tractatus.

CANDIDATES FOR THE DOCTO	DRAL DEGREES — FALL TERM, 1969 (Continued)
Glenn Gardner Snow, Ph.D.	B.S., M.Ed., Brigham Young University. Education. Major Professor: Elwood E. Miller, Associate Professor. Thesis: An Analysis of the Doctoral Level Preparation Programs in the Field of Instructional Technology at Selected Institutions.
Rollin DeMers Sparrowe, Ph.D.	B.S., Humboldt State University; M.S., South Dakota State University. Fisheries and Wildlife. Major Professor: Leslie W. Gysel, Professor. Thesis: Prey-Catching Behavior in the American Kestrel (Falco sparverius).
Morris S. Spier, Ph.D.	B.A., City College of New York; M.A., Michigan State University. Psychology. Major Professor: Henry C. Smith, Professor. Thesis: Improving Interpersonal Sensitivity: An Evaluation of a Stereotype Accuracy Training Program.
Dorian George Sprandel, Ph.D.	B.A., Albion College; M.A., Michigan State University. Education. Major Professor: W. Harold Grant, Professor. Thesis: A College Student Subculture Study: An Examination of the Clark-Trow Subculture Typology at a Small Midwestern Private Non- sectarian Residential Four Year Liberal Arts College.
NATALIE LORAINE SPROULL, Ph.D.	B.A., Michigan State University. Education. Major Professor: Robert C. Craig, Professor. Thesis: The Relationship of Research Preparation to Duration, Attri- tion and Research Communication of Doctoral Candidates in Educa- tion, Michigan State University.
DARRYL LEONARD STEINERT, Ph.D.	B.S., Alma College; M.S., Michigan State University. Physics. Major Professor: Richard Schlegel, Professor. Thesis: An Evolution of Relativistic Thermodynamics.
Victor Lawrence Stine, Ph.D.	B.S., Purdue University; M.S., Michigan State University. Education: Major Professor: Russel J. Kleis, Associate Professor. Thesis: An Analysis of Agri-Business Management Functions and Implications for Personnel Training.
C. A. A. STORER, Ph.D.	B.A., University of Maine; M.A., Northwestern University. Speech. Major Professor: Kenneth G. Hance, Professor. Thesis: Elijah Kellogg: 19th Century New England Orthodox Preacher.
DAVID STANTON TAYLOR, Ph.D.	B.S., Northern Illinois University; M.S., Southern Illinois University. Education. Major Professor: Edward B. Blackman, Professor. Thesis: A Study of Institutional Climate at Western Illinois University as Perceived by Selected Junior Class Students.

#### CANDIDATES FOR THE DOCTORAL DEGREES — FALL TERM, 1969 (Continued)

CARL HENRY THOMAS, Ph.D.

ALDEN MILLER TOWNSEND, Ph.D.

JOSEPH NEIL UHL, Ph.D.

PHILIP STEVEN ULINSKI, Ph.D.

MARTEN VANDE GUCHTE, Ph.D.

PHILIP BRUCE VANDER VELDE, Ph.D.

FREDERICK JOHN WALSH, Ph.D.

SHYH JONG WANG, Ph.D.

JOE THOMAS WATERSON, Ph.D.

B.S., Clemson College; M.S., Louisiana State University. Agricultural Engineering. Major Professor: Fred W. Bakker-Arkema, Associate Professor. Thesis: Temperature Distributions and Effects of Heat Applied to Plant Stems.

B.S., The Pennsylvania State University; M.F., Yale University. Forestry. Major Professor: James W. Hanover, Associate Professor. Thesis: Physiological, Morphological, and Biochemical Variation in Western White Pine (*Pinus monticola* Dougl.) Seedlings From Different Altitudinal Seed Sources in Idaho.

B.S., M.S., Michigan State University. Agricultural Economics. Major Professor: James D. Shaffer, Professor. Thesis: Market Organization, Vertical Coordination and Farm Price Stability in the Fresh Fruit and Vegetable Industry.

B.S., M.S., Michigan State University. Zoology. Major Professor: John I. Johnson, Professor. Thesis: Normal Development of the Cuneate-Gracile Nuclear Complex in Pouch Young Opossums.

B.A., Calvin College; M.Ed., Wayne State University. Audiology and Speech Science. Major Professor: Herbert J. Oyer, Professor. Thesis: The Effect of Aural and Visual Cues on the Rating of the Speech of Foreign Students.

A.B., Calvin College; M.A., Michigan State University. Education. Major Professor: Frank H. Blackington, III, Professor. Thesis: A Philosophical Analysis of the Theoretical Assumptions of the Perceptual Psychology of Arthur Combs as It Relates to the Education of Teachers.

B.A., Michigan State University; A.M., University of Michigan. Education. Major Professor: Richard L. Featherstone, Professor. Thesis: A Study of the Expectations of Secondary School Principals, Significant Others, and School-Liaison Officers for the Role of School-Liaison Officer.

B.S., Chinese Naval College of Technology; M.S., National Chiao Tung University.
Electrical Engineering. Major Professor: Edgar C. Tacker, Associate Professor.
Thesis: A Gradient Computational Technique for a Class of Optimal Control Problems Subject to Inequality Constraints.

B.S., M.S., Michigan State University; Ed.S., University of Michigan. Education. Major Professor: Charles A. Blackman, Professor. Thesis: An Evaluation of a Two-Day Sensitivity Training Laboratory for High School Students.

#### CANDIDATES FOR THE DOCTORAL DEGREES — FALL TERM, 1969 (Continued)

JAMES FRANKLIN WEAVER, Ph.D.

WILLIAM JOHN WEBSTER, Ph.D.

B. BRADLEY WEST, JR., Ph.D.

JAMES LOHREN WIEK, Ph.D.

WARREN W. WOOD, Ph.D.

ROGER EARL WYSE, Ph.D.

MARILYN MONTGOMERY YEARGERS, Ph.D.

HOWARD HENRY ZUBICK, Ph.D.

MARTIN EDWARD ZWEIG, Ph.D.

B.A., North Texas State University; M.S., Syracuse University. Speech. Major Professor: Kenneth G. Hance, Professor. Thesis: The Effects of Verbal Cueing and Initial Ethos Upon Perceived Organization, Retention, Attitude Change, and Terminal Ethos.

B.A., Olivet College; M.A., University of Michigan. Education. Major Professor: James E. Heald, Professor. Thesis: The Applicability of Selected Ratio and Least-Squares Regression Analysis Techniques to the Prediction of Future Educational Attendance Patterns.

B.S., King's College; M.A., University of Notre Dame. Education. Major Professor: W. Henry Kennedy, Professor. Thesis: A Study of Computer Scored Group Holtzman Inkblot Variables as Related to Student Teaching Success, Major Teaching Fields, and Sex.

B.A., M.B.A., University of Washington. Business Administration (Marketing). Major Professor: E. Jerome McCarthy, Professor. Thesis: An Analysis of the Relation of Vertical Integration and Selected Attitudes and Behavioral Relationships in Competing Channel Systems.

B.S., M.S., Michigan State University. Geology. Major Professor: Samuel B. Romberger, Associate Professor. Thesis: Geochemistry of Ground Water of the Saginaw Formation in the Upper Grand River Basin, Michigan.

B.S., The Ohio State University; M.S., Michigan State University. Crop Science. Major Professor: Stephen T. Dexter, Professor. Thesis: Storage of Sugarbeets: Agronomic, Physiological and Quality Aspects.

B.A., Louisiana State University; M.A., Michigan State University. Comparative Literature. Major Professor: Bernard J. Paris, Professor. Thesis: Poiësis: The Theme of Poetry-Making in the Poetry of Wallace Stevens and Paul Valéry.

B.S., Emerson College; M.S., University of Wisconsin. Audiology and Speech Science. Major Professor: Herbert J. Oyer, Professor. Thesis: The Relationships Among Speech Reception Threshold, Auditory Discrimination, Speaker Intelligibility and the Total Number of Articulation Errors in a Geriatric Population.

B.S., University of Pennsylvania; M.B.A., University of Miami. Business Administration (Finance). Major Professor: Alden C. Olson, Associate Professor. Thesis: An Analysis of Risk and Return on Put and Call Option Strategies.

## CANDIDATES FOR EDUCATIONAL SPECIALIST DEGREES - FALL TERM, 1969

FREDERICK EUGENE BROWN, Ed.S.	B.S., Western Michigan University; M.A., Central Michigan University. Education. Major Professor: James E. Heald, Professor.
Merle Royston Friesen, Ed.S.	B.S., Michigan State University; M.S., Southern Illinois University. Education. Major Professor: Walter F. Johnson, Professor.
Margaret J. Johnstone, Ed.S.	B.A., Earlham College; M.A., Temple University. Education. Major Professor: James W. Costar, Professor.
Robert Charles Sloan, Ed.S.	B.S., M.A., Michigan State University. Education. Major Professor: Fred J. Vescolani, Professor.
VIRGINIA MERLE SORENSON, Ed.S.	B.S., M.A., Western Michigan University. Education. Major Professor: Charles A. Blackman, Professor.
PHYLLIS E. THOMPSON, Ed.S.	B.S., University of North Dakota; M.A., Michigan State University. Education. Major Professor: Byron H. Van Roekel, Professor.
Julia Ann Walker, Ed.S.	B.S., Central Michigan University; M.A., University of Michigan. Education. Major Professor: Byron H. Van Roekel, Professor.
Donald Jean Wilkening, Ed.S.	B.S., Southeast Missouri State College; M.S., University of Wisconsin. Education. Major Professor: Charles F. Schuller, Professor.

## CANDIDATE FOR DIPLOMA FOR ADVANCED GRADUATE STUDIES — FALL TERM, 1969

URSULA KARSTEN FRANKLIN, D.A.G.S.

B.A., M.A., Michigan State University. French, Language and Literature. Major Professor: Laurence M. Porter, Associate Professor.

# COLLEGE OF AGRICULTURE AND NATURAL RESOURCES

LAWRENCE L. BOGER, DEAN

Food Science

Jean Lavie

Packaging

Forestry

Horticulture

Ricky Delano Cone

H. Wayne Modler Michael Marshall Moline

Lynn Randall Pope

Forest Products and

Abdul Razak Bhutta Bert W. Taylor

Warren Louis Nance

David Curtis Worel

Sandra Elizabeth Kays

David Edward Passon

Judith Kay Lathrop

Benjamin Tucker Counter II

George Gosselin Giddings

Herman Edward Liberona

#### GRADUATED SUMMER TERM, 1969

Agricultural Economics Gerald D. Schwab Agricultural Mechanization Richard Joseph Patterson

Animal Husbandry James Robert Males

<u>Biochemistry</u> Robert Harry Millay, Jr. Thomas Calvin Pederson Kathleen Mary Rose

Cooperative Extension Education Richard Warren Hill

Kari Holtan Nodenes Dairy

Odon Pessoa Santana Fisheries and Wildlife

L. Dean Eyman Thomas Edward Mears Harold August Olsen

#### CANDIDATES - FALL TERM, 1969

Agricultural Economics Werner Kiene Chaudry Ghulam Qadir Prayong Saiprasert

Kenneth Neal Wegenhoft Agricultural Mechanization

Omar Ulloa T. Animal Husbandry Stuart Austin Lumb

<u>Biochemistry</u> Sandra Lee Baumann Edmund John Hengesh Fredrick Oliver O'Neal Paul Daniel Snyder, Jr. John Porter Tuttle

Cooperative Extension Education

Ketty V. Mangaard

Crop Science Wayne L. Haag Ronald Gene Shellenberger

Fisheries and Wildlife Dorance Charles Brege Poultry Science Matt A. Gustafson, Jr.

Resource Development William Lloyd Fix

Soil Science

Eduardo Andres Fernandez-Tunon Alvin J. Marion Smucker

DEGREE RECOMMENDED JOINTLY WITH THE COLLEGE OF ENGINEERING

Agricultural Engineering Thomas Harold Burkhardt

John Rowland Gehring Thomas Wayne Hardgrove Thomas Earl Isley Dean Paul Longrie Phillip Terry Robinson Frank John Tesar

Food Science

Mark Howard Love Bertha Julieta Rios Iriarte

Forestry Floyd Harvey Curtis

DEGREE OF MASTER OF SCIENCE

DEGREE OF MASTER OF SCIENCE

## COLLEGE OF AGRICULTURE AND NATURAL RESOURCES

DEGREE OF MASTER OF SCIENCE Horticulture Martin Nodenes Joerg Schoenherr Alexander Jelle Alexis Sikkes Helen N. Siu

Packaging Helmer Niels Jensen, Jr. Park and Recreation Resources Walter Joseph Adams

Resource Development

Terry Allen Ringler Vanee Saiprasert

Soil Science Somjate Jantawat DEGREE RECOMMENDED JOINTLY WITH THE COLLEGE OF ENGINEERING

Agricultural Engineering

Manuel Leonardo Lecca Rodriguez

Agricultural Business Richard Douglas Byrum Kenneth Austin Rudolph

Agricultural Economics

Dennis Keith King

Animal Husbandry

 Benjamin Bruce Bartlett Lawrence Michael Downey Daniel C. Hoffman Lawrence Guy House Rex Edward Payne Virginia Leigh Schmidt...
 Paul Allen Schurman

Antoinette Jean Tenlen

**Building Construction** 

Arlyn Michael Aschinger Randy Lowell Barnett Gale Francis Brohl Marc Frederick Goulait Dale Lee Hornburg Dennis Lewis Rogers Jeffrey Robert Rushton Phillip Dennis Shoemaker

#### Dairy

Robert Joe Kraus Sidney Alan Mattson Donald Charles Williams

#### Fisheries and Wildlife

Alan Doyle Bell \*Ronald Lowell Fobes \*Ralph Lorimer Hay, III \*Robert Lee Hite Karen Lois Le Pard David Michael Rocque Lawrence McKay Rubly John Paul Van Dalen

Floriculture

James Edward Thomas

Food Science

George Eveart Finkbeiner

#### Forestry

- \*Donald Harry Bellville
- Dennis Bruce Bowles \*\*Bruce Alwin Chaffin Arthur C. Clarke Joseph Michael Cox Flavio Nelson De Benedet
- Randy William DeGrow Paul Louis Gaebel, III \*David Walter Goller
- Richard Thomas Houghton \*\*John Frank Kelly
- John Edward Kopplin \*Everett Wayne Martindale Steven Thomas McKellar \*Bruce Orville Parsons
- Robert N. Patterson John Arnold Paul Joseph Michael Schwartz James Randolph Stoneman Andrew Bruce Taylor

Horticulture Marketing

Roger Jack Anthony

#### Horticulture Science

Gordon Hugh Kingsford, Jr. \*Larry Allen Wier

Lumber and Building

Materials Marketing

James Charles Cleereman

#### Packaging

Sanford Preston Ames Donald Richard Auten Kenneth John Baratta Richard Curtiss Bruce James Edward Copeland, Jr. Robin Lee Dobbelstein

Lawrence Clifford Dull David Lawrence Farhat Joseph James Fleury Christian Donald Geltz Alan Dwight Heneveld \*David Ross Hennerman Edward Michael Homyack Ralph Allen Karll James A. Keyser Donald Thomas LaBelle Kenneth Lee Lemon Steven Lynn Miller George William Mock David Lawrence Nelson Sherman Walter Nelson Gary Blaine Ockey Russell Allen Raymoure Wilfred Eugene Riddell James Allen Rousseau Michael Robert Russell Herbert Harry Schueneman David Edward Thompson \*Robert Duane Usiak David Keith Wallace William Royal Walter

Resource Development Rick Edward Comstock

Soil Science Robert Lee Roller

DEGREE RECOMMENDED JOINTLY WITH THE COLLEGE OF EDUCATION

Agricultural Education Thomas William Frank

Fisheries and Wildlife Robert Dean Hickman

DEGREE OF BACHELOR OF SCIENCE

# COLLEGE OF ENGINEERING

LAWRENCE W. VON TERSCH, DEAN

#### GRADUATED SUMMER TERM, 1969

<u>Chemical Engineering</u> Ennio Giorgio De Zorzi Jagdish Manubhai Mehta

DEGREE OF MASTER OF SCIENCE

DEGREE OF

OF SCIENCE

DEGREE OF

BACHELOR

OF SCIENCE

MASTER

<u>Civil Engineering</u> Mustafa Acarturk Mohammad Akram Chaudry Hassan Farahbod Iftikhar R. Mufti Pravin Chimanlal Parikh Erdogan Mehmet Sener Wesley Edward Stimpson

Computer Science Robert Paul Trehame Electrical Engineering William Joseph Byrne Robert Henry Caron Kong Hung Chan Chang Eon Kang Suneel Laxman Kelkar Suresh Kumar Nangia Herbert Fritz Pardula Brian Gregory Smith Jerae Steggall Prabhakar Krishnarao Vichare

Mechanical Engineering Kenneth Charles Cornelius Claudio P. De Zorzi-Spagnol

#### CANDIDATES — FALL TERM, 1969

<u>Chemical Engineering</u> Kiransinh Vijaysinh Chauhan

<u>Civil Engineering</u> Sunthorn Aritajati Francisco Jose Cajiao Anan Chaikittisilpa Chun-ping Lien Krishna Chandra Mowleshwer Natverlal R. Patel

Chemical Engineering John Floyd Hunt

<u>Civil Engineering</u> Clinton C. Clark Willie H. Harris William Lawrence Miller Thomas Edward Myers

Computer Science Lance Alexander Fleming

• With Honor

#### Electrical Engineering

Tze Tzong Chen Gary Lee Forbes Indur Murlidhar Goklany Baldev Krishan Gupta David Zimmerman Ring, III Martin Victor Seitz

Mechanical Engineering

Liang-Chou Chang Kuchibhatla Sundar Das Boaz E. Eidelberg

#### Electrical Engineering

Salman Y. Al-Roumi Robert George Baker, Jr. John Michael Randolph Richard James Seif Gerald Robert Szostak Ronald Stephen Vokits Thomas Arthur Wade

Materials Science Donald Gene Baird Anil Kumar John Joseph Lukasik Fernando Mercado William Clare Snider Hem Raj Vij Douglas Alexander Young

Metallurgy

R. Vijayakumar Michael W. Wisti

Sanitary Engineering Antonio Aloysi

<u>Systems Science</u> John Frederick Dorsey Sanford Chester Lenchner

Ram Gopal Gupta Ramji Hansraj Javia Arun Tilakraj Kapur James Carl Thelen

<u>Metallurgy</u> Sandra Marie Haarala

Systems Science Harbans Singh Gill

#### Mechanical Engineering

Dennis Donald Dailey Robert James Fry, Jr. Dennis Earl Knoeferl Randall Elton Morris \*Loren David Simons Charles Erick Walls Stephen John Wheeler Michael Edward Winkler

# COLLEGE OF HOME ECONOMICS

JEANNETTE LEE, DEAN

#### GRADUATED SUMMER TERM, 1969

DEGREE OF MASTER OF ARTS Child Development Subhadra Abraham Family Studies Sister Margaret Mary Thompson, S.C.N. Ruth S. Wakeland Home Management Ester Mae Franck Cox <u>Related Arts</u> Beverly Allred Eubank

DEGREE OF MASTER OF SCIENCE General Home Economics Diane Helen Eno Glenda Eileen Moyer Institution Administration Mildred Jean Chambers Ida Sue Evans Jean Bernadette Liberty Sister Josita Prokosch Textiles and Clothing

Karin Joan Bargar Heung Grace Chung Sandra Lee Mitchell Jacquelyn Ann Orlando Betty Voran Smucker

Nutrition Denise Lee Holmes

#### CANDIDATES — FALL TERM, 1969

DEGREE OF MASTER OF ARTS

<u>Child Development</u> Nancy J. Fraser Karen Louise Martikainen Home Management Martha Lou Goss Christine Tobias Walter

DEGREE OF MASTER OF SCIENCE

Foods Ruth Ellen Maul Institution Administration Diane Vachout Stephens <u>Nutrition</u> Shirley Chih-Hsuan Chen

## COLLEGE OF HOME ECONOMICS

#### Foods

Rebecca K. Foryt Nancy Lou Vander Vere <u>General Clothing and</u> <u>Textiles</u> Mary Ellen Fagan

## General Home Economics

DEGREE OF BACHELOR OF SCIENCE Diane Ragnhild Anderson Susan Gail Benedict Martha J. L. Brown Carol Jean Emmett Neva Jeanne Herrold Jean Cran Penfold

#### Interior Design

Linda G. Batdorff Patricia Klingler Boettcher Jill Ann Dreissigaker Mary Martha Dunham Susan Lynn Hart Donald Avery Hayes Valerie Ann Hays H\*\*Morna Cocanougher Kline Carol Lynn Richmond Elizabeth Dunbar Williams

#### Retailing of Textiles and Clothing

Beverly M. Beach Debbie R. Feldman Susan Ellen Fraser Sharon I. Handlon Barbara Cain Hays Judith Claire Idzik Candace Kay Kline Beverly Ann Maas Beverly Ann Maas Beverly Nalepa Ann Louise Plumtree Colleen Ellen Robison Mary Katherine Satterfield DEGREE RECOMMENDED JOINTLY WITH THE COLLEGE OF EDUCATION

#### Child Development and Teaching

Judith Elaine Cappiello \*Donna Rosie Howe Sara Anise Moore Patricia Ann Pylkas Mary Elizabeth Russell Vicky Sue Trail Barbara Jean Van Dussen

#### Home Economics Teaching

\*Deborah Jill Butcher Janet Margaret Case Marilyn Marlene Gallie \*Mary Catherine Hamel Kay Frances Haws Eileen Sue Hicks Karen Gene Kemp Judy Emily Kraatz Knott Joanne Louise Kriss Linda Sue Letwin Doris Louise Marshall Sharon Marie Matelski Sally Ann Narhi Sarah Ann Richards Marcia Ann Winchell

H Honors College \* With Honor \*\* With High Honor

# COLLEGE OF VETERINARY MEDICINE

WILLIS W. ARMISTEAD, DEAN

#### GRADUATED SUMMER TERM, 1969

DEGREE OF MASTER OF SCIENCE

<u>Anatomy</u> Dale Corwin Peerbolte Pathology James Edwin Rogers Veterinary Surgery and Medicine Donald Allen Henshaw

#### CANDIDATES - FALL TERM, 1969

DEGREE OF DOCTOR OF VETERINARY MEDICINE Terrance David Braden \*\*Linda Emily Brown \*William Frederick Brown Joe Dale Burek \*James Alexander Burnett Donald Burroughs Margaret Ann Change

Grant Wayne Boam

Dennis Arthur Boelter Roman Oleh Bohonowych

Margaret Ann Chapel Mary Blommer Collisi Robert Walter Coppock William Alan Curtis Kenneth George Eshelman \*Michael Leo Furcolow, Jr. Robert Michael Goldman Carolyn Irene Granke \*Richard John Havas \*William Dane Jaxtheimer \*Norman Arthur Kibiger Harry Harold Lucyshyn \*Dale F. McKenzie John Campbell Murphy John Frederick Pepper Dennis Ray Peterson \*Phillip Pierre Antoine Randall \*Christine Cecilia Ratke

<sup>\*</sup>Christine Cecilia Ratke Randi Rae Robinson Ronald James Salswedel Emery August Santerre, Jr. Douglas Patterson Schank Roger Lawson Sell \*Karen Ann Sleeper Joel Jay Smiler Robert John Sray Keith Earl Sterner David Robert Stoloff Martin Cesar Torres Frank Van Amburgh Rodger Allen VanderWerff \*Michael Perrin Warren Gary Ross Willwerth Harlan Andrew Witt

\*Kathleen A. Yaros

DEGREE OF BACHELOR OF SCIENCE

Veterinary Medicine Lindi Karon Daniel

\*\*Paul Anthony Garbaccio

\*David Alan Komitor Andrea Sue Nordrum \*\*Sally Janet Wechsler James Walt Wilson

# COLLEGE OF BUSINESS

KULLERVO LOUHI, DEAN

#### GRADUATED SUMMER TERM, 1969

DEGREE OF MASTER OF ARTS

Economics Faisal Abdul-Razzak Al-Kazemi

Robert Edward Hayes, Jr. Barbara Perelman Marcus

#### GRADUATE SCHOOL OF BUSINESS ADMINISTRATION

William Carlton Horiszny

William Harold Ames John Vinton Arthur Alvah Winslow Bearse Rudolf Heinrich George Beilfuss Thomas Edward Berndt Richard Nathaniel Berry, Jr. John Bohlsen Calvin M. Bopp Robert Paul Bostrom Gerald Philip Bouwens Roger Dale Bowler John Edward Carlin James Alfred Carter Victor Ceserani **Richard Heames Chamberlin** Richard Lee Close Michael Richard Clowe John Walter Cronkite Flavius Delocienda, Jr. Terrance James Dobson Carl Louis English Steven Harrison Evans Zita Silvestre Fernandes Francis Leonard Filipiak Gary Wayne Fink Thomas William Forehand Charles Stone Foster Kenneth Lawrence Foster Charles Michael Fox John Bernard Gabor, Jr. Egon Handel Theresa Ann Hanson Lyle Robert Hedglen Brian Roland Hedman Alec Hicks, Jr. Wilbert Charles Hicks, Jr. Alma Diaz Hidalgo

Ming-Miin Hsye Ronald O. Huntsman Allan Edward Jones Gregory James Kelley Harold Lewis Kerr, Jr. Ronald Dean Kovar Andrew Graeme Park Laird Jerome C. Langham Richard Dale Leininger William Franklin Lewis Mark Robert Lukes Lawrence Guy Lyman Gerald Martin Major Lynn Edward Mantikoski Stephen Patrick Marshall Frank Paul Massa Franklin Ellis Maxwell William Francis McNary III Boyce Young McQueen John Martin Merker Norman Frederick Muelenberg James Francis Miller III Ronald Arthur Milne William Searles Munn Lloyd Morrill Munson Dennis Wayne Naranche Jörg Rüdiger Neuffer William Edward Newton Thomas Allyn Niehaus Ronald Delmar Oberst Dennis William Olmstead Charles Edward Ougheltree Norman Arthur Pappas Claude Roger Parent, Jr. Aubrey Burns Patterson, Jr. Edward Peter Pensock

Robert Michael Powers III Roger Nixon Rey Maurice Joseph Rosenberg Donald Mark Rudick John Henry Ruehlin Robert Lewis Rumpf Nit Sammapan Richard Duane Sampson Bowen Sapp James Kooniger Schmidt Richard Derek Schoonmaker Warren Schrader, Jr. Erlinda Mendoza Sison David Warren Sjolin John M. Spurgeon Ralph Herbert Squires, Jr. Harold August Steben John Scott Stephenson Geoffrey Grey Strange William Kerry Taylor Robert Keith Tice Clarence William Towsley John William Vann Ronald Charles Vogt William Lee Waanders Frederick Stephen Warner Richard Everett Watkins George Paul Weiland William Leslie Welch George Henry Welliver, Jr. David J. Whittaker Douglas Arthur Williams Michael John Wilson Theodore Alford Wilson Howard David Winkler Dennis W. H. Wong Roger George Young John Steven Zdanowicz

DEGREE OF MASTER OF BUSINESS ADMINISTRATION

### COLLEGE OF BUSINESS

#### CANDIDATES - FALL TERM, 1969

DEGREE OF

MASTER OF ARTS

### Economics Louis Raymond Eeckhoudt

Mufid Kury Harb Robert Laurence Near Luiz Antonio de Oliveira Lima Gondy Bhaskara Rao Lawrence Israel Shulman Ahmed Saleh Saab Twaijri Soichiro Yoshida

#### GRADUATE SCHOOL OF BUSINESS ADMINISTRATION

Yigit Türkay Alemdar Hugh Michael Bean Edward Benson Kevin Patrick Broderick Robert Douglas Bruce William James Carlson Michael Bruce Combs Christopher Curry Odival Pereira de Avila Ronald Robert Demorest **Glenn Edward Detrick** Ival Gene Dutcher Daniel Patrick Dwyer Alvin Jay Elders Dennis Scott Farley Jacob Jacques Gelman Thomas Frank Grablick Lillian Dolores Greene Stanley Douglas Griffis Marvin Kenneth Hackett Edward Archie Hall John William Haney Franklin Edwin Hardgrove Roberta Carol Harms Alan Edward Hartwick James Sparks Hayes Jack D. Helmer

#### Accounting

H\*\*Donna M. Baker
\*Jeffrey J. Bartlett
James Matthew Brickley
James Andrew Chmielewski
Edward Earl Christner
Robert Alan Crist
H\*\*Thearon J. Earegood
Gary Andrew Gazzeny
Frederick Henry Genel
\*Larry Charles Helber
Barry Bruce Hoskins
Michael James Littlefield
William Joseph Mukavetz
George Earl Weber
Norman Allen Wise
\*Howard Edward Wisner

#### **Economics**

Larry Delano Bell Stephen Benson Chaffee Marc Paul DeWitte

H Honors College \* With Honor \*\* With High Honor Bruce Richard Hering Mary A. Higby Walter Traynham Houston, Jr. Robert Comstock Hunter William Clarence Jacobs Anand Prakash Jaggi Masumi Kato Madan Raj Lalwani Gordon Ward Lamphere, Jr. Abdul Latif Dante Maurice Laudadio Raymond Malcolm Little Walter Carlton MacLachlan Maleeratna Mahatharadol Stanley Robert Main Dilson Garcia de Mattos David Louis McDonald Bernard J. McNamee Jagdish Manubhai Mehta Larry Raymond Miles Jack Raymond Miller Alysson Darowish Mitraud Paul Dewayne Moerman Toshio Mõri Jagmohan D. Mundhra Joseph A. Ondraka

\*Robert Charles Drury Leslie Bearden Ford David Jack Goss David Richard Linton Alan Root Lockwood Robert Graham Meiers, Jr. H\*\*Charles Edward Menich Gregory Allan Merritt Mark H. Newton David Wayne Robinson H\*\*Gregory Mark Glanffrwd Thomas

#### Financial Administration

H<sup>\*\*</sup>Michael J. Clutter Jonathon Lee Gean <sup>\*</sup>Norman John Glasser Robert George Jubb Eric Bartholomew Latos Royal Paul Lefere, Jr. Rodney Michael Lovas James M. Miller

**Richard Harold Osborn** James Terry Pearce Dale John Peterson David F. Potyraj Larry Eugene Rittenberg Michael Stewart Robinson Thomas Carl Schafer Lester Chiachin Shu Raymond L. Simescu Leandro G. Sinco George B. Skelton Lyle J. Speerschneider John Victor Stafford, Jr. James Dane Starling Jaime Suarez-P Robert D. Temmler Frederick Hubert Thies **Richard Paul Tomasovic** Usama Mohamed Hassan Trabulsi David L. Utterback Joseph Varga Dale Trent Wachner David Eugene Williams Jane C. C. Yeh Wu Jaime Yoshiyama-Tanaka

Steven Allan Nelson James Edward Riley Frank Charles Rinkus, Jr. Austin Leo Stephens \*Thomas Howard Van Dis

Food Marketing

Management

Thomas Willard Johnston, Jr.

#### General Business Administration

Larry Eugene Andrick Marvin Louis Andringa John Eldon Ball Donald Otto Barlow, II Robert Elwin Blackmer Bernard Michael Bullard Rick Thomas Carrier Daniel George Durack Rodney Daniel Ellis

MASTER OF BUSINESS ADMINISTRATION

DEGREE OF

## **COLLEGE OF BUSINESS**

DEGREE OF

BACHELOR

OF ARTS

Vincent Joseph Ferris, Jr. David Edwin Gibbings J. Patrick Godfrey John Peter Hanchak Gary Lee Hanel Michael Ross Harvey Peter Edwin Johnson Richard Harold Johnson Bruce Allen Katz Gregory Peter Killoran Juris Klovans William Joseph Kmet Douglas Kimball Lamb John Harmon Liles Ronald E. Malmborg Robert James Martin Michael Grant McCormick Lana Ranae Meyerson Robert Carl Passiak Robert John Powers Jack Burt Riley Walter Albert Roman Carl Frederick Schlegelmann Vernice Susan Stinson Charles Lee Van Namen Jonathan J. Wainwright

Health Facilities

Management Robert Ashton Moco Michael Allen Sponsler Lauris Brian Suter

Hotel, Motel, and Club Management

Roger Alan Miller

Hotel and Restaurant Management

Charles Turner Abbott Thomas William Allen Dennis Raymond Anchors R. E. Olds Anderson, Jr. Philip Louis Archambault Guy Thomas Atkinson Benjamin George Bair Thomas J. Brown Robert Stanley Buell Robert Edward Dirks JoAnna Charlotte Funk Anthony Parker Hall John Stowell Harris Richard B. Hill Ronald J. Merizon Paula Marie Neese David Joseph Nutting William Harley Ragla Lawrence Benjamin Rose Terry Michael Sargent David L. Schmitt Vance Earle Scott Michael Robert Simpson Daniel Edward Speasmaker Paul Kelley Sullivan

Industrial Administration

Thomas F. Gillham Gary Thomas Hayes Steven Craig Pugh Jerry Wayne Rathburn

#### Marketing

Douglas Allen Barclay Michael Paul Berry Lawrence Allen Blackwood David Michael Clapper Robert Eugene Davis, Jr. Joel Lee Edwards Mark Kevin Erickson David L. Frink Charles Wilson Gaa Alan David Giroux Michael Robinson Homant Jay T. Knutsen James Michael Landrum Richard Paul Martel, Jr. Jon Patrick McGeath

- \*Michael Leslie McKay Douglas Joseph Mikel
  \*Jeffrey Alan Mills Kenneth L. Mills
- \*\*Roger Thomas Murphy Robert Michael Nastas

Randolph Richard Newhouser Robert John Olson James Robert Sakar Federico Irving Sánchez \*John Edward Simmons Larry Edward Simons Stephen William Smith Gerald George Tremblay Gary Lee Van Dam Kenneth John Vander Hoff

Office Administration

Mary Lynne Frye Joyce Elaine Mantel Anne Marilyn Wood

Personnel Administration

Robert J. Adamson, II Robert LeRoy Cross, Jr. Michael Gregory Getty Randall Lee Hellman Charles Leonard Hoebeke David E. Martin James Allen Matthews Timothy J. Todish

Risk and Insurance

Eugene Thomas Lacroix, II

Transportation

Administration

Alan William O'Grady Clifford Joseph Reilly

#### DEGREE RECOMMENDED JOINTLY WITH THE COLLEGE OF EDUCATION

Business and Distributive Teacher Education

H<sup>\*\*</sup>Mary Ann Finneren \*Ilona Ilene Galloway Philip Armand Henault Steven Thomas Johnson \*Nancy Marie Lewis Sally Kay Myall Thomas Dwight Stephens

#### **Economics**

Janet C. Goulet

H\*\*Thomas Allen Groendyke

H Honors College \* With Honor \* With High Honor

# COLLEGE OF EDUCATION

JOHN E. IVEY, JR., DEAN

#### GRADUATED SUMMER TERM, 1969

#### Education

DEGREE OF

MASTER

OF ARTS

**Richard Charles Acosta** Clare Edward Adkin Mary Eleanor Aikey Lucy Elizabeth Ainsley Philip Delbert Albright Eloise Allen Alles Dottie Mae Andersen Gary Louis Anderson Laurie Arvid Anderson Michele Eileen Anderson Robert Ralph Anderson Sandra A. Andresen Karen M. Antcliff Iris Ruth Arthur Hazel Neva Babcock Dale Royce Bachman Barbara Bowman Bacholzky Frank John Bacholzky Dora Gene Banta Allen Edwin Bard Linda Sue Barth Erwin Merle Beenken Barbara Jean Bell Annie Bell Belton Charles E. Benson Barbara Jean Bentz Barbara Jo Bereman John William Bergstrom Elaine Burchell Bigelow Anthony Mathias Birg Jerome Paul Birkholz Phyllis Listman Bodell Mary Ann Hobart Bogard Anne C. Borgerson James Anthony Born Paulette Jean Braccio Dennis L. Brasser Kathleen Allen Brazil Raymond Emil Bremer Karen Diane Brewer Phyllis Jean Brewster Barbara Ann Bronson Glen Brown Myra Gregory Brown Lillie Ruth Bryant Norris Clark Bryson Sandra Kay Bunce Donald Clare Burns Linda Marie Burns Eleanor Kaye Burrows Rosa May Seward Caler

Margaret Eileen Camp David Kenwood Campbell Ronald Andrew Carmany Kenneth Fay Carothers John Edward Carr Priscilla Sharon Carr Fred M. Carter, Jr. Albert Lee Catallo Norma Jean Champion Carole Marie Chaps Marguerite Ann Chartrand Anita Cohen Clifford Coit Terry Michael Collins Garnet Koons Conard Michael Neil Connolly John Patrick Cooke, Jr. Curtis W. Cooper Richard Judson Cornish Margaret Miller Crick Clifford Robert Cross Raymond L. Cummings David Louis Cunningham Rodney Frank Currier Jacqueline Therese Cyr Mary-Jo Dailey Sharon Elizabeth Daly Howard Robert Dashney Patrick Douglas Daunt LeRoy Edward Davis Sister Mary Gregory Davis Susan Margaret Davis Joyce Alfra Dean Betti Jane Decker Richard Garret Demarest III Jack T. Dickerson Jane Coffman Ditzenberger Nancy Grove Donohue John Louis Dragonetti Kay Harris Dukesherer R. William Dunham, Jr. Robert Marvin Eggleston Mary Alice Eisenhauer Julie Beth Eliasohn Sharon Christine Elicker Lois Boundy Elliott Donque Ellis Patricia Fisk Ellis Clark Kennedy Elmer Ben Neal Emdin Margaret Mary Faust John Robert Fero

Alfreda Sallie Fields Barbara Ann Rohler Fink David Allen Fitch Roberta Anita Fitton Dennis Stewart Floyd Charlotte Daun Folkert Lynn Allan Folkert John Joseph Forte Katherine Frances Fortier Shirley Lucille Forton Cletus William Friend David Allan Frisbie Peter Fusi, Jr. Wayne Lee Gates Frank G. Gertz G. William Gibbs Melody Jo Glick Shirley Beverley Gogoleski Frances Louise Good Neil Norman Gould Larry Wayne Graening James H. Green Della Patricia Gregory Margery Ellen Grier Frank Joseph Gruber IV Daniel Benjamin Gryzen Francis Aloysius Guldbrandsen JoAnne Kay Gulliver Eunice M. Gunn Stephanie Ann Guyor William Harris Haak Ann Stevens Haas Theodore Anthony Hagen Diane Lake Haight Thomas Hain Carmen C. S. Handel Ruthel Elizabeth Hankerson Norma Jean Hansum Linda Janet Harder M. Aileen Harkins Judith H. Hartnett Virginia Scott Hastings Robert Thomas Hayduk Richard Alan Headley Brian Kenneth Edward Hennen Howard Clifford Henry Sister Gretchen Hess Joy Helen Hetherington Edwin Thomas Heywood

Lois Jean Field

**Robert Charles Hill** 

Joan Marie Hoffman Marcia B. Holder Christine Mills Holmes Mary Lee Holtz Irma Briggs Hooker Diane Elizabeth Hoover Carol Jean Horetski Wanda Lou Huber Margaret Fredricka Hudson Diana Sue Hunter Marjorie Ann Inman Vincent Carter Irwin Linda Diane Isbister Maxie C. Jackson, Jr. Bert Jacobsen Sarah Elizabeth Jacobson George Karl Janes Roland Samuel Joelsson Clarence Fred Johnson Gunnard Nixon Johnson Judith Sue Johnson Phyllis Ann Johnson James Joseph Johnstone Thomas Michael Jordan Maralouise Paulder Kaiser Allan James Kaiser Richard L. Kalich Rosemary Margaret Kalkman George K. Kallingal James Stephen Kaminsky Gloria Jean Kapp Kitty Jeane Keith Carol Hermance Kennedy James Edwin Kerscher Laura Lynn Kilker Beverly Jane Knight Hilma Eleanor Knoblauch Charlotte Graham Knox Reinhart Joseph Krause, Jr. Ruth E. W. Krebs Ernestine Robinson Kyles Kathryn Ann Lalley Patricia Ann Landauer David Howard Landers William Eugene Lasher Larcia Fayette Latimer Carol Jane Lauckner **Janet Marie Lawless** Betty Jean Leavitt Laurence Harley Lee Frank D. Lehnen William John Lemcke John Chester Lepien Sharon Kay Lewis William Glenn Ligon Patricia Mary Lilly Ruth Emmons Lincoln William Hugh Lobsiger Barbara Winkel Longstreth Carole F. Lower Barbara Jean Lueck Roger Russell Maack Barbara Jean MacDonald Judith Coddington Mahoney John Peter Malafouris Carolyn B. Malmberg Eugenia Victoria Marin Garnette Faith Marmion Alan Albert Martel

Dennis Wallace Martin Marjorie M. Maxcy Edna Ann McAra John Alexander McCormick Clara Isabel McIntyre Norman Joseph McIntyre Barbara Lee McKee Cecil Arline McKenzie Henry Samuel McKeown Marvin Markus McLaughlin Edna Allen McMillan Donald Richard Meinke Henry Judson Meredith Janet Baker Michaelson Nicholas Marion Midea Michael F. Miles Dorothy Marie Miller Robert Fraser Miller Judith Ann Misner Lucile Janett Missimer Beverly Ford Mitchell Gerald Lee Moerland Margaret N. Money Phyllis Annette Moody Duane Harrison Moore Jane Ann Moore John Joseph Moreau Richard D. Morris Sheila Martin Morrison Don Leonard Mourand Michael Lane Munn Elaine Linda Muntyan Fatema Muyeed Marcy Ann Nabrezny Sharon Kern Newman Kathleen May Turk Newton Mary Patricia Nicholson Carolsue Nikander Florence Fouché Norton Rosemary Evans Notzold Thomas Allen Nyhus Marshall James Nyland Robert Bruce O'Brien Bonnie Karel Olson Janet Findlay Orndorff Anthony Frank Palazzolo Charles Richard Parrott Charles Irving Patridge Jeanine B. Patton Ted Pedas Mark Richard Penta David Lynn Percival James David Phillips Melvin J. Piccard Laureen Louise Pinkerman Mary Bolton Pinnick Leonard Edward Pitts Paula Faye Posey Ann Rita Potes Myra Charlene Potocsky Helen Joyce Preston George William Rausch James Glen Reasoner Ann Lea Reiser Nevin Alan Rice Dorothy Jane Richardson Mary A. Riedel Carolyn Jean Ringeisen Janice Onetta Robbins Ronald Douglas Roberts

Ianet Sue Robinson Norman Lee Robison Donald Richard Rochon Laura Ruggles Roehler Roger Clarence Roller Joan S. Rowerdink Victor S. Saier, Jr. Barbara Jean Samulak Barbara K. Sander Delores Ann Sanders Sanong Sansanayuth Angelo Joseph Scalet Rebecca Bricker Schaefer Judith Ann Schmachtenberger Katherine Pittman Schneeberger Chester H. Schneider Marcie Gail Schoenfeld Eugenia Stewart Schultz Susan Jane Scott Frank A. Scozzafave William Todd Sebright Roger Lee Sellon Nancy Ellen Wiseman Seminoff Marian Cathryn Shaffer Khalida Khanam Shami Valerie Joan Sheppard Carol Anderson Shoop Joseph Alfrout Shurn Gary Allen Sigurdson Patricia Cuza Silea Judith Grace Singerling Michael Fay Sinn Tarry Gene Slusher Carol Lucille Smith Eugene LeRoy Smith L. Michael Smith N. Donald Smith Philip Cecil Smith Stanley William Smith Stan John Solokis Milton C. Spaan Sarah Anne Sprafka John Francis Springer Patricia Louise Ryan Starmer Gladys Elda Steil Noreen E. Steinke Linda Le Stephenson Bill Gene Stocker Peter Stoll Sister Melmarie Stoll Burton Kent Straight Ernest Elmond Strong Gerald Frederick **Summerhays** Constance Jeanne Svoboda Philip J. Swainston James Arthur Swanlund John W. Swart Richard Lee Sweet Roger Eugene Sykes Eloise Sandra Szedlak Brenda Anne Taggart James Kay Tanis Marcia Dee Tanner Philip Ross Taylor Mary Margaret Tegeler Mary Loncharte Teuber

DEGREE OF

MASTER

OF ARTS

### COLLEGE OF EDUCATION

DEGREE OF MASTER OF ARTS

DEGREE OF

MASTER

OF ARTS

Stanley Anthony Theis Arthur William Thomas Terry Allen Thomas Wendell Henry Thomas William Richard Thomas Dona Mae Thompson Robin Lee Thorell Allen Ejnar Thunell Barbara Jane Tibbetts Lawrence Stewart Tiejema Betty Jane Topp Garnet Victor Tripp Real Jean Turcotte Ronald Joseph Ivorik Samuel David Ulsaker Dan David Underwood Glenn Raymond Ur Raymond Alva Valle John R. Van Den Berg Joanne E. Vander Kamp

LaVonne Marie Vander Werf Gerald Arthur Vande Velde Lee Van Haaften David Allan VanKammen Walter H. Van Meeteren Annamma K. Varghese John Garth Vogel Charles J. Volin, Jr. William McGregor Waddell James Albert Walker Rosemary Elizabeth Wall Winfred Louis Walterhouse Richard D. Warren Robert Marim Waszak Delight Carmien Watson Paula Helene Weinstein Weiss B. Caryn Welter Janet McIntyre Werner

W. James Erskine, II

#### CANDIDATES - FALL TERM, 1969

#### Education

**Janet Areatha Amos** Jo Ann Andrews Njoku E. Awa Fathol Rahman Bahamid Abul Bashar Mohammad Bahauddin Richard Walter Bakita Ioan Carr Barch Bernice M. Barlow Yvonne Hollister Beach Melinda Foulke Beckwith Robert Clayton Beedon Terry Leigh Beemer Jeanne Gretchen Bewersdorff Jongkon Bhodivihaga Beth M. Bigler Elizabeth Isobel Blanchard Susan Earleen Block Robert O. Blunt Daniel Price Boisture Janet Kay Bokros Dorence S. Bonin Seymour Robert Broder Terry Lee Bullock Carolyne Wells Cadwallader Carolyn Ann Calender Marcia B. Carter Elaine Ethel Cherney Daniel Varnum Collins Iva Marie Courtnay Olga Karpis Creaser Marjorie Louise Croll Stephen Waite DeMar Eugene L. DeWys Robert E. Dixon Robert Larimore Downs Carma Margaret Dryer Charles Homer Dukti Gregory Lee Edgerton Freda Marie Ells Robert Donald Englander Kurt P. Ernst Donald Gerald Erskine

Daniel Walker Everett Nancy Elizabeth Ficnerski Keith Eugene Fisher Marilyn Kay Francis Peggy Jeanne Freds Robert Francis Geese Susan Hayes Gibbs Norma Jean Gilmore Karen Weight Gurchiek Suzanne S. Harwick Joseph A. Hayes Mark Albert Hector JoAnn Heeringa Peggy Ann Hine Christine Suzanne Hoffman Julie Claire Horvath Jean Patricia Howieson Judith Ann Hoxie Margaret Meehan Joslin Thomas Wesley Karjala Daniel Karl Kelley Ann Terese Kirkwood Arthur Fredrick Kluge Lucile Gallagher Kahloff John C. Krohn Ronald Hugh Laviolette Celia Frazão Soares Linhares Gary David Lummen Abdulaziz Abdullah Masood Douglas George McKenzie Eileen Mary McVeigh Gail Ella Mercer Lucille Carolyn Minervini Loreita Wanda Mohler Calvin Wayne Molyneux Max Raymond Monette, Jr. Margaret Deitrich Natarella Susan Clark Newberry Dalsa Eames Nichols Carol E. Noid Richard R. Noid Henry Floyd Noller Jack Douglas Oliver

Diane Gale Wert Fred Michael White Marilyn Joyce Whitford Louis J. Wieber Joan Mary Wiecjorek Marilyn Morrison Wiegand Phyllis E. Willis Ronald James Winter Carl Dale Wissink Barbara Rollins Wolven Betty Ann Work James Virgil Yantz Megan Haupt Yeomans Steven Louis Yokobosky Ruthanne York Albert Zackrie, Jr. Florene Marie Zanardelli William Dennis Zock Robert Allen Zorn

Vernita B. Pierce James Arthur Powers John Stephen Prevost Mary K. Prince James Allen Raymond Sandra Kaye Rentschler Virginia Upton Ritsema Mary Denise Roach Regina Heffelfinger Rocca Joyce Margaret Romanski William Granville Scharffe Kathleen Kaye Schneider Steven Jerome Schott Frank Alexander Seaver III Mosen Sharif Shakrani Albertine Marie Simmerer S.S.J. Nella Lows Snapper Henryka Janina Sokul Henry Stanley Spenski, Jr. Gladys Elaine Stanfield Joyce E. Stone June Dunster Stoppels Judith Allen Stowe Patricia Bennett Sullivan Thomas Andrew Taliaferro Dorothy Steinbrook Tingley A. Yvonne Tubich Pearl Vander Kooi Juanita Arlene Van Valin Carole Corinne Varga Heraldo Marelim Vianna Edwin L. Viera Pearlena S. Wallace Ronald E. Wallin Paul D. Wartner Sandra Rae Wells Lee White Alfred Jay Wier Kathleen Marilyn Wolfe Frances Younger Roquiya Zainuddin Leo Anthony Zupin David Allen Zwart

## COLLEGE OF EDUCATION

**Elementary** Education

DEGREE OF BACHELOR OF ARTS

Marilyn Lila Adams Jean Ann Allison Sheila Margaret Anderson Nancy Kay Ashendorf Margaret Ann Baratta Sandra Kay Bass Marian Kay Bastow Marye Lynn Berg Robert Boyd Bernstein \*\*Linda Joyce Bonnell Patricia Ann Branigan Kathleen Ann Cain Kathleen Mary Campbell H\* Douglas Raymond Carpenter Ruth Ann Carr \*Jack Edward Carrick Sharon Maria Christie Helen Bowen Collins Pamela Anne Collins Luann Mary Cousino Thomas L. DeRoseau \*Janet Kay Drinkwater Elaine Jean Engels Louise Ellen Erber \*Melinda Mae Eriksen Susan Esther Facktor Connie Maria Fernandez Cheryl Ellen Field Claudette Kathleen Field Sara M. Flanders \*Linda Louise Church Foster

Marilyn L. Freeman Margaret Anne Friedle Judy Elaine Gehring Barbara Kay Gerard

Julie Ann Hagen Mary R. Haggard Linda Diane Hanes Bernice Ann Hausker Ruth Ann Herm James Arthur Holmes \*Patricia Kay Hooper \*Barbara Theresa Hull Marquita Marie Husar James Bruce Huston Dorothy Phyllis Jackson Lauren Sue Janawitz Diane Powell Johnston Mary Zickgraf Johnston Gail Marie Kerin Carol Ann King Paulette Theresa Kirk Linda Marie Koza Ianet Elise Kutub \*Susan Victoria Lang Muriel Rose Lawler Linda A. Lester Barbara Anne MacDonald Linda Irene MacDonald \*James Burnham Martinek Jeralyn Anne Marvin Maurine Melinda McCallum Karen McLachlan Bethany Jean Runciman Mehr Karen Lynn Menti Lily Lun Mui Dorothy Alona Murray Susan Lynn Newcom Nancy Elizabeth Newton Susan Eileen Norman \*\*Barbara Jean Nylund

- \*Barbara Elaine Oelkers Mary Jacqueline Oleson Sherie Darlene Pace Lynn Marie Paulson Karen Y. Pawlick
- H\*\*Gayle Ann Payne Mary Ann Perkins Pamela Jean Perranzan Beverly Ann Polny Mary Elizabeth Ponak Jacqueline Ann Prince Cynthia Ramseyer Pucci
  - \*\*Paula Marilyn Purgraski Thomas Anthony Rau \*\*Betty Jane Reynolds Barbara Coe Roberts Susan Jane Ryke \*Anita Sarko

  - Donna Jean Seney \*Carol Jean Shannon
- H\*\*Linnea Marie Shaw
- H\*\*Sally Jeanne Shea Wendy Lee Shepard Juleen Marie Sheridan Shirley Ann Spencer Pamela Ann Steiner **Janet Ann Thomas** Thomas Michael Tiplady \*Kathleen Ann Tubilewicz \*Tamara Trudy Tuttle \*Brenda Sue Walker H\*
  - Marianne R. Wood Linda Ann Woodman Jaynet Fouts Workman Margaret Lucile Wright Betty Lou Yared

#### Health, Physical Education and Recreation

DEGREE OF BACHELOR OF SCIENCE

Lawrence M. Bates Richard Brent Bois Nancy Jo Pardonnet Brown Donald Thomas Cox \*Boni Lou Delp Thomas Lee DeSantis Orhan Enustun Joseph A. Gavel Duane Eldon Green Pamela Diane Hale David Charles Harder

James Joseph Heiler \*Charles J. Hetrick Timothy Alvin Jahn John Nicholas Jordan Linda Lou Kenney Janice Marie Kent David Walter Kolacz Alexander Tait MacLaren James Joseph Mazel Charles Louis Nothstine Mary Kathryn Nutter \*Freddie Kaye Olmsted Susan Marie Pierson

Bruce M. Richardson Larry Marshall Scramlin Bruce Craig Smith Patricia A. Specht Paulette Tasker Ronald Edwin Warner Jerry Ford West Candace Ann Whitmore Industrial Arts John William McEwan Louis Charles Oien Steven Frank Politowski Gary Brian Wendzel

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# COLLEGE OF COMMUNICATION ARTS

JACK M. BAIN, DEAN

#### GRADUATED SUMMER TERM, 1969

#### Advertising

Audiology and

Martin Paul Block Pierre Brisebois James Donald Culley Paul Louis Lutz Lindell Martin Ross

DEGREE OF MASTER OF ARTS

Speech Science Wilma Joyce Baldwin Gordon R. Bienvenue Mary Eleanor Briggs Catherine John Connor Nancy Elaine Laidlaw Roberta Ann Levine Linda Hyde Lucyshyn Carol Anne Powell

Linda Ann Sculthorpe

Cheryl Lee Tessler Amelia Bynum Thompson Janet Ann Thompson Linda May Wiskochil

#### Communication

Margaret Elizabeth Curley Mitchell Robert Miller Robert Harold Moyer Peter Guy Northouse Lee Alan Schleicher William Harold Thueme

Journalism

Carlos Luis Arias

<u>Television and Radio</u> Lyle Reid Cruickshank Roger Allen Grant Keith Clarence Hobbs Eugene Francis Jankowski Patrick L. McNew Eric Scott Miller David Wayne Piehl Madeline Frances Roche Darryl Allen Ross Elliot B. Sanderson Leigh Trier Stowell Paul Woodworth

#### Theatre

Robert Michael Casey Jill Susan Goldwasser Robert Gras Peter Worl Landry Richard Charles Lavin Michael Irwin Oberfield Carol A. Whiting

### CANDIDATES - FALL TERM, 1969

#### Advertising

Jack Verville Daniels Edward Francis Jesser Arthur William Novak Mohammad Iqbal Qureshi Richard David Theis Mantha Stella Vlahos

#### Audiology and Speech Science

Kathleen Kriner Millay Pamela Sears Riedl Ellen Kay Smitley Mary Dorothy Wiley

#### Communication

Gerald Winn Card Donald William Fostle Peter Jurgen Jaensch Michael William Jorissen Karen Josephine Pawlovich Parama Satawedin

#### Speech and Theatre

Mary Lou J. Meerson Robert B. Oldham

#### Television and Radio

Richard Paul Brundle Bruce Randall Gray Jay Withington Johnson Philip Willard Keezer Julius John Pierman Nelda Marian Stuck Robert Michael Urich

DEGREE OF MASTER OF ARTS

## COLLEGE OF COMMUNICATION ARTS

#### Advertising

James Steven Bamber Ludwig Richard Beck Leonard Anthony Bokuniewicz, Jr. William Allen Bultman William Fordney Burke John Richard Chapman, Jr. Douglas L. DeLind William Anthony Delsener Kenneth Allan DeMunter Bennett Parker Dolan Richard G. Dunn T. Thomas Ellison, II Raymond Carl English Jeffrey Thomas Frazier Douglas Paul Furgerson \*\*Diana Lynn Hagopian Thomas M. Hankus H\*\*Jacqueline Denise Heer Randall Jay Hewitt Dianne Kay Hoenk James Gary Jajich Harry S. Koploy Donald Austin Kuelbs James Albert Listerman Terry Robert Livermore William Martin Lovik Victor Lewis Pannecouk Thomas Mac Peters Paul Maurice Reardon Ronald Joseph Roberts Roger L. Taskey Donald Louis Wellman

David Dennis Williams

Robert Lee Wilson

#### Communication

\*Donald Thomas Beck Richard James Byrd \*Kathleen Gertrude Conway \*Richard Reynold Goerz William Charles Gross, Jr. David James Hindes Terry William Kizer Marshall George MacFarlane Roderick Duane MacKenzie Charles Edwin Rose, Jr. Patricia Jean Tikkanen Andrew F. Trentacosta

#### Journalism

John Charles Beauparlant Larry Marvin Cole John C. Heinritz Edward Cleary Hutchison Barbara Ann Jones H\*\*Linda L. Lewis Bonnie Jean Miller

\*Janet Kay Reber Margaret Ethel Rowe Jean Carol Warden

#### Television and Radio

Matthew Wallace Burns Raymond Ciro Carbone Thomas Clayton Chapman Bernard Edward Cohan Kathleen J. Cunningham \*Patricia Lynn Hanson Mark Allen Ivester Charles Ronald Jolley Wesley Gene Jones Barry Jay Karp Gailan Mark Kester Tonnie Cheerie Kissee Constance Veronica Kurosky Robert John Kurtz William Eugene Lamere Larry Michael Larsen William Frederic Long, Jr.

- \*Albert Julien Navarro
- \*Kenneth Allen Payne
- \*Arthur Boyden Reis, III \*Gary James Rivard John Kenneth Schepers
- H\*Gary Lee Steinke Thomas Gregory Taylor

Theatre

\*Mary Carol Kingsley

DEGREE RECOMMENDED JOINTLY WITH THE COLLEGE OF EDUCATION

Audiology and Speech

#### Sciences

Claudia Arrandale Buell Sara Elizabeth Chipps Janet Ruth Crooch Patricia Ann Meredith Jacqueline Edwards Kemp Jane Caryl Peters Deborah Marguerite Quinn

\*Jane Carol Ruminski

Communication

- Vickie Suzanne McDonald
- \*Kathleen Louise Miller
- Gail Ann Sorensen

#### Theatre

\*Jurate Kutkus Burns \*Sharon Elizabeth Carlson Susan Jane Henderson Carol Elaine Jacoby Vestus John Spindler, III

DEGREE OF BACHELOR OF ARTS

# COLLEGE OF ARTS AND LETTERS

#### PAUL A. VARG, DEAN

#### GRADUATED SUMMER TERM, 1969

<u>Art Education</u> Gaynell Hamelink Stephen E. Kober Sharon Anne Linnehan Patricia Ann Van Dragt

Art History Joy Ann Alexander Janice Louise Simpson

**Judith Claire Bomers** 

#### Art Practice

DEGREE OF MASTER OF ARTS

Joyce Kathleen Groenleer Arthur Krauss Dianne Polly LaPointe Helen Elizabeth McConnell Saralee Pearl Gerard Charles Penta Richard Joseph Wolfgang English

Ruth Evelyn Carleton Julie English Early Carol Virginia Eilber Susan Elaine Gordon James William Karas Richard Michael Klish Lucinda Jane Martin Mark Gregory McKeon

#### Christopher Peter McLeod Jovina Rae Oley Barbara Ann Ondrias Howard Arthur Shapiro Carol Lee Shilkett Jeanne Ellen Theodore Lucille Miller Thomas Peter Edmund Whelan

English-Secondary School Teaching

Sheila Anne Ferrari Jack L. Finch Betty S. Fowler Mary Barbara Sells Nancye Davies Tuttle

French Faith Lindgre

Faith Lindgren Hanmer Charles Elmer Hutchison Barbara Anne Morton Jean Theresa Strandness

#### German

Rex Craven Dahl Roger James Heerspink Marianne Friederike Lubkin Loretta Bach Rasmussen John James Stickler John Philip Vance

#### History

Sarah Ellen Alyesworth Lynn Penchalk Chard David Clinton Hollister Steven Elliot Korer C. Robert Linne Robert T. Morgridge Mary Margaret O'Neil Linda Eileen Rhodes Robert James Richardson Richard Joseph Sheahan Dennis Walter Thomson Diane Eve Wall Laird P. Warner

#### Linguistics

Portia Adams Brown James Robert Chamberlain Robert George Koops

#### Philosophy

Thomas Greylish Callahan Stephen David Foulk Eugene John Valentine

#### Spanish

JoAnne L. Osborne Angela Maria Valle

#### DEGREE OF

MASTER OF ARTS FOR TEACHERS English Mary Louis Wasterberg History

John Bradley Schooley Hugh Arden Veley

## DEGREE OF MASTER OF FINE ARTS

Art Practice Howard James Alport

### COLLEGE OF ARTS AND LETTERS

DEGREE OF MASTER OF MUSIC

Applied Music Barbara B. Dixon Gertrude Ann Huisman Judith Ann Pierson

Music Education Cleon Austin Beittel, Jr. Lillian Irene Bryant

Roger Thomas Cahoon James Ronald Dudley Carol Jean Fields Deborah Allen Gale Bonita Lea Graham Carol A. Johnson Sr. M. Susanne Krupp

CANDIDATES — FALL TERM, 1969

Art Education Suzanne Cheney

Art History Sarah Jo Davis Joel Allen Miller

Mary Faith Mitchell English Jack Helder Kenneth A. Howe Diane Marie Courtier Lager William Rodger Leisher

Irene H. Stier McKenna Margaret T. McMahon Eulalia Grace Nabors Bob Wyatt Rowland Linda Ř. Volz

Music Education Vernon Hans Stromberg

American Studies Dale Ralph Griffith

#### Art Practice

Susan Hayward Gotshall Ronald Irvin Graybiel Gregory Alan Mann \*Richard Dean Palmer Robert Bradley Park Donna Jean Ravitz Don William Westcott

#### English

Linda Goehle Casciotti Kerwin Francis Crane \*\*Frank Joseph Cusmano Edith McFarlane Grahnak Thomas David Drinan \*Joanne Louise Juhl

\*\*Susan Miller Lowe Nancy Jeanne Slattery

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English-Secondary School Teaching

Anton W. Chen

French

Nancy Kay Anspach Kathleen Joanne Brahney Mary Ellen Brennan Katharine Merrell Dennis

German Vera Helen Slechtova

#### History

Haley Phillip Bamman Jacqueline Harper Brown Richard E. Buck Kathryn Gail Carlson Douglas Craig Drake

#### French

Carol Joyce Ludwig Susan Elizabeth Vanden Bosch

#### History

Suzanne Bebee Campbell Carol Ann Gladney

- \*James Daniel Hunsucker William John Murnan Brenda Lee Pogue
- William Frederick Schmidt
- \*Constan Anthony Spina \*William Granger Youatt

#### Humanities

Eric Randolph Mowris Larry Wayne Neitzert

#### Philosophy

\*\*Robert Alan Fishel Gary Richard Pachal Catherine B. Ellis Arlene Nancy Haddock Byron David Moak Ann Marie Pung Gail Marie Williams

I. Michael Loveridge

Joseph Vincent Palazzola Leah Jane Smith

Angela Margit Von Shill

Beatrice Marie Webster

Donald Lee Miller

Donna Lee Strukoff

#### Linguistics

Theresa McLaughlin Al-Azzawi

Philosophy

Christine Elinor Kales Ross John Kales

#### Spanish

Humberto Ernesto Beltran del Rio G. Kazuko Otaki Heslep Victoria Ann Mejia Anita Wagman

#### Russian

Olga Helen Kiebler Daria N. Schlega

#### Spanish

\*Lynne Kathryn Maggio Michael William Weber

DEGREE RECOMMENDED JOINTLY WITH THE COLLEGE OF EDUCATION

#### Art Practice

\*John Ernest Buttner Joan Elizabeth Delaney Charlotte Katherine DeOrlow Shirley Ann Dombrowski Wendolyn Joy Glanz Gaela King Jolly Kathleen Marie Jonik Elaine Cynthia Pawlik James Robert Sawatzki Barbara Lynn Sussex

DEGREE OF MASTER OF ARTS

DEGREE OF MASTER OF MUSIC

DEGREE OF BACHELOR OF ARTS

### COLLEGE OF ARTS AND LETTERS

#### English

Madeleine Adam
Gwendolyn Joyce Buckley
Ellen Louise Chase Linda Jean Crichton
Madeline Dodson Willa Lamphier Gay Shirley Ann Griffith Joan Donna Hallberg Jimmy Allen Hyslop
H\*\*Joan Elizabeth Isenbarger Roxanne Mackie Edwin Eric Martinson

Constance Anne Miller

Michael Lee Neiswonger

James Donald Neff

Art Practice

Kristine Lea Nelson Charlotte L. Norton \*Nancy Jean Reiss Irma Sommer Kathleen May Stadelman \*Eilene Frances Woodrum

#### French

Darby K. Sjoberg \*Gladys Marie Slemer \*\*Sally Lynn Sweitzer

German

Julie Ann Duch Randall Gary Ochmann H\*\*Virginia Louise Young

#### History

Rita Marie Carlson Brian Peter Duffy Robert Edward Laurie Edward Carroll Miller Patricia L. Murdock Lynn Sue Rose Katherine Ann VanLynn H\*\*Betty Jean Wernette

Russian

H\*\*Cheryl Ann Albig Linda Rae Szczomak

DEGREE OF BACHELOR OF FINE ARTS

DEGREE OF

BACHELOR

OF ARTS

Susan Elizabeth Budny James Charles DeCamp Christopher Rex Edick Daniel Garab Gordon Lynn Gutchess Gary Lee Herbert William John Kolomyjec Paula L. Kravitz \*Dennis Martin Lanci Geraldine Kay Uhl... DEGREE RECOMMENDED JOINTLY WITH THE COLLEGE OF EDUCATION

Art Practice

Vicki Deborah Barnes \*Chris Tina Gunderson Hedy Louise Gustafson

\*\*Lawrence Joseph Rengert

DEGREE OF BACHELOR OF MUSIC <u>Music Therapy</u> Marion Louise Lukens George Anthony Mikicich Linda Marie Porter DEGREE RECOMMENDED JOINTLY WITH THE COLLEGE OF EDUCATION

<u>School Music</u> Joseph Paul Brooks Marcia Jean Golata H\*\*Daniel Luther Hornstein Sandra Ann Simmons Wesley Stephen Smith Carolyn Taylor Judith Len Walters

# COLLEGE OF NATURAL SCIENCE

RICHARD U. BYERRUM, DEAN

#### GRADUATED SUMMER TERM, 1969

DEGREE OF MASTER OF ARTS

DEGREE OF MASTER OF ARTS FOR TEACHERS

DEGREE OF MASTER OF SCIENCE <u>Mathematics</u> Judith Ann Lachman Douglas Frank Nauts Frederick Lee Raske John Duard Stutsman

<u>Biological Science</u> <u>Interdepartmental</u> William Herbert Brown Joseph Folcarelli, Jr. Carole Lum Riley

<u>Chemistry</u> Gerald Thomas Blair

#### Biological Science– Interdepartmental

Sister Margaret Rose Barton Meredith Lee Britton Thomas Sharp Brown Pauline Watson Christian Irene Chrusciel Dennis Wyman Cole Richard Scott Dunham Gerald Friday Meredith Ann Funk Paul K. Gamber Kenneth Charles Glenn Frances Kennedy Knott Sister Linda Ann Olinger Janet Rose Perperian William E. Richmond Barbara Cairns Smith Jerry Lee Southland Robert Ronald Spencer Phillip Leon Stewart

#### General Science

Carlton Robert Brown Stanley James DeJager James Alvin Espy, Jr. Jack Arlan Vredevoogd Lucia Carol Wilcox

<u>Geology</u> Stanley James Miller Mary Ann Potter

<u>Botany</u> Jerold Lee Grashoff Firdaus Rivai

<u>Chemistry</u> Roger William Spoerke Terence John Swihart

Geology Paul James Le Anderson

Mathematics Robert Scott Elder III Frederick Peter Lawrence Victor T. Pastor Francis Lynn Severance Shyamji Srivastaua Rogers O'Neil Whitmire

#### Mathematics

Virgil Wayne Archie Larry William Davy Jill Ellen Johnson Wanda Joy Long Lewis Edward Williams

Physics Frederic Ze

## Microbiology

Daniel Glen Aitken

<u>Physics</u> Russell Arlen Poch Madhav Vasant Walavalkar James Anthony Worthey

<u>Physiology</u> Paul Daniel Meier

Statistics Victor T. Pastor

Zoology Charles Edward Broihier

DEGREE OF MASTER OF ARTS

Mathematics Robert John Ballard

CANDIDATES - FALL TERM, 1969

## COLLEGE OF NATURAL SCIENCE

#### DEGREE OF

MASTER

OF ARTS

#### FOR TEACHERS

DEGREE OF MASTER OF SCIENCE

DEGREE OF BACHELOR OF ARTS

DEGREE OF BACHELOR OF SCIENCE **Biological Sciences** Elizabeth New Baker

**Biological Sciences** Mary Anne Bednarski Roger Charles Dunn David Lee Egger Patricia Ann LaLonde Jean M. McPherson Robert Benney Peyton Jo Ellen Roseman Nathan William Shier Henry Donald Wiegand, Jr. Botany Maria José Pereira da Silva

Keh-Ming Pan John Howard Riggle Nguyen Van Thuy, Lic. Ès.Sc., D.E.S. Sc.

Chemistry William Andrew Bulmer Frances Hoyda Jones

Mathematics James William Stutsman

**Biochemistry** Robert D. Le Blond Jeanna L. Owens \*Meade Andrew Perlman

**Biological Sciences** David Edward Dobbins Thomas Edward Hamernik Michael Gerard Maroldo Soboghana McClendon Larry Lynn Sklapsky Charles Roy Strom

Chemistry H\*\*Gail Crosley McGuire

Geology David Michael Bricker John Anthony Dunkhase \*Barbara Lou Holcomb Donald Barker Seavey

**Mathematics** H\*Robert James Demarco Gregory John Janowak \*Marty Klein H Kenneth Bruce Kolsom

**Gary Blaine Montross** Barbara Ann Waychus

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**General** Science Ernest George Fischer, II

Uan Gen Kang Janice Elaine Karoglan Richard Alan Leavitt Luis J. Matienzo Gerald Carl Swanson Joseph John Zaborowski

Entomology Harry Richard Hill

Geology

Alfred Travers Bloomer James Carryl Fisher Louis Ruthardt Miller Innaiah Pothacamury Daniel Gerald Robbins

Mathematics Brenda Shiawmei Lee William Dale McConnell Walter O. Stüven

DEGREE RECOMMENDED JOINTLY WITH THE COLLEGE OF EDUCATION

**Mathematics** Dennis Dale Margoni Barbara Louise Mulbarger Linda Marie Muoio

Nursing Autumn Lou Ivey

**Physical Sciences** 

John Steven Fox Wayne Carlton Shanks, III \*Richard Carl Wahl

Physics \*David Donald Swinehart

Physiology Georgette Eberling

Zoology Bruce Wilber Becker Nancy Jane Elliott William Colbeck Gill Bonnie Lee Osterhout Jeffrey Alan Stickney

DEGREE RECOMMENDED JOINTLY WITH THE COLLEGE OF EDUCATION

**Biological Sciences** F. Michael Edgeworth Linda Ann Goodwin Harold Joseph Greanya Mathematics

K. Daniel Overton

Microbiology

Virginia Wai Fong Fung Robert Fred Hansen Ronald William Kelley Victoria Millicent Koo Elizabeth Florence Nelson Nina Clare Runfola

Physics Andrew Irvine Davidson

Lynne Howard Holley Physiology

Wang-Tsau Chen Douglas Bruce McKeag

**Statistics** Gary Frank Andrus Frank George Burianek R. Michael Good

Zoology Ronald James Field

Lee H. Halsted, Jr. \*James Edward Hurrell Michael Allen Owens Barbara Louise Schulz Ronald Eugene Wilson

Chemistry

Timothy S. Fox Benjamin John Lundquist Matthew Robert Stefanac

Geology \*Richard Louis Thomas

Mathematics Richard Edward Applin James Edward Mathis, Jr. Karen Ann Sanderson James Charles Shull Bruce Edward Sweers John Wayne Village

**Physical Sciences** Roger Keyes Zimmerman

Physics Douglas Roger Boliere Physiology

Norman Robert Goebel

# COLLEGE OF SOCIAL SCIENCE

CLARENCE L. WINDER, DEAN

#### GRADUATED SUMMER TERM, 1969

Anthropology Rodney Carlos Kirk Herbert L. Whittier Patricia J. Whittier

<u>Geography</u> Pauline P. Chan Jean C. Cooper Charles Marc Croner S. David Harrison Judy Ellen Hile Julia Hidegkuti Jones Barbara Joan Kuklinski Melvin Edward McIntire June Ellen Rosencrantz **Political Science** 

Jerrold David Beckman Janet Louise Krulik Kenneth Warren Parent Gary Raymond Rassel Thomas Joseph Sloan Steven Phillip Walker

#### Psychology

George Franklin Bishop Gerald Lewis Borofsky Janet Blomberg Bullock Margaret Rose Rezek Connolly Larry M. Gerstenhaber Audrey Doris Landers Baron Perlman Kenneth Hanley Price Bernard I. Silverman Carol Lynn Zander

#### Social Science

Floyd Andrew Aprill Philip Ballbach John Christopher Ducat Jill Annette Van Deusen

#### Sociology

James Edward Cherry Harriet Evelyn Tillock José Paulo Vieira

DEGREE OF MASTER OF ARTS FOR TEACHERS

DEGREE OF

MASTER

OF ARTS

<u>Social Science</u> Charles Dennis Davenport

Larry Robert Cashdollar Marilyn Diane Crane Manuel Martinez

Howard William Reed Samuel David Richman James Patrick Ryan, Jr.

Mitchell A. Sherr

DEGREE OF MASTER OF LABOR AND INDUSTRIAL RELATIONS

## DEGREE OF

MASTER IN LANDSCAPE ARCHITECTURE

Ronald Lawrence Draft

72

## COLLEGE OF SOCIAL SCIENCE

DEGREE OF

MASTER OF

ADMINISTRATION

PUBLIC

Edward Allen Middleton

DEGREE OF

MASTER

OF SCIENCE

Police Administration and Public Safety Granville Joseph Cross Bruce William Dally Larry Paul DeVries Paul Sylvester Embert, Jr. Timm Gray Engh Ronald Mitchell Gray Robert Jack Heinlein Jack Warren Jorgensen William Peter Kelly Wallace Roland O'Neill Ronald Eugene Roush Arthur Victor Smith, Jr.

#### DEGREE OF

MASTER

IN URBAN

PLANNING

Rajendra Keshavlal Mehta Stephen Warren Schar James Remie Verougstraete

#### CANDIDATES — FALL TERM, 1969

Anthropology Charles Luke Boughter Margaret Kimball Brown Chung-min Chen Lizwu Chen Richard Dale Clute George Arthur Genz

#### Geography

Peter Wallace DeForth Kenneth Charles Haddock Charles Ipcar Kwock Chung Loo

<u>Political Science</u> Joseph James Barnard Julie Caroline Barnard Barbara Lynn Chattin Lon Slone Felker James Michael McCormick Aruna Nayyar Michie

Charles Thomas Bennett James Justin Cooper Leonard James Dasho Nancy L. Davidson Jack E. Dawson Cleason Samuel Dietzel Janice Freya Fisher Kenneth John Good Allen Goodman Robert Keith Goodman Diane Joy Huisinga Diane Elizabeth Johnson Gary G. Johnson Peter T. Kliejunas Gregory T. Loftus Gary H. Mendelsohn Carmenza Meneses David Kirk Michelman Harvey R. Oaklander Thomas Maurice Rutledge M. Joseph Schaller Leon Joseph Schofield, Jr.

Psychology

Susan Marie St. Pierre Mary Louise Szari Stuart Winston Thomas Holly Sue Van Horn Earl Donald Walker Paul Weisbord Kathleen Takako Yamanaka

Social Science

Dean Armstrong

#### Sociology

Margaret Johnson Adams William Patrick Boss Richard J. Gigliotti Edward Harkewicz Carolyn Tyirin Kirk Margaret M. Plumridge Kamutondo Kawala Simwanza Joan Lea Toms Robert Osborne Turley George William Walton

DEGREE OF MASTER OF ARTS

DEGREE OF

MASTER

OF ARTS

FOR TEACHERS

<u>Geography</u> Nancy K. Peterson Jerry Lee Van Pelt

## COLLEGE OF SOCIAL SCIENCE

DEGREE OF MASTER OF LABOR AND INDUSTRIAL

RELATIONS

DEGREE OF MASTER IN LANDSCAPE ARCHITECTURE **Richard Parker Butler** Larry M. Buys Gerard Michael Gomez Bernhard Hoffmann James Richard Kelly William James Lange James Douglas Smyth

David Warren Foster

DEGREE OF

MASTER

OF SCIENCE

DEGREE OF MASTER IN URBAN PLANNING

DEGREE OF BACHELOR OF ARTS

Police Administration and Public Safety Abduljalil Al-Saif Dennis Dean Deakin

Genevieve Ann Brune Michael Keith Haviland Patricia Katherine Hickcox Chester Charles Jandzinski Robert Ernst Saur Richard Wesley Willberg

#### **Political Science**

Barbara Lvnn Backman Barbara Joyce Campbell Frederick Richard Fry Kenneth Morris Gavin Barbara Ann Grande Arthur Augustus Halbisen \*Susan Anne Harris \*William Francis Linkul Daniel Kirk Loncar Robert John Ludwig Peter Louis Petoskey John Willard Sorbet, Jr. John Voegeli

#### Psychology

Axel William Anderson III Sharon Lee Baker \*Hugh David Bordinat Margaret Ellen DeYoung Gloria Jean Garland William Orlan Hames II Richard Allen Hindley Ralph Fenton Kanaar Barbara Jean Kelly William F. Long Frederick William Meyers \*Judi Marie Schlottman \*Bonnie Juliette Stebbins \*\*Elsie Marie Stone

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Jeffrey L. Eubank Max Kent Hurlbut Adam G. Johnson Marson Harry Johnson Lawrence Lewis Miller Charles Allen Pierce Henry Brainard Risley, Jr. Naomi VanDerJagt

Donna Maria Trotter \*Jerald Laurence Willbur H\* Michael James Wirt

#### Social Science

Martha Alling \*Dale Alan Anderson Craig Easton Bennett Victor Anthony Borejka, Jr. Gary Warren Bredahl Terrence Patrick Brock Charles Whitson Brookes \*Grant Francis Burns Michael John Curley William Franklin Cutler, Jr. Lynda Marie Damman John Leet Denton Robert Lloyd Eicher Annette Marie Frederickson Frederick Fallon Herter Jan Elyse Hughes Roger Nolte Ingram Jonathon Robert Johnson Janet Marie Koehn Milena Lynn Krymis David Martin Levine Michael Richard Mahady Richard Paul Manczak Thomas Harrison McArdle Sharon Meckstroth

Fletcher C. Monningh Maureen Donna Moore \*Richard Herbert Moore Eugene Michael O'Malley Richard Thomas O'Reilly, Jr.

Raymond Virgil Ovenhouse Christopher William Pasini Sharon Ann Rouse Roger Allen Schafer Arthur O'Dell Sheffey Alan Joseph Sist Michael Charles Smith William Harvey Van Dusen, Jr. James Curtis Welch

#### Social Work

David Leonard Bair William Allan Boersema Lorna Sue Campbell Dorothy Lou Conley \*Patricia Anne Sherwood Cutler Edward Ernest Frey, Jr. Sandra May Hatfield Janice D. Basso Kennedy Susan Elizabeth Kramer Linda Martha Lemon Kathleen Marie Lienhart

## COLLEGE OF SOCIAL SCIENCE

Kaye Margaret McGuire Martha Fant Munch Charlene Mae Romska H\* \*Mary Ann Roost Linda Louise Sullivan

DEGREE OF BACHELOR OF ARTS

Sociology Gary Gene Adams Connie Dew Gaylon Harrel Riddle

Geography

Paul John Challancin Jeffrey William Pryor

Landscape Architecture Alan Beck Almy Kenneth Lee Davidson

William Ernest Wenk Police Administration and

**Public Safety** Robert S. Aguirre Ross Haven Bishop Stephen Robert Cerutti James Carl Collins H\*\*Ronald Charles Emerson

- Ronald Michael Golota Gregory John Gorman Allen Don Hartwig Douglas Edwin Humphrey
  - Gregory Joseph Kershul Michael John Leverenz Dennis Harry Morse Patrick Henry Murray **Ierry** Alex Nugent James Richard Snody, Jr. Terry James Swick
  - \*\*Larry Douglas Tremain

**Political Science** Douglas Kenneth Ott Janice Kay Stefanovich

Psychology

David Lawrence Beam Gary Lawrence Brown \*Daniel J. Chisholm Douglas Lester Curry Peter Stephen Czachor Michael V. DalPonte Thomas Herbert Dangremond Roy Thomas Freedman James Robert Frew, Jr. Frederick Eugene Gottshalk Raymond Joseph Heriford John Anthony Jerome Kenneth Lorenzo Keyes

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DEGREE RECOMMENDED JOINTLY WITH THE COLLEGE OF EDUCATION

#### Geography

Alan LaVern Donaldson Roger Thomas Merchant

Social Science Mary Brooke Anderson Robert Wayne Aubin June Marie Babcock Pamela Jane Carpenter Gary Lynn Compton Myra Jean Dock John O. Draganchuk

John A. Lord Paul David Markoff Sherry Marie Maslowski \*Raymond Allen Merriman Daniel Roger Moga Mary Ellen Nivison Bruce Gregory Olson John W. Russell Mary Windsor Stone Karen Ann Treberg \*Ina L. Whitney \*Mark W. Wickson

Frank Anthony Zaski Elaine Huffman Zenti

Social Science Wesley Benner Marshall Leigh Blau Lorenzo Darian Bucalos Frederick Gilbert Buckhalter III Kay Stow Church James Kenneth Claus Gregory Dale Cook Nicholas F. Cortese Charles Clay Cullen Nancy Jo D'Archangel David Alan Diesing Daniel Benedict Droski Richard Earl Gullett Daniel Dean Hakes Robert Tennyson Hall Dale Carl Herscher Robert Walter Hewett Frederick Maurice High II Larry David Hoffman Thomas Michael Hurja Joanne Hollander Johnson \*Ronald Walter Junttonen Thomas Edward Kaminski \*Richard Allen Kapanka Fredric Dennis Kohler Jack Stuart Kousin Roger Dale Landvoy Mark Edward Lefevre \*Allen Ray Lewis Gerald Frederick Materka John Michael Morrison Thomas J. Myl

Jerry Leon Gillett \*Leslie Louise Haas Karen Marlene Hirsch \*Joan Mary Jedele Russell Henry Johnston Carol Susan Kaunisto Lynne Vanche Kluck Cynthia Vay Lambert Roland James MacEachran Nancy Sue Parkin Roger Lynn Pearson John Frederick Raap, Jr. Robert James Richmond Sharon A. Rouse Donna E. Six

H\*\*Sue Ann Willson Suzanne Eleanor Zuidema

> Alan A. Nye Donald Michael O'Hara Richard Earl Olmstead Francis John Pelczarski Richard Beebe Pratt, Jr. Dennis Wayne Radel Gregory Eugene Rice Robert D. Riske Robert Earl Robinson Paul F. Russell Stephen Edward Sheridan John Robert Speeter Neil Barry Sporn Michael Francis Trame Robert Ray Tully Robert Lewis Voiers Leslie Alan Weingarden William Richard Weiss Robert Edward Wells Grovner Leon Willer Dugald E. Wilson, III Jack Mark Yost

Sociology

Sylvester Cole, Jr. Lois Yvonne McWherter Robert Charles Steinman

DEGREE RECOMMENDED JOINTLY WITH THE COLLEGE OF EDUCATION

Geography

Dennis Kenelm Hausker

Social Science

Robert Wesley Bogert Jay Mayer Cohodes Kathleen Marie Cruice Frank Norton Day Michael Jay Gippert Regina Ann Iott Arthur Lloyd MacNee Craig Allen Miller Richard H. Moore Gary John Rossio Gladys Ann Schaub \*Ronald T. Sturmer

DEGREE OF BACHELOR OF SCIENCE

# JUSTIN S. MORRILL COLLEGE

D. GORDON ROHMAN, DEAN

DEGREE OF BACHELOR OF ARTS Janice Marie Bleil \*Carol Louise Maines H\*\*Jeanne Cay Marsh Karla Mae Meyer

Richard Walter Mines \*Victoria Sexton Springer Michael J. Turkelson

DEGREE RECOMMENDED JOINTLY WITH THE COLLEGE OF EDUCATION \*Karen Lee Lako

H Honors College \* With Honor \* With High Honor

# COLLEGE OF HUMAN MEDICINE

ANDREW D. HUNT, JR., DEAN

### GRADUATED SUMMER TERM, 1969

DEGREE OF MASTER OF SCIENCE

Anatomy Joan Yoon

#### CANDIDATES - FALL TERM, 1969

DEGREE OF BACHELOR OF SCIENCE

Human Medicine Charles Hugh McManus Medical Technology Laurie Wainwright Dunlap

# RESERVE OFFICERS TRAINING CORPS

The following students have completed their ROTC Education at Michigan State University and have received their commissions as reserve officers of the United States Air Force or the United States Army in the branches indicated.

### AEROSPACE STUDIES

John Floyd Hunt

James Gary Jajich

<u>Armor</u> Lawrence James Avery

MILITARY SCIENCE \*Alan Doyle Bell Robert LeRoy Cross, Jr. Michael John Curley

\*Brian Peter Duffy

Artillery

Thomas Lee DeSantis \*Marshall George MacFarlane Corps of Engineers Joseph James Fleury

Infantry Bernard Michael Bullard Gary Thomas Hayes James Charles Shull

<u>Military Intelligence</u> Stephen Robert Cerutti Peter Louis Petoskey Daniel Edward Speasmaker Military Police Corps Gregory Joseph Kershul Quartermaster Corps \*Roger Thomas Murphy Signal Corps Marvin Louis Andringa Transportation Corps Charles Louis Nothstine