TUESDAY, DECEMBER NINTH

NINETEEN HUNDRED AND FIFTY-EIGHT

13,1

The
Fall
Commencement
of
Michigan
State
University

The
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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, 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 immeditely 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 AGRICULTURE	Maize
Forestry	Russet
COLLEGE OF BUSINESS AND PUBLIC SERVICE	Maroon
COLLEGE OF COMMUNICATION ARTS	Royal Blue
COLLEGE OF EDUCATION	Light Blue
COLLEGE OF ENGINEERING	Orange
COLLEGE OF HOME ECONOMICS	Black
COLLEGE OF SCIENCE AND ARTS	
Arts	oxdots White
Music	Pink
Science	Golden Yellow
COLLEGE OF VETERINARY MEDICINE	Gray

ORDER OF CEREMONIES

PROCESSIONAL

TRIUMPHAL MARCH FROM "CLEOPATRA"

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 Pilgrim's pride;
From ev'ry mountain side
Let freedom ring!

INVOCATION

RABBI PHILIP FRANKEL Shaarey Zedek Congregation Lansing, Michigan

ADDRESS:

EDGAR L. HARDEN, ED.D.

President, Northern Michigan College

CONFERRING OF DEGREES

JOHN 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

RABBI PHILIP FRANKEL

RECESSIONAL

CORONATION MARCH FROM "THE PROPHET"...

Meyerbeer

STATE BOARD OF AGRICULTURE

Michigan State University operates under the jurisdiction of a constitutional body known as the State Board of Agriculture. 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 that 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	Pinconning
THE HONORABLE CLARK L. BRODY	Lansing
THE HONORABLE C. ALLEN HARLAN	Detroit
The Honorable Arthur K. Rouse	Boyne City
THE HONORABLE DON STEVENS	Okemos
THE HONORABLE JAN B. VANDERPLOEG.	North Muskegon
2337, 23 -40-2000 38403	
THE HONORABLE LYNN M. BARTLETT, Ex Officio	Lansing
John A. Hannah, Ex Officio, President	East Lansing
KARL H. McDonel, Secretary	East Lansing
PHILIP J. MAY, Treasurer	East Lansing

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 103rd 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, 98 permanent and 450 temporary buildings, and almost 4,200 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 Medicine-and the School for Advanced Graduate Studies, and offers 130 different courses of study, 70 of these on the graduate level. This excludes the curriculum of the Basic 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 students 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 1957-58 year, the Continuing Education Service reached more than 100,000 persons in programs conducted both on campus and in local communities.

Today, more than 19,000 students from Michigan and other states and from nations all over the world are attending the University at East Lansing—about 9,000 of whom are housed on the campus proper. With about 85 percent of these students coming from communities in every section of the state, Michigan 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.

OF

AGRICULTURE

The candidates will be presented by DEAN THOMAS K. COWDEN

DEGREE OF BACHELOR OF SCIENCE

Clarence Joseph Aerts Dairy Manufacturing	Hart	Bradford Larry Gourdie Residential Building	Mt. Morris
Alan Edward Armstrong Richards Land Fisheries and Wildlife	ling, Can.	*Robert Rance Grothman Forestry	Tomahawk, Wis.
- *John Asmah Cape Coast, Ghana, Wood Processing Technology	W. Africa	Frederic R. Haines Lumber and Building Mat	Ellwood City, Pa. erials Merchandising
- Chester Congdon Bannister M Packaging Technology	arine City	Richard Allen Haynor Agricultural Extension	Hart
- Norman Charles Bauer Berra Agricultural Extension	ien Center	Donald M. Heller Residential Building	Lansing
*William Clark Bryant Orc. Fisheries and Wildlife	hard Lake	Richard Harry Hoepfinger Packaging Technology	Kenmore, N. Y.
- Neil Hurley Butler Mt Residential Building	c. Clemens	► John Edward Howell Packaging Technology	East Lansing
Richard Hemyng Carlson Cress Dairy Manufacturing	skill, N. J.	Frederick Martin Joffe Food Technology	Evanston, Ill.
 Keith Frederick Cline Fisheries and Wildlife 	Mason	Keith Wendell Johncock Residential Building	Delton
Terry Lee Dankenbring Green Packaging Technology	and Ledge	William Leonard Johnston, Jr.Packaging Technology	Collingswood, N. J.
 Ralph Noel Dell Residential Building 	Lansing	Glenn Henry Kardel Farm Crops	Charlotte
Leo William Dorr Dairy Production	Saginaw	†Lewis E. Kirkwood Packaging Technology	Adrian
- James Ronald Dray Sny Packaging Technology	ıder, N. Y.	- Gale Dean Kline Animal Husbandry	Constantine
 James Lyman Frimodig Residential Building 	Lansing	 Richard James Konchar Fisheries and Wildlife 	Cleveland, O.
- George Jr. Fyrciak F Agricultural Mechanics	Fowlerville	Reinhart Paul Korn Packaging Technology	Flushing
Roderic J. Garn Dairy Production	Charlotte	Raymond Eugene Latowski Packaging Technology	Battle Creek
Kenneth James Garno Farm Crops	Deerfield	David Earl Longfield Animal Husbandry	Highland

COLLEGE OF AGRICULTURE DEGREE OF BACHELOR OF SCIENCE (Continued)

William Dean Lontz Residential Building	Decatur, Ill.	*Richard George Stonex Forestry	Brighton
Thomas Frederick Marick Packaging Technology	Grosse Pointe	*Harry DeWitt Switzer Forestry	Murphysboro, Ill.
Darrel Charles Middlewood Park Management	Livonia	Willet Theodore VanVelzen Fisheries and Wildlife	Otsego
Kent Brian Nerbonne Wood Processing Technol	Lansing ology	Otomars Veiss Food Technology	Lansing
- Kenneth Charles Phelps Packaging Technology	Battle Creek	Larry Edward Walsh Packaging Technology	Detroit
Neville Virgil Pitcher Residential Building	Sheridan	-Gerald David Watson	Wayne
John Fredrick Porritt Residential Building	Alto	Fisheries and Wildlife Norman Hahn Weber	Oak Park
Michael Hanson Price Packaging Technology	Lansing	Floriculture Robert Frederick Weiss	Flint
Harold Junior Rappuhn Agricultural Mechanics	Mayville	Fisheries and Wildlife Jerry Lee Wilson	Owosso
Thomas Russell Richards Agricultural Journalism	Saline	Forestry	Homer
*Richard Thomas Ruff Dairy Manufacturing	Port Huron	Ralph Stanley Wirebaugh Agricultural Economics	7 1.2 1.2 1.2 1.
John Max Schafsnitz Packaging Technology	Reese	Nicholas Peter Yeanoplos Packaging Technology	Detroit
Richard Peter Seroka Packaging Technology	Hamtramck	Richard Donald Young Packaging Technology	Lansing
Harris Walker Seymour Packaging Technology	Kapuskasing, Canada	Paul Farnsworth Young, Jr. Packaging Technology	East Lansing
Ronald Douglas Steffens Lumber and Building Me	Fraser aterials Merchandising	Ralph Zynda Packaging Technology	Fountain
DEGREES RECOMMENDED JOINTLY BACHELOR OF SCIENCE	WITH THE COLLEGE OF	F EDUCATION	(
John Raymond Arlt Agricultural Education	Kingsley	Don Morley Lindsay Agricultural Education	Charlotte
John Dallas Curell Agricultural Education	North Branch	Benjamin Alvin Miller Agricultural Education	Alto
John Edward Jansen Agricultural Education	Detroit	*James Dalton Potier Agricultural Education	Perry
- John Francis Leech Agricultural Education	Morenci	11g. wantu Lunculii	

DEGREE OF MASTER OF SCIENCE

Frederick Hung Fo Au Soil Science	Honolulu, Hawaii	Lowell Nelson Lewis Horticulture	West Pittston, Pa.
Ransom Leland Baldwin, Jr. Dairy	Meriden, Conn.	Lloyd Oscar Luedecke Dairy	Carvallis, Mont.
Max Erwin Benne Dairy	Okemos	- George Cameron MacQueen Agricultural Extension	Howell
Richard Lee Cooper Farm Crops	Brook, Ind.	Daris Daniel Moyer Agricultural Economics	Okemos
David Lee Correll Fisheries and Wildlife	Lombard, Ill.	Thomas Richard Mulvaney Food Technology	Bellevue
Richard Hugh DeLano Horticulture	Grand Rapids	Ormond Charles Pailthorp Dairy	Petoskey
Joseph Ralph Dumont Farm Crops	Mikado	Fred J. Peabody Agricultural Extension	Saranac Saranac
Per Erik Eliasson Agricultural Economics	Tarna, Sweden	Carl Axel Rannfelt Agricultural Engineering	Orebro, Sweden
George Edward Evans Horticulture	Simms, Mont.	Donald J. Richards Resource Development	Jackson
Lyle Patrick Fettig Agricultural Economics	Petoskey	Thomas Ritsuo Sawa Animal Husbandry	Ewa, Hawaii
Robert Dean Fox Agricultural Engineering	Cass City	Robert William Scheuerman Horticulture	Detroit
~ George Richard Fritz Dairy	Detroit	Lee Frederick Schrader Agricultural Economics	Okawville, Ill.
- Joe R. Goodin Horticulture	Claude, Tex.	Hari Mohan Singh Soil Science	Tilkamajhi, India
Glen Willis Higgins Agricultural Economics	Liberty, Ind.	Frederick G. Snook Forest Products	Akron, O.
Mary Strickland Holmes Agricultural Economics	Grand Rapids	Richard William Taylor Farm Crops	Idaho Falls, Id.
 Kay Victor Lask Agricultural Engineering 	Detroit	Jerry B. Waters Agricultural Economics	St. Francis, Kan.
Ronald Keith Leonard Agricultural Engineering	Woodbine, Ia.	John Otto Younger Forest Products	Appleton, Wis.

OF

ENGINEERING

The candidates will be presented by DEAN JOHN D. RYDER

DEGREE OF BACHELOR OF SCIENCE

*Page LeRoy Bellinger Agricultural Engineering	Rosebush	Joseph William McAvoy Agricultural Engineering	Owosso
Theodore Donald Benson, Jr. Mechanical Engineering	Jackson	Leonard George Nowak Agricultural Engineering	Cedar Springs
Hugh James Bond, Jr. Civil Engineering	Lansing	Leo George Oehring Mechanical Engineering	Wyandotte
Patrick Errol Caskey Mechanical Engineering	Williamston	R. B. Omo, Jr. Agricultural Engineering	Tekonsha
Donald Boyd Churchill Agricultural Engineering	East Lansing	Lawrence William Radzville Civil Engineering	Detroit
Edward Ervin Doty Mechanical Engineering	East Lansing	Glenn James Rice Mechanical Engineering	Sidney, N. Y.
James Lionel Duncan Agricultural Engineering	Clare	Keyvan Rokni Mechanical Engineering	Tehran, Iran
Richard Lee Gifford Mechanical Engineering	Lansing	Robert Stuart Rouston Mechanical Engineering	Detroit
Kenneth Iver Gustafson Electrical Engineering	Felch	Alvaro Sarria Mechanical Engineering	Popayan, Colombia
Edgar E. Haase Chemical Engineering	Niles	Jack Deward Slocum Mechanical Engineering	Hastings
Louis Charles Hamilton Mechanical Engineering	Mayville	Donald Erwin Spencer Electrical Engineering	East Tawas
Philip Charles Hedges Civil Engineering	Snyder, N. Y.	James Donald Springer Agricultural Engineering	Detroit
Morris Ross Hoffman Chemical Engineering	Fenton	Donald Eugene Stroud Civil Engineering	Lansing
► John Andrew Kalasky Metallurgical Engineering	Detroit	John Edmund Talbot Mechanical Engineering	Scotia, N. Y.
DEGREE OF MASTER OF SCIEN	CE	laborate 11 1 3	
Leon Howard Arnold Civil Engineering	Athens, Pa.	Leslie Erwin Lahti Chemical Engineering	Superior, Wis.
Richard Thomas Bourns Chemical Engineering	South Lyon	B. Basava Raju	Bangalore, India
David Christian Hilty Electrical Engineering	Chatham, N. J.	Applied Mechanics	
Edwin Tetsuo Kaneko Civil Engineering	Kona, Hawaii	Edward Michael Schall Applied Mechanics	St. Louis, Mo.

OF

HOME ECONOMICS

The candidates will be presented by DEAN THELMA E. PORTER

DEGREE OF BACHELOR OF SCIENCE

Harriett Ann Endress General Home Economics	Detroit	Mary Jane Roth General Home Economics	Leland
Mary Lou Jenkins Retailing	Ambler, Pa.	Nancy Jean Sayers Home Economics Extension	Davison
*Jacqueline Northrup Johnston General Home Economics	East Lansing	Nancy Murtella Secules General Home Economics	Battle Creek
Mary Ann Pete General Related Arts	Grosse Pointe	Shirley Ann Steckly Foods	Toledo, O.
-*Betty Lou Rocker Roberts General Home Economics	Wixom	Barbara Evelyn Thrun Nutrition	Lansing

DEGREES RECOMMENDED JOINTLY WITH THE COLLEGE OF EDUCATION

BACHELOR OF SCIENCE

Barbara Elide King Home Economics Teaching	Honor	Janice Lorraine Ostapowicz Home Economics Teaching	Grand Rapids
Nancy Lee Kline Home Economics Teaching	Constantine	Eileen Ida Rebmann Roslyn Home Economics Teaching	n Heights, N. Y.
- *Leota Mae Orchard Home Economics Teaching	Davison		

DEGREE OF MASTER OF ARTS

Sister Ann Gabriel Kilsdonk Monroe
Clothing and Textiles

DEGREE OF MASTER OF SCIENCE

Roberta H. Atkinson Missoula, Mont. Mary Elizabeth Slater Mitchell, Ind.
Institutional Administration Institutional Administration

Catherina P. Melchy Amsterdam, Netherlands
Foods

OF

VETERINARY MEDICINE

The candidates will be presented by DEAN WILLIS E. ARMISTEAD

DEGREE OF BACHELOR OF SCIENCE

*Margaret Howard Kropschot Medical Technology

Detroit

DEGREE OF MASTER OF SCIENCE

Thomas Mathew Ford Surgery and Medicine

Battle Creek

Bernard Franklin Taylor Charles Town, W. Va. Microbiology and Public Health

James H. Strickland Anatomy

Lansing

Glenn Lee Waxler

East Lansing

Veterinary Pathology

COLLEGE

OF

SCIENCE AND ARTS

The candidates will be presented by DEAN MILTON E. MUELDER

THE RELEASE THE THE RESIDENCE OF SALES, SALES AND SALES

DEGREE OF BACHELOR OF ARTS

7	James Edward Balfour Social Science Divisional	Pentwater	*Winnifred Ann Daignault Lansing English
,	Dale John Beck Geography Thomas Carlton Bernhardt Psychology	Ithaca Northville	John Everett Davis Social Science Divisional James Drummond Dooley Saginaw
	Charles Bainbridge Bishop <i>Art</i>	Detroit	Art Dwight George Ebeling Almont
-	John McIntyre Clifford Social Science Divisional	East Lansing	Social Science Divisional
-	John Alexander Colvin Social Science Divisional	Lansing	Robert Farrell Eck Iron Mountain Social Science Divisional
-	Robert Lee Crowner Social Science Divisional	DeWitt	*Carole Ann Ellis Columbia, Mo. Music Therapy
•	Richard Banister Curren Social Science Divisional	Kalamazoo	*Kay Ruth Ewer Lansing Music Therapy

With Honor

also: Jay Dundon Jacoles. Hist Judith ann Sarwood ...

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DEGREE OF BACHELOR OF ARTS (Continued)

Elaine Dale Fineout Lansing English	Gerald Clayton Meyer N. Rose, N. Y. Psychology
Annette Horton Hardesty Oak Park Social Science Divisional	• John Michael Moran Rochester Philosophy
Joan Kay Olsen Hashimi Racine, Wis. Psychology	Jay B. Myers Social Science Divisional Lansing
*Jerry Dockham Henderson Kingston Social Science Divisional	Betty Mae Ostrander Stockbridge History
Carl Willis Hess Social Science Divisional Sault Ste. Marie	Peter William Platten Royal Oak Social Science Divisional
Robert John Hierholzer Herkimer, N. Y. Chemistry	Virginia Ann Baker Pomerleau Bloomfield Hills
Richard Edward Hockenbury Danville, Ill. Social Science Divisional	Art Gene Raymond Pritchard Jackson
Robert Read Jenkins Social Science Divisional Bloomfield Hills	Sociology and Anthropology John Charles Prost Detroit
Harry Mershon Jordan, Jr. Detroit Psychology	Social Science Divisional Plato Nicholas Rantis Stevensville
- Allen Edward Kemppainen Pelkie Chemistry	Social Science Divisional
†Charles A. Kiesler Otter Lake Psychology	Morris M. Russ Psychology Guatemala City, Guatemala
Suzanne Marie Leichtamer Toledo, O. Philosophy	Stuart Silvers Jamaica, N. Y. Social Science Divisional
Mary Kay Liddle Grosse Pointe Woods Social Science Divisional	William Robert Thomas Kingsford Psychology
Johnson City, Tenn. Music Therapy	**Richard Norman Wagner Birmingham Physics and Astronomy
Charles Edward Lucey, Jr. East Lansdowne, Pa. Social Science Divisional	Vera Jane Windbial Chicago, Ill. Social Science Divisional
Nelson Edward Lyke Livonia Social Science Divisional	Ronald Edwin Witt Taverse City Mathematics
 Kenneth Jay McCormick Social Science Divisional 	Roslyn Whaley Young Art Lansing

DEGREES RECOMMENDED JOINTLY WITH THE COLLEGE OF EDUCATION BACHELOR OF ARTS

Marjorie Ann Bach Social Science Divisional	Akron	Saralee Bernth English	Greenville
George Arnold Bentley Art	Lyndonville, N. Y.	Michael Vincent Bell Social Science Divisional	Birmingham

*With Honor †With High Honor

COLLEGE OF SCIENCE AND ARTS

DEGREES RECOMMENDED JOINTLY WITH THE COLLEGE OF EDUCATION BACHELOR OF ARTS (Continued)

Joellen Harriet Butters Social Science Divisional	Coldwater	Robert Alan MacLauchlin History	Bessemer
Keith O. Evans History	East Jordan	Paul James Pernish Social Science Divisional	Owosso
Doris Huie Art Education	Brooklyn, N. Y.	Wayne Allen Phares $English$	Battle Creek
Judith M. Langohr Art Education	Columbia City, Ind.	*Richard Macfarlane Proctor Art Education	Dearborn
*Mary Lou Lewis History	Perry	Carl Harold Richter English	Bay City
Richard Chapman Lyon Social Science Divisional	Wy and otte	*Virginia Ann Voytech Art Education	Chicago, Ill.
Donald Gordon MacKenzie Sociology and Anthropolo	Clawson 19gy	†Donald Laverne Walters History	Muskegon

DEGREE OF BACHELOR OF SCIENCE

*Samuel Leslie Alguire Geology	Plainwell	Ralph Emerson Irwin Microbiology and Public H	Detroit Iealth
Bruce Lee Barker Mathematics	Charlevoix	James Daniel Kanitz Geology	Traverse City
Raoul E. Bates Zoology	Utica, N. Y.	*Ranney Allen Klenke Physics and Astronomy	Grand Ledge
Roland Girard Bolduc Mathematics	Old Orchard Beach, Me.	`Albert Carl Krug Geology	Montague
Robert Ernest Brown Geology	Leslie	Kenneth Darrow Kuhn Geology	Fenton
► H. Dennis Clark Zoology	South Lyon	John Stephen Kupiec Mathematics	Detroit
Janet Sharon Elsifor Nursing Education	Ann Arbor	Robert Collins Leonard Zoology	Ferndale
William Edward Fabian Zoology	Willow Springs, Ill.	*John Alexander Letts Zoology	Durand
Seth Thomas Foresman I Geology	V Birmingham	Joseph Harry Lezovich, Jr. Mathematics	Morrice
Edward George Graham Physical Science Dia		Frederick Ernest Mensenberg Geology	Dearborn
> John Alan Grauer Biological Science I		Richard Leighton Reames Geology	Dowagiac
Richard Clare Hartt Geology	Birmingham	Darrell Alfred Tester Geology	Marshall

*With Honor †With High Honor

also alan Les Culpepper chem

DEGREE OF BACHELOR OF SCIENCE (Continued)

Richard John Thompson Geology	Grand Rapids	*Dean Bessmer Webb Geology	Lansing
James Richard Wallace Geology	Leslie	Evan Southgate Williams	Rochester
*Thomas Patrick Wangler	Lansing	Physics and Astronomy	

DEGREES RECOMMENDED JOINTLY WITH THE COLLEGE OF EDUCATION BACHELOR OF SCIENCE

*Warren Lee Cook	Holland	Peter David Goldberg	Marshall
Biological Science Divisional		Biological Science Divisiona	l
David Richard Fleming Botany and Plant Pathology	Grand Rapids	George Jacques Hopely Zoology	Philadelphia, Pa.
*Myrtle Ann Goetz Mathematics	Walled Lake	Harold George Kiehm II Biological Science Divisiona	Chicago, Ill.

BACHELOR OF MUSIC

Kenneth Adrian Ish	Pontiac
School Music	

DEGREE OF MASTER OF ARTS

Physics and Astronomy

Walter Rosser Banks Paulsboro, N. J. Sociology and Anthropology	Robert Ewart Ihrig Art Lansing
John Alfred Belton Saginaw Psychology	James Joseph Kelly Rifton, N. Y. Art
Paul S D Berg Psychology Bronx, N. Y.	Richard Seth Knowles Holt Sociology and Anthropology
George Charles Bubolz, Jr. East Lansing Sociology and Anthropology	* Helen Patricia Lipscomb Waynesboro, Va. Philosophy
Charles Emmett Elliott III South Orange, N. J. English	Dennis Lee Massie Owosso English
John James Gawronski Dunkirk, N. Y. Psychology	Douglas W. McNitt Art Okemos
William Harrison Haight Lake Orion Sociology and Anthropology	Kliem Ralph Miller Holt Psychology
Lloyd Daniel Hayes Flint Philosophy	Lois Bartlett Tracy Wise, Va. Art
Eugene Carl Hepola Hancock Sociology and Anthropology	Frank Maddox Winn Vancouver, Canada French
Gerald Lee Hershey Redondo Beach, Cal. Psychology	Anthony Zito St. Clair Shores Social Science

COLLEGE OF SCIENCE AND ARTS DEGREE OF MASTER OF SCIENCE

William Fay Bradford Geology	Royal Oak	Robert Paul Jackson Strag Geology	ffordsville, Canada
John Gary Brady <i>Entomology</i>	Trenton	John William Kools Microbiology and Public He	Holland ealth
Albert Harold Bryan Mathematics	Indianola, Ia.	Stanley Garson Krane Chemistry	New York, N. Y.
David Lewis Egleston Geology	Lansing	Parrin Medhat	Tabriz, Iran
- Jack Albert Eichmeier Entomology	Okemos	Chemistry Neill Hodges Nutter	Pontiac
Stanley H. Elman Geology	Brooklyn, N. Y.	Geology	
George Howard Ferguson Microbiology and Public He	Providence, R. I. ealth	∼ James Francis O'Connell Geology	Lowville, N. Y.
Hajime Hayashi Microbiology and Public He	Gifu City, Japan ealth	Jerry William Riffle Botany and Plant Pathology	South Bend, Ind.

DEGREE OF MASTER OF ARTS TEACHING

Robert Keith Harry

Chemistry

Lansing

DEGREE OF MASTER OF MUSIC

Boyd Charles Halstead Flint Dean Allen Verhey Hollandsdale, Minn.

Music Education Music Education

COLLEGE

OF

BUSINESS AND PUBLIC SERVICE

The candidates will be presented by DEAN ALFRED L. SEELYE

DEGREE OF BACHELOR OF ARTS

David Vernon Abelew Economics	Milwaukee, Wis.	Foster D. AschenBrenner General Business Admir	Farmington nistration
David Jerome Affholder Marketing	Lansing	Norman Louis August Economics	Chicago, Ill.
*Terence August Andre Marketing	Saginaw	• Jack Michael Battaglia Accounting	Jamestown, N. Y.

DEGREE OF BACHELOR OF ARTS (Continued)

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Albert Thomas Bell Niles Economics	Thomas Fred Fox Indianapolis, Ind. Hotel Administration
Michael Alan Beckerman Political Science Bronx, N. Y.	Irving Charles French Accounting Jackson
James Leon Bischoff Marshall General Business Administration	Donald W. Gerrie Highland Park Production Administration
Robert Lawrence Block Grand Rapids Economics	Robert Page Ghysels Grand Rapids General Business Administration
Romine David Bristol **Economics** *Almont**	Dean Duane Gould St. Louis Marketing
Clarence Jacob Brainerd Chesaning General Business Administration	Norman Campbell Griffeth Hickory Corners Accounting
Lyle R. Brown, Jr. Production Administration Lathrup Village	Robert Bruce Grinager Farmington Production Administration
Ronald J. Bumbalo Hotel Management Jamestown, N. Y.	Donald Merwyn Hannula Calumet Production Administration
David Payne Caswell Port Huron General Business Administration	Lawrence Francis Harding, Jr. Detroit General Business Administration
Clarence Ronald Capps Columbus, O. Production Administration	Donald Leach Harter Cornwall, N. Y. Marketing
Donald Fruehauf Chamberlin Grosse Pointe General Business Administration	Richard George Hebeler St. Johns Economics
Robert Stedman Chase Personnel Administration	Robert Neal Hills Sturgis Economics
Robert William Clarke Charlevoix Accounting	Minh Hoang Saigon, Viet-Nam Economics
- Jeffrey Webb Coke Chesaning Economics	Steward B. Hoffman, Jr. Omaha, Neb. Economics
Frederick Charles Cooledge Traverse City Economics	Robert Roy Horan Fort Worth, Tex. Restaurant Management
Thomas K. Curtis Economics Adrian	Kenneth Alan Johnson Pontiac Political Science
William Nelson Dahlquist Trenton Accounting	Russel Bernard Johnson Wheaton, Ill. Hotel Management
Frank Joseph Danko Centerline General Business Administration	Walter Atwood Jones Lansing Accounting
Roy Edwin Elliott Flushing General Business Administration	Joel Jones Weirton, W. Va. Accounting
Harry L. Fortier Ludington Transportation	Robert Willis Julier Kirkwood, Mo. Restaurant Management

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

*Gordon Clifford Keiser Economics	Dearborn	Herbert Mallett McCabe Economics	New Rochelle, N. Y.
William Paul Kesseler General Business Adminis	Traverse City tration	John Arthur McCormack General Business Admir	Ithaca nistration
†Donald Richard Klein Accounting	Albion	Keith LeRoy McGehee Economics	Flint
*Ernest Jacob Klotz Political Science	Detroit	Jefferson Brown Miller, Jr. Food Distribution	Bonifay, Fla.
Robert Arthur Knight Hotel Management	Garland, Me.	John David Mish, Jr. Production Administration	Manistee on
Patrick William Knox Economics	Saginaw	Samuel Johnson Mitchell Real Estate	Lansing
Joseph Edward Korcyl Institutional Management	Bemus Point, N. Y.	Salvatore Peter Monti General Business Admir	Riverside histration
William Nicholas Kritselis Economics	Sault Ste. Marie	Kenneth Arthur Morris, Jr. **Accounting**	Niles
*Jim J. Larson Economics	Nashville	Michael Kevin Mulvihill Economics	Grand Rapids
Donald Anthony Lawrence Economics	Alpena	*David Owen Nicholson Economics	Salem, Mass.
James Boyd Laman (4) Marketing	Royal Oak	Max Lachlan Noble Accounting	Holton
*David Francis Lean Economics	Tasmania, Australia	`William J. Nydem General Business Admir	Parma, Mo.
*Robert Jay Lewis Accounting	Owosso	Kenneth Gustave Olson Accounting	Niagara, Wis.
 Hamilton Ward Lewis, Jr. Marketing 	Grosse Pte. Farms	William Edward Osband, J. General Business Admir	
Richard James Leys Production Administration	Battle Creek	Michael Blaine Panitch <i>Economics</i>	Chicago, Ill.
William Hugh Little Restaurant Management	Bloomfield Hills	Myron Walter Paskewich General Business Admir	Troy, N. Y.
Herbert Allan Lunsford Financial Administration	Elkhart, Ind.	Albert Roosevelt Pastori Economics	Iron Mountain
*Norman Richard Magel Political Science	Detroit	Halket Meyer Pattullo Restaurant Management	Wilmette, Ill.
George Stephen Manspeaker Production Administration	Buchanan	Lowell Chester Pederson Accounting	Rapid City
Archie George Matsos Economics	Detroit	Dale Orrin Perin General Business Admin	Ann Arbor nistration

*With Honor †With High Honor

also James Sheridan Olsen

DEGREE OF BACHELOR OF ARTS (Continued)

Leonard Gene Peterson Bay City General Business Administration	Jesse Manuel Soriano Pontiac Political Science
Bernard Edward Prendergast Rochester, N. Y. Production Administration	Joel Douglas Steury Grand Rapids Purchasing Administration
Cassell Clark Pursell Jackson Economics	* Anton Swanckaert Lansing Accounting
Susan E. Reason Social Work Birmingham	Terry T. Tice Massena, N. Y. Production Administration
Von Reynolds Economics Keego Harbor	Winston George Tisch Economics Munith
Fred Wilhelm Richter Niles Accounting	William Edward Uzelac, Jr. Detroit Economics
Robert Nicholas Rivest Royal Oak General Business Administration	William Paul Van OosterHout Holland General Political Science
James Allen Rousseau Saginaw Personnel Administration	Donald David Vest Production Administration Detroit
Stanley Wayne Ruis Accounting Ellsworth	*Henry Junior Vogeler Ishpeming Production Administration
Gerald Edward Ruttman Denver, Colo. Institutional Management	* Gerald Lester Vogelei Detroit Production Administration
Elliott Alden Ryan Hotel Management Cooperstown, N. Y.	Richard Carl Wahl Personnel Administration Glen Ridge, N. J.
Herbert Shuichi Sato Honolulu, Hawaii Production Administration	John Edmon Ward General Business Administration Detroit
*David George Sauter Ironwood Accounting	Lynn Eugene Webb General Business Administration
Karl Louis Schwinger Saginaw General Business Administration	Robert Eric Wenner East Lansing
Miner Doyle Seager Brown City Accounting	Accounting David Gordon Wesenberg Ann Arbor
Kenneth Gustav Seline Detroit Accounting	General Business Administration Clark Newell Woodworth, Jr. Ann Arbor
Leonard Chester Slavik Flint Restaurant Management	Personnel Administration Mekuria Kenfe-Michael Worku
David Couleur Sleininger Wilmette, Ill. Hotel Management	Addis Ababa, Ethiopia Public Administration

COLLEGE OF BUSINESS AND PUBLIC SERVICE

degrees recommended jointly with the college of education $\operatorname{BACHELOR}$ OF ARTS

Joan Charlene Balcer Grand Rapids General Political Science	*Elaine Ellen Elder Deerfield Business Education
Robert Bruce Bridgman Canandaigua, N. Y. Economics	George Capper Graham Detroit Business Education
*Eleanor Kettner Cozadd Okemos Business Education	Conrad Carl Konczal Rochester
James Leroy Eastman Royal Oak Business Education	Economics
DEGREE OF BACHELOR OF SCIENCE	
Anthony Albert Bellas Warren Industrial Security Administration	*Allan Nathaniel Kornblum Brooklyn, N. Y. Law Enforcement Administration
Robert Henry Bough Perry Industrial Security Administration	Solution John Kuntz New Kensington, Pa. Law Enforcement Administration
Robert Leo Burton Gladstone Correctional Administration	*Wayne Stanley Loch Chicago, Ill. Law Enforcement Administration
Raymond Ronald Cilva Boyne City Law Enforcement Administration	John A. Meyer Clinton, Ia. Law Enforcement Administration
Daniel James Dowd Janesville, Wis. Law Enforcement Administration	Michael Bert Pekrul Holt Law Enforcement Administration
James E. Farmer Lansing Urban Planning	Allan Richard Pringle Clinton, Ia. Law Enforcement Administration
Benjamin Arthur Geerds Holland Highway Traffic Administration	Alvin Rosenberg New York City, N. Y. Law Enforcement Administration
Kenneth Steve Giannoules Chicago, Ill. Law Enforcement Administration	Michael Joseph Shannon Traverse City
Thomas Mathew Graski Ironwood Correctional Administration	Law Enforcement Administration Yvonne Marie Simcox Ashley
Gary Russell Griffith Greensboro, N. Car. Law Enforcement Administration	The Prevention and Control of Delinquency and Crime
- James Michael Hane Midland Landscape Architecture	Robert Francis Smith Keego Harbor Landscape Architecture
- Edwin Luzon Harmon Monrovia, Liberia Law Enforcement Administration	Naomi H. Thrower New Kensington, Pa. Crime Prevention
William Dean Jansen, Jr. Pekin, Ill. Law Enforcement Administration	Kenneth Glen Wiley Elkton Correctional Administration
Kent Dolson Jordan Lansing Law Enforcement Administration	Phillip Walter Zink Ann Arbor Law Enforcement Administration

DEGREE OF MASTER OF ARTS

Affonso C. Albuquerque Arantes Sao Paulo, Braz General Business Administration	il Mark David Mulder Grandville General Business Administration
James Edward Bell Three Lakes, Wi Food Distribution	S. Alan Francis Olson South Haven Accounting
Jack Joseph Bellick New York, N. 1 Food Distribution	Y. Frediano Quilici Sao Paulo, Brazil
Alvin J. Bytwork Grand Rapid General Business Administration	General Business Administration Alvin Gary Schultz Wyandotte
Byron Edward Chalfant Reading, Po Food Distribution	z. Economics Kenneth Elton Schultz Wyandotte
Edward Dale Day Jackson Marketing	n Economics
Donald James Evans Flia Political Science	Donald Richard Smith East Lansing Marketing
Donald Edward Harrington Bronx, N. 1 Food Distribution	Max Edmund Smith Saginaw Hotel, Restaurant and Institutional Mgt.
Richard Clair Klamer Hudsonville Accounting	le Henry Otto Timnick Victoria, Canada General Business Administration
John Clark Moffett Kalamazo General Business Administration	o Frederick Glenn Wilder Chardon, O. Accounting

DEGREE OF MASTER OF URBAN PLANNING

Joseph Martin Prochaska
 Urban Planning

Detroit

COLLEGE

OF

EDUCATION

The candidates will be presented by DEAN CLIFFORD E. ERICKSON

DEGREE OF BACHELOR OF ARTS

Iva Jean Allen Elementary Education	Gibraltar	*Joan Elizabeth Byrne Elementary Education	Grand Rapids
Sharon Elaine Baxter Elementary Education	Hamburg, N. Y.	*Nada Free Clark Elementary Education	Lansing
Camarie Harder Beaver Elementary Education	Detroit	*Nancy Allen Collins Elementary Education	Ithaca

COLLEGE OF EDUCATION DEGREE OF BACHELOR OF ARTS (Continued)

	•		
Marion Jean Conradsen Elementary Education	Detroit	Patricia Ann Miller Elementary Education	Farmington
†Jane Anne Cowherd Craigie Elementary Education	Birmingham	Barbara Jean Murray Elementary Education	East Lansing
Patricia Ann Creager Elementary Education	Climax	➤ Howard Michael Oesterle Elementary Education	Mason
Marilyn Geraldine Dempsey Elementary Education	Muskegon	Helen Louise Osborn Elementary Education	Lansing
-Astrid Marie Drulard Elementary Education	Traverse City	*Helen E. Oswalt Elementary Education	Rochester
- Judith Houghton Frost Elementary Education	Clio	Marlene Joyce Peterson Elementary Education	Schenectady, N. Y.
Adeline M. Giacobone Elementary Education	Wayne	Jeanine Ann Petschke Elementary Education	Quinnesec
*Clara A. Goyings Elementary Education	New Boston	Ann Elizabeth Redner Elementary Education	Farming ton
Joan Frances Grant Elementary Education	Detroit	Cynthia Ann Robertson Elementary Education	Adrian
Judith Meyer Grischke Elementary Education	Fort Wayne, Ind.	Sally Joan Speck Elementary Education	Livonia
*Barbara Marie Halleen Elementary Education	Dearborn	Patracia Lee Stahl Elementary Education	Grand Rapids
Rosemary Harag Elementary Education	Charlotte	*Janet Kay Streng Elementary Education	Detroit
Ellyn Charlene Hards Elementary Education	Dearborn	`Audrey Kay Terry Elementary Education	Almont
Esther Irene Jones Elementary Education	Mason	Barbara Anne Tiegs Elementary Education	Park Ridge, Ill.
†Maryanne Koehn Elementary Education	Grand Rapids	Marilyn Grace Vent Elementary Education	Wy and otte
Joan Kay Koorstra Elementary Education	Grand Rapids	Arlene Bewalda Wagner Elementary Education	Grand Haven
Constance LaVerne Krainer Elementary Education	Bloomfield Hills	Joyce Kramer Walters Elementary Education	Flint
Ruth Langer Elementary Education	Dearborn	Nancy Ann Wendell Elementary Education	Grand Rapids
Barbara Ora Magnus Elementary Education	Bloomfield Hills	Anne Wuerfel Elementary Education	Dexter
†Joan Elizabeth Mark Elementary Education	Saginaw	Veronica Jayne Yelich Elementary Education	Ironwood

^{*}With Honor ‡With High Honor

DEGREE OF BACHELOR OF SCIENCE

Farland Birmingham, Ala.
al Education
enry Mills, Jr. Detroit
ko Moriyama Honolulu, Hawaii
l Education
ard Mosley Minneapolis, Minn. al Education
ice Neely Gladwin dl Education
ancis Rickens Cresson, Pa. al Education
Rinke Warren al Education
Roberts Lake City al Education
rde Schlicher Lansing al Education
n Trumble Laingsburg
Voet Grand Rapids al Education

DEGREE OF MASTER OF ARTS	
∼ John Douglas Alexander Flint Administrative and Educational Services	*Harold Grange Bell Johnston City, Ill. Educational Administration and Supervision
Dene Rex Allen Grand Rapids Guidance and Counselor Training	Gordon Faye Binns Sunfield Administrative and Educational Services
Mary Priscilla Anderson Birmingham Elementary Classroom Teaching	Raymond L. Brabo Omer Administrative and Educational Services
Byron Foster Anger Big Rapids Elementary Administration and Supervision	Joyce Margaret Gallagher Cody Essexville Foundations of Education
Richard James Astalos Monroe Educational Administration and Supervision	Leona Mary Cooper Grand Rapids Teacher Education
Arthur Warren Baker Detroit Administrative and Educational Services	Phebe Ann Deitzen Davison Teacher Education

^{*}With Honor †With High Honor

COLLEGE OF EDUCATION

DEGREE OF MASTER OF ARTS (Continued)

Julius Donath Fliehler Williamston Administrative and Educational Services	Florence Wittwer Oakes Traverse City Administrative and Educational Services
Theophilus Edward Fox Teacher Education Hillsdale	Mary Crampton Oatley Rockford Teacher Education
Marilyn Dee Green Coldwater Administrative and Educational Services	Percy Paul Findlater, Canada Administrative and Educational Services
Miriam Bierd Grim Foundations of Education East Lansing	Wilma Florence Paulus Guidance and Counselor Training Beaverton
Lee M. Halstead Breckenridge Guidance and Counselor Training	Bettie Sue Phillips Birmingham, Ala. Guidance and Counselor Training
- Frederick E. Hill Grand Rapids Administrative and Educational Services	Edward Prins Holland Administrative and Educational Services
Ruth Frances Jachalke Teacher Education Dimondale	Frances Coe Reed Williamston Administrative and Educational Services
- Edwin E. Jahns Saginaw Teacher Education	Glen A. Rohlfs Teacher Education Akron
Andrew Thomas Kelley Physical Education Detroit	Stanton William Scarborough Lansing Administrative and Educational Services
- James Prescott Kennedy Jackson Administrative and Educational Services	Joseph Silva La Grange, Ill. Educational Administration and Supervision
Don D. Kuick Midland Physical Education	Thelma N. Sprague Manton Teacher Education
Marthene Clarice Kuieck Grand Rapids Teacher Education	Catherine Marie Stall Home Economics Education Elberta
Blaine Cornelius Lentz Elsie Teacher Education	Maurice Dwight Swift Stanton Vocational and Practical Arts Education
- Bertha E. Lusby Newaygo Teacher Education	Florangel Sevidal Tandoc San Fabian, Philippines Home Economics Education
Mardelle Norma Meyer Palmer, Kan. Home Economics Education	Marjorie Elizabeth Taylor Teacher Education Holt
- Richard Dwight Mosier Bay City Administrative and Educational Services	Ruth Ellen Tuthill Concord Home Economics Education
- Lyle Harold Myers Fremont Agricultural Education	Jacob Geert Venema Blissfield Vocational and Practical Arts Education

OF

COMMUNICATION ARTS

The candidates will be presented by DEAN GORDON A. SABINE

DEGREE OF BACHELOR OF ARTS

		ENDER OF BUILDING	
Bart Weston Ansley Journalism	Lansing	David Franklin Kralik Television-Radio-Film	Cedar Rapids, Ia.
*Charles Louis Bartow Television-Radio-Film	Middelsex, N. J.	Lawrence William Lindberg Television-Radio-Film	Froid, Mont.
Donald Leon Baumgardner Speech	Pontiac	Thomas Manuel Lopez	South Lyon
Arni Thomas Dunathan	Escanaba	Speech	
Speech Jack Dale Eadie	Grand Rapids	Ted J. Madzia Speech	Okemos
Journalism Frederick William Henzi	Detroit	Lillian May Nalbandian	Grand Rapids
Television-Radio-Film	Detrou	Journalism	
Howard Anthony James, Jr. Speech	Elkhart, Ind.	Bernard Dean Schroeder Television-Radio Film	Arcadia
		priority show	
DEGREES RECOMMENDED JOINTLY WI	TH THE COLLEGE OF 1	EDUCATION	

DEGREES RECOMMENDED JOINTLY WITH THE COLLEGE OF EDUCATION

BACHELOR OF ARTS

*Sharon Lee Heck Speech	Sandusky	Constance Elaine Mapes Speech	Pontiac	,
Beverly Ann Knowles Speech	Howell	will english?		

DEGREE OF MASTER OF ARTS

- Corajane Diane Bunce Speech	Jackson	• Harry Edwin Oliver, Jr. Speech	Traverse City
Mary Alice Gilchrist Speech	Vicksburg	Joseph C. Rhea Speech	Lansing
Ellen Margaret Harrington Speech George Anthony Hough III	Detroit Falmouth, Mass.	Isaiah Sheffer Speech	New York City, N. Y.

George Anthony Hough III Falmouth, Mass General Communication Arts

THE HONORS COLLEGE

COLLEGE OF BUSINESS AND PUBLIC SERVICE

DEGREE OF BACHELOR OF ARTS

**Gordon Pierson Burkhead General Business Milford

COLLEGE OF SCIENCE AND ARTS

DEGREE OF BACHELOR OF ARTS

†Allan Edward Austin

Brantford, Canada

English

*Dianne Lynne Dailey

Flint

Psychology

†Carole Mary Newell

Lansing

English

*Ruth Ellen Pattenaude

Lansing

Psychology

DEGREE OF BACHELOR OF SCIENCE

† †Jordan Bradley Tatter Entomology Watervliet

SCHOOL

FOR

ADVANCED GRADUATE STUDIES

The candidates will be presented by DEAN THOMAS H. OSGOOD

DEGREE OF DOCTOR OF PHILOSOPHY

- Harry James Amling, Union City, N. J.

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

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

Thesis: Influence of Nutrient-Element Supply on Leaf Composition and Growth of Highbush Blueberry (Vaccinium Corymbosum L.) with Special Reference to Importance of Sampling Date on Leaf and Fruit Composition of Field Grown Blueberries.

Yousef Alavi, Teheran, Iran

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

Mathematics. Major Professor: C. P. Wells, Professor.

Thesis: Expansions of Parabolic Wave and Potential Functions.

- Prithwish Candra Bose, Nawabgani, India

I.S., B.S., M.S., Government State College

Horticulture. Major Professor: C. L. Hamner, Professor.

Thesis: Growth, Development and Mineral Uptake in Tomato Plants, as Affected by Maleic Hydrazide and Gibberellin.

Jessie Muriel Boyd, Montgomery, Ala.

B.A., Huntington College; M.S., Emory University.

Chemistry. Major Professor: J. L. Fairley, Associate Professor. Thesis: Aliphatic Precursors of Pyrimidines in Neurospora

Crassa.

Morris Leroy Brehmer, Strasburg, Ill.

B.S., Eastern Illinois State College; M.S., Michigan State Uni-

Fisheries & Wildlife. Major Professor: R. C. Ball, Professor

Thesis: A Study of Nutrient Accrual, Uptake, and Regeneration as related to Primary Production in a Warm-Water Stream.

Sister M. Thomas Catherine Brennan, Adrian

Ph.B., Siena Heights College; M.A., Catholic University of

English. Major Professor: C. M. Newlin, Professor.

Thesis: Thomas Wentworth Hugginson: Reformer and Man

of Letters.

Clarence A. Broomfield, Mt. Morris,

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

Chemistry. Major Professor: H. A. Lillevik, Associate Pro-

Thesis: Studies on the Mechanism of the Clotting of Casein

by the Action of Rennin

also: anandras Pandurang Deshmakh Richard Dwight Ewing.

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SCHOOL FOR ADVANCED GRADUATE STUDIES

DEGREE OF DOCTOR OF PHILOSOPHY (Continued)

Gerhard Bunemann, Hamburg, Germany

B.S., College of Technology, Hanover, Germany; M.S., Michigan State University.

Horticulture. *Major Professor*: D. H. Dewey, Associate Professor.

Thesis: The Relation of the Nutrient Element Content of the Leaves and Fruits to the Storage Quality of Jonathan Apples in Regular and Controlled Atmosphere.

Robert David Burns, Royal Oak

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

Zoology. Major Professor: J. C. Braddock, Professor.

Thesis: Foraging in Kangaroo Rats and Its Adaptive Significance.

Robert James Collins, Hazel Park

B.S., Alma College; M.S., Michigan State University.

Physiology and Pharmacology. Major Professor: W. D. Collings, Professor.

Thesis: Studies on Chromium Excretion in the Dog.

George Bernard Coltharp, DeRidder, La.

B.S.F., Louisiana State University; M.S., Colorado A & M.

Forestry. Major Professor D. P. White, Associate Professor.

Thesis: Some Effects of a Commercial-Type Clearcut on Soil and Water Relations on a Small Wooded Watershed.

Michael Hugh Dickson, Dorval, Canada

B.S., McGill University, Quebec; M.S., Michigan State University

Horticulture. *Major Professor*: C. E. Peterson, Professor *Thesis*: The Physiology and Inheritance of Flowering in Carrots.

Don C. Dinkmeyer, Elmwood Park, Ill.

B.S., Omaha University; M.A., Northwestern University.

Administrative and Educational Services. *Major Professor*: B. L. Stefflre, Associate Professor.

Thesis: A Study of Parent and Child Responses to Adlerian Child Guidance Counseling.

- Richard Lee Ditsworth, Algana, Ia.

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

Mechanical Engineering. *Major Professor:* R. M. Rotty, Associate Professor.

Thesis: Analytical Evaluation of the Effects of Heat Transfer and Skin Friction on the Efficiency of the Expansion of a Gas Having a Prandtl Number of One Through a Converging-Diverging Nozzle of Large Radius with Constant Temperature Walls.

Iack Gresham Elliott, Dearborn

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

Mathematics. Major Professor: L. M. Kelly, Professor.

Thesis: Characterizations of the Symmetric Difference and the Structure of Stone Algebras.

DEGREE OF DOCTOR OF PHILOSOPHY (Continued)

- George Francis Fries, Winlock, Washington
- B.S., Washington State College; M.S., University of Kentucky Dairy. *Major Professor*: C. A. Lassiter, Associate Professor *Thesis*: Effect of Enzyme Supplementation of Milk Replacers on the Growth of Calves.
- Henry John Hoenes, Jr., Ottawa, Ill.
- B.A., DePauw University; M.S., Michigan State University.
 Chemistry. Major Professor: K. G. Stone, Associate Professor.
 Thesis: Analytical Chemistry of the 2- Benzoinoxime Complexes of Molybdenum, Tungsten, Chromium, and Vanadium.
- Jerome Hull, Jr., Canfield, Ohio
- B.S., Michigan State University; M.S., Virginia Polytechnic Institute

Horticulture. *Major Professor*: C. L. Hamner, Professor *Thesis*: The Effect of Gibberellin on the Gross Morphology, Flowering, and Fruiting of Certain Horticultural Crops.

- Bart Mulford James, Jr., Chesterland, Ohio
- A.B., LaFayette College; M.A., Kent State University Administrative and Educational Services. *Major Professor*: W. F. Johnson, Professor

Thesis: An Investigation of the Dull-Normal Child's Adjustment to School.

- Alan George Kempton, Toronto, Canda
- B.S.A., M.S.A., Ontario Agricultural College.
- Microbiology and Public Health. *Major Professor:* C. L. SanClemente, Associate Professor.

Thesis: Bacterial, Biochemical and Environmetal Interrelations in Fresh and Ensiled Forages.

- William Herbert Knight, Gaylord
- B.S., M.S., Michigan State University.

Teacher Education. *Major Professor:* H. M. Byram, Professor. *Thesis:* Factors Associated with the Vocational Choices of High School Students of Vocational Agriculture.

- William Morris Lesser, New York, N. Y.
- B.A., M.A., City College of New York.

 Psychology. *Major Professor*: D. L. Grummon, Professor.

 Theory: The Belationship between Counseling Progress.

Thesis: The Relationship between Counseling Progress and Emphatic Understanding.

- Porter Bronson Lombard, Yakima, Wash.
- B.A., Pamona College; M.S., State College of Washington. Horticulture. *Major Professor*: A. E. Mitchell, Professor. *Thesis*: Endosperm, and Pericarp of the Peach (Prunus Persica, Sieb. Zocc.) as Related to Fruit Thinning with Plant Regulators.
- John Frederick Mehner, Pittsburgh, Pa.
- B.S., Grove City College; M.S., University of Pittsburgh. Zoology. *Major Professor*: G. J. Wallace, Professor. *Thesis*: Studies on the Life History of the Robin (*Turdus*)

Migratorius Linnaeus).

also James Orlopp Martin

SCHOOL FOR ADVANCED GRADUATE STUDIES

DEGREE OF DOCTOR OF PHILOSOPHY (Continued)

William Keith Meyer, Alta, Ia.

B.S., Morningside College; M.S., University of Kentucky.
Chemistry. *Major Professor*: M. T. Rogers, Professor.
Thesis: Some Studies of Molecular Complexes of Interhalogen Compounds.

John Hubert Muller, West Nyack, N. Y.

B.A., Princeton University; M.S., Michigan State University. Physics and Astronomy. *Major Professor*: R. D. Spence, Professor.

Thesis: Nuclear Magnetic Resonance Studies of Crystal Structure.

- Charles Campbell Sheppard, Wooster, O.

B.S., Ohio State University; M.S., Michigan State University. Poultry Science. *Major Professor*: H. C. Zindel, Professor. *Thesis*: An Evaluation of Merchandising Cut-Up Turkey in the Detroit Area.

- Abbas Mohamed Soliman, Cairo, Egypt

B.V.Sc., M.V.Sc., University of Cairo

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

Thesis: The Host Range of an Enteric Cytopathogenic Orphan "ECBO" Virus Isolated from Healthy Dairy Cattle.

- Edward Phelps Speare, Westfield, Mass.

B.A., Northland College; M.A., University of Michigan. Zoology. *Major Professor*: P. I. Tack, Professor.

Thesis: The Ecology, Age and Growth Rate of the Central Johnny Darter Etheostoma nigrum nigrum "Rafinesque" Augusta Creek, Michigan.

Milton Homar Steinmueller, Vancouver, Wash.

B.S., M.S., State College of Washington.

Agricultural Economics. Major Professor L. W. Witt, Professor.

Thesis: An Exploration in the Use of the Retardation Hypothesis as an Explanation of a Low-Income Area in Northern Michigan.

Philip Glenn Stiles, Waterloo, Ill.

B.S., University of Arkansas; M.S., Colorado A & M.

Poultry Science. Major Professor: L. E. Dawson, Associate Professor.

Thesis: Studies on the Cause and Incidence of Blood Spots in Chicken Eggs.

John Dennis Sullivan, Milwaukee, Wis.

B.S., M.S., University of Idaho.

Forest Products. *Major Professor*: A. J. Panshin, Professor. *Thesis*: Effect of Fatigue Stress on Shear in Wood.

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

Microbiology and Public Health. *Major Professor:* W. L.

Mallmann, Professor.

Thesis: A Comparison of the Activity of Psychrophilic and Mesophilic Bacteria on Saturated Fatty Acids.

Barnet M. Sultzer, Teaneck, N. J.

SCHOOL FOR ADVANCED GRADUATE STUDIES

DEGREE OF DOCTOR OF PHILOSOPHY (Continued)

Don Arthur Trumbo, Grand Ledge

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

Psychology. Major Professor: J. S. Karslake, Associate Professor

Thesis: An Analysis of Attitudes Toward Change Among the Employees of an Insurance Company.

Pierson Jay Van Alten, Grand Rapids

B.A., Calvin College; M.S., Michigan State University. Zoology. Major Professor: R. A. Fennell, Professor.

Thesis: The Effect of Chorioallantoic Grafts on the Developing Chick Embryo with Special Reference to the Development of Antigens in the Duodenum.

Robert Nicholas Vidulich, Frankfort, N. Y.

B.A., Hartwick College, M.A., Michigan State University Psychology. Major Professor: M. Rokeach, Professor

Thesis: An Empirical Analysis of the Belief References of Persons with Open and Closed Cognitive Systems.

Jaw Kai Wang, China

B.S., National Taiwan University, M.S., Michigan State Uni-

Agricultural Engineering. Major Professor: C. W. Hall, Professor

Thesis: Theory of Drying

Leonard Eugene Wood, Elwood, Ind.

B.S., M.S., University of Kentucky

Geology. Major Professor: B. T. Sandefur, Professor Thesis: Bottom Sediments of Saginaw Bay, Mich.

DEGREE OF DOCTOR OF EDUCATION

Edward George Benoit, Chicopee, Mass.

B.S., Massachusetts State College; Ed.M., Boston University. Administrative and Educational Services. Major Professor: C. M. Campbell, Professor.

Thesis: A Study of Japanese Education as Influenced by the Occupation.

James E. Bowman, Mt. Pleasant

M.A., University of Michigan.

Foundations of Education. Major Professor: J. A. Fuzak, Pro-

Thesis: A Study of the Basic Mathematical Skills Needed by the Industrial Arts Teacher in the Public School.

Glen Christensen, Preston, Idaho

Morton D. Dunham, Armada

B.S., M.S., Utah State Agricultural College.

Administrative and Educational Services. Major Professor: B. L. Stefffre, Associate Professor.

Thesis: An Analysis of Selected Issues in Family Life Education, 1958.

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

Administrative and Educational Services. Major Professor: W. W. Farguhar, Assistant Professor.

Thesis: An Experimental Study of the Effect of Two Discussion Techniques on Educational Outcomes in a Beginninig Educational Psychology Class Taught by Closed-Circuit Television.

DEGREE OF DOCTOR OF EDUCATION (Continued)

- E. Harold Harper, Long Beach, Cal.
- B.A., Northwest Nazarene College; M.A., Western Michigan University.
- Teacher Education. *Major Professor*: W. V. Hicks, Professor. *Thesis*: Why Certified Teachers Fail to Enter the Teaching Profession.
- Fred George Lechner, Brighton, Colo.
- B.S., M.E., Colorado A. & M.
- Teacher Education. *Major Professor*: H. M. Byram, Professor *Thesis*: An Analysis of the Farm Mechanical Skills of Colorado Young Farmers with Implications for Course Building.

GRADUATES AS OF AUGUST 22, 1958 DEGREE OF DOCTOR OF PHILOSOPHY

- Henry Barber, Mechanicsville, N. Y.
- B.S., University of Kentucky.
- Physical Chemistry. *Major Professor*: J. C. Sternberg, Assistant Professor.
- Thesis: Spectrophotometric Studies of Bromine Complexes.
- Roberta E. Bleiler, Scranton, Pa.
- B.S., Pennsylvania State University; M.S., University of Wisconsin.
- Foods and Nutrition. *Major Professor*: D. C. Cederquist, Professor.
- Thesis: Influence of Dietary Protein on Liver Constituents of Tuberculous and Non-Tuberculous Guinea Pigs.
- Henry H. Bloom, Brooklyn, N. Y.
- B.S., M.S., Michigan State University.
- Microbiology and Public Health. *Major Professor:* W. N. Mack, Professor.
- Thesis: Identification of Enteric Viruses and Salmonellae from Sewage.
- James L. Butler, Experiment, Ga.
- B.S., M.S., University of Tennessee.
- Agricultural Engineering. *Major Professor:* H. F. McColly, Professor.
- Thesis: Factors Affecting the Pelleting of Hay.
- Robert C. Cooper, Alameda, Cal.
- B.S., University of California; M.S., Michigan State University. Microbiology and Public Health. *Major Professor* W. L. Mallmann, Professor.
- Thesis: A Study of the Terminal Respiration of Thiobacillus thioparus.
- Charles Cottingham, Greensboro, N. Car.
- B.S., Greensboro Agr. & Tech. College; M.S., Michigan State University.
- Botany and Plant Pathology. *Major Professor*: R. L. Kiesling, Associate Professor.
- Thesis: The Inheritance of Resistance in Ustilago bordei (Pers.) Lagerh in Several Hybreds of Barley.

DEGREE OF DOCTOR OF PHILOSOPHY (Continued)

William Clark Edwards, Branson, Mo.

B.S., University of Missouri; M.S., Purdue University.

Agricultural Economics. *Major Professor*: G. L. Johnson, Professor.

Thesis: Resource Fixity, Credit Availability and Agricultural Organization.

Richard Charles Fox. Athens

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

Entomology. Major Professor: R. Hutson, Professor.

Thesis: Bionomics of the Smaller European Bark Beetle, Scolytus Multistriatus, (Marsham) in Michigan.

Charles M. Greenshields, East Lansing

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

Foundations of Education. *Major Professor:* C. V. Millard, Professor.

Thesis: A Study of the Beginning and End Points of the Adolescent Cycle of Height, Skeletal Age, and Mental Age of Eighty-Four Girls Selected from the Harvard Study.

Ben M. Huey, Fort Collins, Colo.

B.A., University of Kansas; B.S., Colorado State University; M.S., Montana State University.

Forestry. Major Professor: L. M. James, Pofessor.

Thesis: Selected Economic Alternatives for Logging Lodgepole Pine.

Russell F. Krueger, Waukegan, Ill.

B.S., Marquette University; M.A., Bowling Green State University.

Microbiology and Public Health. Major Professor: W. D. Lindquist, Professor.

Thesis: Biological and Biochemical Investigation of the Nematode Syngamus Trachea (Montagu, 1811) Chapin, 1925.

Mary M. Leichty, East Lansing

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

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

Thesis: The Absence of the Father During Early Childhood and Its Effect Upon the Oedipal Situation as Reflected in Young Adults.

James M. McManus, Sea Cliff, N. Y.

B.S., College of the Holy Cross; M.S., Niagara University. Organic Chemistry. *Major Professor*: R. M. Herbst, Professor. *Thesis*: Synthesis of Tetrazoles as Potential Antimetabolites.

Stanton P. Parry, Granville, N. Y.

B.S., Cornell University; M.S., Michigan State University. Agricultural Economics. *Major Professor:* G. G. Quackenbush, Professor.

Thesis: Some Problems in Extending Federal Milk Order Regulation in Michigan.

Robert L. Saffle, Columbus, O.

B.S., Ohio State University; M.S., University of Tennessee. Animal Husbandry. *Major Professor*: L. J. Bratzler, Professor. *Thesis*: The Effect of Fatness on Some Processing and Palatability Characteristics of Pork Carcasses.

SCHOOL FOR ADVANCED GRADUATE STUDIES

DEGREE OF DOCTOR OF PHILOSOPHY (Continued)

Harold Eugene Schlichting, Mt. Pleasant

B.S., University of Michigan; M.S., Michigan State University. Botany and Plant Pathology. Major Professor: G. W. Prescott, Professor.

Thesis: The Role of Waterfowl in the Dispersal of Algae.

~ Fremont A. Shull, Jr., Findlay, O.

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

Economics. Major Professor: V. E. Smith, Professor.

Thesis: The Advertising Appropriation in the Rubber Tire Industry: A Study in Decision-Making.

George Miller Stabler, Wallingford, Pa.

B.A., Earlham College; M.S., University of Wisconsin.

Sociology and Anthropology. Major Professor: I. Ishino, Associate Professor.

Thesis: Bejucal: Social Values and Changes in Agricultural Practices in a Cuban Rurban Community.

Walter R. Stevens, Jr., New Egypt, N. J.

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

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

Thesis: Three Attitude Scales in Relation to the Academic Achievement of Male College Freshmen of Moderate Academic Potential.

Fred Turner, Jr., Flagstaff, Ariz.

B.S., University of Arizona; M.S., Washington State College. Soil Science. Major Professor: W. W. McCall, Assistant Professor.

Thesis: The Effect of Lime and Molybdenum on Soil Reaction and Base Saturation Percentage and on the Yields and Molybdenum Uptake of Several Michigan Crops.

Samuel Jesse Underwood, Danville, Va.

B.A., M.Ed., University of North Carolina.

Foundations of Education. Major Professor: C. H. Gross, Professor.

Thesis: Selected Criticisms of Education in the Atlantic Monthly 1900-1950.

Glen Edwin VandenBurg, Clear Lake, S. Dak. B.S., South Dakota State College; M.S., Michigan State University.

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

> Thesis: Application of Continuum Mechanics to Compaction in Tillable Soils.

Willem Adolph Van Eck, Zwolle, Netherlands

B.S., Wageningen College (Holland); M.S., Michigan State University.

Soil Science. Major Professor: E. P. Whiteside, Professor.

Thesis: Site and Root Studies of Red Pine (Pinus Resinosa Ait.) Plantations in Lower Michigan.

DEGREE OF DOCTOR OF EDUCATION

- John Lewis Forbes, Park Forest, Ill.
- B.S., M.A., University of Illinois.
- Administrative and Educational Services. *Major Professor:* K. T. Hereford, Associate Professor.
- Thesis: A Theory of Administrative Leadership for Contemporary Education.
- Dorothy Alyne Rice, Moorhead, Miss.
- B.S., Delta State; Ed.M., University of Missouri.
- Administrative and Educational Services. *Major Professor:* R. N. Hatch, Assistant Dean.
- Thesis: A Comparative Study of Freshmen Entering the Public Junior College and the State-Supported Co-Educational Senior Colleges of Mississippi.