TUESDAY, DECEMBER SIXTH

NINETEEN HUNDRED AND SIXTY

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# The Fall Commencement of Michigan State University

UNIVERSITY AUDITORIUM

EAST LANSING

The Fall Commencement of Michigan State University

# ACADEMIC COSTUME

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

In 1894, 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, rounded 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 wording of the degree determines the color of the velvet of the hood. For example, a Master of Science in Engineering would be signified by golden yellow (science) instead of the orange of engineering. A Bachelor of Engineering would wear the orange of engineering.

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	AGRICU	JLTURE							•		. <i>N</i>	laize
Forestry .											. R	usset
COLLEGE OF 1	BUSINE	SS AND	PUBL	IC SE	ERV	ICE					. Ma	iroon
COLLEGE OF	COMMU	UNICAT	ION A	ARTS							Royal	Blue
COLLEGE OF	EDUCA	TION									Light	Blue
COLLEGE OF	ENGINE	ERING							•		. Or	ange
COLLEGE OF	HOME	ECONO	MICS								1	3lack
COLLEGE OF	10 C C C C C C C C C C C C C C C C C C C											
Arts							•				. V	Vhite
Music .												Pink
Science .										Gol	den Ye	ellow
COLLEGE OF	VETERI	NARY N	AEDIC	CINE								Gray

# ORDER OF CEREMONIES

#### PROCESSIONAL

HAIL, AMERICA!......George Drumm MICHIGAN STATE UNIVERSITY BAND-PROFESSOR LEONARD FALCONE, Director

AMERICA

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

# INVOCATION

THE REVEREND WALLACE ROBERTSON Pastor, The Peoples Church, East Lansing, Michigan

## ADDRESS

"Excellence Is a Personal Quality" ARTHUR LEWIS KNOBLAUCH, Ed.D. President, Western Illinois University

## CONFERRING OF DEGREES

JOHN ALFRED HANNAH, D. Agr., LL.D., L.H.D., D.Sc. President, Michigan State University

# 

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. ROBERTSON

#### RECESSIONAL

MARCHE NOBLE.....Charles Bach

The escorts for the procession are members of Mortar Board, an 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

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Michigan State University operates under the jurisdiction of a constitutional body known as the Board of Trustees. The six elected members serve six-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 State Superintendent of Public Instruction is an ex officio member of the Board.

THE HONORABLE CONNOR D. SMITH, Chairman	inconning
THE HONORABLE C. ALLEN HARLAN	Detroit
The Honorable Warren M. Huff	Plymouth
The Honorable Frank Merriman	eckerville
THE HONORABLE DON STEVENS	Okemos
THE HONORABLE JAN B. VANDERPLOEG North 1	Muskegon

THE HONORABLE LYNN M. BARTLETT, Ex Officio Lansing	
JOHN A. HANNAH, Ex Officio, President East Lansing	
JAMES W. MILLER, Secretary	
PHILIP J. MAY, Treasurer	

# MICHIGAN STATE UNIVERSITY

As one of the leading land-grant universities and the first agricultural college in the nation, Michigan State University provides a technical, practical and cultural education for its student body, in addition to extensive research and extension services to the people of Michigan

Now in its 106th year, Michigan State University has grown from three buildings and six faculty members to one of the ten largest universities in the nation. It has approximately 2,000 staff members engaged in teaching, research and public service, 325 permanent and 136 temporary buildings, and 4,250 acres of land, including 900 acres in the campus area proper.

Founded in 1855 to educate youth for the major occupation of that day-farming-Michigan State University has broadened its offerings as young people, preparing for other vocations, have sought the advantages of university training. Today, Michigan State University has eight colleges-Agriculture, Business and Public Service, Communication Arts, Education, Engineering, Home Economics, Science and Arts, Veterinary Medicineand the School for Advanced Graduate Studies, and offers approximately 150 different courses of study at the undergraduate and graduate level. This excludes the curriculum of the University College, which has been recognized as one of the most progressive ideas for higher education in the nation today, and the Honors College established in 1957 as a unique program designed for the superior student. All students finishing their freshman year with a "B plus" average, or attaining this average in their sophomore year, have the option of entering the Honors College. Once a student is designated an Honors College scholar, all requirements for his graduation from Michigan State (other than total number of hours) are waived. He is assigned a special adviser in his field of major interest and together they work out a program appropriate for the individual.

Michigan State University continually strives to expand its service to the people of the state through the Agricultural Experiment Station, the Cooperative Extension Service and the Continuing Education Service. The Agricultural Experiment Station conducts research on campus and at five off-campus substations. Through the Michigan Cooperative Extension Service, more than 333,000 families are reached with technical information on agriculture, homemaking and the 4-H Club program. The field staff, located in every county, extends M.S.U.'s campus into every township in Michigan. During the 1959-60 year, the Continuing Education Service reached more than 100,000 persons in programs conducted both on campus and in local communities.

Today, more than 20,000 students from Michigan and other states and from nations all over the world are attending the University at East Lansing—about 11,000 of whom are housed on the campus proper. With about 85 percent of these students coming from communities in every section of the state, Michgian State University is doing its part to fill the greatly increased demand of the younger generation for higher education.

In the agricultural, business and professional fields, Michigan State University has proved its worth to the people of the State of Michigan, paying dividends many times the appropriation for its maintenance each year by the state and national governments. Noted for its democratic and friendly spirit, the student body harmonizes with the University faculty to make Michigan State University a first-class educational institution.

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# COLLEGE OF AGRICULTURE

The candidates will be presented by DEAN THOMAS K. COWDEN

# DEGREE OF BACHELOR OF SCIENCE

- Brian Leroy Bennett Forestry	-Warren Ray Nellis Residential Building
Carl Leroy Bennett, Jr. Fisheries and Wildlife	Steve Randolph Plevel Forestry
Douglas Fredrick BoyntonAnimal HusbandryEdward Michael BusztaPark Management	James Cameron Ramsay Pomology and Vegetable Production
- Emery Gibbs Cushing Packaging Technology	~ Granville Ivan Rhodus Forestry
Richard Dean Erickson Agricultural Mechanics	James LeRoy Richardson Animal Husbandry
James Steven Fralish Forestry - Lloyd William Gauld Fisheries and Wildlife	<ul> <li>William Richard Robb Pomology and Vegetable Production</li> </ul>
- George Christian Gilbert Animal Husbandry	- Leroy John Ruotanen Fisheries and Wildlife
- Martin Francis Hartmann Dairy Manufacturing	- Jerry Lee Russ Packaging
Kenneth Francis Kasmarek Fisheries and Wildlife	Michael John Shine Agricultural Economics
- Bruce Robert Knisel Agricultural Economics	Gary Frank Siegmeier Floriculture
• Edward Arthur Koza Lumber and Building Materials Merchandising	<ul> <li>Jay Leonard Smith Residential Building</li> <li>Jack Arwin Sneller Packaging</li> </ul>
- Ludwig H. Lange Forestry	- Edward John Szymanski Packaging
- Kenneth Jack Linton Fisheries and Wildlife	Harold Louis Thibodeau Floriculture
- Jack Merwin Manning Residential Building	
- Francis Thomas McIntyre Agricultural Economics	• William Rex Ufer Farm Crops
- *Willard Lee McLeod Animal Husbandry	John Michael Voss Agricultural Mechanics
Michael David Moore Forestry	Douglas Conn Weir Residential Building
- Patrick John Muldoon Dairy Manufacturing	• Walter James Westcott Mobile Homes

# COLLEGE OF AGRICULTURE

 DEGREES RECOMMENDED JOINTLY WITH THE COLLEGE OF EDUCATION BACHELOR OF SCIENCE

Carroll Lawrence Hart	Agricultural Education	John J. Niederer	Agricultural Education
Alfred W. Harwood	Agricultural Education	-Orville N. Kabat	Agricultural Education
*Llewellyn Henry Lehmar	Agriculture Education	Theodore Anthony Sprar	ngel Agricultural Education
Bertie A. McNeilly	Agricultural Education		Agricultural Education

# DEGREE OF MASTER OF SCIENCE

Lee Don Adami	Dairy	Gad Hetsroni	Agricultural Engineering
Fred Wilk Bakker-Ark	ema Agricultural Engineering	- Archibald Roosevelt Jo	ohnson Resource Development
~ Robert Lester Bradley,	Jr. Dairy	James William Merna	Fisheries and Wildlife
Robert Edward Brown	Fisheries and Wildlife	►Weldon James Montgo	mery Forestry
- Wilfrid Keith Bryant	Agricultural Economics	Robert Gary Moss	Forestry
– Allen Frederick Butchb	oaker Agricultural Engineering	Antonio M. Pinchinat	Farm Crops
- Cheng-lung Chen	Agricultural Engineering	Jack Vincent Stong	Agricultural Engineering
- Stuart Otis Denslow	Resource Development	Shiro Takei	Agricultural Economics
- Morton S. Fuchs	Agricultural Chemistry	Chaturbhuj B. Tewary	Agricultural Mechanics
- Miguel Hernandez-Car	denas Food Science	►John Kendall Trocke	Agricultural Extension
			STREAM TO CONTRACT A CONTRACT OF

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# COLLEGE OF ENGINEERING

The candidates will be presented by DEAN JOHN D. RYDER

# DEGREE OF BACHELOR OF SCIENCE

\*Joseph Marvin Bender Agricultural Engineering
Richard Edward Brohl Civil Engineering
Thomas Frank Clarke Electrical Engineering
John William Gunst Civil Engineering
Gordon C. Johnson Civil Engineering
Rex Allen Johnson Civil Engineering
George Weldon Keller Agricultural Engineering

Harry Richard Kenyon Civil Engineering
Dale Earnest Marshall Agricultural Engineering
George Ronald Martin Agricultural Engineering
Robert James Nelson, Jr. Electrical Engineering
David Philip Slater Metallurgical Engineering
William Lewis Wells Civil Engineering

# DEGREE OF MASTER OF SCIENCE

Ralph Griese	Mechanical Engineering	David Lowell Nelson	Electrical Engineering
Floyd Jay Kreuze	Electrical Engineering	Nobert Thomas Sedgwick	Applied Mechanics

# COLLEGE OF HOME ECONOMICS

The candidates will be presented by DEAN THELMA E. PORTER

# DEGREE OF BACHELOR OF SCIENCE

Eppie L. Bruckner Retailing

Linda Sue Costello Retailing

Phyllis Charlene Farmer General Home Economics

Nancy Jo Fife General Home Economics

Marianne McKenzie Home Economics Extension

Anne Curtis Mitchell General Home Economics

► Janet Marie Olsen Household Equipment and Home Management \*Ruth Miller Reinoehl General Home Economics Victoria Rudy Home Furnishings Virginia Ruth Van Popering General Home Economics

Sharon Louise Zukosky General Home Economics

DEGREES RECOMMENDED JOINTLY WITH THE COLLEGE OF EDUCATION BACHELOR OF SCIENCE

R Home Economics Teaching Alice June Bartels Joanne Kay Green Home Economics Teaching Sharon Lee Hall -\*Sharon Dee Shepherd Brittain Home Economics Teaching Home Economics Teaching Julie Ann Doyen Kollar - Patricia Dorlene Connell Child Development and Teaching Child Development and Teaching Patricia A. Kuenzli Home Economics Teaching Janet Dee Cooper Home Economics Teaching Carol Elizabeth Rathbon Kristine Ann Moffit Dany Home Economics Teaching Home Economics Teaching ▼ Sandra Lou Rye Home Economics Teaching Ann Morie Engle Child Development and Teaching ► Cora Jean Stoker Home Economics Teaching Caryl Barnett Ferguson \*Mary Louise Stonecliffe Child Development and Teaching Home Economics Teaching

Carolyn Mary Fillmore Home Economics Teaching Lana Theota Williamson Home Economics Teaching

With High Honor With Honor

- Shirley Louise King - also sent oner in Sept,

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#### COLLEGE OF HOME ECONOMICS

# DEGREE OF MASTER OF ARTS

Marilyn Jean Downer

Home Management

<sup>•</sup> Eleanor Murial Sanford

Textiles and Clothing

- Norma Magnus Gilmore

Nutrition

# DEGREE OF MASTER OF SCIENCE

-LeKim Luy Chua

Nutrition

Anne Elizabeth Field General Home Economics

# COLLEGE

# VETERINARY MEDICINE

The candidates will be presented by DEAN WILLIS W. ARMISTEAD

# DEGREE OF BACHELOR OF SCIENCE – HONORS COLLEGE

\*Richard I. Harris

Veterinary Medicine

# DEGREE OF BACHELOR OF SCIENCE

- Ezra Berman Veterinary Medicine Allen Samuel Nestle Veterinary Medicine
- Dominic Paul Munafo Veterinary Medicine

# DEGREE OF MASTER OF SCIENCE

Rexford Eugene Carrow Anatomy

ny Jean Lorraine Juday

Anatomy

Donald Lynn Croghan Microbiology and Public Health

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The candidates will be presented by DEAN LLOYD C. FERGUSON

# DEGREE OF BACHELOR OF ARTS - HONORS COLLEGE

►†John Thomas Goodman	Psychology	-†Susan Paula Powers	English
*Katherine Lee Harman	Mathematics	†Lawrence Edmund Sneden	
•*Gilbert Patrick Nolan	And	Soci	ial Science Divisional
Gilbert Patrick Nolan	Art	*Helen Wilson Vogel	History

# DEGREE OF BACHELOR OF SCIENCE - HONORS COLLEGE

*Ezekiel Olabisi Akrinrimisi		►†Joseph Cooley Ferrar	Mathematics
Botany and	Plant Pathology		
		*Sharon Lilyan Kron	Mathematics
<ul> <li>†Laurence James Boucher</li> </ul>	Chemistry		

# DEGREE OF BACHELOR OF ARTS

- Dale Richard Adams	Social Science Divisional	*John Joseph Clancy	Psychology
†Thomas Douglas Ande		Belinda Anne Cohen	Social Science Divisional
	Social Science Divisional	Ardys Belle Cox	Psychology
<ul> <li>Holly Katrine Arnell</li> </ul>	English	<b>∼</b> *Margaret Virginia Cut	thbertson
Thurlo Acton Box	Social Science Divisional		Social Science Divisional
- Patrick Francis Burke	Social Science Divisional	Jon Tsuyoshi Doi	Art
Joellen Harriet Butters	Social Science Divisional	- Jo Ann Euper	Music Therapy
Juliet Greathouse Cain	History	Ann Marie Ewart	Social Science Divisional
- Alexander William Car	el	*George Edward Fellow	vs Social Science Divisional
	Social Science Divisional	Phillip Isaal Forgash	Social Science Divisional
- Lewis Richard Carella	Social Science Divisional	James Edwards Frierso	on Social Science Divisional
- Donald David Chezik	Psychology	Hay Edward Goss	Social Science Divisional

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DEGREE OF BACHELOR OF ARTS (Continued)	
Melvin Dean Gruhn Social Science Divisional	
- Leonard Clark Guneau Social Science Divisional	
-*Thomas James Harper Philosophy	
- Dianne M. Harrold Social Science Divisional	
Stephen Smith Hautala Social Science Divisional	
Walter Franklin Herdich, Jr. Social Science Divisional	
→Arthur Hunter Hills Art	
-Robert G. Horvath Psychology	
- Jack Loren Jackson History	
- Clark Eugene Johnson Social Science Divisional	
Thomas Phillip Kellogg Psychology	
- Karen Joy Kelly Social Science Divisional	
- Irving Jack Kerner Psychology	
Stephen Thomas Kerns Social Science Divisional	
- Clifford Forrest Kinney Psychology	
- Sara Phy Kinney Sociology and Anthropology	
- David William Koester Psychology	
- Peter W. Lowe Chemistry	
-Lawrence James Mauzerall Psychology	
- Susan Lee McConnell Social Science Divisional	
- Martin Ernest McGuire Social Science Divisional	
-Arthur Ronald Messman Mathematics	
<ul> <li>Arthur Ronald Messman Mathematics</li> <li>John Edward Morgan Humanities</li> </ul>	

Philip Peter Nielsen Humanities
- Thomas James Nordberg Social Science Divisional
-William John Parsons Social Science Divisional
- Donald Alfred Picmann Social Science Divisional
-William Jacob Pieper Psychology
- Lawrence Milford Potter Psychology
William Tatem Reeves History
- Gail Wildes Roberts Psychology
- Jerry N. Ruonavaara Social Science Divisional
- Paul Scheid Music
-*Carl W. Schneider Music Therapy
- John Laurence Schultz Social Science Divisional
- Rochelle N. Seger Psychology
- Frederick Wells Shepard Art
- Robert Bruce Short Sociology and Anthropology
- Karen Lee Silcox Social Science Divisional
John Edwin Smith Social Science Divisional
Anthony Stavrides Social Science Divisional
-Gordon D. Steckle Art
-George Allison Steinman Foreign Studies
• William Henry Sweetnam Art
- Kay Masters Taracks Psychology
†Sandra Joanne Van Doren Social Science Divisional
Robert Lee Vogelsang II History
- Judith Ann Waggoner History

"With High Honor With High Honor Linted in Educ Joan ann Eliz Messner - John Danied Welson English art \*With Honor

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# BACHELOR OF ARTS

William Martin Anderson History	Dorothy Diane Offerman Grebe Art Education
Shirley Jean Andrews Social Science Divisional	Roberta Jean Haynor Social Science Divisional
Theodore Vincent Anspaugh Mathematics	Charles Stanley Jones History
* Elizabeth Gaiffe Becktold Art Education	Kenneth Clark Kubilins History
- Robert Usher Boughton Art Education	Donald Keith LaGuire History
David William Briston History	John Robert Matthews Chemistry
- Douglas Harold Brockhaus History	<ul> <li>Cynthia Dodd Nichols Language and Literature Divisional</li> </ul>
- Roy Ivan Buxton History	" Jack I data makazara
Robert Thorpe Carter History	Nancy Le RobertsonHistory-Sandra Le RuthruffEnglish
Patricia Annette Chapman English	<ul> <li>Sandra Le Ruthruff English</li> <li>Donald Kenneth Sackett Mathematics</li> </ul>
Mirko William DiCarlo Chemistry	
- Deanna Elizabeth Dowde Social Science Divisional	<ul> <li>Martha Elizabeth Sawyer History</li> <li>Harold Leonard Silk Social Science Divisional</li> </ul>
- David Alfred Duquette, Jr. Art Education	* Patricia Ann Sloan Social Science Divisional
Charles Horton Eardley History	*Barbara Ann Smith History
Denise Constance Floyd Art Education	Arlene Ruth Cranmer Stover English
Donna Marie Frohriep English	Ronald John Strong     Mathematics
Ellen Jane Frommhold Art Education	Foster Martin Van Vliet, Jr. History
William Charles Golis Mathematics	Wynifred Lowell Wagner History

# DEGREE OF BACHELOR OF FINE ARTS

John Milton Metheany III Art

•With Honor

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# DEGREE OF BACHELOR OF SCIENCE

*Wilma Grace Brady	Nursing	Man Diu
Melvin C. Christofferson	Geology	- Roger Wa
Gerald Andrew Geile	Mathematics	- Felix Poz
David Dalton Gruber	<b>Biological</b> Science	∽†Ann Stac
-Merilyn Mona Hutches	Nursing	- Ernest Sc
- John Denniston Kent	Mathematics	8 medicas
- Charles Edward Kerman	Geology	– Peter Joh
• Donna Lee Kirkbride	Nursing	Edward
Dale Henry Koch Mathematical and Physical	l Science Divisional	John Car
- Jon David Lake	Geology	- Sydney A
- Ferris Tindal Laraway	Zoology	► W. Bingh
• Gwendolyn Lee Lewis	Nursing	Herman
• Frederick Edward Mauer	Chemistry	Samuel T
• Robert Alan Drake McGarva	Zoology	<b>`</b> Ethel Ha
- Donald Warren Merritt	Geology	• Richard

\*Alan Bruce Miller Microbiology and Public Health arner Noyce Geology zzi Mathematics cia Drilling Reban Nursing odiala Roberts double bound team Microbiology and Public Health hn Scarnato Biological Science Divisional Allen Schmidt Microbiology and Public Health arl Schneider, Jr. Zoology Allen Schroeder Physics and Astronomy ham Slack Mathematics Mathematics Carl Strobel Teleki Microbiology and Public Health arriet VandeBunte Nursing

# Richard Ira Whittemore Zoology

DEGREES RECOMMENDED JOINTLY WITH THE COLLEGE OF EDUCATION

# BACHELOR OF SCIENCE

- Douglas Frank Benn Mathematics	•Norman Lewis Lyons Mathematics
- Paul Engene Eckert Mathematics	••Robert L. Meyer Mathematical and Physical Science Divisional
Robert David Harmon, Jr.Mathematics- John William KelleyMathematics	<ul> <li>Forrest Eldon Miller Mathematics</li> <li>Emil Novak Mathematical and Physical Science Divisional</li> <li>*Linda Jo Shewell Zoology</li> </ul>
- Betty Ann Landsburg Biological Science Divisional	<ul> <li>Douglas Wendell Smith Biological Science Divisional</li> </ul>

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·Oliver W. Luck .

# BACHELOR OF MUSIC

Emerson George Dentel	School Music	*Arthur Earl Riedel	School Music
- Paul Ronald Grischke	School Music	*Sue Elizabeth Tucker	School Music

# DEGREE OF MASTER OF ARTS

James Bernard Alfredson Philosophy	- Josef Horak History
Marvel June Allard Psychology	Robert George Kayel Mathematics
Cyrus Azimi Psychology	Donald Earl Keesey English
- Donald Armour Clelland Sociology and Anthropology	<sup>¬</sup> John Elof Lundstrom, Jr. Art
Robert Earl Ditchman Psychology	Cheryl Joanne Normington Psychology
- Russell Lee Dore Psychology	· In David Lake
- Margot Beatrice Evans French	Marilyn Grace Slear Ruesink Music Education
Donald LeRoy Fisk Mathematics	<ul> <li>Rolf Heinz Kurt Schulze Sociology and Anthropology</li> </ul>
William Douglas Fromm Sociology and Anthropology	Md. Afsar Uddin Sociology and Anthropology

# DEGREE OF MASTER OF SCIENCE

– Mary Emma Barboni	Chemistry
Donald Milo Beale	Zoology
David Gunter Browning	Physics and Astronomy
- Patricia Josephine Casey	Chemistry
James Arthur Clark	Statistics
- Robert Allan Davis Bota	any and Plant Pathology
- Lawrence Eugene Day Microbic	logy and Public Health
Sector Company States	

Raymond Payjun Dong

Mathematics

m.a.T. (chem) Kinneth m. Long

- Charles 7. Steaming

Heat

Earl Trudeau Freeman Zoology
Stanley Carl Holt Microbiology and Public Health
William Earl Hutchinson Chemistry
Wilbur Reed Langford Physics and Astronomy Mary Jean Long Chemistry
Bartin Turner Smith Physics and Astronomy
James Clare Vanden Berge Zoology
Charles Henry Wells II Physiology and Pharmacology

- allect Zavala Psych

\*With Honor

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# COLLEGE OF BUSINESS AND PUBLIC SERVICE

The candidates will be presented by DEAN ALFRED L. SEELYE

# DEGREE OF BACHELOR OF ARTS

John Donald Babb	Economics	- Eugene Benjamin Collard
- John William Baughman	Accounting	Gordon Edward Connell H
- Larry Zane Benjamin	Accounting	- Jack Dickson Cook
- Edward Rolsten Bliss	Accounting	- Douglas Dee Coppens
- Richard Jess Bordeau Hotel an	nd Club Management	<ul><li>▶ °D. Brant Cotterman Pro</li><li>▶ Robert Earl Cronheim</li></ul>
→ †Richard James Bowersox	Political Science	
Thomas LeRoi Braman	General Marketing	- James R. Davidson
<ul> <li>Robert Melzor Britton</li> </ul>	General Marketing	- John Stanley Davies
<ul> <li>Robert John Brockmiller</li> </ul>		- Americo Dean Pro
	uction Administration	- Roger Louis Diegel
Edmund Reginald Bronicki Hotel an	nd Club Management	~ William E. Durell, Jr. P
<ul> <li>Michael Ellsworth Bryant</li> <li>Prod</li> </ul>	uction Administration	*William Charles Ealy
- Ronald Wayne Buecking	d Club Managament	- Gorton Morgan Evans II
	nd Club Management	► John Preston Fleser General
- Richard Hays Byrd Per	sonnel Administration	<b>~*</b> Gerald Thomas Forton
- Robert Lee Campbell II Fir	nancial Administration	Geraid Thomas Forton
Lucinda Yvonne Cargill	Social Work	• Phillip John Fowler
Lewis Richard Caveney	Accounting	•Michael John Fritz
Jerry Harold Chadwick	Insurance	- Donald Scott Fuller Trans
Larry Lee Cole	Accounting	- Raymond Joseph Gerdes

min Collard General Marketing d Connell Personnel Administration Cook Accounting Coppens General Marketing terman Production Administration Cronheim **Economics** vidson Retail Administration Davies Accounting Production Administration Diegel Banking Administration urell, Jr. Personnel Administration les Ealy Accounting General Marketing an Evans II Fleser General Business Administration as Forton Restaurant Management owler Accounting Fritz **Economics** Fuller Transportation Administration

**†With High Honor** 

- Harry Freeman Jr. Ecan 17 - Edmund G. Dyla also sent over in Sept.

Accounting

COLLEGE OF BUSINESS AND PUBLIC SERVICE DEGREE OF BACHELOR OF ARTS (Continued)

Bruce Edward Gilmore Economics	- Joseph Thomas Langlais, Jr. Hotel and Club Management
-William Elmer Haas Purchasing Administration	Hoter and Stab Munugement
- Richard Curtis Halseth General Marketing	Paul Lewis Lantz Economics
- Richard L. D. Hammond General Business Administration	Phillip David Leach Production Administration     Richard Lew Lotz Hotel and Club Management
- Edward Reuben Hancock Economics	Wayne Albert Magnan Personnel Administration
- Robert Henry Harr Restaurant Management	Robert Neil McGivern General Marketing
• *Roger Ferris Hathaway, Jr. Accounting	<ul> <li>Edward Reison Blies</li> </ul>
- John M. Horne Political Science	<ul> <li>Michael Edward McGowan Food Distribution Administration</li> </ul>
- Donald Henry Huber General Marketing	• John Edward McNeeley Economics
<sup>+</sup> †James Edward Hunter General Marketing	• Wendell Charles Mellberg
Eugene Joseph Iacomini Restaurant Management	Personnel Administration
- Daniel Lawrence Jacob General Business Administration	- Oscar Bernard Michael Food Distribution Administration
- James Roland Kearns Hotel and Club Management	<ul> <li>Robert Bartholic Miller Personnel Administration</li> <li>Stephen Harr Miller General Marketing</li> </ul>
- Rex David Keister, Jr. Political Science	donoral marketing
- David Michael Kelly Economics	John Michael Mills Economics
- Daniel Allen Kempf Economics	<ul> <li>Ronald Arthur Minth General Businss Administration</li> </ul>
Bill Leroy Kennedy General Business Administration	- Harold Theodore Mohrlok Accounting
- Ronald Basil Kennedy Production Administration	- James A. Monroe Accounting
Gerald Gene Kettring General Business Administration	Gale Thomas Moore Transportation Administration
*Carol Anne King Restaurant Management	Richard Gowans Morrison
Robert Ernest LaChapelle	General Business Administration
General Business Administration	• *LeVant Mulnix III Economics

•With Honor †With High Honor

COLLEGE OF BUSINESS AND PUBLIC SERVICE

# , DEGREE OF BACHELOR OF ARTS (Continued)

•Gerald James Murawski	Accounting	
-Robert Larry Newsome	General Marketing	-
- Wanda Lee Nickerson Institutional and H	lospital Management	-
- Wayne Edward Olsen General Bus	siness Administration	
Peter Onderchain	Economics	-
- John Watters Oosting	Economics	-
- George Edward Pawlanta, J	r. Accounting	-
- John Wilber Poyhonen Pers	connel Administration	
- Thomas Anthony Raguso	Economics	
– Thomas William Riley	Accounting	
- Jon Howard Robb Pers	sonnel Administration	- *
Theodore K. Robinson	Economics	-
- Richard Frederick Ruhl	General Marketing	-
- Louis Henry Schimmel, Jr. Find	ancial Administration	
-Bruce Arthur Schuman	General Marketing	-
- Frederick James Schwab	Accounting	-
- Stewart Peter Sigourney	Accounting	
- Walter William Squire	General Marketing	-
Franz Willison Stevens Prod	uction Administration	
- William Raymond Stewart	General Marketing	
- Alvin Jay Stiefel Food Distrik	oution Administration	

Norman Terry Swayne	14.00	Accounting
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- Alfred Arden Tanck Food Distribution Administration
- James Frederick Thiede General Business Administration
- John Peter Trinklein Economics
- David Andrew Turner General Business Administration
- John Anthony Vanna Accounting
- Timothy John Vellmure Restaurant Management
- James Francis Verplank Production Administration
- \*Harry Thomas Voige Political Science
- William Albert Waggoner Purchasing Administration
- Allan George Wallace Hotel and Club Administration

James Arthur Weirauch	Economics
– John William Wheeler	General Marketing
- Francis George Wickstrom	General Marketing
Glenn Carter Wideman	Political Science
- David Dale Willey Pers	connel Administration
Charles Lawrence Young, Jr Res	r. taurant Management
- William Arthur Young	Economics

Joseph Arthur Zambrano Political Science

#### COLLEGE OF BUSINESS AND PUBLIC SERVICE

DEGREES RECOMMENDED JOINTLY WITH THE COLLEGE OF EDUCATION

# BACHELOR OF ARTS

Vivian Blanche Bloom	Business Education	-Naomi Ruth Lande	Business Education
Sandra Lee Bristol	Business Education	Gerald Gordon Potter	Business Education
- Joanna Hileman Coultes	Business Education	Margery Ann Ward	Business Education
- Gordon Burdette Freeman	Business Education	*Joyce Arlene Wilson	Business Education

# DEGREE OF BACHELOR OF SCIENCE

- Thomas Everett Borton Urban Planning
- Gwendolyn Gail Bourassa Police Administration and Public Safety
- Jeremy Ward Chapman Police Administration and Public Safety
- \*Robert Ervin Dittman Police Administration and Public Safety
- Wayne Lee Ensing Police Administration and Public Safety
- Robert Charles Fager Landscape Architecture
- William Ian Ferrier Police Administration and Public Safety
- Leslie Pyewell Flounders, Jr. Police Administration and Public Safety
- Axel Ingvar Franzon Police Administration and Public Safety
- Mohammed Jamil Hanifi
   Police Administration and Public Safety
  - Edward John Hansen Police Administration and Public Safety
- John P. Hopkins Police Administration and Public Safety

- Robert John Horan
   Police Administration and Public Safety
- \*Cheryl Dee Hurd Police Administration and Public Safety
- \*Donald Bernard Johnson Police Administration and Public Safety
- Walter Ralph Johnson Police Administration and Public Safety
- Richard Arlen Kilby Urban Planning
- James Wilford Kitchen Police Administration and Public Safety
- Brian Edward Langley Police Administration and Public Safety
- Leroy Kenneth Lehner Landscape Architecture
- William W. Lovett Police Administration and Public Safety
- John Vernon Momberg Police Administration and Public Safety
- James Ronald Opperman Police Administration and Public Safety
- \*Robert Frederick Piatt Police Administration and Public Safety

\*With Honor

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## COLLEGE OF BUSINESS AND PUBLIC SERVICE

# DEGREE OF BACHELOR OF SCIENCE (Continued)

- Stephen Richard Ripps Police Administration and Public Safety
- Alice Annette Skranz
   Police Administration and Public Safety
- Werner George Weitzel Police Administration and Public Safety
- Roger Calvin Wilson
   Police Administration and Public Safety
- Charles Frank Young Police Administration and Public Safety

# DEGREE OF MASTER OF ARTS

- Charles A. Baker	Business Administration	William Hamilton Parks <i>Financial Administration</i>
Emory Scott Derr	Business Administration	- James Michael Rhadigan Economics
<ul> <li>James McAlden Kelly Hotel, Restaurant and Institutional Management</li> </ul>		David Robinette Shelby Food Distribution
moter, nestaurant an	u Institutionat Munagement	Harry Kenneth Show Business Administration
Darrell Koon	Business Education	Thomas Norman Tarby Economics
Oral Eugene Parks	Political Science	David I. Verway Economics

#### DEGREE OF MASTER OF BUSINESS ADMINISTRATION

- Otto Walther R. Beiser Business Admi	inistration	Gene Lewis Knapp
- Klaus Otto Brudemeier	Marketing	Personnel and Human Relations
Read Warming Street Street		Theodore Bruce Martin Transportation
Donald Regis Connelly	ccounting	= Alcidio do Sousa Prado
- Salvatore Dominic Costella A	ccounting	Personnel and Human Relations
Burton Royce Eckhardt A	ccounting	- Lawrence Silverman Marketing
- William Joseph Gilbert A	<i>ccounting</i>	

# COLLEGE

# OF

# EDUCATION

The candidates will be presented by DEAN CLIFFORD E. ERICKSON DEGREE OF BACHELOR OF ARTS-Elementary Education

\*\*Martha Gilchrist Andrews Carolyn Mae Marolf Charles Morden McEachin - Elizabeth Ann Aubertin - Geraldine Margaret Bales Nancy Diane McKenzie - Sally Wilson Berry - Jean Ward McKinnon Joan Ann Elizabeth Messner 2 - Lois Merrilee Brown - Sheldon Grey Butson - Audrey Elizabeth Miller \*Donna Mary Carrigan - Susan Jane Overmyer - Constance Lee Coe -Jean Ruth Wolfe Owen - Alice Anne Davis -\*Marcia Ann Petrie - Jeannine Madeleine Day - Janet Agnes Porter - Suzanne A. DeJong - Joyce Meta Prange Saundra Sargent Donahue Clyde Beiber Rue ~ Susan A. Flathau Yolanda Zupko Shemely Nicholyn Marie Folsom - Sandra Anne Stahl - Christine Messmore Gilling Deanna Sue Strolle - Sharon Ann Hohman Mary Anna Sumners - Nancy Carole Horsley Barbara Bancroft Symanski - Marjorie Ann Townsend - Eleanor D. Howland - Susan Kellogg - Marilyn Robb Vyverberg Mary Beth Larson Donald L. Ware • Jeanne Elise Warner - Janet Philip Little - \*Anne Woodworth - Georgiann Marks

# DEGREE OF BACHELOR OF SCIENCE

Patricia Allworth	Physical Education	- David Kenneth Clum
- A. Roger Belter	Industrial Arts	-Sandra Jean Currie
- Michael Bruce Brown	Physical Education	Raymond Harry Durant

Industrial Arts Physical Education Industrial Arts

# DEGREE OF BACHELOR OF SCIENCE (Continued)

Orville & Lippert and arts

D. Bruce Galland	Industrial Arts
⁺Jack Arthur Geary	Physical Education
John Gelmisi	Physical Education
-Douglas Lee Hansen	Industrial Arts
- Cecil B. G. Heron	Physical Education
**Irving Henry Kananen	Physical Education
► Frank Jr. Maddalozzo	Physical Education
- Stanley Frank Myk	Industrial Arts

Sandra Hoover Parks	Physical Education
-Robert E. Pierson	Industrial Arts
Richard Raymond Radatz	Physical Education
Harvey Louis Shultz Co	mmunity Recreation
Richard Boyd Smith	Physical Education
Donald Thomas Thornton	Physical Education
Harry Wayne Turak	Physical Education
Jon Nicholas Whorley	Industrial Arts

# DEGREE OF MASTER OF ARTS-Education

- Donald Van Adams
- David Joel Anderson
- Dorothy Eileen Bell
- Bonnie Nitz Boldt
- Marcia Joan Bottomley
- \* Robert Bower
- John Brissaud
- -Robert Windsor Brown
- Helen Blanche Burns
- Frances Zelma Caldwell
- John Grunow Call
- Richard Earl Claffin
- Vera Maude Clark
- Marie Elizabeth Colando
- Robert Lyman Colestock
- Constance Elaine Collins
- Dorothy Brown Copeland
- Lewis D'Alessio

•With Honor †With High Honor

- Marian Esther Daniel Lawrence Raymond Daniels Nancy Ann Doneth Roy Douglas Doonan -Verdon R. Dunckel -John Phillip Fekete - Robert Clark Ferguson - Robert Raymond Frye Lamoine Lovisa Gardner - Helen Frances Garn - Carolyn Jean Gibfried Vera Gierman - Jeanne Adelaide Greer - Floyd Bernard Haremski · Horace Joseph Harte - Mary Good Heuvelhorst

\* Robert Wendell Hills

# COLLEGE OF EDUCATION

#### COLLEGE OF EDUCATION

DEGREE OF MASTER OF ARTS-Education (Continued)

- <sup>•</sup> John Richard Hudson
- Robert Lewis Kaminskis
- Herald A. Kiekover
- Marie Riley Kish
- James Donald Knotts
- William Martin Larkin
- Jean Carolyn Leach
- Jerrie Bascome McGill
- Elizabeth Dickson Miller
- \* Janice Bedford Nagele
- Merritt Chandler Nauts, Jr.
- Ann Pappas
- Hi Kyung Park
  - Aubrey Radcliffe
- James William Rice

- Sordow h Metzner John Keith Pardee 3-20-61 as J-12-12-60

- Rosetta S. Sanders
- Asuncion Adevoso Santiago
- Richard Bland Smith
- Robert Wayne Stace
- Roger David Stouffer
- Margaret Greer Swift
- Walter Lee Thomas
- Margaretta Tuttle
- Mel Leroy Vaara
- -Anneatha Erlene Wade
- Phillip A. Wall
- George Robert Weaver
- Jack L. Westover
- -Joan Jean Wight
- Carol B. Covert Zelmer

# COLLEGE

# OF

# COMMUNICATION ARTS

DEGREE OF BACHELOR OF ARTS

Donald Robert Adlam Television, Radio and Film	*William Henry McIntosh General Communication Arts
- Arnold Angert General Communication Arts	Joseph Malcolm McNeil Advertising
- William Charles Callahan, Jr. Journalism	Larry Paul Miller Journalism
<ul> <li>Arthur Bernard Dowd, Jr. Advertising</li> <li>†Theodore R. Ervin Journalism</li> <li>Albert Alfred Ferdi Advertising</li> <li>John David Fish Television, Radio and Film Robert Ervin Franklin Television, Radio and Film</li> </ul>	<ul> <li>Gregory James Neiswonder Television, Radio and Film</li> <li>Sidney Louis Scutt Television, Radio and Film</li> <li>Roger Fowler Sherman Advertising</li> <li>Joan Louise Shook Television, Radio and Film</li> <li>*James Russell Turner Advertising</li> </ul>
- Susan Freeman Speech	- †Janet Piper Voss Journalism
- Grant Brian Keefer Television, Radio and Film	~ Robert Dale Walsh Journalism
- Joseph G. Kiss Television, Radio and Film	• Kay Mary Zemke Television, Radio and Film
form of Thirteen Basels of Football Holmets on the	Raymond andrew Miller T

The candidates will be presented by FRED S. SIEBERT

DEGREES RECOMMENDED JOINTLY WITH THE COLLEGE OF EDUCATION

# BACHELOR OF ARTS

Margaret Cecile DiPiazza	Speech	- Jacqueline Dell Strandberg	Speech
Garwood Philip Hansen	Speech	*Cynthia Ann Sweet	Speech
–Marilyn Ann Steegstra	Speech		

# DEGREE OF MASTER OF ARTS

William Lewis Broecker		-Robert Louis Hammond	Speech
Television,	Radio and Film	- Chosei Kiyoshi Kabira	
Eleanor Harger Burgess	Speech	Television, Radie	o and Film
C. Milan Gruehr	Speech	-Walter Alexander Littlefield	Speech

•With Honor †With High Honor TRZ

# SCHOOL

# FOR

# ADVANCED GRADUATE STUDIES

The candidates will be presented by DEAN MILTON E. MUELDER

# DIPLOMA FOR ADVANCED GRADUATE STUDY

- Kenneth Truman Beagle
   B.A., Western Michigan University; M.A., University of Michigan.
   Education. *Major Professor*: W. H. Roe, Professor.
- David Lloyd Lawton

B.A., Hiram College; M.A., Western Reserve University.English. *Major Professor*: W. Heist, Associate Professor.

Donald Medley Topping

A.B., M.A., University of Kentucky. English. *Major Professor*: A. H. Jaffe, Associate Professor.

# DEGREE OF DOCTOR OF PHILOSOPHY

John Frances Alexander

B.S., M.A., Notre Dame.
Education. *Major Professor*: W. D. VanHuss, Professor. *Thesis*: An Evaluation of Thirteen Brands of Football Helmets on the Basis of Certain Impact Measures.

Bruce Herbert Barnes

B.S., M.S., Michigan State University. Mathematics. *Major Professor*: G. P. Weeg, Associate Professor. *Thesis*: Structure of Automata.

- Charles Richard Barr

B.A., North Central College; M.S., Michigan State University.
Chemistry. *Major Professor*: R. U. Byerrum, Professor. *Thesis*: The Synthesis and Biological Activity of Some Allyl, Acetic Acid and Ethyl Acetate Ethers of Fluorene and Fluorenone.

Frank Henry Blackington, III

B.Ed., Keene Teachers College; M.A., Boston University.
Education. *Major Professor*: Z. G. Barnett, Associate Professor. *Thesis*: A Philosophical Analysis of the Construct "Life Adjustment" and Its Implications for Education.

# DEGREE OF DOCTOR OF PHILOSOPHY (Continued)

Donald John Bowersox

B.A., M.A., Michigan State University.Business Administration. *Major Professor*: D. A. Taylor, Professor.

Thesis: Evaluation of Alternative Solutions to the Food Distribution Center Location Problem.

Botany and Plant Pathology. *Major Professor*: E. S. Beneke, Professor. *Thesis*: The Germination of Basidiospores of *Calvatia Gigantes* and Re-

- Glenn Stuart Bulmer

Raymond Joseph Clausman

Irwin Howard Cohen

John Thomas Conlon

- Francisco A. Cardenas

Ingeniero Agronomo, Escuela Superior deAgricultura "Antonio Narro" Mexico; M.S., Colorado A. & M. College.

Farm Crops. Major Professor: M. W. Adams, Associate Professor.

Thesis: Genetic Septems for Reaction in Beans (Phaseolus Vulgaris) to Infection by Three Races of Collectotrichum Lindemuthianum.

B.A., Butler University; M.A., University of Louisville.

B.S., Michigan State University.

lated Genera.

Psychology. Major Professor: A. I. Rabin, Professor.

*Thesis*: Subception as a Veridical Process and Perceptual Defense as Avoidant and Vigilant Behavior.

A.B., Brooklyn College; M.A., City College of New York. Psychology. *Major Professor*: M. Rokeach, Professor. *Thesis*: Adaptive Regression, Dogmatism, and Creativity.

B.B.A., University of Massachusetts; M.A., University of Connecticut. Economics. *Major Professor*: C. Killingsworth, Professor.

Thesis: The Arbitration of Discipline Grievances: An Analysis of Procedural and Substantive Standards of Review.

- Walter Dale DeVries

B.A., Hope College; M.A., Michigan State University.Political Science. *Major Professor*: L. C. Ferguson, Professor.

Thesis: The Michigan Lobbiests: A Study in the Bases and Perceptions of Effectiveness.

# · DEGREE OF DOCTOR OF PHILOSOPHY (Continued)

Charlotte Marie Dienhart

B.S., College of St. Catherine; M.S., State University of Iowa. Anatomy. *Major Professor*: J. Bell, Associate Professor.

Thesis: Morphological Effects of Dietary-Induced Hyperparathyroidism on the Parathyroids, Kidneys and Tibias of Rats.

- Roland Hinkley Ebel

Husein M. Elmosa

- Richard Wayne Fish

- Desmond Ford

- Wesley Lamar Harris

L. James Harvey

A.B., Wheaton College; M.A., Northwestern University.Political Science. *Major Professor*: J. LaPalombara, Professor.*Thesis*: The Role of the Professional Staff in American Political Parties.

B.S., Kansas State College; M.S.C., University of Nebraska. Entomology. *Major Professor*: H. L. King, Professor.

Thesis: Toxicological Investigations of the Onion Maggot Hylemya antiqua (Meig.).

B.S., Iowa State College.

Chemistry. Major Professor: H. Hart, Professor.

Thesis: I. Dipositive Carbonium Ions II. Synthesis and Reactions of Tetramethylbenzocyclobutene Derivatives.

B.A., Pacific Union College; M.A., Potomac University.Speech. *Major Professor*: K. G. Hance, Professor.*Thesis*: A Rhetorical Study of Certain Pauline Addresses.

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

Agricultural Engineering. Major Professor: W. F. Buchele, Associate Professor.

Thesis: Relationship of Mean Stress and Volumetric Strain in the Soil Under Dynamic Loading.

B.A., Hope College; M.A., Michigan State University.

Education. Major Professor: J. Jordan, Assistant Professor.

Thesis: A Study of the Guidance Resources of Students in High Schools Affiliated with the National Union of Christian Schools in Michigan and Illinois.

# DEGREE OF DOCTOR OF PHILOSOPHY (Continued)

Dean Lawrence Haynes

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

Entomology. Major Professor: J. W. Butcher, Associate Professor.

Thesis: Studies on European Pine Shoot Moth Biology and Interractions Between the Insect, Its Environment and Michigan Host Species.

- Theodore Matthew Hoersch

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

Animal Husbandry. Major Professor: H. A. Henneman, Professor.

Thesis: The Effect of Environmental Light and Temperature on the Thyroid Secretion Rate and Other Physiological Processes in Sheep.

- William Frank Hunter

B.S., M.A., Ball State Teachers College.

Education. Major Professor: J. Jordan, Assistant Professor.

Thesis: An Exploratory Analysis of Space Perception in Congenitally Blind and Sighted Individuals.

- A. K. M. Nural Islam

B.S., Rajshahi Government College, E. Pakistan; M.S., Dacca University, E. Pakistan.

Botany and Plant Pathology. Major Professor: G. W. Prescott, Professor.

Thesis: A Revision of Stigeoclonium and Critical Studies in Related Genera.

- David Joseph Karl

B.S., Providence College.

Chemistry. Major Professor: J. L. Dye, Associate Professor.

Thesis: I. The Electrophoretic Contribution to Equivalent Conductance Using the Complete Exponential Distribution Function: 1-1 Salts in Dioxane-Water Mixtures. II. Transference Numbers and Activity Coefficients of Aqueous Solutions of Tris (ethylenediamine) Cobalt (III) Ehloride at 25° C.

Kundan Lall Kinra

B.A., Bihar Agricultural College; M.S., Michigan State University. Soil Science. *Major Professor*: H. D. Foth, Professor.

Thesis: Effects of Seeding Rate, Row Spacing. Rates and Methods of Application of Fertilizer Materials and Soil Moisture on Small Grain Performance.

# DEGREE OF DOCTOR OF PHILOSOPHY (Continued)

- Robert E. Kitteredge
- B.A., New York State College for Teachers; M.A., Michigan State University.

Education. Major Professor: B. Stefflre, Professor.

Thesis: Investigation of Differences in Occupational Preferences, Stereotypic Thinking, and Psychological Needs Among Undergraduate Women Students in Selected Curricular Areas.

- Lowell Nelson Lewis

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

Horticulture. Major Professor: A. L. Kenworthy, Professor.

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

tions of Several Metals.

Thesis: Studies on the Nutrition of Bartlett Pear Trees (Pyrus Communis L.) and Fire Blight (Erwinia Amylovora, Burr.).

Applied Mechanics. *Major Professor*: C. A. Tatro, Associate Professor. *Thesis*: An Experimental Determination of the Stress-Strain Rate Rela-

- Ulric Svante Lindholm

James Charles Lingoes

Mahmoug Makarechian

👕 Yasuo Masai

Allen J. Matherne

A.B., University of California.

Psychology. *Major Professor*: L. L. McQuitty, Professor. *Thesis*: A Generalization of Guttman's Scale Analysis.

D.V.M., University of Teheran; M.S., Michigan State University. Animal Husbandry. *Major Professor*: W. T. Magee, Associate Professor. *Thesis*: Factors Affecting the Yearling Productive Traits in Beef Cattle.

B.A., Tokyo Higher Normal School; M.S., Tokyo Bunrika University.

Geography. Major Professor: A. K. Philbrick, Associate Professor.

Thesis: Lansing, Michigan and Shizuoka, Japan–A Comparison of Areal Function Organization in Two Different Environments.

B.A., S.E. Louisiana College; M.B.A. Indiana University.Education. *Major Professor*: H. Dillon, Professor.

Thesis: An Analysis and Evaluation of an Experimental Program Designed to Increase the Level of Economic Understanding Among Adults.

# DEGREE OF DOCTOR OF PHILOSOPHY (Continued)

Charles G. Mead

B.A., University of Minnesota; M.S., Michigan State University.
Agricultural Chemistry. *Major Professor*: A. S. Fox, Associate Professor. *Thesis*: Isolation and Characterization of Drosophila Melanogaster Deoxyribonucleic Acid.

- Raman Gopinath Menon

B.S., Poona University, India; M.S., Michigan State University.Soil Science. *Major Professor*: K. Lawton, Professor.*Thesis*: A Study of the Behavior of Fused Potassium Phosphates in Soil.

- Rudolph Charles Muska

B.A., M.A., University of Minnesota.
Philosophy. *Major Professor*: L. K. Zerby, Professor. *Thesis*: A Comparison of Antithetical Religious Conceptions in Kirkegaard and Spinoza.

- Earl Abraham Myers

B.S., M.S., Pennsylvania State University.

B.S., St. Olaf College; M.A., University of Houston.

Education. Major Professor: H. J. Montoye, Professor.

Evaluation.

Agricultural Engineering. Major Professor: E. H. Kidder, Associate Professor.

Thesis: Hydrologic Analysis of a Small Agricultural Watershed.

- Richard Carroll Nelson

- Mansour Nicknejad

David Richard Pratt

B.S., Teheran University; M.S., Michigan State University.
Farm Crops. *Major Professor*: F. C. Elliot, Professor. *Thesis*: Cytogenetic Evaluation of Rye Germ-Plasm for Forage Improvement.

Thesis: An Investigation of Various Measures Used in Football Helmet

B.S., M.S., Southwest Texas State College.
Animal Husbandry. *Major Professor*: W. T. Magee, Associate Professor. *Thesis*: A Comparison of Mass Selection with Inbred Lines and Line Crosses in the Laboratory Rat.

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# DEGREE OF DOCTOR OF PHILOSOPHY (Continued)

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Robert J. Reilly

M.A., Ph.B., University of Detroit.
English. *Major Professor*: B. Duffey, Professor. *Thesis*: Romantic Religion in the Works of Owen Barfield, Charles Williams, C. S. Lewis, and J. R. R. Tolkien.

Clifford Elroy Samuels

alling a same incorporation

B.S., University of California (Berkley); M.S., Michigan State University.Food Science. *Major Professor*: C. L. Bedford, Professor.*Thesis*: Effect of Certain Packing Factors on Frozen Strawberries and

Gordon Jay Sterken

B.A., Hope College. Chemistry. *Major Professor*: R. M. Herbst, Professor. *Thesis*: Snythesis of Tetrazoles as Amino Acid Analogs.

Raspberries in Michigan and Oregon.

David Denis Sutton

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

Animal Husbandry. Major Professor: J. E. Nellor, Associate Professor. Thesis: The Concentration of ACTH and Growth Hormone in Bovine Plasma.

Marvin Paul Thompson B.S., M.S., Kansas State College. Food Science. *Major Professor*: J. R. Brunner, Professor.

Thesis: The Structure of the Milk Fat-Globule Membrane.

Burton Howard Wayne

WIR HEYLLIN HIGH

ەتىمىيە ئارىمىيە ئاتە ئاتەرچەچ - ئىشۇدىكە

B.S., M.S., Michigan State University.Electrical Engineering. *Major Professor*: H. E. Koenig, Professor.*Thesis*: Numerical Analysis of Magnetic Amplifier Circuits.

David Richard Wilken

B.A., Blackburn College; M.S., University of Illinois.Agricultural Chemistry. *Major Professor*: R. G. Hansen, Professor.*Thesis*: A Nucleotide-Peptide Isolated from Bovine Liver.

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# DEGREE OF DOCTOR OF EDUCATION

Melvin Clarence Buschman

B.S., M.A., Michigan State University. Education. *Major Professor*: W. H. Roe, Professor.

Thesis: An Analysis of the Effects of the Michigan Secondary School-College Agreement upon Four-Year Michigan College Admission Offices from 1946-1959.

- John Robert Kimball

B.S., Alma College; M.A., Michigan State University.Education. *Major Professor*: K. Hereford, Associate Professor.*Thesis*: Analysis of Institutional Objectives in Community Colleges.

Rolf Edward Moeckel

Earl Maurice Pernert

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

Education. Major Professor: H. M. Byram, Professor.

Thesis: The Effectiveness of Practices of Individual On-Farm Instruction Used by Teachers of Adult-Farmer Courses in Michigan.

B.S., Central Michigan University; M.A., Michigan State University. Education. *Major Professor*: C. Campbell, Professor.

Thesis: A Study of Certain Aspects of Communication Programs in Selected Class C Public Schools in Michigan.

Ellwood A. Voller

B.S., Western Michigan College; M.A., Michigan State University.

Education. Major Professor: W. F. Johnson, Professor.

Thesis: A Report of an Experimental Orientation Forum for Parents of M.S.U. Students.

#### GRADUATES AS OF SEPTEMBER 2, 1960

#### DEGREE OF DOCTOR OF PHILOSOPHY

Madan B. L. Bharadwaj

Ferre Welles

G.B.V.C., Bihar Veterinary College, Patna, India; M.S., Michigan State University.

Anatomy. Major Professor: M. L. Calhoun, Professor.

Thesis: Histology of the Urethra and Accessory Sex Glands of the Domestic Animals, and Observations on the Surgical Insertion of the Urinary Bladderneck into the Descending Colon in the Dog.

# DEGREE OF DOCTOR OF PHILOSOPHY (Continued)

Edwin Cohen

B.S., DePaul University; M.A., Michigan State University.

Ramchandra G. Desai

Clive Wellington Donoho, Jr.

Ralph W. Gilchrist

Robert Hillery Hamilton

David Paul Heaney

John Alva Jaynes

Business Administration. Major Professor: J. D. Edwards, Professor. Thesis: Some Aspects of the Structure of Accounting Theory.

B.A., University of Bombay; M.A., Wayne State University.

Social Science. Major Professor: I. Ishino, Associate Professor.

Thesis: A Comparison of the Images of Gandhi and Nehru in India and America: A Study in Content Analysis.

B.S., University of Kentucky; M.S., North Carolina State College.

Horticulture. Major Professor: A. E. Mitchell, Professor.

Thesis: The Absorption, Translocation, and Enzymatic Distruction of C14 Labeled Growth Regulators When Used as Chemical Thinning Agents for the Peach (Prunus Persica, Sieb, Zucc.) and the Apple (Malus Domestica, Bork.).

B.S., Tri-State College: M.S.E., University of Michigan.

Electrical Engineering. Major Professor: H. E. Koenig, Professor.

Thesis: A Digital Computer Solution of Synchronous Machine Differential Equations in Some Power Systems Stability Problems.

B.S., University of Illinois; M.S., Rutgers University.

Botany and Plant Pathology. Major Professor: R. S. Bandurski, Professor.

Thesis: I. Studies on Plant Growth Substances (and) II. Isolation and Partial Characterization of the Precursor of 6-Methoxybenzoxazolinone in Zea Mays.

B.S., M.S., Montana State College.

Animal Husbandry. Major Professor: J. A. Hoefer, Professor.

Thesis: Effects of a Marginal Vitamin A Intake During Gestation in Swine.

B.S., Sam Houston State Teachers College; B.S., M.S., Texas Technological College.

Dairy. Major Professor: L. G. Harmon, Professor.

Thesis: Effect of pH and Brine Concentration on Growth and Thermal Destruction of PA 3679 in Processed Cheese Spread.

# DEGREE OF DOCTOR OF PHILOSOPHY (Continued)

Perry Brooke Johnson

B.S., University of Maryland; M.S., Pennsylvania State University.

Health, Physical Education and Recreation. Major Professor: H. J. Montoye, Professor.

Thesis: The Relative Effects of Exercise and Caloric Restruction in Controlling Blood Cholesterol in Rats.

William Howard Johnson

B.S., M.S., Ohio State University.

Agricultural Engineering. Major Professor: W. F. Buchele, Associate Professor.

Thesis: A Soil Moisture Loss Method for Characterizing Simulated Tillage Treatments.

Martin G. Keeney

B.S., M.S., Iowa State College.

Electrical Engineering. *Major Professor*: G. P. Weeg, Associate Professor. *Thesis*: Recursive Functions and Finite Automata.

Bernard Klamer

B.A., Calvin College.

Zoology. Major Professor: R. A. Fennell, Professor.

Thesis: A Chemical and Cytochemical Investigation of Acid Phosphatases of Tetrahymena Pyriformis W.

Robert Karl Knapp

B.A., M.A., Kent State University.

Psychology. Major Professor: M. R. Denny, Professor.

Thesis: Acquisition and Extinction of Avoidance as a Function of the Escape Situation.

Lawrence Dale Koehler

B.S., Otterbein College.

Zoology. Major Professor: R. A. Fennell, Professor.

Thesis: A Histochemical and Biochemical Investigation of the Polysaccharides, Esterases, and Dehydrogenases of Tetrahymena Pyriformis (Strain W).

# DEGREE OF DOCTOR OF PHILOSOPHY (Continued)

Frank James Kosier

B.S., M.S., Michigan State University.Mathematics. *Major Professor*: R. H. Oehmke, Associate Professor.*Thesis*: On a Class of Non-Flexible Algebras.

Bung-Chung Lee

Kyu Yawp Lee

Virginia Harvey Mallmann

Joseph John Mancuso

Roger Henry Marz

Raymond L. Morter

Mechanical Engineering. Major Professor: J. E. Lay, Professor.Thesis: Experimental and Analytical Study of Influence of Entry Angle in Vortex Flor Temperature Separation.

B.S., National Taiwan University; M.S., Georgia Institute of Technology.

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

Poultry Husbandry. Major Professor: J. A. Davidson, Professor.

Thesis: Costs and Efficiency of Designated Poultry Processing Plants in Michigan.

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

Microbiology and Public Health. Major Professor: C. H. Cunningham, Professor.

Thesis: The Demonstration of a Cell-Attachment-and-Growth Factor and Comparative Studies of Infectious Bronchitis Virus Before and After Separation from the Factor.

B.A., Carleton College; M.S., University of Wisconsin.Geology. *Major Professor*: J. Zinn, Professor.*Thesis*: Stratigraphy and Structure of the McCaslin District, Wisconsin.

B.A., Illinois Institute of Technology; M.S., Michigan State University.

Political Science. Major Professor: F. A. Pinner, Associate Professor.

Thesis: Voting Shifts in a Suburban Community: A Study of Migrants from Detroit, 1952-1956.

B.S., Iowa State College; M.S., Michigan State University; D.V.M., Iowa State College.

Microbiology and Public Health. Major Professor: L. C. Ferguson, Dean.

Thesis: The Pathogenesis of Leptospiral Infections (Leptospira pomona) During Pregnancy in Cattle and Swine.

# DEGREE OF DOCTOR OF PHILOSOPHY (Continued)

Willis Calvin Owens

B.A., David Lipscomb College; M.S., George Peabody College.
Zoology. *Major Professor*: J. R. Shaver, Professor. *Thesis*: The Effects of Adult Tissue Homogenates, and of Antisera Against Adult Tissues, on Embryonic Development in the Frog.

George Edward Philips

B.A., Montana State University; M.S., St. Louis University.Business Administration. *Major Professor*: C. J. Gaa, Professor.*Thesis*: Integration of Corporate and Individual Income Taxation.

Robert Arthur Pierson

B.S., M.S., Illinois State Normal University. Education. *Major Professor*: B. Stefflre, Professor. *Thesis*: Alternation Behavior in Mentally Retarded and Normal Children.

James Franke Price

B.S., University of Tennessee; M.S., Michigan State University. Animal Husbandry. *Major Professor*: A.M., Pearson, Professor. *Thesis*: The Use of Ultrasound in Meat Animal Evaluation.

Richard Warren Rice

Mary Ellen Roach

Vito Joseph Sarli

 Animal Husbandry. Major Professor: J. A. Hoefer, Professor.
 Thesis: The Relation of Certain End Products of Rumen Fermentation to Forage Feeding Value.

A.B., University of Kansas; M.S., Iowa State College.

B.S., M.S., University of Nebraska.

Sociology and Anthropology. Major Professor: W. B. Brookover, Professor.

Thesis: The Influence of Social Class on Clothing Practices and Orientation at Early Adolescence: A Study of Clothing-Related Behavior of Seventh Grade Girls.

B.S., M.S., Worcester Polytechnic Institute. Chemical Engineering. *Major Professor*: C. M. Cooper, Professor. *Thesis*: Extraction in Packed Columns Pulsed and Unpulsed.

#### DEGREE OF DOCTOR OF PHILOSOPHY (Continued)

 Warren Louis Sauer
 B.A., Wayne University; M.A., Michigan State University.
 Sociology and Anthropology. *Major Professor*: W. H. Form, Professor.
 *Thesis*: Labor and Business Images of Community Power Structure: Convergences and Divergences.

Robert Wayne Seerley

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

Animal Husbandry. Major Professor: J. A. Hoefer, Professor.

Thesis: The Effect of Pelleting Swine Rations on the Performance of Swine and Rats.

John Paul Sibilio

B.S., Boston University; Ed.M., Harvard University.

Psychology. Major Professor: D. M. Johnson, Professor.

Thesis: The Effect of Perphenazine on Focus of Attention in Schizophrenia.

John Bernard Sjo

Ser Tanàna ang t

B.S., M.S., Kansas State University. Agricultural Economics. *Major Professor*: L. W. Witt, Professor. *Thesis*: Technology: Its Effect on the Wheat Industry.

K. M. Srinivasan

M.S., Annomaloi University, India.

Horticulture. Major Professor: C. Hamner, Professor.

Thesis: Some Modifications in the Behavior of Lycopersicum Esculentum As a Result of Foliar Sprays of Maleic Hydrazide.

Shashkikala Sukhatme

B.S., Fergusson College; B.S., M.S., University of Poona. Statistics. *Major Professor*: I. Olkin, Associate Professor. *Thesis*: Asymptotic Theory of Some Non-Parametric Tests.

Pharmacist Degree, University of Erlangen, Germany; M.S., Michigan State University.

Microbiology and Public Health. Major Professor: W. N. Mack, Professor.

Thesis: The Effect of Various Enzymes on the Antigenic Activity of Heated and Unheated Bordetta Suspensions.

Aina Valdmanis

# DEGREE OF DOCTOR OF PHILOSOPHY (Continued)

Dallas Gene Waddill

B.S., Arkansas State College; M.S., Michigan State University. Animal Husbandry. *Major Professor*: D. E. Ullrey, Assistant Professor.

Thesis: Hematology of the Fetal and Newborn Pig. 1. Cellular Populations and Serum Protein Concentrations.

Streighton Arthur Watts

Philip Eugene Wigen

James Alfred Williams

Donald Gray Williamson

Walter Bruce Zimmerman

A.B., M.A., Pennsylvania State University.

Political Science. Major Professor: J. LaPalombara, Professor.

Thesis: The Influence of Socio-Economic Factors on Party Vote in the Italian General Election of June 7, 1953.

B.A., Pacific Lutheran College.

Physics and Astronomy. Major Professor: J. A. Cowen, Assistant Professor.

Thesis: Paramagnetic Resonance Absorption in Several Electron Erradiated Molecular Crystals.

B.S., M.S., D.V.M., Michigan State University.

Veterinary Pathology. Major Professor: C. C. Morrill, Professor.

Thesis: The Clinicopathologic Effects of Thyroidectomy on Reproductive and Other Body Functions in the Male Goat.

A.B., M.A., Wayne State University.

Speech. Major Professor: M. N. Nelson, Associate Professor.

Thesis: An Investigation into Abbreviated Clinical Procedures for Hearing Aid Evaluations.

B.A., Emmanuel Missionary College.

Physics and Astronomy. Major Professor: D. J. Montgomery, Professor.

Thesis: Infrared Absorption Spectra of Isotopically Enriched Lithium Hydride.

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# DEGREE OF DOCTOR OF EDUCATION

Otis J. Aggertt

B.E., Western Illinois State College; M.A., University of Illinois.

Teacher Education. Major Professor: M. Muntyan, Professor.

A.B., Central Michigan College; A.M., University of Michigan.

Thesis: A Study of the Teaching of Oral Interpretation in Michigan, Selected Textbooks and the Practices in Extra-Classroom Activities.

Administrative and Educational Services. Major Professor: S. E. Hecker,

Thesis: A Study of Selected Factors Relating to College Enrollment of Public High School Graduates Within 6 Months After Graduation.

Ferris Nathan Crawford

Nye Lee Labaw

Alfred Otto Niemi

Rex Beach Smith

Wayne Dean Woodby

Associate Professor.

B.S., M.S., University of Illinois.

- Health, Physical Education and Recreation. Major Professor: K. J. Mc-Cristal, Professor
- Thesis: A Study of the Acceptance and Rejection of the Foundations of Physical Education Course by Freshman Men at Michigan State University.

## B.S., M.S., Michigan State University.

Teacher Education. Major Professor: H. M. Byram, Professor

Thesis: Instruction in Forest Practice in Michigan Public Schools with Implications for Teacher Education.

A.B., Western Michigan University; M.A., University of Michigan.

Administrative and Educational Services. *Major Professor*: C. M. Campbell, Professor.

Thesis: A Comparative Study of the Expectations Which Teachers, Administrators, School Board Members and Citizens of Three School Districts Have of the Teacher's Role in School and Community.

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

Administrative and Educational Services. *Major Professor*: W. H. Roe, Professor.

Thesis: An Analysis of National and State Pupil Transportation with Special Emphasis on Cost Factors in Ten Selected Michigan Counties.