

COMMENCEMENT 1966 MICHIGAN STATE UNIVERSITY



.4

COMMENCEMENT 1966

Saturday, December 10 University Auditorium, East Lansing

ACADEMIC COSTUME

The pageantry and color of 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 are made of black worsted material and have long, pointed sleeves. Those worn by masters may be made either of black silk or black wool and 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. Doctor's gowns are made of black silk and 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. Art 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 Agricultu	RE	С
AND NATURAL RESOURC	ES Maize	~
Forest Products,		С
Forestry, Packaging	Russet	C
College of Arts and		H
LETTERS	White	
Music	Pink	C
Philosophy	Navy Blue	N
College of Business	Drab	
Economics	Copper	C
College of		S
COMMUNICATION ARTS.	Royal Blue	0.
Journalism	Crimson	С
Speech	_Silver Gray	V

COLLEGE OF EDUCATION_Light Blue	
College of EngineeringOrange	
College of Home EconomicsMaroon	
College of Natural ScienceGolden Yellow NursingApricot	
College of Social Science	
College of Veterinary MedicineDark Gray	

ORDER OF CEREMONIES

PROCESSIONAL

TRIUMPHAL MARCH FROM "AIDA" — Verdi Michigan State University Band, Professor Leonard Falcone, Director

AMERICA — Smith

My country, 'tis of thee, Sweet land of liberty, Of thee I sing; Land where my fathers died, Land of the pilgrims' pride, From ev'ry mountain side Let freedom ring!

INVOCATION

THE REVEREND THEODORE K. BUNDENTHAL Lecturer, Department of Religion, Michigan State University Pastor, Martin Luther Chapel, East Lansing, Michigan

ADDRESS

STEPHEN J. WRIGHT, B.S., M.A., Ph.D. President of the United Negro College Fund

SPECIAL MUSIC

FANTASIA ORIGINAL — Picchi SERENADE — Schubert Leonard Falcone, Euphonium William C. Moffit, Conductor

CONFERRING OF DEGREES

JOHH A. HANNAH, D. Agr., LL.D., HH.D., L.H.D., D.Sc. President, Michigan State University

ALMA MATER — Traynor

M.S.U., we love thy shadows When twilight silence falls, Flushing deep and softly paling O'er ivy-covered halls. Beneath the pines we'll gather To give our faith so true, Sing our love for Alma Mater And thy praises, M.S.U. When from these scenes we wander And twilight shadows fade, Our mem'ry still will linger Where light and shadows played. In the evening oft we'll gather And pledge our faith anew, Sing our love for Alma Mater And thy praises, M.S.U.

BENEDICTION

THE REVEREND MR. BUNDENTHAL

RECESSIONAL

HAIL, AMERICA — Drumm

The escorts for the procession are members of Mortar Board, the honor society for senior 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 WARREN M. HUFF, Chairman	Plymouth
THE HONORABLE FRANK MERRIMAN	Deckerville
THE HONORABLE C. ALLEN HARLAN	Southfield
THE HONORABLE CONNER D. SMITH	Pinconning
The Honorable Stephen S. Nisbet	Fremont
THE HONORABLE DON STEVENS	Okemos
THE HONORABLE FRANK HARTMAN	Flint
THE HONORABLE CLAIR WHITE	Bay City

JOHN A. HANNAH, Ex Officio, PresidentEd	ast	Lansing
JACK BRESLIN, SecretaryEd	ast	Lansing
PHILIP J. MAY, TreasurerEd	ast	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 112th 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 2,500 staff members engaged in teaching, research and public service, 425 buildings, and 4,900 acres of land, including 1,515 acres in the campus and housing area and 490 more in planned 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 young people today. Michigan State now has the School for Advanced Graduate Studies and 13 colleges – Agriculture, Arts and Letters, Business, Communication Arts, Education, Engineering, Home Economics, Human Medicine, Justin S. Morrill, Natural Science, Social Science, Veterinary Medicine and the University College – which offer basic courses for all freshmen and sophomores. 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 nearly 200 Merit Scholars in this year's freshman class. This figure represents more than 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 new dormitories a stimulating academic environment. Eight of these residence halls are now occupied and one more is under construction. Each of these halls is the center of curricular and noncurricular activities for a college, creating a "college within a college" atmosphere.

The "small college within the larger university" concept was advanced in 1965 by the establishment of the Justin S. Morrill College, which offers a limited enrollment liberal education program with an international emphasis. The college does not have departments as such, and attention is centered on quality teaching within small groups. In addition to an intensive program in foreign languages, the college requires sequences of study in the humanities, social science, natural science, a field of concentration, senior independent study, and electives.

MICHIGAN STATE UNIVERSITY (continued)

Today, more than 38,000 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 80 foreign countries.

Looking to the future, Michigan State University is preparing for increasingly larger enrollments as the great number of children born after World War II reach college age. To meet this challenge, MSU is 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. Some 1,700 individual projects are in progress. The University's research tools include the giant Control Data 3600 Computer and a 50-million-volt cyclotron. Modern facilities include a \$6 million chemistry building, a \$5.2 million biochemstry laboratory, an \$862,000 psychology research building and a \$4.7 million veterinary medicine building.

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 (now completed), 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 University maintains research and technical assistance projects at 18 educational institutions 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 DEGREE

STEPHEN JUNIUS WRIGHT

Your career as an educator, administrator, and civic leader has brought you widespread recognition by your grateful fellow-citizens. During your years as a teacher and adviser of young men and women in the Negro colleges of the South, and more recently as President of Fisk University and as President of the United Negro College Fund, you have displayed the finest qualities of devotion and leadership. Despite the heavy responsibilities of your academic life, you have given generously of your time and energy to important civic movements and professional organizations. Your rise to eminence is an inspiring example of the achievements which are possible in our American environment for men of vision, courage and faith. Because of your many contributions to the intellectual and social welfare of your fellow citizens, and your continued support of the democratic traditions of education in America, Michigan State University confers upon you the degree of Doctor of Laws.

THE CANDIDATES FOR DEGREES

1966 CLASS ROSTER

This includes the names of candidates for degrees as of the close of the 1966 Fall term, as well as the names of recipients of the Doctoral degrees at the close of the 1966 Summer term.

Names 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

JOHN NDUKA ABAELU, Ph.D.

JOHN RODGER ADAMS, Ph.D.

HAMID ABDULLAH AL-JASIM, Ph.D.

DELORAN (DELL) M. ALLEN, Ph.D.

GUVENC ALPANDER, Ph.D.

THOMAS F. BALDWIN, Ph.D.

B.S., Ibadan University, Nigeria; M.S., University of London. Agricultural Economics. Major Professor: Lester V. Manderscheid, Associate Professor. Thesis: A Quarterly Analysis of the United States' Import Demand for Green Coffee Varieties.

B.S., Marquette University; M.S., Michigan State University. Civil Engineering. Major Professor: Charles E. Cutts, Professor. Thesis: Dispersion in an Anisotropic Porous Media.

B.S., Baghdad University; M.Agr., Purdue University. Food Science. Major Professor: Pericles Markakis, Associate Professor. Thesis: Effect of Irradiation on Peroxidases.

B.S., Kansas State University; M.S., University of Idaho. Animal Husbandry. Major Professor: Robert A. Merkel, Associate Professor. Thesis: The Relationship of Some Linear and Physical Measurements to Beef Carcass Composition.

B.A., Middle East Technical University, Turkey; M.A., Michigan State University.
Business Administration (Management). Major Professor: Eugene E. Jennings, Professor.
Thesis: Big Business and Big Business Leaders in Turkey.

B.B.A., University of Cincinnati; M.A., State University of Iowa. Communication. Major Professor: Randall P. Harrison, Assistant Professor. Thesis: Redundancy in Simultaneously Presented Audio-Visual Message Elements as a Determinant of Recall.

9

DOCTORAL DEGREES — Continued B.S., Tufts University; Ed.M., Boston University. ARTHUR CHRISTY BALLAS, Ph.D. Education. Major Professor: Buford Stefflre, Professor. Thesis: Counseling Process and Outcome Related to Client's Perception of Self and Counselor. B.S., University of New Mexico. RAYMOND JOSEPH BARRERAS, Ph.D. Chemistry. Major Professor: William H. Reusch, Associate Professor. Thesis: Photochemical Isomerization in the Tetracyclo [4. 3. 0. 0^{2,4}. 0^{3,7}] nona-8-ene System. B.A., Bellamine College; M.A., Michigan State University. GERALD PAUL BECKERLE, Ph.D. Psychology. Major Professor: Lucy R. Ferguson, Associate Professor. Thesis: Behavioral Traits Related to Psychological Differentiation in Pre-Adolescent Boys. B.S., Western Michigan University. RONALD WILBUR BEERY, Ph.D. Physics. Major Professor: Joseph Ballam, Professor. Thesis: An Experimental Measurement of Cosmic-Ray Scattering by Aluminum, in the Momentum Region of 1.60 Bev/c. B.S., Manchester College; M.S., Michigan State University, RICHARD EUGENE BERG, Ph.D. Physics. Major Professor: Henry G. Blosser, Professor. Thesis: Precise Methods for Pre-Calculation of Cyclotron Control Settings. M.A., Michigan State University. GERD BÖGER, Ph.D. Education. Major Professor: William J. Walsh, Professor. Thesis: A Content Analysis of Selected Children's Books on the Negro and on Japan. A.A., Grand Rapids Jr. College; B.A., M.A., Michigan State University. ROBERT ELGIN BOICE, Ph.D. Psychology. Major Professor: Stanley C. Ratner, Professor. Thesis: The Problem of Domestication in the Laboratory Rat and a Comparison of Partically Reinforced "Discriminatory" and "Antici-patory" Licking in Domestic and Wild Strains of *Rattus Norvegicus*. B.S.A., M.S.A., Ontario Agricultural College. Soil Science. Major Professor: A. Earl Erickson, Professor. EVERETT FRANCIS BOLTON, Ph.D. Thesis: Effects of Soil Flooding on Ethanol Content of Tomato Plants Related to Certain Environmental Conditions. BRUCE G. BUCHANAN, Ph.D.

A.B., Ohio Wesleyan University; M.A., Michigan State University. Philosophy. Major Professor: Gerald J. Massey, Associate Professor. Thesis: Logics Scientific of Discovery.

DOCTORAL DEGREES - Continued

John Edward Clifford, Ph.D.	B.S., John Carroll University; M.A., Saint Louis University. Speech. Major Professor: James R. Brandon, Associate Professor. Thesis: A Descriptive Study of Style in Serious American Drama on the New York Stage from 1931 Through 1941.
Denise Yen Ching Co, Ph.D.	B.S., Taiwan Provincial College of Agriculture, China; M.S., Univer- sity of California. Food Science. Major Professor: Sigmund H. Schanderl, Assistant Professor. Thesis: Detection, Isolation and Characterization of Chlorophyll and Related Pigments During Ripening of Fruits and Vegetables.
Hugh McClellan Culbertson, Ph.D.	B.S., Michigan State University; M.S., University of Wisconsin. Communication. Major Professor: Verling C. Troldahl, Associate Professor. Thesis: Influence of Message Structure and Artwork on Apparent Stand of Message Writer.
LAWRENCE HENRY CUNNINGHAM, Ed.D.	B.S., M.A., Eastern Michigan University. Education. Major Professor: Clyde M. Campbell, Professor. Thesis: The Role of the Home School Counselor in Urban School Systems.
Donald John Cutting, Ph.D.	Th.B., Detroit Bible College; Ph.B., University of Detroit; M.A., Michigan State University. Education. Major Professor: James Costar, Professor. Thesis: Predicting the Selection of a Field of Concentration at Michi- gan State University from the Personal Information Inventory.
Harold William Davies, Jr., Ph.D.	B.S., M.S., Kansas State Teachers College. Botany and Plant Pathology. Major Professor: Gerald W. Prescott, Professor. Thesis: Ecology and Seasonal Variation of the Psammon Flora of a Sandy Beach Transect.
Paul Francis Dierker, Ph.D.	B.S., University of Dayton; M.S., Michigan State University. Mathematics. Major Professor: Patrick H. Doyle, Professor. Thesis: Strongly Pointlike Maps and Collapsible Complexes.
Thomas Francis Edwards, Ed.D.	B.S., Illinois State Normal University; M.A., Arizona Normal University. Education. Major Professor: John M. Mason, Professor. Thesis: A Study in Teaching Selected Intellectual Skills to Kinder- garten Children.

DOCTORAL DEGREES — Continued

LONNIE LEVET EMERICK, JR., Ph.D.

ROBERT BRUCE ENGLE, Ph.D.

B.A., M.A., Michigan State University. Speech. Major Professor: Herbert J. Oyer, Professor. Thesis: An Evaluation of Three Psychological Variables in Tonic and Clonis Stutterers and in Non-Stutterers.

B.S., M.S., Purdue University. Mechanics. Major Professor: Terry Triffet, Professor. Thesis: Acoustic Emission and Related Displacements in Lithium Fluoride Single Crystals.

DAVID STANLEY EVANS, JR., Ed.D.

B.A., Indiana University; S.T.B., Boston University. Education. Major Professor: John E. Jordan, Associate Professor. Thesis: The Role of the Minister in Marital Counseling in Divorce Situations.

Business Administration (Marketing). Major Professor: William J. E.

Thesis: An Empirical Analysis of the Function and Role of the Field

B.A., M.B.A., Michigan State University.

B.S., M.A., Xavier University.

Crissy, Professor.

Sales Manager.

RODNEY EARL EVANS, Ph.D.

WAHEED ALI FAROOQI, Ph.D.

B.A., B.T., University of Sind; M.A., University of Karachi. Philosophy. Major Professor: Craig A. Staudenbaur, Associate Professor. Thesis: A Spiritual Interpretation of Reality in the Light of Berkeley's Immaterialism.

LOUIS EDWARD GARDNER, Ph.D.

George Richard Gebhart, Ph.D.

B.S., University of Dayton; M.A., University of Miami. Economics. Major Professor: John M. Hunter, Professor. Thesis: A Test of the Economic Relevancy of the Holdridge Life Zone System.

Thesis: Habituation in the Earthworm: Retention and Overhabituation.

Psychology. Major Professor: Stanley C. Ratner, Professor.

GARY ROBERT GEMMILL, Ph.D.

B.S., Ferris Institute; M.B.A., Michigan State University. Business Administration (Management). Major Professor: Eugene E. Jennings, Professor. Thesis: An Analysis of the Relationship Between the Behavioral Sciences and Management Theory and Practice: An Exploratory Investigation.

DOCTORAL DEGREES — Continued

TEDFORD A. GILLETT, Ph.D.

ALBERT DAVID LINCOLN GORRILL, Ph.D.

E. LEONA HALL, Ed.D.

DAVID WRIGHT HALSTED, Ph.D.

LLOYD DANIEL HAYS, Ph.D.

SARAH DINHAM HERVEY, Ph.D.

ROBERT HESS HINES, Ph.D.

HUGH HORACE HOLLOWAY, Ph.D.

NELSON CHIN-TSE HSI, Ph.D.

B.S., M.S., University of Idaho. Food Science. Major Professor: Albert M. Pearson, Professor. Thesis: Variation in Potassium and Sodium as Related to Body Composition.

B.S.A., M.S., University of Saskatchewan. Dairy. Major Professor: J. William Thomas, Professor. Thesis: Exocrine Pancreatic Enzyme Synthesis and Secretion and Intestinal Proteolytic Activity and Stability in Calves.

B.A., Alma College; M.A., Michigan State University. Education. Major Professor: Calhoun C. Collier, Professor. Thesis: Methods and Materials of a Mathematics Program for the Disadvantaged and Underachieving Child.

B.S., M.A., Michigan State University. Psychology. Major Professor: William W. Farquhar, Professor. Thesis: An Initial Survey of the Attitudinal Differences Between the Mothers of Over-Achieving and Under-Achieving Eleventh Grade Puerto Rican Students.

B.A., M.A., Michigan State University. Philosophy. Major Professor: Henry S. Leonard, Professor. Thesis: The Ethical Intuitionism of Richard Price.

B.S., University of Minnesota; M.A., Michigan State University. Education. Major Professor: Bernard R. Corman, Professor. Thesis: Cognitive Style and Preferences in School Tasks.

B.S., Purdue University; M.S., Michigan State University. Animal Husbandry. Major Professor: Jacob A. Hoefer, Professor. Thesis: The Interaction of Restricted Feed Intake and Sex on Swine Performance and Carcass Quality.

B.A., M.A., Michigan State University. Education. Major Professor: Donald J. Leu, Professor. Thesis: Why School Superintendents are Dismissed or Encouraged to Leave Their Positions — A Study as Expressed by Members of Board of Education Involved in Selected Cases in Michigan.

B.A., University of Hong Kong. Chemistry. Major Professor: Gerasimos J. Karabatsos, Professor. Thesis: Structural Studies of Aldehydes and Oxime O-Methyl ethers by Nuclear Magnetic Resonance Spectroscopy.

13

DOCTORAL DEGREES — Continued

BEVERLY JEAN HUNT, Ed.D.

ROBERT WAYNE HUSBAND, Ph.D.

Јасов Јасову, Ph.D.

LARRY C. JENSEN, Ph.D.

LOWELL GENE KAFER, Ph.D.

FREDRICK JAY KAYNE, Ph.D.

MARLENE STEINMETZ KAYNE, Ph.D.

MARISA GESINA KEENEY, Ph.D.

B.A., Eastern Illinois State University; M.A., Michigan State University.
Education. Major Professor: Willa Norris, Professor.
Thesis: Characteristics, Perceptions, and Experiences of Married Women Students at Lansing Community College, 1965.

A.B., University of Michigan; M.A., Western Michigan University. Zoology. Major Professor: T. Wayne Porter, Professor. Thesis: Acarina Associated with Michigan Bombinae.

B.A., M.A., Brooklyn College (C.U.N.Y.). Psychology. Major Professor: Milton Rokeach, Professor. Thesis: Situational Anxiety and Birth Order as Determinants of Dogmatism and Authoritarianism.

B.S., M.S., Brigham Young University. Psychology. Bajor Professor: Donald E. Hamachek, Associate Professor. Thesis: The Effects of Grades on Cognitive and Affective Learning.

B.A., Adrian College; M.A., Michigan State University. Education. Major Professor: Eldon R. Nonnamaker, Associate Professor. Thesis: An Analysis of Selected Characteristics and Experiences of

Freshmen Students in the Michigan State University Justin Morrill College.

B.S., Illinois Institute of Technology. Biochemistry. Major Professor: Clarence H. Suelter, Associate Professor. Thesis: A Physical Analysis of the Effects of Temperature and Substrates on the Structural and Catalytic Properties of Rabbit Muscle Pyruvate Kinase.

B.S., St. John's University. Biochemistry. Major Professor: William C. Deal, Jr., Associate Professor. Thesis: Reversible Dissociation and Characterization of Rabbit Muscle Pyruvate Kinase.

A.B., Trinity University; M.R.E., Princeton Seminary. Psychology. Major Professor: William W. Farquhar, Professor. Thesis: College Student Counselor Preferences for Help with Problems of Sex and Anger.

DOCTORAL DEGREES - Continued

ELEANOR ANN KELLEY, Ph.D.

ERNEST EDWIN KERN, Ph.D.

CHARLES DOUGLAS KESNER, Ph.D.

ERNST W. KIESLING, Ph.D.

SUNG BOK KIM, Ph.D.

LOWELL DONALD KISPERT, Ph.D.

WARREN GREGORY KNEER, Ph.D.

WEN-HSIUNG KO, Ph.D.

JAMES RICHARD KRUM, D.B.A.

B.S., M.Ed., Auburn University. Sociology. Major Professor: J. Allan Beegle, Professor. Thesis: Peer Group Friendships' in One Class of High School Girls; Change in Stability.

B.S., Michigan State University. Chemical Engineering. Major Professor: Donald K. Anderson, Associate Professor. Thesis: Diffusion of Polyelectrolytes in Aqueous Solution.

B.S., M.S., Michigan State University. Horticulture. Major Professor: Stanley K. Ries, Professor. Thesis: The Mode of Action of Diphenamid (N, N-dimethyl 2, 2-Diphenylacetamide) in Plants.

B.S., Texas Technological College; M.S., Michigan State University. Mechanics. Major Professor: William A. Bradley, Professor. Thesis: Nonlinear, Quasi-Static Behavior of Some Photoelastic and Mechanical Model Materials.

B.A., Seoul National University; M.A., University of Wisconsin. History. Major Professor: Robert Brown, Professor. Thesis: The Manor of Cortlandt and its Tenants, 1697-1783.

B.A., St. Olaf College. Chemistry. Major Professor: Max T. Rogers, Research Professor. Thesis: Electron Spin Resonance of Irradiated Organic Single Crystals.

B.S., M.A., Creighton University. History. Major Professor: Paul A. Varg, Professor. Thesis: British-American Relations in the Caribbean Area 1900-1912.

B.S., National Taiwan University. Botany and Plant Pathology. Major Professor: John L. Lockwood, Associate Professor. Thesis: Mechanism of Soil Fungistasis.

A.B., Gettysburg College; M.S., Pennsylvania State University. Business Administration (Marketing), Major Professor: Donald A. Taylor, Professor. Thesis: Role Analysis of the Director of Marketing Research Position in Large Industrial Firms.

B.S., Illinois Institute of Technology.

B.A., M.A., University of Colorado.

Resonance Spectroscopy.

DOCTORAL DEGREES - Continued

SHELDON SIDNEY LANDE, Ph.D.

CHARLES EVERETT LAUTERBACH, Ph.D.

NAN LIN, Ph.D.

B.A., Tunghai University; M.A., Syracuse University. Communication. Major Professor: Verling C. Troldahl, Associate Professor. Thesis: Innovation Internalization in a Formal Organization.

Chemistry. Major Professor: Gerasimos J. Karabatsos, Professor. Thesis: Stereochemical Studies of Schiff Bases by Nuclear Magnetic

Speech. Major Professor: James R. Brandon, Associate Professor. Thesis: A Descriptive Study of Trends in Dramatic Styles in the Successful, Serious American Drama of the Broadway Stage in the 1920's.

B.A., Northwestern College; T.M., Theological Seminary, Mequon, Wisconsin; M.A., Michigan State University. Education. Major Professor: George Barnett, Professor. Thesis: Approach to a Definition of Leisure.

B.F.A., M.F.A., University of Oklahoma. Speech. Major Professor: James R. Brandon, Associate Professor. Thesis: A History of the American Courtroom Play.

B.A., Oklahoma State University; M.A., University of Oklahoma. Speech. Major Professor: Kenneth G. Hance, Professor. Thesis: A Survey Study of Methods and Rationales in the Criticism of Classroom Speeches in the Beginning College Course.

B.S., Allegheny College; M.S., Michigan State University. Statistics. Major Professor: James F. Hannan, Professor. Thesis: Some Decision Procedures in Exponential Families.

B.A., Tokyo University; M.B.A., Michigan State University. Business Administration (Marketing). Major Professor: William J. E. Crissy, Professor. Thesis: The Adaptation and Marketing Strategies of the Japanese Manufacturing Firms Operating in the United States: An Ecological Analysis and An Introductory Survey.

B.S., Virginia Polytechnic Institute; M.S., Oklahoma State University. Agricultural Engineering. Major Professor: Carl W. Hall, Professor. Thesis: Thermal Diffusivity by Finite Differences and Correlation with Physical Properties of Heat Treated Potatoes.

HUGO KARL LIST, Ph.D.

THOMAS RAYMOND LONG, Ph.D.

WILLIAM THERON LOTHERS, Ph.D.

DAVID WALLACE MACKY, Ph.D.

HIROFUMI MATSUSAKI, Ph.D.

FLOYD V. MATTHEWS, JR., Ph.D.

DOCTORAL DEGREES — Continued

Edward Arthur McAsh, Ph.D.

HOWARD MCCONEGHEY, Ed.D.

B.Th., Toronto Baptist Seminary; A.B., Wayne State University; B.D., Central Baptist Seminary; M.A., Michigan State University. Education. Major Professor: Edward B. Blackman, Professor. Thesis: A Study of Continuing Education Programs for the Ministry in the Theological Seminaries of the United Presbyterian Church in the U.S.A.

B.F.A., Washington University; M.A., New Mexico Highlands University. Education. Major Professor: Troy L. Stearns, Professor. Thesis: Art as Communication.

Thesis: An Investigation of the Effects of a Rapid Transition from "Open Door" to "Selective" Admissions.

Thesis: A Conceptual Framework for the Humanistic Physical Educa-

Education. Major Professor: Buford Stefflre, Professor.

B.S.E., University of Arkansas; M.S., University of Illinois. Education. Major Professor: Janet A. Wessel, Professor.

Communication. Major Professor: David K. Berlo, Professor.

B.S., M.Ed., University of Georgia.

tion Curriculum in Higher Education.

B.A., M.A., University of Oregon.

mensions of Source Evaluation.

THOMAS FREDERICK MCDONALD, Ph.D.

JEAN CAROL MCINTYRE, Ph.D.

ROBERT J. MERTZ, Ph.D.

GARY LEE MINISH, Ph.D.

EARL DOUGLASS MITCHELL, JR., Ph.D.

B.S., State College of Iowa. Animal Husbandry. Major Professor: Herman W. Newland, Associate Professor.

Thesis: Acceptance of Persuasive Influence as Related to Three Di-

Thesis: Concentrate Level, Feeder Grade, and Breed Type, Their Relationship to Production Factors and Carcass Characteristics in Fattening Calves.

B.S., Xavier University; M.S., Michigan State University. Biochemistry. Major Professor: N. Edward Tolbert, Professor. Thesis: Isolation and Characterization of a Germination Inhibitor from Sugar Beet Fruit.

MARVIN RICHARD MOORE, Ph.D.

B.A., M.A., Michigan State University. Psychology. Major Professor: John R. Hurley, Professor. Thesis: Consistency of Interaction in Normal and Clinic Families.

17

Professor.

DOCTORAL DEGREES — Continued

JOHN EDWARD NOLAN, Ph.D.

B.S., M.S., Michigan State University. Mechanical Engineering. Major Professor: Rolland T. Hinkle, Professor. Thesis: Analytical Investigation of Stability of Squeeze-Film Journal Bearings.

RALPH DANIEL NYLAND, Ph.D.

B.S., M.S., New York State College of Forestry. Forestry. Major Professor: Victor J. Rudolph, Professor. Thesis: Sugar Maple and Its Use for Sap Production in Michigan's Lower Peninsula.

B.S., Lawrence Institute of Technology; M.S., Wayne State University.

Electrical Engineering. Major Professor: Kun-Mu Chen, Associate

Thesis: Traveling Wave Antennas with Impedance Loading.

DENNIS PAUL NYQUIST, Ph.D.

ELIJAH OSUOHA ODOKARA, Ph.D.

ROGER OSWOLD OLIVE, Ph.D.

KENNETH WILLIAM OLSEN, Ph.D.

YUH KANG PAN, Ph.D.

B.S., McPherson College; M.S., University of Witchita. Education. Major Professor: Russell J. Kleis, Associate Professor. Thesis: A Theoretical Basis for Analysis of Adult Education in Developing Countries: A Review of Adult Education Programs in Rural Communities of Eastern Nigeria.

A.B., Hope College; M.A., Michigan State University. Psychology. Major Professor: John R. Hurley, Professor. Thesis: Filicide as Related to Female Oedipal Problems.

B.S., University of Utah; M.S., Michigan State University. Education. Major Professor: James E. Heald, Associate Professor. Thesis: Professional Expectation Fulfillment and Perception Formation Among High School Teachers and Principals.

B.S., National Taiwan University. Chemistry. Major Professor: Max T. Rogers, Research Professor. Thesis: Quantum Mechanical Analysis of High-Resolution Nuclear Magnetic Resonance Spectra.

ANN CARLSON PATERSON, Ph.D.

B.A., University of Rochester. Sociology. Major Professor: Wilbur B. Brookover, Professor. Thesis: An Evaluation of An Instrument Designed to Measure the Construct "Self-Concept of (Academic) Ability."

DOCTORAL DEGREES — Continued

MERLE EUGENE QUENEMOEN, Ph.D.

B.S., M.A., Montana State College. Agricultural Economics. Major Professor: Glenn L. Johnson, Professor. Thesis: A Study of Costs and Returns for Dry-Land Farms in the Triangle Area of Montana with Emphasis on Operator's Labor, Machinery and Land.

ISHAQ YACUB QUTUB, Ph.D.

B.S., Bluffton College; M.A., New York City College. Sociology. Major Professor: John D. Donoghue, Professor. Thesis: The Impact of the Rural Thrift and Credit Cooperative Societies on the Traditional Social and Economic Structure of Rural Jordan — A Study of Three Villages.

Thesis: Effects of Different Competing Stimuli on Listening Be-

F. EDWARD RICE, Ph.D.

FARLEY POE RICHMOND, Ph.D.

LORIN C. RICHTMEYER, Ph.D.

RICHARD LAWRENCE RINEHART, Ed.D.

THOMAS L. ROSZMAN, Ph.D.

KAMAL SAID SALEH, Ph.D.

B.F.A., M.A., University of Oklahoma. Speech. Major Professor: James R. Brandon, Associate Professor. Thesis: Contemporary English-Language Theatre in India: 1965.

B.A., Denison University; M.A., Ohio University.

haviors.

Psychology. Major Professor: Stanley C. Ratner, Professor.

B.M., Central Michigan University; M.M., Michigan State University. Music. Major Professor: Leonard V. Falcone, Professor. Thesis: A Definitive Analysis of Brass Embouchure Abnormalcies Including Recommended Remedial Techniques.

B.S., Michigan State University; M.S., University of Michigan. Education. Major Professor: Max S. Smith, Professor. Thesis: A Compilation and Study of Civil Engineering Technology Curricula in the United States with Analysis of the Forces Bearing on the Curricula.

B.S., Bowling Green State University; M.S., Michigan State University. Microbiology and Public Health. Major Professor: Virginia H. Mallman, Assistant Professor. Thesis: Disc Electrophoretic and Immunodiffusion Studies of Mycobacterial Culture Filtrates.

B.S., University of Cairo; M.A., Alexandria University. Sociology. Major Professor: J. Allan Beegle, Professor. Thesis: A Comparative Analysis of Patterns of Social Relationships Characterizing Families in Folk-Rural, Rural, and Urban Subcultures in the Same Locale of Michigan.

DOCTORAL DEGREES — Continued

DAVID FRANCIS SAVICKAS, Ph.D.

ROBERT W. SCHLATER, Ph.D.

KEITH KENDAL SCHLENDER, Ph.D.

HUGH JEROME SCOTT, Ed.D.

RHEA VIVIAN SHIELDS, Ph.D.

AIIT SINCH, Ph.D.

BIRENDRA KUMAR SINHA, Ph.D.

DAVID LYLE SMITH, Ph.D.

WILLIAM CLARK SPRAGENS, Ph.D.

B.A., St. Mary's College; M.S., Michigan State University. Physics. Major Professor: Richard Schlegel, Professor. Thesis: Dynamical Effects of Isotropic Radiation.

A.B., University of Nebraska; M.S., Columbia University. Communication. Major Professor: Verling C. Troldahl, Associate Professor. Thesis: Effect of Speed of Presentation and Irrelevant Cues on Recall of Television Messages.

B.A., Westmar College; M.S., Michigan State University. Biochemistry. Major Professor: Harold M. Sell, Professor. Thesis: Involvement of Protein Synthesis in Auxin-Induced Elongation.

B.S., M.A., Wayne State University. Education. Major Professor: Donald J. Leu, Professor. Thesis: A Descriptive Analysis of the Evolving Role of the School-Community Agent in the Detroit Great Cities School Improvement Project.

B.S., Indiana University; M.S., Purdue University. Home Management. Major Professor: Frances M. Magrabi, Associate Professor. Thesis: An Exploratory Model of Household Decisionmaking as Applied to Investigation of Decision Situations in a Household Durables Purchasing Context.

B.V.Sc., M.V.Sc., University of Punjab; M.S., Ohio State University. Physiology. Major Professor: E. Paul Reineke, Professor Thesis: Studies of Thyroid Function in the Chicken.

B.A., M.A., Patna University, India. Psychology. Major Professor: John E. Jordan, Associate Professor. Thesis: Maternal Attitudes and Values in Respect to Emotionally Disturbed and Physically Disabled Persons.

B.D., M.A., University of Michigan. Education. Major Professor: Charles A. Blackman, Professor. Thesis: An Exploratory Study of a Means for Assessing Both Creativity and Conformity of First Graders.

A.B., M.A., University of Kentucky. Political Science. Major Professor: Robert Scigliano, Professor. Thesis: Press Coverage of Congressional Campaigns: A Content Analysis of the 1960 Campaign in Michigan and Tennessee.

DOCTORAL DEGREES — Continued

SARAJANE STROUD, Ph.D.

DOUGLAS ALLEN STUART, Ph.D.

ROBERT ARTHUR TALLER, Ph.D.

JOHN GEORGE THOMPSON, Ph.D.

WILLIAM D. TIDWELL, Ph.D.

DONALD HENRY VOSS, Ph.D.

PATRICIA STUMP WALSH, Ph.D.

SANDRA ARDAH WARDEN, Ph.D.

MERVYN ALONZO WARREN, Ph.D.

B.A., Kalamazoo College; M.A., Western Michigan University. Education. Major Professor: Charles A. Blackman, Professor. Thesis: The Michigan August Working Conference as a Method of Curriculum Development.

B.S., M.A., Michigan State University. Education. Major Professor: Paul L. Dressel, Professor. Thesis: The Application of Formula and Cost Analysis Procedures to the Budgeting of Academic Departments.

B.S., Bowling Green State University; M.S., Michigan State University. Chemistry. Major Professor: Gerasimos J. Karabatsos, Professor. Thesis: Stereochemical Studies of Nitrosamines, Oximes and N-Substituted Hydrazones by Nuclear Magnetic Resonance Spectroscopy.

B.S., Central Michigan University; M.Ed., Wayne State University. Education. Major Professor: Max S. Smith, Professor. Thesis: A Study of the Information Sources Utilized by Students Enrolling in a Community College for the First Time.

B.S., Northern Idaho College; M.S., Brigham Young University. Geology. Major Professor: Aureal T. Cross, Professor. Thesis: A Lower Pennsylvanian Flora from Utah and its Stratigraphic Significance.

A.B., Calvin College; B.D., Evangelical Seminary; M.S., Northern Illinois University. Education. Major Professor: William W. Farquhar, Professor. Thesis: Relationship of Environmental Change to Student Performance and Attrition.

B.A., Oberlin College; M.A., Indiana University. Speech. Major Professor: Herbert J. Oyer, Professor. Thesis: The Relationship of Acoustical Environment to the Evaluation of Perceived Loudness of Connected Discourse.

B.A., M.A., Michigan State University. Sociology. Major Professor: Denton Morrison, Assistant Professor. Thesis: The Leftouts: Disadvantaged Children in Heterogeneous Schools.

B.A., Oakwood College; M.A., Andrews University; B.D., Seventh-day Adventist Theological Seminary. Speech. Major Professor: Kenneth G. Hance, Professor. Thesis: A Rhetorical Study of the Preaching of Dr. Martin Luther King, Jr., Pastor and Pulpit Orator.

DOCTORAL DEGREES — Continued

WALTER ALAN WATMAN, Ph.D.

B.B.A., City College of New York (C.U.N.Y.); M.A., Michigan State University. Psychology. Major Professor: Arthur A. Seagull, Assistant Professor. Thesis: The Capacity to Delay Gratification and its Relationship to Perceptual Developmental Level, Ego Strength and Anxiety Level: A Study of Prisoners.

SAMUEL KIRKWOOD YARMAN, Ph.D.

B.A., University of Toledo; M.A., University of Michigan. Education. Major Professor: Karl T. Hereford, Professor. Thesis: Graduates of National Universities in Central America.

DIPLOMA FOR ADVANCED GRADUATE STUDIES

RICHARD HOHLY

B.S., University of New Hampshire; M.S., Michigan State University. Physics. Major Professor: Hugh McManus, Professor.

EDUCATIONAL SPECIALIST DEGREE

Sara Suat Bayar, Ed.S.	B.A., Ankara University, Turkey; M.A., Michigan State University. Education. Major Professor: Buford Stefflre, Professor.
DAVID OLORUNFEMI KOLAWOLE, Ed.S.	B.S., Bethel College; M.A., Michigan State University. Education. Major Professor: Charles A. Blackman, Professor.
Jack C. McConkey, Ed.S.	B.A., Alma College; M.A., Michigan State University. Education. Major Professor: Fred Vescolani, Professor.
Kenneth Richard Roberts, Ed.S.	B.S., Central Michigan University; M.A., Michigan State University. Education. Major Professor: Fred Vescolani, Professor.
CHARLES WILLIAM SHINN, Ed.S.	B.S., Univeristy of Miami; M.A., University of Wisconsin. Education. Major Professor: Donald J. Leu, Professor.
Edwin Ward St. John, Ed.S.	B.S., M.S., Michigan State Universtiy. Education. Major Professor: Raymond M. Clark, Professor.

Graduated as of September 2, 1966

DOCTORAL DEGREES

Joginder N. Anand, Ph.D.	B.S., University of Delhi; M.S., Michigan State University. Mechanics. Major Professor: Terry Triffet, Professor. Thesis: Molecular Forces and Elastic Constants of Polyethylene Single Crystals.
Ernest Andrade, Jr., Ph.D.	B.A., M.A., University of Hawaii. History. Major Professor: Madison Kuhn, Professor. Thesis: United States Naval Policy in the Disarmament Era, 1921-1937.
Elmer Soini Anttonen, Ed.D.	B.S., Ferris Institute; M.A., University of Notre Dame. Education. Major Professor: Stanley E. Hecker, Professor. Thesis: The Relationship of Adult Education Program Development in Michigan to State Fiscal Policy.
ROBERT LEE ARMSTRONG, Ph.D.	B.S., Heidelberg College; M.S., Ohio State University. Biochemistry. Major Professor: John A. Boezi, Assistant Professor. Thesis: Studies of <i>Escherichia coli</i> RNA-DNA Hybrid and Methyla- tion of RNA in T-4 Infected Cells.
LOUIS C. ARRINGTON, Ph.D.	B.S., University of Maryland; M.S., University of California. Poultry Science. Major Professor: Robert K. Ringer, Professor. Thesis: Studies of the Pineal Function in Japanese Quail (Coturnix coturnix japonica).
Osman Abdel-aziz Atallah, Ph.D.	B.V.S., Cairo University; M.S., Michigan State University. Pathology. Major Professor: Stuart D. Sleight, Associate Professor. Thesis: Experimental Nitrate, Nitrite and Hydroxylamine Toxicosis in the Guinea Pig.
ROGER DANIEL AUGUSTINE, Ed.D.	B.A., M.A., Michigan State University. Education. Major Professor: Walter F. Johnson, Professor. Thesis: Persistence and Change in Major Field of Academically Pro- ficient Engineering Students at Three Midwestern Universities.
Clarence Hirum Bagley, Ed.D.	B.S., University of Wyoming; M.S., Utah State University. Education. Major Professor: Buford Stefflre, Professor. Thesis: An Evaluation of Differential Prediction of Academic Success for Students at Washington State University.
James William Barushok, Ph.D.	B.S., M.A., Northwestern University. Speech. Major Professor: E. C. Reynolds, Associate Professor. Thesis: A Study of the Membership and Leadership of Queen City Little Theatre.

DOCTORAL DEGREES Continued

GLENN DAVID BERKHEIMER, Ed.D.

JAMES WILLIAM BERRY, JR., Ph.D.

WILLIAM MICHAEL BOCKS, Ed.D.

DANIEL L. BODE, Ph.D.

BENNY E. BRENT, Ph.D.

ARTHUR W. CHESTER, Ph.D.

NORMAN BROOKS CLEARY, Ph.D.

GARY LEE CLOUD, Ph.D.

SPIROS MINAS CONSTANTINIDES, Ph.D.

B.S., State Teachers College, Indiana; M.Ed., University of Pittsburgh. Education. Major Professor: T. Wayne Taylor, Professor. Thesis: An Analysis of the Science Supervisors' Role in the Selection and Use of Science Curriculum Materials.

B.S., M.S., University of Idaho. Horticulture. Major Professor: Robert L. Carolus, Professor. Thesis: Factors and Practices Related to the Occurrence of Blotchy Ripening in Tomato.

A.B., Hope College; M.A., Western Michigan University. Education. Major Professor: Charles A. Blackman, Professor. Thesis: The Relationship of Teacher Characteristics to Belief Changes Following Introduction of Nonpromotion Research Evidence.

B.S., M.S., Southern Illinois University. Speech. Major Professor: Herbert J. Oyer, Professor. Thesis: Some Effects of Auditory Training on Speech Discrimination Performance of Hard-of-Hearing Adults.

M.S., Kansas State University. Animal Husbandry. Major Professor: Herman W. Newland, Associate Professor. Thesis: The Utilization of Various Non-Protein Nitrogen Sources by Rumen Microorganisms in a Continuous Flow *in Vitro* Fermentation System.

B.S., Brooklyn College (C.U.N.Y.). Chemistry. Major Professor: Carl H. Brubaker, Professor. Thesis: The Electronic and Vibrational Spectra of the μ -Amido-Decamminedicobalt (111) Ion.

B.S., M.S., State College of Iowa. Communication Arts. Major Professor.: Hideya Kumata, Professor. Thesis: Cross-Cultural Communication, Powerlessness, Salience and Obeisance of Professional Change Agents.

B.S., M.S., Michigan Technological University. Mechanics. Major Professor: George E. Mase, Professor. Thesis: Infrared Photoelasticity; Principles, Methods and Applications.

University Diploma, Thessaloniki University; M.S., Michigan State University.
Food Science. Major Professor: Clifford L. Bedford, Professor.
Thesis: Multiple Forms of Plant Phenoloxidase.

DOCTORAL DEGREES Continued

PETER M. COSTELLO, Ph.D.

CHARLES CRAPO, Ph.D.

CLYDE ALLAN CREGO, JR., Ph.D.

WILLIAM GEORGE DARNELL, Ph.D.

ADOLPH RICHARD DASLER, Ph.D.

WALLACE EARL DE PUE, Ph.D.

GERALDINE FLORENCE DOMINIAK, Ph.D.

DAVID A. DRINKWATER, Ph.D.

HENRY FRANCIS EDELHAUSER, Ph.D.

A.A., Boston University; B.S., University of Vermont; M.A., University of Connecticut. Economics. Major Professor: Robert F. Lanzillotti. Thesis: Patents in the Antibiotic Industry.

B.A., M.A., Michigan State University. Economics. Major Professor: Charles Larrowe, Professor. Thesis: The National Union Convention as an Internal Appeal Tribunal.

B.A., M.A., Montana State University. Psychology. Major Professor: Bill L. Kell, Professor. Thesis: A. Pattern Analytic Approach to the Measure of Modes of Expression of Psychological Differentiation.

B.A., University of Buffalo; M.A., Michigan State University Education. Major Professor: Joseph L. Saupe, Professor. Thesis: An Empirical Comparison of Tests of the Hypothesis of No Fixed Main Effects in the Mixed Model.

A.B., M.A., Western Michigan University. Physiology. Major Professor: E. Paul Reineke, Professor. Thesis: Heat Stress and Strain in Men Wearing Impermeable Clothing.

B.M., B.M.E., Capital University; M.A., Ohio State University. Music. Major Professor: H. Owen Reed, Professor. Thesis: Concerto for Percussion and Orchestra.

B.S., M.B.A., University of Detroit.
Business Administration (Accounting). Major Professor: Herbert E.
Miller, Professor.
Thesis: An Investigation of the Applicability of Methods of Logic to the Analysis of Accounting Problems.

B.S., Boston College; M.B.A., Babson Institute. Business Administration (Finance). Major Professor: James D. Edwards, Professor. Thesis: Model Financial Statements — Basis of a Proposed Reimbursement Formula to Control Hospital Costs.

B.A., Paterson State College; M.S., Michigan State University. Physiology. Major Professor: Paul O. Fromm, Professor. Thesis: A Comparative Study of Water and Sodium Permeability of Lake Trout and Rabbit Corneas.

25

DOCTORAL DEGREES Continued

RALPH AMBROSE ERNST, Ph.D.

ROBERT WESLEY EVERETT, Ph.D.

WINSTON PING FAN, Ph.D.

RAYMOND FRANCIS FINN, Ph.D.

DANIEL JAMES FLEISCHHACKER, Ph.D.

GARY CHALMERS FOX, Ph.D.

SALVATORE GAMBARO, Ph.D.

DENNIS CRIPPEN GILLILAND, Ph.D.

WILLIAM FRANK GLUECK, Ph.D.

B.S., M.S., Michigan State University. Poultry Science. Major Professor: Robert K. Ringer, Professor. Thesis: The Physiological Effects of Selected Pesticides on the Japanese Quail (*Coturnix coturnix Japonica*) and Embryogenesis of the Domestic Fowl.

B.S., National Agricultural College; M.S., Michigan State University. Dairy. Major Professor: Clinton E. Meadows, Professor. Thesis: Genetic and Environmental Trends in Michigan Dairy Cattle Milk Production.

Diploma, Chung Chi College; M.A., Michigan State University. Political Science. Major Professor: Wesley R. Fishel, Professor. Thesis: The Political Philosophy of K'ang Yu-Wei; A Sociological Study of Religious Syncretism.

B.S., University of Minnesota; M.S., Michigan State University. Forestry. Major Professor: Donald P. White, Professor. Thesis: Mineral Nutrition of Yellow Poplar (*Liriodendron Tulipifera*, L.)

B.A., B.S., M.A., University of Minnesota. Speech. Major Professor: E. C. Reynolds, Associate Professor. Thesis: The Playwright as Propagandist: A Study of the Dramaturgy of Six Propaganda Plays of the American Theatre

B.S., Hanover College; M.S., Butler University. Education. Major Professor: Max S. Smith, Professor. Thesis: The Need of In-Service Education for Community College Trustees as Perceived by Presidents and Trustees of Community Colleges.

B.A., M.A., Michigan State University. Psychology. Major Professor: Albert I. Rabin, Professor. Thesis: Blood Pressure Reactions to Expressed and Unexpressed Anger in Low Guilt and High Guilt Subjects.

B.A., Kent State University; M.S., Michigan State University. Statistics. Major Professor: James F. Hannan, Professor. Thesis: Approximation to Bayes Risk in Sequences of Non-Finite Decision Problems.

B.S., M.B.A., Xavier University. Business Administration (Management). Major Professor: Dalton E. McFarland, Professor.. Thesis: Organization Development Departments in Selected American Firms: An Exploratory Behavioral Analysis

DOCTORAL DEGREES Continued

HARVEY GOLDMAN, Ed.D.

JOHN MICHAEL GRABOW, Ed.D.

JAMES EDDIE GREEN, Ed.D.

ROY ELDON HALLADAY, Ed.D.

KENNETH L. HARDING, Ph.D.

SYED ABDULLAH HASSAN, Ph.D.

ROBERT LLOYD HEDLEY, Ed.D.

DONALD WARREN HERB, Ph.D.

B.A., University of Rhode Island; M.A., John Carroll University. Education. Major Professor: James E. Heald, Associate Professor. Thesis: A Study of the Teacher-Administrator Relationship and the Influence of Need Patterns.

B.S., Roosevelt University; M.S., Southern Illinois University. Education. Major Professor: Buford Stefflre, Professor. Thesis: Effects of the Perceptions of the School Diagnostician's Role Upon Consultations.

B.S., Iowa State University; M.A., Michigan State University. Education. Major Professor: John H. Suehr, Associate Professor. Thesis: The Relationship Between Dogmatism of Principals and Teachers' Morale in Twelve Selected Secondary Schools in Michigan.

B.S.E., M.A., University of Michigan. Education. Major Professor: Stanley E. Hecker, Professor. Thesis: The Effect of Certain Subcultural Background Factors on the Prediction of Grades at the University of Michigan.

B.S., M.S., Indiana State College. Education. Major Professor: James W. Costar, Professor. Thesis: A Comparative Study of Caucasian Male High School Students Who Stay in School and Those Who Drop Out.

B.S., Government Institute, Lahore, Pakistan; M.S., Michigan State University. Agricultural Engineering. Major Professor: Frederick H. Buelow, Professor. Thesis: An Analytical and Experimental Study of Thermal Spectral Properties of Oxide-Metal Composite Media.

B.S., B.Ed., M.Ed., University of Manitoba. Education. Major Professor: T. Wayne Taylor, Professor. Thesis: Student Attitude and Achievement in Science Courses in Manitoba Secondary Schools.

A.B., Gettysburg College; B.D., Lutheran Theology Seminary. Education. Major Professor: John E. Jordan, Associate Professor. Thesis: A Study of the Effect of Personal and Non-Personal Contacts by Religious Workers on the Religious Involvement of Lutheran College Freshmen.

DOCTORAL DEGREES Continued

REX J. HEWLETT, Ph.D.

HENRY HOLSTEGE, JR., Ph.D.

IRWIN ALAN HOROWITZ, Ph.D.

DENNIS KARL HUFF, Ph.D.

JAMES FLOYD HUFFMAN, Ph.D.

JOHN CHARLES HURD, Ph.D.

JERE TRENT HUTCHESON, Ph.D.

DARRELL GEORGE JONES, Ph.D.

LEROY ELDON KENNEL, Ph.D.

B.S., Central Michigan University; M.M., Michigan State University. Music. Major Professor: Merrell Sherburn, Associate Professor. Thesis: An Investigation of the Effectiveness of Two Methods of Student Response Using a Taped Program of Practice Materials for Improving Aural Discrimination.

B.A., Calvin College; M.A., Michigan State University. Sociology. Major Professor: James B. McKee, Professor. Thesis: Conflict and Change in Negro-White Relations in Great Falls.

B.S., M.A., Brooklyn College (C.U.N.Y.). Psychology. Major Professor: Alfred G. Dietze, Professor. Thesis: The Personality Correlates of, and the Effect of Reward and Costs on, Socially Responsible Behavior.

B.A., M.S., Drake University. Microbiology and Public Health. Major Professor: David T. Clark, Associate Professor. Thesis: Cellular Aspects of the Resistance of Chickens to *Eimeria Tenella* Infections.

B.S., M.A., Northwestern University. Speech. Major Professor: Kenneth G. Hance, Professor. Thesis: John Hay, The Poetic Trumpet: The Rhetoric of "The Statesman of the Golden Rule".

B.A., Brown University; M.A., University of Hawaii. Speech. Major Professor: E. C. Reynolds, Associate Professor. Thesis: The Meaning of Movement on the Contemporary American Stage.

B.M., Stetson University; M.M., Louisiana State University. Music. Major Professor: H. Owen Reed, Professor. Thesis: Symphony.

B.A., M.A., Iowa State Teachers College. Education. Major Professor: Archibald B. Shaw, Professor. Thesis: An Evaluation of the Socio-Psychological and Socio-Economic Effects of MDTA Training on Trainees in Selected Michigan Programs.

B.A., Goshen College; M.A., State University of Iowa; B.D., Goshen Theological Seminary. Speech. Major Professor: David C. Ralph, Professor. Thesis: Communication Constructs in Contemporary American Protestant Preaching, 1940-1965.

DOCTORAL DEGREES Continued

Osamu Kitani, Ph.D.	B.A., M.A., University of Tokyo. Agricultural Engineering. Major Professor: Sverker Persson, Associate Professor. Thesis: Stress-Strain Relationships for Soil with Variable Lateral Strain.
Allen Jay Klingenberg, Ph.D.	B.A., M.A., University of Michigan. Education. Major Professor: Troy L. Stearns, Professor. Thesis: A Study of Selected Administrative Behaviors Among Admin- istrators from Innovative and Non-Innovative Public School Districts.
LENNIS MORELAND KNIGHTON, Ph.D.	B.A., M.B.A., Brigham Young University. Business Administration (Accounting). Major Professor: James D. Edwards, Professor. Thesis: The Performance Post Audit in State Government: An Anal- ysis of Its Nature, Its Purpose, and Its Possibility.
Constantine Konstans, Ph.D.	B.M., Indiana University; M.A., Ohio State University. Business Administration (Accounting). Major Professor: Gardner M. Jones, Professor. Thesis: The Effects of Data Processing Service Bureaus on the Prac- tice of Public Accounting.
Karl Robert Kramer, Ed.D.	B.S., M.S., New York University. Education. Major Professor: Troy L. Stearns, Professor. Thesis: The Effect of the Attitudes of Prospective Teachers on the Utilization of Professional Laboratory Experiences for the Develop- ment of Insight About, and a Commitment to, Teaching.
Arnold A. Kurtz, Ph.D.	B.Th., Walla Walla College; M.A., Andrews University. Speech. Major Professor: Kenneth G. Hance, Professor. Thesis: A Rhetorical Analysis of the Preaching of Dr. Clarence E. MaCartney, Twentieth Century Exponent of the Traditional Orthodoxy.
CHEN HUI LEE, Ph.D.	B.S., National Taiwan University, Free China; M.S., Michigan State University. Forestry. Major Professor: Jonathan W. Wright, Professor. Thesis: Anatomical Characters and Chemical Composition of Euro- pean Black Pine Needles as Influenced by Geographic Origins and Nitrogen Fertilization.
Louis G. Lippman, Ph.D.	B.A., Stanford University; M.A., Michigan State University. Psychology. Major Professor: M. Ray Denny, Professor. Thesis: Cue Utilization in Serial Learning.

DOCTORAL DEGREES Continued

TAHA HASSAN HUSSEIN MAHMOUD, Ph.D.

MERRIT LEE MALLORY, Ph.D.

MARGARET ANN MCKENNA, Ph.D.

PETER ANTHONY MCKINNON, Ph.D.

JAMES LEO MCNALLY, Ph.D.

JOSEPH MEZZANO, JR., Ed.D.

JAMES CARLTON MITTLER, Ph.D.

CHARLES C. MODESITT, Ph.D.

FRANK DAVIS MORRISON, Ph.D.

B.S., University of Alexandria; M.S., Michigan State University. Poultry Science. Major Professor: Theo H. Coleman, Professor. Thesis: Growth and Reproduction of Bobwhite Quail Raised in Confinement.

B.S., Michigan State University. Physics. Major Professor: Henry G. Blosser, Professor. Thesis: Phase Space Density Studies on Cyclotron Ion Sources.

B.S., Emmanuel College; Ed.M., Boston University. Education. Major Professor: Helen H. Green, Professor. Thesis: An Experiment to Determine the Effect of the Early Introduction of New-Matter Dictation in the Teaching of Beginning Shorthand to College Students.

B.A., M.A., Michigan State University. History. Major Professor: Vernon L. Lidtke, Associate Professor. Thesis: Geoffrey Dawson, *The Times* and the Formation of the British Appeasement Policy to 1936.

B.S., M.S., State University of New York. Education. Major Professor: Edward B. Blackman, Professor. Thesis: The Instructional Role of the Graduate Teaching Assistant at Michigan State University.

B.S., Wisconsin State University — Superior; M.A., Michigan State University. Education. Major Professor: Norman Kagan, Associate Professor. Thesis: Group Counseling with Low-Motivated Male High School Students — Comparative Effects of Two Uses of Counselor Time.

B.S., University of New Mexico; M.S., University of Illinois. Physiology. Major Professor: Joseph Meites, Professor. Thesis: Studies on the Hypothalamic Regulation of Follicle-Stimulating Hormone Release.

B.S., M.S., Indiana State University. Education. Major Professor: George R. Myers, Professor. Thesis: A Study of the Duties Performed by Medical Assistants

B.S., M.S., University of Idaho. Horticulture. Major Professor: Stanley K. Ries, Professor. Thesis: Cultural and Environmental Parameters for Mechanically Harvested Cucumbers.

DOCTORAL DEGREES Continued

DONALD HULL NICKERSON, Ed.D.

A.B., Calvin College; M.A., University of Michigan. Education. Major Professor: James David Hoffman, Associate Professor. Thesis: A Survey of the Distribution of Personality Types and Related Interests Among Competent Teachers in Advantaged and Disadvantaged Settings.

THOMAS EUGENE NIEDRINGHAUS, Ph.D.

A.B., Kalamazoo College; M.A., Michigan State University. Geography. Major Professor: Dieter H. Brunnschweiler, Professor. Thesis: A Climatography of Michigan.

KAREN MARIE NIELSEN, Ph.D.

B.A., M.A., Michigan State University. Speech. Major Professor: Herbert J. Oyer, Professor. Thesis: The Effect of Redundancy on the Visual Recognition of Frequently Employed Spoken Words.

Business Administration (Personnel). Major Professor: Dalton E.

Thesis: An Experiment in a Phenomenological Approach to the Study

Thesis: Petrology of a Differentiated Anorthositic Intrusion in North-

B.S., Mississippi State University; M.S., Texas A. & M. University.

Agricultural Engineering. Major Professor: Bill A. Stout, Professor

B.S., Syracuse University; M.S., Michigan State University.

Thesis: Design Parameters for Hydrocooling Cherries.

Geology. Major Professor: Justin Zinn, Professor.

B.S., Franklin and Marshall College.

McFarland, Professor.

western Wisconsin.

of Business Decision-Making.

RICHARD ALLAN NORMAN, D.B.A.

JAMES FREDERICK OLMSTED, Ph.D.

RAYBURN ELLIS PARKER, Ph.D.

CURTIS LEVERNE PATTON, Ph.D.

B.S., Fisk University; M.S., Michigan State University. Microbiology and Public Health. Major Professor: David T. Clark, Associate Professor. Thesis: Resistance of Rats to *Trypanosoma lewisi* (Kent, 1880).

GORDON WILBUR PAUL, Ph.D.

B.S., University of Tulsa. Business Administration (Marketing). Major Professor: Charles C. Slater, Professor. Thesis: An Interactional Approach to Investigating Food Buying Behavior.

DOCTORAL DEGREES Continued

MAURICE D. PELTON, Ed.D.

ALAN R. PUTNAM, Ph.D.

B.M., M.A., Michigan State University. Education. Major Professor: Herbert C. Rudman, Professor. Thesis: A National Analysis of Education Quality as Measured by the *Educational Characteristics Criterion* (ECC), Achievement, and Selected Cost Factors.

B.S., University of New Hampshire; M.S., Michigan State University. Horticulture. Major Professor: Stanley K. Ries, Professor. Thesis: The Phytotoxicity and Mechanisms of Action of Herbicide and Herbicide-Adjuvant Combinations on Quackgrass. (Agropyron Repens (L.) Beauv.)

JAMES ALTON RAY, Ph.D.

ELDON ALVIN REILING, Ph.D.

Ronald Luther Reisbig, Ph.D.

SOLOMON RUNDBAKEN, Ph.D.

WILLIAM GEORGE SCHAAR, JR., Ph.D.

DANIEL MYRON SEIFER, Ph.D.

D.V.M., Ohio State University; M.S., Michigan State University. Pathology. Major Professor: C. Cleon Morrill, Professor. Thesis: Disease in Swine Resulting from Experimental Administration of *Mycobacterium Bovis*, *Mycobacterium Avium* or Group-111 Mycobacteria.

B.S., Western Illinois University; M.S., Michigan State University. Agricultural Economics. Major Professor: Lester V. Manderscheid, Associate Professor. Thesis: Demand Analysis for Commercial Fertilizer in the United States, by States.

B.S., Michigan State University: M.S., University of Washington. Mechanical Engineering. Major Professor: Joseph E. Lay, Professor. Thesis: A Study of Dropwise Condensation.

B.F.A., M.E., University of Georgia. Speech. Major Professor: Herbert J. Oyer, Professor. Thesis: Bone Conduction/Air Conduction Cancellation as a Function of Intensity and Frequency Manipulation.

B.S., M.A., Michigan State University. Education. Major Professor: Gregory A. Miller, Associate Professor. Thesis: Changes in Academic Success and Self-Concept of Low Achieving Community College Freshmen.

B.A., University of Chicago; M.A., Michigan State University. Business Administration (Management). Major Professor: Dalton E. McFarland, Professor. Thesis: Relationships of Selected Personal Characteristics to Income Achievement of College Graduates.

DOCTORAL DEGREES Continued

RAGHU NANDAN SINGH, Ph.D.

JEROME MARTIN STAM, Ph.D.

JOHN EDWIN STOECKEL, Ph.D.

CHARLES IRVIN SWITZER, Ph.D.

MADELEINE BISE THERRIEN, Ph.D.

BOUNNONG THIPPHAWONG, Ph.D.

JOHN MICHAEL THOMPSON, Ph.D.

CLIFFORD EARL TIEDEMANN, Ph.D.

B.A., M.A., University of Allahabad; M.A., University of Agra. Education. Major Professor: Cole S. Brembeck, Professor. Thesis: The Role of the Federal Government in Indian Higher Education Since Independence, 1947.

B.S., University of Nebraska; M.S., Michigan State University. Agricultural Economics. Major Professor: Lester V. Manderscheid, Associate Professor. Thesis: An Application of Macro-Economic Analysis to the Demand for Human Skills and Knowledge.

B.A., Eastern Michigan University; M.A., Michigan State University. Sociology. Major Professor: J. Allan Beegle, Professor. Thesis: The Impact of Metropolitan Dominance Upon the Status Structure and Status Consistency of Rural-Farm and Urban Population.

B.S., Central Michigan University; M.A., Michigan State University. English. Major Professor: Russel B. Nye, Professor. Thesis: The Political, Philosophical, and Religious Thought of Dr. Benjamin Rush.

M.A., University of Paris. French, Language and Literature. Major Professor: Herbert Josephs, Assistant Professor. Thesis: Une Analyse Des Trois Personnages Principaux Des *Liaisons Dangereuses*.

B.S., National Taiwan University; M.S., University of Hawaii. Education. Major Professor: Guy E. Timmons, Professor. Thesis: An Analysis of Social and Educational Systems of Laos in View of Establishing Teacher Education in Agriculture for Elementary School Teachers.

B.A., University of Sheffield; M.A., Michigan State University. Comparative Literature. Major Professor: Herbert Weisinger, Professor. Thesis: Translations from René Char's *La Parole en Archipel* and Other Works, with an Introductory Essay.

B.A., University of Illinois; M.A., University of Oklahoma. Geography. Major Professor: Donald A. Blome, Assistant Professor. Thesis: Two Models for the Inferential Analysis of Central Place Patterns.

DOCTORAL DEGREES Continued

RICHARD CHARLES TOWNE, Ph.D.

ROBERT LEWIS TREZISE, Ph.D.

LLOYD ARTHUR TRINKLEIN, Ph.D.

CHARLES WRIGHT TUCKER, JR., Ph.D.

JAMES ARTHUR TWEEDY, Ph.D.

JAMES WOODSON VANEVRA, Ph.D.

JUDITH ANN VANEVRA, Ph.D.

PAUL ALBERT VOLZ, Ph.D.

FRANK LOUIS VOORHEIS, Ph.D.

B.S., State University of New York; M.S., Canisius College. Education. Major Professor: William K. Durr, Professor. Thesis: Social Psychological Change Associated with Special Class Placement for Educable Mentally Retarded Students.

B.S., Northwestern University; M.A., Michigan State University. Education. Major Professor: Elizabeth M. Drews, Professor. Thesis: A Descriptive Study of the Life Styles of a Group of Creative Adolescents.

B.A., Central Michigan University; M.A., University of Michigan. Education. Major Professor: T. Wayne Taylor, Professor. Thesis: A Comparative Study of the Effectiveness of Using a Full Film and Short Format Films to Teach Chemistry.

A.B., Whittier College; M.A., Michigan State University. Sociology. Major Professor: Wiliam A. Faunce, Professor. Thesis: Occupational Evaluation and Self Identification.

B.S., Southern Illinois University; M.S., Michigan State University. Horticulture. Major Professor: Stanley K. Ries, Professor. Thesis: The Influence of Simazine on Growth and Nitrogen Metabolism of Plants.

B.A., Valparaiso University; M.A., Michigan State University. Philosophy. Major Professor: Henry S. Leonard, Professor. Thesis: A History of Some Aspects of the Theory of Logic, 1850-Present.

B.A., Valparaiso University; M.A., Bowling Green State University. Psychology. Major Professor: Lucy R. Ferguson, Associate Professor. Thesis: Relationship Between Level of Self-Esteem and Manifestations of Conscience Development in Fifth-Graders.

B.A., Heidelberg College; M.S., Michigan State University. Botany and Plant Pathology. Major Professor: Everett S. Beneke, Professor. Thesis: In Vitro Studies on Species and Mutants of Agaricus, Cantharellus, Lepista, Pleurotus, and Volvariella.

B.S., M.B.A., Wayne State University.
Business Administration (Finance). Major Professor: Adolph E.
Grunewald, Professor.
Thesis: "Investment Policy and Performance of Bank Administered Pooled Equity Funds for Employee Benefit Plans".

DOCTORAL DEGREES Continued

Philip Fredrick Warnken, Ph.D.	B.S., M.S., Kansas State University. Agricultural Economics. Major Professor: Lawrence W. Witt, Pro- fessor. Thesis: Macro-Economic Impacts of Public Law 480, Title I in Colombia.
Jerome Charles Weber, Ph.D.	B.S., Brooklyn College (C.U.N.Y.); M.A., Michigan State University. Education. Major Professor: Wayne Van Huss, Professor. Thesis: The Effects of Differing Pre-Puberty Exercise Programs on Selected Measures of Growth in the Male Albino Rat.
IRA PHILIP WEINSTEIN, Ph.D.	B.B.A., City College of New York (C.U.N.Y.); M.A., Michigan State University. Psychology. Major Professor: Bertram P. Karon, Associate Professor. Thesis: The Recall of Memories as a Function of Repressing and Sensitizing Defenses and Body Position.
Donald W. Wilson, Ph.D.	B.A., Southern Missionary College; M.A., Andrews University. Speech. Major Professor: Kenneth G. Hance, Professor. Thesis: A Rhetorical Study of the Preaching of Pastor George Vande- man.
Edward Joseph Wolff, Ph.D.	B.A., M.A., University of Detroit. English. Major Professor: William Whallon, Associate Professor. Thesis: Chaucer's Normalized Diction: A Comparison of Recurring Phrases in Chaucer and <i>Beowulf</i> to Determine the Validity of the Magoun Thesis.
George Andrew Wolff, Ph.D.	B.A., M.A., Washington University. English. Major Professor: Herbert Weisinger, Professor. Thesis: The Production of Time, Themes and Images in the Poetry of Theodore Roethke.
Harold Eugene Wright, Ph.D.	B.S., University of Dayton; M.S., University of Cincinnati. Mechanics. Major Professor: Lawrence E. Malvern, Professor. Thesis: An Experimental Study of the Boundary-Layer Characteristics for Two-Phase (Gas-Liquid Spray) Flow Over a Circular Cylinder.

DIPLOMA FOR ADVANCED GRADUATE STUDIES

Graduated as of September 2, 1966

GRACE LORETTA MURRAY

B.A., M.S., University of Rochester. Microbiology and Public Health. Major Professor: Walter L. Mallmann, Professor.
SCHOOL FOR ADVANCED GRADUATE STUDIES

EDUCATIONAL SPECIALIST DEGREE

G. P. BAILEY, Ed.S.	B.S., Michigan State University; M.A., Western Michigan University. Education. Major Professor: James E. Heald, Associate Professor.
Alberta Ruth Balas, Ed.S.	A.B., University of Michigan; M.A., Michigan State University. Education. Major Professor: Byron H. VanRoekel, Professor.
FREDERICK CASEY BRUHN, Ed.S.	B.S., Western Michigan University; M.A., Michigan State University. Education. Major Professor: Donald F. Sellin, Assistant Professor.
William Joseph Condon, Ed.S.	A.B., Western Michigan University; M.A., University of Michigan. Education. Major Professor: James E. Heald, Associate Professor.
MARGARET WATTS GITLIN, Ed.S.	B.S., Ohio State University; M.A., Wayne State University. Education. Major Professor: John E. Jordan, Associate Professor.
MARIGENE GOLLER, Ed.S.	B.S., National College of Education; M.S., Whittier College. Education. Major Professor: Ray G. Harper, Assistant Professor.
CHARLES EDWARD HALLAWELL, Ed.S.	B.A., M.A., Ball State University. Education. Major Professor: Peter G. Haines, Professor.
DAVID FREGEAU HANSON, Ed.S.	A.B., University of Michigan; M.A., Michigan State University. Education. Major Professor: Donald Leu, Professor.
Edward Richard Hintz, Ed.S.	B.S., Eastern Michigan University; M.A., Michigan State University. Education. Major Professor: Fred Vescolani, Professor.
Eleanor Wanty Mullikin, Ed.S.	B.S., M.A., Michigan State University. Education. Major Professor: Peter G. Haines, Professor.
ROGER DANIEL OBERG, Ed.S.	B.S., M.A., Michigan State University. Education. Major Professor: Fred Vescolani, Professor.
ELEANORE LUCILLE PEDERSON, Ed.S.	B.S., Central Michigan University; M.A., Michigan State University. Education. Major Professor: Herbert C. Rudman, Professor.
HARRY BENNETT RANDALL, Ed.S.	B.S., Kansas State Teachers College; M.S., University of Southern California. Education. Major Professor: Horace C. Hartsell, Professor.
LLOYD GEORGE SWIERENGA, Ed.S.	B.S., M.A., Western Michigan University. Education. Major Professor: John Suehr, Assistant Professor.
PARNELL LESLIE TARDY, Ed.S.	A.B., M.A., Western Michigan University. Education. Major Professor: Fred Vescolani, Professor.

COLLEGE OF AGRICULTURE AND NATURAL RESOURCES

THOMAS K. COWDEN, DEAN

Agricultural Economcis Kenneth Lee Johnson Ernesto Saturnino Liboreiro Frank Knox McCalla Michael Dean Pridgeon

Agricultural Extension Johnson Avbiniovurue Ekpere

Agricultural Mechanization Rafiq Ahmad

Animal Husbandry Roger Henry Wellenreiter

Biochemistry Patricia Ann Gawarecki James Ray Hunsley Irene Emily Kochevar Hernan Nunez-Arellano Suparb Pusobha

Cooperative Extension Education George Frederic Jennings Barbara A. Judy Donald James Walker

Crop Science Larry Keith Binning Tso-Cheng Chang Jerry Dennis Doll Oghenetsavbuko Todo Edje James Alan Fischer

Dairy Richard Stanley Austin

Fisheries and Wildlife Gary Howard Heinz

Food Science Duane Elmer Koch

Forest Products Paul D. Bobb Donald David Drone Pentti Tapani Hakkila Palle Jacobsen David Pegaz Richard Fred Witte

Forestry Gordon Hughston Lewis John Beatty Mathies

Horticulture Pantazis Alexandros Gerakis Jon Arthur Mead Daniel Clement Milbocker Hamed Ebrahim Mosokar Dusit Siripong Poultry Science Howard Edwin Wildey

Resource Development Anthony Francis Abar Nelson Ernest Ball Richard Egbert Cary Carl Bernard DeKay Harold Freier Kerry Robert Ludlow Joy Richard Phillip Kelley Edward Allison Kirkby John Raymond Suffron

Soil Science Lawrence Alton Rudgers Chwan Chau Wang Lo-Tung Wang Robert Michael Weaver Ming-Huei Wu

DEGREE RECOMMENDED JOINTLY WITH THE COLLEGE OF ENGINEERING

Agricultural Engineering Zawdu Felleke Arne Hilmersen Toshimichi Ikeda Moedjijarto Pratomo Robert Harry Shaw Stephen Arthur Weller Soleiman Zareian

DEGREE OF MASTER OF SCIENCE

37

COLLEGE OF AGRICULTURE AND NATURAL RESOURCES

Agricultural Biochemistry Geoffrey Ihesiaba Ahunanya

Agricultural Business George Arthur Zinkil, Jr.

Agricultural Communications James Jay Zolczer

Agricultural Economics *Thomas Sherwood Benson James Warren Cross *Thomas A. Hile Gerald Otis Jessup

Agricultural Mechanization Ibrahim Abubakar Danladi Dutsin-Ma Edwin William Haenni *David Alfred Payeur Larry Allen Piotter Raymond George Sweeney

Building Construction Ronald Russell Hansen Dennis Michael Rog

Crop Science Bitrus Davou Tujwe Datiri [•]Julius Alani Babatunde Oyedokun

Fisheries and Wildlife Bruce William Avery Jay Rufus Bellinger John Lapine Griffin, Jr. James Hopkins Raber Ronald Edward Sanders Thomas Darrell Yonkers John Joseph Zima, Jr. Food Science Ronald Samuel Quon

Forestry Ernest Edward Abel David Louis Feiger Wayne Harvey Gertz Norman Kasmauskis David Floyd Knight Richard Louis Larsen Lawrence Robert Lindner Harry Morton Newlon James Joseph Rau Noah Quinten Speer Lawrence James Thoney

Horticultural Management Gordon Allen DeVries Charles John Fiore

Mobile Homes Thomas Owen Mitchel

Packaging

Gerry Lee Ackley Donald Ralph Avolio Stanley Melvin Blumberg Raymond Anthony Bourgue J. Edward Bradley Robert Kenneth Burgess Dennis Michael Drummond Bernard Eugene Fedewa Robert Emil Ferguson Donald Albert Funk Paul D. Grebinar John Harland Hansen Robert Gilmore Harshaw Lewis Edison Hayes James Allen Healey Douglas Harry Hoxie Terrance William Kryger James Eugene Marterella

Ronald Gene McManus Douglas Edward Meyers Philip Anthony Napolitano Dennis Lee Radke Wilfred Eugene Riddell Martin Earl Roach William LeRoy Shroyer William Joseph Somerville Joseph Ernest Szalay Hal Coburn Wade, Jr.

Park Management Gary Lynn Gidley Philip K. McComb Robert Emil Pfister Gerard Albert Verstraete James Gordon Weston

Pomology and Vegetable Production

John Ernest Mackey, Jr. *Martin James Wiles, Jr.

Soil Science Emmanuel Ige Olomu

DEGREE RECOMMENDED JOINTLY WITH THE COLLEGE OF EDUCATION

Agricultural Education Robert Neal Curry Lynn Dale Gould James Edward Jelinek * Jerry Walter Kabat Roger Alan Post Leslie Howard Smith

Leslie Howard Smith Burton J. Stanley H**Alden James Wyma

> Park Management Frank James Bricker

H Honors College * With Honor * With High Honor

DEGREE OF

BACHELOR

OF SCIENCE

COLLEGE OF ENGINEERING

JOHN D. RYDER, DEAN

DEGREE OF MASTER

OF SCIENCE

DEGREE OF BACHELOR OF SCIENCE Chemical Engineering Devendra Mehta Kirit G. Patel

Civil Engineering Harasiddhiprasad Gajanan Bhatt Frederick T. Eyer Bahram Salagegheh

Chemical Engineering *Carl Kennedy Branson Jack Wright Blackmer, Jr. Howard Dale Duckman

Civil Engineering Henry John Brolick *Leroy Ray Dell

Electrical Engineering James Nelson Clark James Alan Rose Terril John Steichen Robert Tony Temmerman Ronald Janes Valade Chittur Krishnier Narendra H. C. Tien Mechanical Engineering Farouk Abbas Al-Janabi H°°Lawrence Leland Bauer Warren Charles Brown

Electrical Engineering

Hay Armen Boyadjian

Nadim Fawzl Haddad

Lloyd Duane Corliss

Glenn Edward Lang

John Gilman Miles

- Warren Charles Brown James Louis Celentino °Lawrence Earl Crosby Walter Daniel Dugopolski Turgud Alev Enustun Gary Lee Erber Mark Wayne Hunt H°Wayne Albert Luchenbill
 - John Thomas Merrill Alvaro Obligado George Harvey Ostrander Harold Arthur Slaughter David Franklin Spalding Melvin Arthur St. John, Jr. *Jack Ford Wheeler *Lester Alton Zischke

Mechanics Lynn Charles Lewis

Metallurgy James Carl Baker

Metallurgy

Gary Joseph Allen *Frederick Willis Crowley *Roy Carl Lueth

DEGREE RECOMMENDED JOINTLY WITH THE COLLEGE OF AGRICULTURE

Agricultural Engineering Leland Chace Fitzpatrick Clifford E. Stannebein

COLLEGE OF HOME ECONOMICS

JEANETTE A. LEE, DEAN

Child Development LaDessa Rogers Smelcer Education for Home and Family Living Shirley Jacquelyn Brackett Carol Ann Nizlek Elaine Diana Roccapriore Pauline Buss Schaffer Carole Anne Suydam Noël Snouffer Vertrees

Institutional Administration Wilma Butcher Porter Sister Mary Rosita

Schiller, R.S.M. Nelida Simons Home Management Neta Sue Melton

Related Arts Faye Lou Brasington Anita Marie Fratianne

Textiles and Clothing Gwendolyn Lucille Daley

Nutrition Rosemary Louise Blyth

Dietetics

General Home Economics

Julia K. Ramtu

Lynden Arlienne Webley

General Home Economics Harriett Elizabeth Hendrickson Daylene Weller Lumis *Sandra Lynn Smith

Interior Design Nancy Shaw Cramer Mary Catherine Haan Heather May Mueller Retailing of Textiles and Clothing Carole Lynn Berg Carol Ann Domke Karen Elaine Peterson

DEGREE RECOMMENDED JOINTLY WITH THE COLLEGE OF EDUCATION

Child Development and Teaching Eleanor Kay Birkland Mary Louise Boyland Barbara Ann Brisse Barbara Jewell Mowers Margaret Jane Peggs Home Economics Teaching *Barbara Elaine Baldwin Mary Diane Henkel Barbara Lee Brown Susan Scott Coman Deanna Jo Irelan Linda Grace Murphy Anita Marie Osborn Marifrances Rogers Marilyn Ruth Stempihar

H Honors College ⁹ With Honor ⁹ With High Honor

DEGREE OF

MASTER

OF ARTS

DEGREE OF

OF SCIENCE

DEGREE OF

BACHELOR

OF SCIENCE

MASTER

COLLEGE OF VETERINARY MEDICINE

WILLIS W. ARMISTEAD, DEAN

DEGREE OF MASTER

OF SCIENCE

Anatomy Richard Edward Bostrom Kenneth Robert Holmes

Microbiology and Public Health Daniel Joseph O'Reilly Pathology Bruce Robert Christie Dibakar Panigrahi Shirley Mae Selden Mahlon Wesley Vorhies Veterinary Surgery and Medicine Donald L. Buelke

DEGREE OF BACHELOR OF SCIENCE Medical Technology Louella Jane Nelson Ellen Newman

Veterinary Medicine Douglas James Brooks H°Thomas Clark Candee H°Susan Laureda Coulter James George Fordyce H°°William James Kelch Richard K. Loeffler Albert James Malouin Michael Thomas Powers *Susan Marjorie Rabaut Richard Paul Reid Henry Matthew Vaupel *Robert Douglas Whipple

COLLEGE OF BUSINESS

ALFRED L. SEELYE, DEAN

DEGREE OF

MASTER

OF ARTS

Economics E. Richard Bourdon, Jr. Tulio Alberto Ceconi Kenneth Ivan Hansen Edward Henry Heinze

Steven Verne Bayles Frederick George Bean

Jerome Anthony Bielawski

Thomas Chagai Lowinger Hugh William McNeil Jon Philip Messner

Ronald Gene Robertson Augustus James Rogers, III Kenneth Bishop Stanley

GRADUATE SCHOOL OF BUSINESS ADMINISTRATION

DEGREE OF

MASTER OF

BUSINESS

ADMINISTRATION

Robert Ray Carter Vasant Gordhandas Choksey Iain Thornton Christie Stewart Michael Cohen Jose Peiro Da Silva Carvalho Wayne Daniel De Armon Warren Harvey Dunnington **Etienne Jacques Dupuis** William Louis Etienne Donald George Feetham Kim F. Floyd Charles Eugene Garrison Russell Theodore Gingras Charles Harry Halvorson David Dean Harris William Franklin Hatcher, Jr. Tülün Zehra Haznedaroglu Keith Jon Hess

Arthur Ticknor Huey Ross William Keller Thomas Everett Korpi, Jr. Andrejs Kruglitis Frederick Robert Lampe Edward Alan Lazarus Donald John Leone Theodore Charles Linder Gary Richard Lytle Dattatray Nilkanth Manerikar Richard G. Marquardt Richard G. Marquardt Nelson Joseph McMahon, Jr. Harry Taylor Merrill Philip Granville Mitchell Ronaldo Fróes Monteiro George Herbert Moore, III John Scot Mueller Brian Minard Mumaw **Roberto** Pires Pacheco George Rowland Page

Ronald Virgil Marks

Saundra Lee Nied David Michael Petruska

David Michael Politika Daniel John Phillips **James Howard Piltz H**Russell Charles Pletcher

Joseph Thomas Pleva

Daniel Gerard Popma

Terry Lee Streeter

Donald Edward Rickenbaugh *Dan F. Scupin Kenneth Thomas Silver

Samuel Charles Supernaw

Francis Edward Martin Michael John Miller Clayton Susumu Nakama

Harold Leroy Patrick Anthony Thomas Piernick Charles Edward Reeves Asaph Reznik Michael Thomas Rossman Frank Lawrence Russ Frederick Cooley Seeley Bhrugu Mohanlal Shah David Val Spangler John Claude Speicher Richard Frederick Sundstrom Dennis Paul Swanson Carl Torben Thomsen Thomas Joseph Turcotte Harish Laxminarayan Verma William Lee Waanders Gregory Allan Wabeke G. Daniel Whittaker Yuzo Yagi Lawrence Jay Zimmerman

*Alvin Duane Swanson *Wesley Dale VanHouten Thomas George Webber H*Thomas C. Willson

Economics

*Robert Charles Brown Jon Thomas Cordray Kenneth Arthur Engle Stanley Robert Lanka Walter Joseph Murawsky Ronald Blissett Roland Douglas Leslie Tinsler Peter Arden White Douglas Turner Wolterding

DEGREE OF BACHELOR

OF ARTS

Accounting David Lee Basset William Charles Brown Robert Earl Burg Jeffrey Scott Butzbach Richard Lee Cypher Donald George Danner James Howard Dean Patrick Joseph Finerty Daniel William Foy, Jr. **Richard Dennis Guest** James Garratt Gunter Sidney Keith Koontz Jens Karel Kubicek Charles Melvin Lindgren Richard Edward Luxon

Executive Secretarial Administration *Trena Sue Ambroson Nancy Niemann Barrows Linda S. Lonning

Financial Administration [•]James Cason Featherston Robert John Gilmore Michael Kennedy Haskett Harley Neal Hill James Theodorre Mady James Manford Norwood William LaVere Townsend

Food Marketing Samuel Lee Alexander Carl A. Curchoe

General Business Administration Charles Raymond Alstrom Gary Louis Anderson Robert James Brook Patrick John Courter Patrick Demas Cromley Otwell John Derr Frederick Allen Devereux John Joseph Devine Thomas Michael Doil H[•] [•]David Joseph Dunn Gary Wayne Durow Patrick Joseph Elmquest Keith Edward Evans Thomas Edgar Franklin Todd Lionel Glascock Gary Roger Grenzke Gerald Lynn Hayes Thomas Patrick Herman Bruce Lesslie Hill Chris Clark Jording John Joseph Kemler *Jay Patrick Knapp Nickolas Krat Sharon H. Kuchik Mike Joe Lynd Bolton Morrison, Jr. James Lorne Patterson Thomas Paul Phipps Edward Francis Ryan Paul Raymond Sinelli Thomas Paul Sukenik Byron Charles Swerdfeger Terry D. Vander Veen *David John Van Peursem *Warren David Williams

General Marketing Robert Franklin Baratta Ronald Paul Birtwistle Jerry D. Campbell William Brodie Conklin **Richard Lawrence Cramer** Herbert Frank Ewert Jeffrey Loren Greene William Julius Heideman Edward Michael Kulesza John Wesley Leeth J. Scott McLinn David Jon Mitchell John Carl Molter John Lee Osbun David Joel Parker Terry Bernard Riley *William Roger Rohn Roger Lee Staton James Rockwell Stoppert Stuart James Travis James C. Westenbroek Michael Gustav Young Judith Ann Ziegler

Hotel, Motel and Club Management Arthur Stephan Averbook James Edward Bookstaff Robert Lee Hoadley Christopher Crombie Howard Frederick John Kleisner George Julian Lysak Douglas Paul Miner Frederic Huston Oram Gordon Lee Rockwell Rita Anne Wood

Hotel, Restaurant and Institutional Management Mark Charles Arnold Santiago Badia James Carl Bergren Thomas French Clink Charles White Cooper Terry P. Doyle *Raymon Keith Duenke William Gilbert Eppel Donald Edward Ganim Dan Hunter Mathews, Jr. Joseph Irvin Mulheim John David Rohs William Richard Ross James Melvyn Stackpoole Charles Daniel Tower George Vindigni Dennis Wayne Wagenschutz Richard Conwell Wiggers

Industrial Administration Roger Jay Bolhouse Russell Maveety Carpenter, Jr. Robert John Flemming Frank John Haluch, Jr. James Kenneth McGuire Jerry Emerson Pratt Richard Harold Rice *Lawrence Herman Roy Sias Michael James Swarthout

Institutional and Hospital Management Yale Murray Wolk

Personnel Administration Tom Dexter Chirgwin Gordon Karl Hassler David John Stafford

Restaurant Management John Robert Shaw, III

Risk and Insurance Edward T. Shallow

Transportation Administration Harry Joseph Ignatowski

DEGREE RECOMMENDED JOINTLY WITH THE COLLEGE OF EDUCATION

Business and Distributive Teacher Education Gerald Max Brown Sandra Marie Crockett Joyce Ann Fike Judith Allyn Keyser Karen Sue Manecke Sandra Lee Shellenbarger Ann Victoria Vilhauer

DEGREE OF BACHELOR OF ARTS

COLLEGE OF EDUCATION

JOHN E. IVEY, JR. DEAN

Education

DEGREE OF MASTER OF ARTS

Giasuddin Ahamed Yousef Mostafa Alkadi Joseph William Ames Alan Frederick Behnke Wilbur Bernard Belcher Daniel Bruce Berch Shirley May Bingham Diana Dale Boudeman Robert Lee Brandt, Jr. Ronald Alan Bricker Douglas Harold Brockhaus Theodore Lincoln Brooks, Jr. Harry James Brunet Marilee Carroll Bernadette Roberts Chapoton Patricia Ann Clifford Robert William Cole Donald Edward Lee Davis Daniel Hyle Dickinson Mary Ellen Dockrill Darrell D. Elders Gary William Engel Deborah Klopp Finger Alice Elizabeth Fitzgerald **Jane Dykstra Force** Kay Ann Gardner Wilson Yeshuant Garud Kathryn Jane Gielow

Douglas Arthur Hall Charles A. Howland Patricia Janicki Rodney Alvin Johnston Susan Beth Jones Sally Kathryn Miller Kemp Robert Roger Kurtz Marilyn Harding LaLone Paul Wellman Lampkin Chester Foy Lewis Barbara Ann Lossman Fumi Majima Thanom Markachan William Edwin Mellon Barbara Emmi Miles Frank John Mislivec Norman Keiji Mizuguchi Stephanie Joanne Moceri Daniel G. Munoz Billie Dee Judith Munro Nancy Irene Nakfoor Joseph Clayton Neiman Gerald Michael Nester Margaret Ellen Noone Melvin George Nunn Alison Jane Ölding Michael Barry Palmer Sandra Elaine Peacock

Margaret C. Peters Jeffrey Robert Pettinga David Joseph Porrell John William Post, Jr. Ellen Marie Quarles Paul David Robinson Eugene A. Rolf H. Charles Roost Diana Rowland Thomas Charles Sackrider Ruth Esther Sallberg Mary Green Sampson Bettyjean Shea Surat Silpa-Anan Clare Milo Slotman Yvonne Elaine Smith Gary Morris Sommer Joanna Warner Stark Marion Rexer Stiles Clyde J. Stretch Steve Donald Szabo Terry Dean TenBrink Joyce Arlene Vance Charles John Vander Kolk Gertrude Jane Van Der Slik Gloria Lucille Watt James Leon Wieber Rosa Lee Winchester Hubert Constantinus Wouters

DEGREE OF BACHELOR OF ARTS

Elementary Education *Sandra Kay Adams Joan Price Angevine Paula D. Serdynsky Barnum Sandra Lee Benson Sandra Lee Beyer Joy Bittner Linda Kay Blair Lorraine Katherine Bokor Beth Eileen Brewbaker Sharon Carlisle Brolick Elizabeth Jane Brooke Linda Kay Scott Brown Julie Christine Buehler Judith Anne Carr H**Carol Jean Chappell Dona Lyn Christensen

Barbara Baldwin Clark Susan Lvnn Clark Monta Rae Comden Gaila Rose Cook *Yvonne Jill Darlington Susan Elizabeth Degolia Helen Marie Derengoski Mary Ann Donahue Marcella Leone Downes Timothy Perry Dye Geraldine Wolpman Fogarty Virginia Mary Fox Dawn Marie Frantz Janice Kay Furest Barbara Greene *Marsha Van Dyke Haller Susanne Margaret Hansen

Patricia Ellen Harrington Marsha Stapp Harwood Kathleen Mary Herman Jane Kristen Herrick Mary Ann Igrisan *Muriel Edna Innes Ann J. Jablin Susan Carol Jinks Ellen Terry Johns Gunnard Nixon Johnson Roberta Marie Johnson *Sarah Elizabeth Jones Susan Keating Kenerson Kathleen Dennise Kietzer Kathleen Carol Klaiber Barbara Anne Klont Constance Kay Kreuger

COLLEGE OF EDUCATION

DEGREE OF BACHELOR OF ARTS

Kave S. Leisher Dana Anne Lillie Margaret Mary Linder Suzanne Elizabeth Linker Sandra Malcom Marcee Merrill Martin Pamela Ann McCloud Joanne McLain Donelda Sue Miller Dorothy Minnich Sandra Lynn Moll Mary Susan W. Monson Nancy Ann Morse *Betty Lou Nash Sandra Joan Nemode Paula Jean Nugent Jan Elizabeth Oakley Cathryn Lynette Olson Jacquelyn Lee Ott Marlene Wendy Panter

MaryAnn Landry

Susan Jane Lawler

Barbara Ann Parker Susan Margaret Pasternak **Muriel Maxine Perkins** Nancy Lucille Petersen Melanie Ann Phillips Bernadette Apollonia Pilukas Cynthia Mary Pontti Sigrid Ann Pylkas Kathryn Mary Redick E. Lynn Richelson Jeanine Kay Richter Sheryl Lynne Romence Jeanette Hern Rowe Betsy Boal Schmink Betty Lou Schoneker Virginia Rogers Scott Denise Mary Seay Barbara Ann Silverman Patricia Ann Sisco Sherrie Dudley Smith Richard Paul Śniegowski Kaedonna Louise Spear

Barbara Catherine Maxson Dave Michael McCormick Leland Harry McGonigal Thomas Neil Miles Laurence Steven Mirvis Emil Clarke Niederer David Lynn Percival Marybeth Piatt William Martin Rea Carl L. Salling, Jr. Linda Kay Steele Susan Kaye Stewart Lynn Ellen Sylvester Lynn Marie Tabor Carolyn Marie Thompson *Dianne Louise Tomkins Royleen Toor Patricia Forbes Tuttle Paula Elaine Valovich Michael Ion Van Arsdale *Anne Wunsch Wakenhut

H^{••}JoAnne Kay Walton Gail Faye Warner Caryl Edith Webber Margaret Anne Wells Karen Mary Wickstrom Howard Delano Wilson Mary Elizabeth Winkler Ruby G. Wofford Bethany Joyce Woodbury David Victor Zakem Elaine Mary Zucchet

> Patricia Alice Sibson *Jane Cheyney Sinnamon Clare McNaughton Spille William Triola, Jr. Judy Ellen Winchell

Industrial Arts Simon John Reiner Jeroldyne Rogers Monte C. Shettler

DEGREE OF BACHELOR OF SCIENCE Health, Physical Education and Recreation Carmen Vanetta Agnew Frank Eugene Altimore Anthony John Angel Thomas L. Bodell Sandra Kay Brake John Robert Chown Brian Melvin Evenson Ronald Walter Hohman

COLLEGE OF COMMUNICATION ARTS

FRED SIEBERT, DEAN

DEGREE OF

MASTER

OF ARTS

DEGREE OF

BACHELOR

OF ARTS

Advertising Larry Lee Pontius Wayne Warren Stevens James Winfred Thomas

Communication Joseph Raymond Ascroft Gerald Winn Card Cedric Coles Clark Cesar Alfonso Portocarrero Rubio Eduardo Ramos Eissy Bonilla de Ramos

Advertising Gary Lee Bradbury John William Beckman Donald Thomas Busch Christine Louise Hawkins William Thomas Helderman Michael Lee Kemerling Victor Simon Kishigo Edward John Petricko Robert Dennis Richter William Lee Rockey Robert John Schanilec Mark Harold Sherman Paula Kay Steyer Stewart Dennis Watson Eric Gregory Ziegler

Communication Harold James Blanchet, Jr. Susan Hurd Dutmers Ronald Lindsay Seward Journalism Don Raymond Pember

Speech

Richard Keith Allen Barbara Lee Amundson Barbara Jean Buck Harlow Munson Claggett Richard Andrew Duncan Charles T. Grimes Charles Ray Hannum Clara H. Lang Mary Carol Llewellyn

Journalism Janet Kay Milano Donald Ira Sockol

Speech Donald Haydn Daniels Sherry Louise Frisinger *Linda Jean Millerd

Television and Radio Robert H. Bradsell Harold Dean Bredwell, II Joe Daryl Buys William Allen Clement James Scott Foster Jerome Queltin Francisco °Sydney Harvey Harriet Cynthia Lou Hewitt Gerald Edward Holmes Ashley Saunders Lipson Kenneth Bernard Miller Roger Alan Long Howard George Longcore Nancy Reid Marutz Margaret Louise Miller Suzanne Beekman Mills Roy Vance Paul William Boleslaus Sakalauskas Robin Noel Widgery

Television and Radio Robert Hunt Baker Arthur Allan Bartfay Wayne LaVerne Corey, Jr. David Gene Schmeling

Stuart Webster Pollock, II Randall Dean Schroeder Anthony David Shor *Timothy Coulon Skubick Herbert Ralph Smith *Shelby Kay Smith

DEGREE RECOMMENDED JOINTLY WITH THE COLLEGE OF EDUCATION

Speech

Anne Evelyn Armour Francis Adalberto Bernier Linda Marie Casteel Holly Sue Hanert *Molly Anne Harrington

Joanne Elizabeth Knox Karen Louise Munson Barbara Sue Wepman

H Honors College ^o With Honor ^o With High Honor

COLLEGE OF ARTS AND LETTERS

PAUL A. VARG, DEAN

DEGREE OF MASTER

OF ARTS

Art Arlene Carole Baldwin Gary J. Brady Patricia Ann Carr Richard David Cross John Robert Fletcher David Robert Hessler Carol Jean Joslin James Valentine Wisnewski

Comparative Literature Jennifer Ann Lee

English Della Ann Burt Richard James Dalzell Katherine Sheila Dannemann John Bruce Holmes Kathleen Louise O'Dowd Henry John Prince Bruce Philip Tracy Katherine Graves Vande Brake

French Francis Charles Allera Tipphya Ekabhot Sandra Jean Hayward Rodney John Mulder

German E. Morgan Kelley, Jr. Karl Heinz Regenbogen

History Charles William Bethea Sally Lou Gregory James Patrick McGough Dugald McMillan Fred MacKinnon Molner Harvey G. Neufeldt Patty Lou Puckett Maureen Elizabeth Raidy Charles Holcomb Twork William Jerome Uiting Steven Boyer Zamiara

Philosophy Sidney W. Chapman

Spanish

Salvino Lostuzzi Teresa Elisa Olivares-Villegas Sandra Elfenbein Stanfield

History Judith Ann Depoalo

MASTER OF ARTS

DEGREE OF

FOR TEACHERS

DEGREE OF

Art Neil J. Bittner

MASTER OF FINE ARTS

DEGREE OF

Applied Music Sharonlee Anderson Music Education Robert Harry Curnow Thomas John Trent

OF MUSIC

MASTER

COLLEGE OF ARTS AND LETTERS

Art Practice

Gary William Abbott Mildene D. Bradley Susan Jane Byers Melissa Jean Jopke Mary Elizabeth Kinney Wayne Charles Kusnery Mary Louise Popma David Noel Steadman John Richard Wagner

English

John H. Braccio Lori K. Emmons Diana Carol Finer Anne Sherrett Gardner Susan G. Hopkins Louise Marie Keenan David Jerome Maslowski *Sandra Dianne Sandell Susan Elizabeth Surface Suzanne Schwartz Widgery

DEGREE OF

BACHELOR

OF ARTS

DEGREE OF

FINE ARTS

DEGREE OF

BACHELOR

OF MUSIC

BACHELOR OF

H**Marian Elizabeth Moynes

French

*John Thomas Ryan

German Hermann Weiss

History

John Michael Anderson John Murray Dennany William Ferguson, Jr. *Trafton Lee Foster David Daniel Haskell Maxie C. Jackson, Jr. Carol Ann Kingsley Dianne Adele McWilliams H*Helen Dunham Playdon *Charles Denton Presler, III Walter Lowell Reling, Jr. **Joseph Karl Vanderveen Michael Frederick Wurst

Humanities Ann Boylan *Eileen Smith Burg

Art Practice Michael Larry Davis Robert Allan Ernest V. Glen Washburn

Music Therapy Dorothy Elizabeth Layman Cheryl Ann Weiss

H Honors College * With Honor ** With High Honor Jonathan Paul Callender Ronald Frederick Hurst Rosemary Jantz Charles Rodger Morscheck, Jr. Richard Bradley Pointon Richard Everett Van Steenburg Thomas Joseph Weis * Joan V. Wienbrauck

Humanities Joseph Gerald O'Reilly

Philosophy John Marvin Dorst, Jr.

Russian Valentina Chorenko

Spanish David Earl Jones José A. Madrigal Nancy Lee Turner

DEGREE RECOMMENDED JOINTLY WITH THE COLLEGE OF EDUCATION

Art Practice Donald Frank Anderson Jeffrey Lawrence Coy Jill Eloise Daniels Jeraldine Hellman Janice Gayle Kalkman Virginia Ann Matheny Priscilla Anne Merrick Judith Dalton Rossman Sally Ann Sewruk Eldridge Suggs, III Phyllis Ann Wight Marilyn Kay Wright

English

Miriam Rumney Amerson Sylvia Konczol Boeder Marcia Eileen Fast Sandra Jean Fitz

DEGREE RECOMMENDED JOINTLY WITH THE COLLEGE OF EDUCATION

Art Practice *Larry Alan Cross

DEGREE RECOMMENDED JOINTLY WITH THE COLLEGE OF EDUCATION

School Music H**Hubert Eugene Arnold Thomas Henry Hagen H^{*}^sSusan Reese Fournier ^{*}Janice Louise Goines Lynn Dale Katz ^{*}Virginia Maureen Keleher H^{*}^{*}Kathryn Bernice Kleimola Mary Lou McAlister ^{*}^SSusan Elizabeth Roney Candace Elizabeth Winstanley

> French Zita Petravicius

German Eleanor Pauline Blascak *Pirkko Liisa Bremer

- History John Edward Carr Leigh Cherly Christie John Leo Clarey George Thomas Cole, III
- * Jeanna Ann Cooper Karen Kay Cornelius James Edwin Ehle Mary Lou Embury Samuel Preston Gaines Kathryn Anne Hagerman Timothy Ottley Hill
- Timothy Ottley Hill *Donald James Humphrey John Edward Joldersma Donna Lee Kunstman
- *James Robert Lancaster *Mary Christina Scott Stephen James Strong Thomas George Tuschak William Ronald Wess

Latin

Joseph Albert Zrimec

Spanish

- *Louis Jacob Paxton Karen Sue Steadman
- * *Linda Lee Taylor *Janet Smith Westbrook Barbara Christine Watwood Zacklan

*Kyra Dianne Curtis Patricia Anne Harcke Jean Carol McClelland

^{*}Judy Mae Harrington Paul Joseph Lipa Diane Grace Novakowski Joseph Vincent Palazzola Bobbie Lou Simmons
*Jean Elvera Wilson

COLLEGE OF NATURAL SCIENCE

RICHARD U. BYERRUM, DEAN

DEGREE OF

Mathematics Yong Mok Lee John Henry Mathews

Biological Science -

Robert Edward Bullerdick

Interdepartmental

OF ARTS

MASTER

DEGREE OF

MASTER

OF ARTS FOR

TEACHERS

Biological Science — Interdepartmental William Gilbert Anderson Daniel Patrick Vaughan

Biophysics Harold Cecil Harder Philip Steven Ulinski

Botany

George Harvey Burgoyne Richard Clinton Harris Julie Hitt Ronald William Hoham William Ronald Landis Lawrence Willard Nelson

Chemistry

James Albert Anderson Delos Russell Byrne Donald William Frey Glen Richard Hoff Tsuyoshi Kakihana Charles Wallace Litwinski Charles Edgar McCoy, Jr. Roger Kenneth Murray, Jr. Monica Hiralal Narang George Peter Nilles James Duane Slee

Entomology Micah Ikechuku Ezueh Ruediger Carl Hillmann Darkie Argeneel Sele Johnnee

General Science

Ion Leon Davison

Karen Y. A. Kim

Jeffrey James Jackson Bibhuti Ni Singh James Peter Tjepkema James George Truchan Douglas Allen Valek

Geology Ellis Neil Benedict Jonathan Bork William Roger Miller Balkumar P. Shah Michael Martin Spurgat William Thomas Stelzer Merlin Leroy Wheeler

Mathematics James Martin Brandl John Kenneth Cooper, Jr. Nassar Dastrange Gordon F. Dirksen John Scott Downing Richard Lanham Fremon Rahim Ghannadi Karimpour Steven Joel Leon Marian Lynn Moorhead Cary Bruce Salsberg Beverly Pearl Whatley Larry Joseph Zettel

Microbiology John William Dyke, Jr. Michael Gregory Gabridge Aline L. Garretson James Xavier Hartmann John Wilbur Moorhead Physics Dale Lee Breckenridge Willard Marion Gersbacher, Jr. Richard Hohly David John Perry Michael Stephen Sher David Allan Sumberg Gary Lee Wismer

Physiology Fritz Louis Lorscheider

Radiological Health Welton Bingham Hunter, Jr.

Statistics Mustafa Benyaklef Aritomo Matsuda

Zoology

Richard Greig Burbidge Carola Marietta Cattani Sharon Louise Ott Cummings Don Alan Hay Dennis Michael McCarthy Sigurd Oscar Nelson, Jr. Brenda Jane Ostrander Anita Veleria Patterson Peter Hamilton Rich Nicholas Charles Shuraleff, II

49

DEGREE OF MASTER OF SCIENCE

COLLEGE OF NATURAL SCIENCE

DEGREE OF

BACHELOR

OF ARTS

Chemistru *John Orson Young

Mathematics Robert Joseph LaLonde *Kellie Lynn Willson

Biochemistry Lawrence William Masten

* Joseph Martin Malik

Geology Jon O. Nowlin David E. Swanson *Peter Joseph Zirnhelt

DEGREE OF

BACHELOR

OF SCIENCE

Chemistry

Kenneth Freeman Johnson **Robert Frederick Meissner**

Mathematics H*Jonnie Douglas Adams H**Michael Owen Albertson *Diane Davidson Daniels Jerry Michael Garwood Elliot Michael Gold Anders George Johanson Thomas Chester Johnson Paul R. Kalbach H*

- *Philip George Kraushar, Jr. David M. MacDonald H*John Richard Myers
- James Steele Shepperd *Joan Katherine Stepenske

Microbiology George Franklin Donnella

Raymond Lee Osborn Ernest Fred Shank, Jr. DEGREE RECOMMENDED JOINTLY WITH THE COLLEGE OF EDUCATION

Mathematics M. Jo Dingeman

Nursing Lois Howe Burghdoff Marsha Meredith Reichardt

Physical Science -Interdepartmental James Lewis Little Sherman Christopher Neal Ronald Roy Whipple

Physics Robert Edward Karas H**James F. Lang

> Physiology Joseph Thomas Baker

Zoology Elizabeth Buvens Adkins William Howald Adkins, Jr. John Lowell Bradley David Allen Brooks George Alfred Davies, Jr. Joan Audrey Figueroa William Jacob Gruhn William Frank Heckert Gary Neal Kieffer Harry Harold Lucyshyn William Samuel Moore John William Morlock Richard Allen Powers Barry R. Tietler

Ione Plattner Oman H*Marilyn Ruth Rouen Randy Lynn Sims **Bonnie Suzanne Steffes**

> DEGREE RECOMMENDED JOINTLY WITH THE COLLEGE OF EDUCATION

Biological Science -Interdepartmental

*Karen Ann Jacobson Patricia Kehaulani Kaneshiro *Carol Jean Kato John Wayne Powell Karl John Sjolander *Philip Ardon Snyder

Chemistry Clare Edward Moritz

Mathematics H*Betty Ann Blake Richard Joe Drake Eugene George Horvath Gary Lee Nearpass Lawrence Irvin Presler *Shirley Marie Sheehan Myron Howard Vaughen Jeffrey Allen Wagnitz

Physical Science — Interdepartmental Elaine Anne Kroupa David William McNeilly David Clay Shoemaker

Zoology **Sara Elizabeth James

COLLEGE OF SOCIAL SCIENCE

LOUIS L. MCQUITTY, DEAN

Anthropology Winfred J. Smith

Geography Gerald Elmer Behn Donald Leonard Capone Katherine Louise Fuests Barbara Jean Hurst David Melvin Jones Jerry Lee Olson

Political Science Robert William Becker Jean Karen Ellickson Judith Brengle Finn Kenneth Roger Greene James Patrick Hanley, Jr. Kenneth W. MacGregor Samuel H. J. Ramtu Pamela Anne Syfert

Thomas Allen Fox, Jr.

Robert Arlan Sinnott

Philip Kenneth Kienast Nikolas Michael Kostopoulos Henry Richmond Askew Ross Edward Carter Elizabeth Janet Force Barry David Graff Diane Elizabeth Johnson Reid Petree Joyce Jo Anne Huddleston Lifshin Marcia Zoe Lippman Donna Jean Palonen Howard Kirk Porter Christie Cosby Randolph Thomas Sawyer Rowland Edwin W. Rubel Larry William Thornton Robert Hammond Tinker Ray Wyatt Winters

Psychology

Social Science Alfred William Foust George Gerhard Janzen Jolene Cassens Lynam Phillip Irving Simrod

Sociology

Howard Edward Borck George E. Fukushima Jaber Fandy Gubrium Harvey Ronald Hohauser Arnold Gray Holden Girard Edward Krebs Margaret Ann Krengel Yogendra Nath Ojha Carlin Elizabeth Paige Sal P. Restivo Fglipe Rodgriguez-Cano LeRoy Walter Ross Bishnu Pratap Shah Tattwa Krishna Shrestha Christopher Kenneth Vanderpool

DEGREE OF MASTER OF LABOR AND INDUSTRIAL RELATIONS

DEGREE OF

MASTER

OF ARTS

DEGREE OF MASTER IN LANDSCAPE ARCHITECTURE

D. Rodney Tapp

DEGREE OF MASTER OF PUBLIC ADMINISTRATION

Patrick Michael Brennan

51

COLLEGE OF SOCIAL SCIENCE

DEGREE OF

MASTER

OF SCIENCE

DEGREE OF MASTER IN URBAN PLANNING

DEGREE OF

BACHELOR

OF ARTS

Geography Wm. L. Warber

E. Owen Donnelly Warren Kahle John Thomas Smith John Owen Tompkins

Anthropology Linnea Mary O'Neil *Alice Virginia Reid

Geography James Cochran Clark

Political Science Thomas John Barnes Norris Clark Bryson *Fred Henry Carmichael William James Class, Jr. Dennis William Cleary David Paul Conlin Michael Neil Connolly Richard W. Foster John Raymond Hilbert Sandra L. Holtz Elaine M. Johnson Carry Jay Lenick Judy Pinkston McCarthy Francis Griffiths Miller Byron Douglas Peterson *Ronald Walter Piasecki Max LeRoy Pierce Louis Alton Richardson, Jr. Allan Kreis Strunk Carl N. Tanigawa

Psychology Hal Martin Brown Thomas Lester Clark Ruth Evelyn Cronkite William Joseph Eaton Robert St. John Flanders H*Dennis Roy Harbert James Howard Hile *Eileen Carolyn Howell Fredrick Leonard Lapinski Janice Cooper Marquis Robert Lee Mills Margaret Ann MacPhail Norris *Terry Earl Norris Robert Walter Perkins. Jr. Paul Vincent Placeway Narda Joann Riese Keith Dean Roberts *Nancy Twomey *Paul Weisbord

Police Administration

James Michael Botting Barton Reed Friese

John E. Angell

Russell I. Arend

Michael Herbert West

Social Science Thomas James Aylward, IV Ronald Bracy Burke Thomas Marvin Clemons Carol Ann Cohagen Robert William Corl, Ir. Richard Douglas Deason Robert David Flack **Robert Leslie Harrison** Claude Charles Hull Judith Kreps Humphreys Kent William Knudtson Judith Ellen Lawrence Cvnthia Lee Leitman John Bailey MacDonald Michael Dwight Marrs Mario Stephen Oddo Paul Sarel Schrier Jack Lee Shook Hilary Ann Silver Geoffrey Don Simmon Edward Norman Slade Laurence Roy Smykowski Janet Marie Sunderlin Michael James Whyte

Social Work Karen Elizabeth Adams Katherine Anne Blatt Jean Steketee Breay Dianne Dannielle Bruni William Stephen Hunt John Harold Mills Walter D. Weiss Show Shan Yang

Kayellen Button Lawrence Franklin Davenport Nancy Lee Green Nancy Beverly Linn Helenann Sheardy Kent Charles Stoddard Janice Rosemary Tatti Timothy Joseph Uhlmann Diane Mary VanHaverbeck

Sociology Leah Marian Brody Richard Biddle Harper Fay Ann Johnson

DEGREE RECOMMENDED JOINTLY WITH THE COLLEGE OF EDUCATION

Geography Rosetta Mae Jones Michael David Soule

Social Science Ronald Joe Brooks Elizabeth Hair *Thomas Eugene Howie Karen Favorlene Jaco Robert C. Jones Richard Donald Kilbourn Janet Sue Lockwood Timothy Patrick Mask Kathleen Ellen Parkhurst Marshall A. Pearson Joseph Robert Puleo John Duncan Sova Cynthia Lowe Stephens *Karen Angela Taber H**Kathleen Ann Thome Bruce Wayne Weaver Elizabeth Ann White

COLLEGE OF SOCIAL SCIENCE

Geography Jan Herman Raad

Landscape Architecture William Thomas Burns George Richard Hosek

Police Administration *Thomas R. Anderson Wayne Thomas Bates Brian J. Bouts Charles James Brophy, Jr. Gretchen Ann Close Thomas Gifford Corneil *Thomas Kirkland Devitt Charles Arthur Ferguson Robert Allen Freeborn John David Gates John Hoadley Gibson, Jr. William Keith Hanson James Albert Hintz Anthony Hunter Hopfinger James Henry Kaufmann Jon Alan Keckler Robert J. Kolevar Raymond Henry Kraft Donald Van Kurcz Carole Marie Mason Terry Lee McElheny Alvin T. Peterson *Robert Dee Pursley *Dennis Rodney Reefer Franklin Derek Roberson H**Jimmie Allen Rodgers Larry Lynn Smith Norman George Stoner Larry Francis Taylor Ronald Delbert Tipton *Alfred Walter Zumpf

Psychology H^{*}Ceorge Franklin Bishop Peter Richard Chisena, Jr. Kenneth Arthur Gordon Richard Alan Gregory Verne D. Hulce Burnett Stephens Kelly Thomas Eldon Kent Soo Sam Lee ^{*}Bill Bailey Peters Robert Ivan Sachs Thomas Gordon Shier Michael Dean Vahue Social Science David Lyle Dalenberg John Godfrey Gronberg "Michael Scott Jolly Lee David Klopfenstein Leslie Lee Lobaugh "Karen Frances Schaefer David Glenn Walton Thomas Gary Weston

Sociology Arthur Frederick Langeneckert

Urban Planning Louis Orosz Ronald Carl Otzman Richard Traill

DEGREE RECOMMENDED JOINTLY WITH THE COLLEGE OF EDUCATION

Social Science Mary Anna Mann H*Kay Marie Petersen

DEGREE OF BACHELOR

OF SCIENCE

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

MILITARY

SCIENCE

Robert E. Burg Jeffrey L. Coy George A. Davies, Jr. Dennis M. Drummond Sherman C. Neal Jack F. Wheeler

Artillery *Michael S. Jolly

Corps of Engineers John L. Griffin Harry M. Newlon

Infantry Stephen D. Franklin *Alden J. Wyma

Medical Service Corps Yale M. Wolk Ordnance Corps Dennis L. Haney Alvin T. Peterson Kenneth R. Smith *James G. Weston

Quartermaster Corps Carl K. Branson William C. Brown Carl A. Curchoe David M. Petruska John R. Shaw James J. Zolczer

Signal Corps Gerry L. Ackley Thomas E. Franklin James H. Hile Thomas C. Johnson Charles D. Presler *Terril J. Steichen

Transportation Corps Lawrence R. Lindner *Burton J. Stanley