1965-1966
NORTHERN ILLINOIS UNIVERSITY
GRADUATE CATALOG
Directions for Correspondence

In order to expedite the answering of inquiries concerning graduate work in specific fields, the names of department heads, departmental graduate advisers, or area chairmen are listed below. The number listed in parentheses after each field refers to the page number in the catalog where material for that field may be found.

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<tr>
<th>Field</th>
<th>Advisor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accountancy (194-197)</td>
<td>Clarence G. Avery, Ph.D.</td>
</tr>
<tr>
<td>Art (144-147)</td>
<td>Jack Arends, Ed.D.</td>
</tr>
<tr>
<td>Biological Sciences (62-67)</td>
<td>Harvey A. Feyerherm, Ph.D.</td>
</tr>
<tr>
<td>Business Administration (212-213)</td>
<td>Robert L. Thistlithwaite, Ph.D.</td>
</tr>
<tr>
<td>Business Education (198-203)</td>
<td>Lyle Maxwell, Ed.D.</td>
</tr>
<tr>
<td>Center for Southeast Asian Studies and Training (68)</td>
<td>M. Ladd Thomas, Ph.D.</td>
</tr>
<tr>
<td>Chemistry (69-73)</td>
<td>Micheal J. Joncich, Ph.D.</td>
</tr>
<tr>
<td>Earth Sciences (74-80)</td>
<td>Loren T. Caldwell, Ed.D.</td>
</tr>
<tr>
<td>Economics (81-84)</td>
<td>James R. Elliott, Ph.D.</td>
</tr>
<tr>
<td>Education (166-181)</td>
<td>Raymond B. Fox, Ed.D.</td>
</tr>
<tr>
<td>English (85-91)</td>
<td>Orville Baker, Ph.D.</td>
</tr>
<tr>
<td>Finance (204-206)</td>
<td>John R. Kreidle, Ph.D.</td>
</tr>
<tr>
<td>Foreign Languages (92-94)</td>
<td>Lillian Cobb, Ph.D.</td>
</tr>
<tr>
<td>History (95-105)</td>
<td>Emory G. Evans, Ph.D.</td>
</tr>
<tr>
<td>Home Economics (148-152)</td>
<td>Catherine A. Rockwood, Ph.D.</td>
</tr>
<tr>
<td>Industry and Technology (153-157)</td>
<td>Eckhart A. Jacobsen, Ph.D.</td>
</tr>
<tr>
<td>Journalism (106-107)</td>
<td>Donald R. Grubb, Ed.D.</td>
</tr>
<tr>
<td>Library Science (108-110)</td>
<td>LaVern A. Walther, Ed.D.</td>
</tr>
<tr>
<td>Management (207-209)</td>
<td>Lawrence C. Hackamack, Ph.D.</td>
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<tr>
<td>Marketing (210-211)</td>
<td>Richard H. Howland, Ph.D.</td>
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<tr>
<td>Mathematics (111-114)</td>
<td>James W. Beach, Ph.D.</td>
</tr>
<tr>
<td>Music (158-164)</td>
<td>Paul O. Steg, D.M.A.</td>
</tr>
<tr>
<td>Outdoor Teacher Education (182-183)</td>
<td>Donald R. Hammerman, Ed.D.</td>
</tr>
<tr>
<td>Philosophy (115-117)</td>
<td>C. Mason Myers, Ph.D.</td>
</tr>
<tr>
<td>Physical Education for Men (184-186)</td>
<td>Francis E. Stroup, Ed.D.</td>
</tr>
<tr>
<td>Physical Education for Women (187-190)</td>
<td>Margaret M. Duncan, Ed.D.</td>
</tr>
<tr>
<td>Physics (118-121)</td>
<td>Harold F. Feeny, D.Sc.</td>
</tr>
<tr>
<td>Political Science (122-126)</td>
<td>Daniel Wit, Ph.D.</td>
</tr>
<tr>
<td>Psychology (127-129)</td>
<td>A. Bond Woodruff, Ph.D.</td>
</tr>
<tr>
<td>Social Sciences (130)</td>
<td>Waldo W. Burchard, Ph.D.</td>
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<tr>
<td>Sociology and Anthropology (131-135)</td>
<td>Waldo W. Burchard, Ph.D.</td>
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<tr>
<td>Special Education (191-192)</td>
<td>Joseph M. Sadnauvitch, Ed.D.</td>
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<tr>
<td>Speech (136-142)</td>
<td>Louis Lerea, Ph.D.</td>
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**JULY 1965**

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**AUGUST 1965**

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**SEPTEMBER 1965**

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**Summer Session, 1965**

- June 14, Monday...Registration 8:00 a.m.-3:30 p.m.
- June 14, Monday...Last day to register for Aptitude Test of Graduate Record Examinations
- June 15, Tuesday...Class work begins 8:00 a.m.
- June 17, Thursday...Last day for filing petition for admission to candidacy for August graduation
- June 18, Friday...Last day to change programs
- June 18, Friday...Last day for notifying department heads in writing of intent to take comprehensive examinations for August graduation. Students should obtain from the department head the date on which the examinations are to be given
- June 19, Saturday...Last day for filing in the Registrar's Office application for August graduation
- June 24, Thursday...Examination for Senate Bill 195
- June 25, Friday...Last day for applying to the Graduate School in writing for a partial refund of fees for dropping a course or withdrawing from the University
- June 25, Friday...Last day for filing with Graduate School Clearance Form II for August graduation
- June 26, Saturday...Examination for Senate Bill 195
- June 26, Saturday...Aptitude Test of Graduate Record Examinations
- July 12, Monday...First day of comprehensive examinations for August graduation
- July 19, Monday...Last day for filing thesis for August graduation. Thesis must be in Graduate School Office at least one week before student takes comprehensive examinations.
- July 26, Monday...Last day of comprehensive examinations for August graduation
- July 30, Friday...Last day for notifying Graduate School in writing of intent to drop a course or withdraw from the University
- August 5, Thursday...Commencement 4:00 p.m.
- August 6, Friday...Close of eight-week session
- August 7, Saturday...Start of three-week session
- August 26, Thursday...Close of three-week session

**First Semester, 1965-1966**

- September 15-17, Wednesday-Friday...Completion of registration for all regular day students 8:00 a.m.-5:00 p.m.
- September 18, Saturday...Registration for evening and Saturday classes 8:00 a.m.-11:45 a.m.
- September 20, Monday...Classwork begins including evening classes*

* Registration offices remain open until 6:30 p.m. during the first week of classes (Monday-Thursday, September 20-23) to accommodate evening students.
September 24, **Friday**... Last day to change programs
September 25, **Saturday**... Saturday only classes begin
September 25, **Saturday**... Last day of registration 12:00 noon
September 27, **Monday**... Last day for filing in Registrar’s Office application for January graduation
September 27, **Monday**... Last day for filing petition for admission to candidacy for January graduation
September 30, **Thursday**... Last day for applying to the Graduate School in writing for a partial refund of fees for dropping a course or withdrawing from the University
October 8, **Friday**... Last day to register for Aptitude Test of Graduate Record Examinations
October 11, **Monday**... Last day for filing with Graduate School clearance Form II for January graduation
October 30, **Saturday**... Last day for applying to the Graduate School in writing for a partial refund of fees for dropping a course or withdrawing from the University
November 5, **Friday**... Last day for notifying department heads in writing of intent to take final comprehensive examinations. Students should obtain from the department head the date on which the examinations are to be given.
November 6, **Saturday**... Homecoming
November 15, **Monday**... First day of comprehensive examinations for January graduation
November 24, **Wednesday**... Thanksgiving recess begins at 12:00 noon
November 29, **Monday**... Class work resumes at 8:00 a.m.
December 4, **Saturday**... Examination for Senate Bill 195
December 22, **Wednesday**... Christmas recess begins after regularly scheduled classes
December 31, **Friday**... Last day for notifying Graduate School in writing of intent to drop a course or withdraw from the University

1966

January 3, **Monday**... Class work resumes at 8:00 a.m.
January 7, **Friday**... Last day for filing thesis for January graduation. Thesis must be in the Graduate School Office at least one week before student takes comprehensive examination
January 14, **Friday**... Last day of comprehensive examinations for January graduation
January 14-19, **Friday-Wednesday**... Final examinations
January 21, **Friday**... Close of first semester
# Graduate School Calendar 1965-1966

## Second Semester, 1965-1966

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 26-28</td>
<td>Wednesday-Friday. Completion of registration for all regular day students 8:00 a.m.-5:00 p.m.</td>
</tr>
<tr>
<td>January 29</td>
<td>Saturday. Registration for evening and Saturday classes 8:00 a.m.-11:45 a.m.</td>
</tr>
<tr>
<td>January 31</td>
<td>Monday. Class work begins including evening classes*</td>
</tr>
<tr>
<td>February 4</td>
<td>Friday. Last day to register for Aptitude Test of Graduate Record Examinations</td>
</tr>
<tr>
<td>February 5</td>
<td>Saturday. Last day of registration 12 noon</td>
</tr>
<tr>
<td>February 7</td>
<td>Monday. Last day to change programs</td>
</tr>
<tr>
<td>February 7</td>
<td>Monday. Last day for filing in the Registrar's Office application for June graduation</td>
</tr>
<tr>
<td>February 10</td>
<td>Thursday. Last day for applying to Graduate School in writing for a partial refund of fees for dropping a course or withdrawing from the University</td>
</tr>
<tr>
<td>February 14</td>
<td>Monday. Last day for filing petition for admission to candidacy for June graduation</td>
</tr>
<tr>
<td>February 21</td>
<td>Monday. Last day for filing with Graduate School clearance Form II for June graduation</td>
</tr>
<tr>
<td>March 12</td>
<td>Saturday. Examination for Senate Bill 195</td>
</tr>
<tr>
<td>March 18</td>
<td>Friday. Last day for notifying department heads in writing of intent to take final comprehensive examinations. Students should obtain from the department head the date on which the examinations are to be given.*</td>
</tr>
<tr>
<td>March 28</td>
<td>Monday. First day of comprehensive examinations for June graduation</td>
</tr>
<tr>
<td>April 1</td>
<td>Friday. Easter recess begins after regularly scheduled classes</td>
</tr>
<tr>
<td>April 12</td>
<td>Tuesday. Class work resumes 8:00 a.m.</td>
</tr>
<tr>
<td>May 16</td>
<td>Monday. Last day for notifying Graduate School in writing of intent to drop a course or withdraw from the University</td>
</tr>
<tr>
<td>May 20</td>
<td>Friday. Last day for filing thesis for June Graduation. Thesis must be in Graduate School Office at least one week before student takes comprehensive examination.*</td>
</tr>
<tr>
<td>May 27</td>
<td>Friday. Last day of comprehensive examinations for June graduation</td>
</tr>
<tr>
<td>May 26-31</td>
<td>June 1, 2 (Thursday-Thursday). Final examinations</td>
</tr>
</tbody>
</table>

* Registration offices remain open until 6:30 p.m. during the first week of classes (Monday-Thursday, January 31-February 3) to accommodate evening students.
Graduate School Calendar 1965-1966

Summer Session, 1966

June 3, Friday
Close of second semester

June 4, Saturday
Sixty-Seventh Annual Commencement 10:00 a.m.

June 13, Monday
Registration 8:00 a.m.-3:30 p.m.

June 13, Monday
Last day to register for Aptitude Test of Graduate Record Examinations

June 14, Tuesday
Class work begins 8:00 a.m.
Changes of programs

June 16, Thursday
Last day for filing petition for admission to candidacy for August graduation

June 17, Friday
Last day to change programs

June 17, Friday
Last day for notifying department heads in writing of intent to take comprehensive examinations. Students should obtain from the department head the date on which the examinations are to be given.

June 17, Friday
Last day for registering selection of Graduate School in writing for a partial refund of fees for dropping a course or withdrawing from the University

June 17, Friday
Last day for filing in the Registrar’s Office application for August graduation

June 20, Monday
Last day of registration 4:30 p.m.

June 23, Thursday
Examination for Senate Bill 195

June 24, Friday
Last day for applying to the Graduate School in writing for a partial refund of fees for dropping a course or withdrawing from the University

June 24, Friday
Last day for filing with Graduate School clearance Form II for August graduation

June 25, Saturday
Examination for Senate Bill 195

June 25, Saturday
Aptitude Test of Graduate Record Examinations

July 11, Monday
First day of comprehensive examinations for August graduation

July 18, Monday
Last day for filing thesis for August graduation. Thesis must be in Graduate School Office at least one week before student takes comprehensive examinations.

July 25, Monday
Last day of comprehensive examinations for August graduation

July 29, Friday
Last day for notifying Graduate School in writing of intent to drop a course or withdraw from the University

August 4, Thursday
Commencement 4:00 p.m.

August 5, Friday
Close of eight-week session

August 6, Saturday
Start of three-week session

August 25, Thursday
Close of three-week session
The Teachers College Board

Northern Illinois University is governed by the Teachers College Board. The Board consists of eleven members: the Superintendent of Public Instruction, the Director of Finance, and nine members appointed by the Governor for a six-year term. The Executive Officer is an employee of the State Teachers College Board and is appointed by the Board for a specific term.

Appointed Members

Mr. R. A. Stipes, Chairman ................................................................. Champaign
Dr. Noble J. Puffer, Vice Chairman .................................................... Barrington
Mr. J. Bon Hartline ............................................................................. Anna
Mr. Arthur R. Higgins ........................................................................ Quincy
Mr. Morton H. Hollingsworth ............................................................. Joliet
Mrs. Harriet Lowden Madlender ......................................................... Oregon
Mr. William E. McBride ................................................................. Chicago
Mr. Paul Stone ................................................................................... Sullivan
W. I. Taylor, M.D. .............................................................................. Canton

Ex Officio Members

Mr. Ray Page, Superintendent of Public Instruction ...................... Springfield
Mr. Jack Alfeld, Representing the Director of Finance ...................... Springfield

Dr. Frederick McKelvey, Executive Officer ....................................... Springfield
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UNIVERSITY OFFICE HOURS

The administrative offices are open Monday through Friday from 8:00 a.m. to 12:00 noon and 1:00 p.m. to 5:00 p.m.

The University maintains an information service available to visitors to the campus during the hours at the locations as follows:

Monday through Friday — 8:00 a.m. to 12:00 noon and 1:00 p.m. to 5:00 p.m. — first floor Lowden Hall (administration building), Saturday and Sunday — 8:00 a.m. to 5:00 p.m. — University Center.

All offices are closed on legal holidays.
Offices of the Graduate School

Administrative Staff

Leslie A. Holmes, Ph.D. (Illinois) .............................................. President
F. R. Geigle, Ed.D. (New York University) ............................ Provost and Executive Vice-President
Arthur C. Muns, Ed.D. (Northwestern) ...................... Administrative Assistant to the President
Ernest E. Hanson, Ed.D. (Michigan State) ..................... Vice-President, Student Personnel Services
Wayne J. Mcllrath, Ph.D. (Iowa) .......................... Dean of the Graduate School
Bernadine C. Hanby, M.S. in L.S. (Illinois) ....................... Librarian
George S. Pritchard, Ed.D. (Michigan State) ..................... Registrar
Eleanor F. Robison ................................ Secretary to the Dean of the Graduate School

Graduate Council

Leslie A. Holmes, Ph.D. (Illinois) .............................................. President
F. R. Geigle, Ed.D. (New York University) ............................ Provost and Executive Vice-President
Wayne J. Mcllrath, Ph.D. (Iowa) .......................... Dean of the Graduate School
Donald E. Kieso, Ph.D. (Illinois), C.P.A ..................... Accountancy
Roy Burke, Ed.D. (Florida State) ..................................... Art
Darrell L. Lynch, Ph.D. (Illinois) ..................................... Biological Sciences
Lyle Maxwell, Ed.D. (Colorado) ............................... Business Education
Robert A. Kloss, Ph.D. (Wisconsin) .................... Chemistry
George P. Stevens, Ph.D. (Wisconsin) ...................... Earth Sciences
Robert P. Fairbanks, D.S.S. (Syracuse) ..................... Economics
Leo J. Loughlin, Ph.D. (Wisconsin) ........................ Education
Arnold B. Fox, Ph.D. (New York University) ................ English
John Raymond Kreidle, Ph.D. (Ohio State) ....................... Finance
J. Norman Parmer, Ph.D. (Cornell) ....................... History
Catherine A. Rockwood, Ph.D. (Chicago) ...................... Home Economics
George W. Senteney, Ed.D. (Missouri) ...................... Industry and Technology
Robert N. Broadus, Ph.D. (Southern California) ........ Library Science
Clarence Albert Sims, Ph.D. (Illinois) ....................... Management
J. Howard Nelson, Ph.D. (New York) ....................... Marketing
Herbert F. Miller, Ph.D. (Ohio State) ....................... Mathematics
Robert W. Buggert, Ph.D. (Michigan) ..................... Music
Donald R. Hammerman, Ed.D. (Pennsylvania State) ........ Outdoor Teacher Education
Francis E. Stroup, Ed.D. (Southern California) ........... Physical Education for Men
John C. Mitchem, Ph.D. (Iowa) ....................... Physical Education for Women
Charles W. Leslie, Ph.D. (Harvard) ......................... Philosophy
David L. Bushnell, Ph.D. (Virginia Polytechnic Institute) Physics
P. Allan Dionisopoulos, Ph.D. (California, Los Angeles) .... Political Science
Erwin J. Lotsof, Ph.D. (Ohio) .............................. Psychology
Waldo W. Burchard, Ph.D. (California, Berkeley) .......... Sociology and Anthropology
Jerome G. Alpiner, Ph.D. (Ohio) ........................ Speech

Departmental representatives are elected by their departments. The President, Provost and Executive Vice-President, and the Dean of the Graduate School, who serves as Chairman of the Council, are ex officio members.
Graduate Faculty

Harold E. Aikins, Ph.D. (Colorado) .................. Professor of History
Virgil W. Alexander, Ph.D. (Nebraska) ............... Professor of Education
Dean, Evening College
Jerome G. Alpiner, Ph.D (Ohio) ................. Associate Professor of Speech
Eleanor M. Anglin, Ph.D. (Cornell) ................. Professor of Education
Counselor, The University School
Jack Arends, Ed.D. (Columbia) .................... Professor of Art
Head, Department of Art
Don. W. Arnold, Ph.D. (Iowa) ................... Professor of Marketing
Clarence G. Avery, Ph.D. (Illinois), C.P.A. ....... Associate Professor of Accountancy
Head, Department of Accountancy
Charles E. Baker, Ph.D. (Indiana) ............ Assistant Professor of Music
Orville Baker, Ph.D. (Harvard) .................. Professor of English
Head, Department of English
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Head, University Counseling Center
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Assistant Director of Testing
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Margaret M. Duncan, Ed.D. (Columbia) . . Professor of Physical Education for Women

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J. David Edelstein, Ph.D. (New York University) . . . Assistant Professor of Sociology (Sociology & Anthropology)

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Head, Department of Biological Sciences

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Assistant Director of Placement
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Director of Reading Services
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Anne Greene, Ph.D. (Wisconsin)  Associate Professor of English
Gwynn A. Greene, Ed.D. (Columbia)  Professor of Education
Coordinator of Student Teaching
Paul O. Grokfc, Ph.D. (Interamerican)  Associate Professor of Marketing
James H. Grosklags, Ph.D. (Wisconsin)  Associate Professor of Biological Sciences
Edith H. Grotberg, Ph.D. (Northwestern)  Associate Professor of Psychology
Donald R. Grubb, Ed.D. (Utah) Professor of Journalism
Head, Department of Journalism

B. Ross Guest, Ph.D. (Chicago) Associate Professor of Geography
(Earth Sciences)

James H. Gunnerson, Ph.D. (Harvard) Associate Professor of Anthropology
(Sociology & Anthropology)

Lawrence C. Hackamack, Ph.D. (Iowa) Professor of Management
Head, Department of Management

Ruth Haddock, Ph.D. (Syracuse) Professor of Education
Dean of Women

William G. Haendel, M.S. (Wisconsin) Assistant Professor of Art

J. R. Hainds, Ph.D. (Northwestern) Professor of English
Educational Consultant and Coordinator of Research Grants

Donald R. Hammerman, Ed.D. (Pennsylvania State) Associate Professor of Outdoor Teacher Education and Assistant Director, Lorado Taft Field Campus

Ernest E. Hanson, Ed.D. (Michigan State) Professor of Education
Vice President, Student Personnel Services

Clarence Ethel Hardgrove, Ph.D. (Ohio State) Professor of Mathematics

Ann M. Hart, Ed.D. (Indiana) Associate Professor of Nursing

Mazhar Hasan, Ph.D. (Illinois Institute of Technology) Associate Professor of Physics

A. Oscar Haugland, D.M.A. (Rochester) Associate Professor of Music

Earl W. Hayter, Ph.D. (Northwestern) Professor of History

William A. Healey, Pe.D. (Indiana) Professor of Physical Education for Men

Eugene W. Hellmich, Ph.D. (Columbia) Professor of Mathematics

William J. Hendrickson, Ed.D. (Columbia) Professor of Marketing

Edward T. Herbert, Ph.D. (Wisconsin) Assistant Professor of English

Edwin A. Hess, Ph.D. (Ohio State) Assistant Professor of Biological Sciences

J. Eugene Hinton, Ed.D. (Indiana) Assistant Professor Conference Coordinator, The University Center

Paul A. Hochstim, Ph.D. (New York University) Assistant Professor of Sociology
(Sociology & Anthropology)

Leslie A. Holmes, Ph.D. (Illinois) Professor President
David H. Howard, Ph.D. (Indiana) ........ Assistant Professor of Sociology
(Sociology & Anthropology)

Charles E. Howell, Ph.D. (Iowa) .................. Professor and Director,
Bureau of University Research

Richard H. Howland, Ph.D. (Michigan) ........ Associate Professor of Marketing
Head, Department of Marketing

Helena Hrabikova, F.I.L.D. (Geneva) ....... Instructor in Foreign Languages

Max S. Huebner, Ph.D. (Peabody) ............ Professor of Education
Head, Department of Student Teaching

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Marion A. Hull, Ph.D. (Northwestern) .... Associate Professor of Education

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Director of Instructional Materials

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Technology
Head, Department of Industry & Technology

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Clinton J. Jesser, Ph.D. (Michigan State) .... Assistant Professor of Sociology
(Sociology & Anthropology)

Micheal J. Joncich, Ph.D. (Texas) .......... Professor of Chemistry
Head, Department of Chemistry

Orville E. Jones, Ed.D. (Oklahoma) .... Associate Professor of Outdoor Teacher
Education, Lorado Taft Field Campus

Robert W. Kahler, Ed.D. (Colorado State College) .. Associate Professor of
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Wesley A. Many, Ph.D. (Iowa) ............... Associate Professor, Director of Curriculum and Research, The University School
James G. Martin, Ph.D. (Indiana) ............ Associate Professor of Sociology (Sociology & Anthropology)
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<th>Position and University</th>
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<tbody>
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<td>Assistant Professor of Education (Ball State)</td>
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<td>William R. Seat III, Ph.D.</td>
<td>Professor of English</td>
</tr>
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</table>
Mary Louise Seguel, Ed.D. (Columbia) . . . . Assistant Professor of Education
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Edgar L. Sherbenou, Ph.D. (Kansas) . . . . . Associate Professor of Political Science
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Dean, College of Liberal Arts & Sciences
Harold E. Smith, Ph.D. (Cornell) . . . . . . . Associate Professor of Sociology (Sociology & Anthropology)
L. George Smith, D.B.A. (Indiana) . . . . . . Associate Professor of Marketing
Mark C. Smith, Ed.D. (Colorado) . . . . . . . Associate Professor of Education Principal, University Junior High School
Wilbur A. Smith, Ph.D. (Southern California) . . . . Professor of Music
Mourtis A. Sorenson, Ed.D. (North Dakota) . Associate Professor of Education Counselor, University Counseling Center
William R. Speer, Ed.D. (Colorado State College) . . . Assistant Professor of Education
Paul O. Steg, D.M.A. (Boston) . . . . . . . . . . . . Professor of Music Head, Department of Music
Bennie William Stehr, Ed.D. (Colorado State College) . . Associate Professor of Business Education
George P. Stevens, Ph.D. (Wisconsin) . . . Assistant Professor of Geography (Earth Sciences)

Cecil G. Strawn, Jr., M.F.A. (Southern Illinois) . . . Associate Professor of Art

Francis E. Stroup, Ed.D. (Southern California) . . . . . . . Professor of Physical Education for Men

Joseph Suhadolc, LL.D. (Ljubljana), F.L.L.D. (Venice) . . . Associate Professor of Foreign Languages

Virtus W. Suhr, Ph.D. (Iowa State) . . . . . . . . . . . . . Associate Professor of Industry & Technology

Mary Betty Swynehardt, Ed.D. (Colorado) . . . . . . . . Associate Professor and Supervising Teacher of Art, The University School

Genevieve B. Syverson, Ph.D. (Michigan) . . . . . . . . Professor of Education

James A. Tamte, Ph.D. (Denver) . . . . . . . . . . . . . Assistant Professor of Education Assistant Dean of Men

George L. Terwilliger, Ed.D. (Columbia) . . . Professor of Biological Sciences

Robert L. Thistlethwaite, Ph.D. (Iowa) . . . . . . . . Professor of Finance Dean, College of Business

Charles L. Thomas, Ed.D. (Colorado State College) . . . Assistant Professor of Industry & Technology

M. Ladd Thomas, Ph.D. (Fletcher School of Law & Diplomacy) . . . Associate Professor of Political Science Coordinator of Southeast Asian Studies

Michael L. Thompson, Ed.D. (Arkansas) . . . Associate Professor of Education

Albert K. Tink, Ph.D. (Northwestern) . . . . Associate Professor of Education

Herbert Tischler, Ph.D. (Michigan) . . . . . . . . Associate Professor of Geology (Earth Sciences)

Robert F. Topp, Ph.D. (Colorado) . . . . . . . . Professor of Education Dean, College of Education

Walter I. Trattner, Ph.D. (Wisconsin) . . . . Assistant Professor of History

Caryl A. Turner, Ph.D. (Iowa) . . . . . . . . . . . . . Assistant Professor of Speech

John J. Twombly, Ed.D. (Illinois) . . . . Assistant Professor of Political Science

John H. Ulrich, Ph.D. (Iowa) . . . . . . . . . . . . . Professor of Speech

Joe W. Vaughn, Ph.D. (Kentucky) . . . . Assistant Professor of Chemistry

A. Manuel Vazquez-Bigi, LL.D. (Cordoba), Ph.D. (Minnesota) . . Professor of Foreign Languages

Clyde B. Vedder, Ph.D. (Southern California) . . . Professor of Sociology (Sociology & Anthropology)

Ludmila A. Velinsky, Ph.D. (Masaryk) . . . . . Associate Professor of Foreign Languages
Donald P. Verene, Ph.D. (Washington University, St. Louis)........Assistant Professor of Philosophy

Eleanor Volberding, Ph.D. (Chicago).............Professor of Education

Bruce W. vonZellen, Ph.D. (Duke). Associate Professor of Biological Sciences

David L. Wagner, Ph.D. (Michigan).............Assistant Professor of History

LaVern A. Walther, Ed.D. (Indiana)............Professor of Library Science

Head, Department of Library Science

James Merrett Ward, Ed.D. (Texas)............Associate Professor of Education

James C. Warner, Ed.D. (Missouri).............Assistant Professor of Industry & Technology

Allen D. Weaver, Ph.D. (New York University)......Professor of Physics

Maurice J. Weed, Ph.D. (Rochester)...........Professor of Music

Dale H. Weeks, Ph.D. (Nebraska).............Associate Professor of Economics

George D. Weigel, Ed.D. (Western Reserve)........Professor of Education

David M. Welborn, Ph.D. (Texas).............Assistant Professor of Political Science

Harold P. Wells, Ph.D. (Illinois)............Associate Professor of Physical Education for Men

Philip C. Wells, Ed.D. (Indiana).............Professor of Education

Willard Welsh, Ph.D. (Stanford).............Associate Professor of Speech

Walter Wernick, Ed.D. (Columbia)............Associate Professor of Education

Ruth E. Westlund, Ph.D. (Minnesota)...........Professor of Education

Assistant Dean of Women

Wallace J. Wheeler, Ed.D. (Northwestern)........Professor of Education

J. Patrick White, Ph.D. (Michigan)............Associate Professor of History

Coordinator, Foreign Study Programs

John B. White, Ph.D. (Nebraska)............Associate Professor of Library Science

R. G. Whitesel, Ph.D. (Cornell)............Professor of Political Science

Associate Dean, College of Liberal Arts & Sciences

William E. Whybrew, Ph.D. (Rochester)........Professor of Music

Dean, College of Fine & Applied Arts

Raymond D. Wilderman, Ph.D. (Iowa)........Associate Professor of Speech

J. David Williams, Ph.D. (Iowa)...............Associate Professor of Speech

Jerome E. Winn, Pe.D. (Indiana)............Associate Professor and Supervising Teacher of Health and Physical Education,

The University School

Milton V. Wisland, Ed.D. (Colorado State College)........Assistant Professor of Special Education
Daniel Wit, Ph.D. (Princeton) .................. Professor of Political Science
   Head, Department of Political Science
   Co-Director, Center for Southeast Asian Studies
Margaret L. Wood, Ph.D. (Iowa) ...................... Professor of Speech
A. Bond Woodruff, Ph.D. (Ohio State) ............. Professor of Psychology
   Head, Department of Psychology
Ruth B. Woolschlager, Ed.D. (Northwestern) Professor of Business Education
Henry G. Yankow, Ph.D. (Northwestern) .......... Professor of Accountancy
   Coordinator of School Business Management
Wilbur A. Yauch, Ed.D. (Columbia) ............... Professor of Education
Walter A. Yeranos, Ph.D. (Illinois) .............. Instructor in Chemistry
Alfred F. Young, Ph.D. (Northwestern) ....... Associate Professor of History
Northern Illinois University

History

Established in 1895 by an act of the Illinois General Assembly, the Northern Illinois State Normal School opened its doors to students in September, 1899. It offered only a two-year curriculum in teacher education until July, 1921, when legislative enactment gave it the status of the Northern Illinois State Teachers College and empowered it to award the degree Bachelor of Education. By action of the Teachers College Board in 1943, the title of the degree was changed to Bachelor of Science in Education.

In January, 1951, the Teachers College Board authorized the offering of a fifth year of work leading to the degree Master of Science in Education.

On July 1, 1955, as a result of action by the State Legislature, the name of the College was changed from the Northern Illinois State Teachers College to the Northern Illinois State College. The same legislative action authorized the College to broaden its educational services by offering academic work in areas other than teacher education. Consequently, in July, 1955, the Teachers College Board granted permission for the College to add curricula leading to the degrees Bachelor of Arts and Bachelor of Science.

By action of the Seventieth General Assembly, Northern Illinois State College became Northern Illinois University on July 1, 1957. Since that time, authority has been granted for the University to offer additional five-year programs leading to the degrees Master of Arts, Master of Science, and Master of Music; six-year programs leading to the Certificate of Advanced Study or in the case of Art majors, to the degree Master of Fine Arts; and doctoral programs leading to the degrees Doctor of Education in Business Education and Education and Doctor of Philosophy in English and History. The Board of Higher Education granted permission in October, 1964, for the University to offer curricula leading to the degree Bachelor of Music.

Accreditation and Affiliation

Northern Illinois University is accredited in all its degree programs (bachelor through doctorate) by the North Central Association of Colleges and Secondary Schools. The University is also accredited in degree programs leading to bachelor’s and master’s degrees and the sixth-year Certificate of Advanced Study (CAS) by the National Commission on Accrediting and the National Council for Accreditation of Teacher Education.

The University and its colleges have institutional membership or other affiliations in or with the Association of State Colleges and Universities, Inter-University Committee on the Superior Student, National Association for Business Teacher Education, American Council on Education, North Central Association of Colleges and Secondary Schools, American Association of University Women, Midwest Program on Airborne Television Instruction, The American Association of Colleges for Teacher Education, American Association of School Administrators, Association of American Colleges, Institute of International Education, Inc., Association of University Evening Colleges, National League for Nursing, Association of Urban Universities, Mid-West Conference on Graduate Study and Research, and The Council of Graduate Schools in the United States.
Campuses and Buildings

Main Campus

Northern Illinois University is located in DeKalb, a city of 23,100 people. DeKalb is 60 miles west of Chicago on United States Highway Alternate 30 and State Highway 23. DeKalb is served by the Chicago and North Western Railway and the Greyhound Bus Line.

The main campus, located on the west side of DeKalb, covers over 356 acres. It consists of four contiguous units which, for convenience, are referred to as East, Central, West, and North Campus, respectively. The Kishwaukee River borders the East Campus, and adjacent to it are two small lakes. A part of the East Campus is heavily wooded (the Montgomery Arboretum, named for C. E. Montgomery, former Head of the Department of Biological Sciences), and other parts are attractively landscaped with shrubbery and flower gardens.

There are entrances to the campus from Lincoln Highway, College Avenue, Lucinda Avenue, Normal Road, and Glidden Road.

Main Buildings

Instructional and Administrative Buildings

Altgeld Hall (completed—1897) is located on the East Campus. Named for John Peter Altgeld, Governor of Illinois when Northern was established, it contains administrative and business offices, an auditorium with seating for 925, classrooms, and offices for faculty members.

McMurry Hall (opened—1911) is located on the East Campus, slightly northeast of Altgeld Hall. Named for Charles Alexander McMurry, first Director of the Practice Department, and Lida B. McMurry, early member of that department, it formerly housed the campus elementary school; it has been remodeled to supply classroom and office space for the College of Business.

Still Gymnasium (dedicated—1928) is located on the East Campus, east of Altgeld Hall. Named for Edgar B. Still, a former resident member of the Teachers College Board, this building is used by the Department of Physical Education for Men.
Industry and Technology Building (dedicated—1928) is located on the East Campus, east of Altgeld Hall. Also named for Mr. Still, this building contains offices; classrooms; laboratories for graphic arts, woods, metals, electricity and electronics, technical drawing, silversmithing and crafts, and industrial arts activities for elementary teachers; and facilities for safety and driver education. Additional laboratories being developed are materials testing, instrumentation, industrial production illustration, and power mechanics.

Science Building (dedicated—1943) is located on the East Campus, southwest of Altgeld Hall. It contains over one hundred rooms, auxiliary rooms, and offices, used by the Departments of Earth Sciences and Biological Sciences. Atop this building is a meteorological tower with astronomical dome, completed in 1962.

Swen Franklin Parson Library (original building dedicated in 1952, South Addition completed in 1963, North Addition completed in 1964) is located on the East Campus slightly southwest of Altgeld Hall. Named for Mr. Parson, former Head of the Mathematics Department, it is the main library of the University. The library has a book capacity of 500,000 volumes and a seating capacity of 2,000.

Northern Field House (completed—1957) is located on the northwest corner of Central Campus. It contains classrooms, offices, spacious basketball floor, an eight-lap track, and facilities for all indoor athletic activities of the University. An athletic area suitable for intramural sports and other outdoor events will be located adjacent to the Field House. Glidden Field (varsity football and outdoor track) is located on the east border of East Campus and is named for Joseph F. Glidden, from whom it was acquired.
Reavis Classroom Building (completed — 1957) is located at the center of Central Campus. Named for William C. Reavis, a former member of the Teachers College Board, it contains classrooms and offices of the Departments of English, Speech, and Philosophy.

To the south of Reavis, Watson Hall (completed — 1962) duplicates it. Named for Chauncy B. Watson, Sr., a former resident member of the Teachers College Board, this building contains classrooms and offices of the Departments of Foreign Languages, History, Economics, Political Science, and Sociology and Anthropology.

The University School (opened—1958) is located on the Central Campus, to the west of Reavis. This building houses the college-controlled campus laboratory school. The School has two divisions, the University Elementary School and the University Junior High School. The School is wholly supported and operated by the University in order to serve its own purposes in education of teachers.

Student Health Center and Speech Clinic (opened—1958) is located on East Campus, to the north of the Communications-Security Building. It houses all student health services, as well as the Speech and Hearing Clinic.
Fine Arts Building (opened—1959) is located on the Central Campus, to the southeast of Reavis. It provides classrooms, studios, and offices for the Departments of Art, Music, and Speech. It contains a modern auditorium and theatre with seating capacity of 490; rehearsal rooms for dramatics and instrumental and choral groups; studios and practice cubicles; record listening facilities; a ceramics wing with kilns and other equipment; and specialized libraries for the fine arts.

Home Management House (acquired—1960) is located on the northwest corner of Normal and College. It is used by the Home Economics Department as a home for the seniors who wish to satisfy the requirement of high schools which employ vocational home economics teachers: residence in a home furnished in a way that makes for wider experience in, or greater appreciation of, the many phases of successful homemaking.

Michael Faraday Hall (completed—1963) is located on East Campus southeast of the Science Building. It contains the offices, classrooms, and laboratories of the Chemistry and Physics Departments.

Graham Hall (completed—1964) is located on Central Campus, west of the University School, to which it is joined by a covered walkway. Named for Ray Graham, former State Director of Exceptional Children, it accommodates a maximum of seventy-five handicapped children who aid in the instruction of special education teachers. It also houses the Reading Clinic and contains classrooms and offices of the Education Department.
Communications-Security Building (completed—1964) is north of Altgeld Hall. It houses the campus Police Department and telephone switchboard equipment with up to 10,000 outlets.

Wirtz Hall (completed—1964) is located on East Campus, north of McMurry Hall, to which it is connected by corridors. Named for William Wilbur Wirtz, former faculty member and former chairman of the Teachers College Board, it contains classrooms, laboratories, and offices for the Home Economics Department and the College of Business.

Women's Physical Education Building (completed—1964) is located on North Campus on Garden Road adjacent to the women's athletic field, tennis courts, and golf course. It offers such modern facilities designed for the women's physical education program as gymnasiums, dance studios, activity rooms, swimming pool, shower and locker rooms, equipment rooms, classrooms, seminar rooms, reference library, and offices.

Lowden Hall (to be completed during 1964-65) is located on East Campus, south of Altgeld Hall. Named for Frank O. Lowden, Governor of Illinois from 1917-1921, it houses the administrative offices.

West Stadium and Teaching Gymnasiums (to be completed—1965) is located on the West Campus, southwest of Douglas. The west stands will seat fifteen thousand. The teaching gymnasiums are under the stands. Eventually the stadium will have approximately fifty thousand seats when the east stands and the ends of the bowl are built.
Housing and Food Facilities

**Williston Hall** (dedicated—1915) is located on East Campus, to the northwest of Altgeld Hall. Named for John Williston Cook, first President of Northern, it houses 233 women.

**Adams Hall** (completed—1949) is located on East Campus, to the north of Williston. Named for Karl L. Adams, fourth President of Northern, it houses 190 women.

**Gilbert Hall** (opened—1952) is located on East Campus, to the east of Wirtz Hall. Named for Newell D. Gilbert, one of the first members of the faculty at Northern and coordinator of student teaching in the city schools, it houses 486 men.

**Neptune Residence Hall Complex** is located at the northeast corner of Central Campus. Named for Celine Neptune, a former Head of the Department of Home Economics, it consists of four units: Neptune North Residence Hall (dedicated—1955), Neptune West Residence Hall (opened—1959), Neptune East Residence Hall (opened—1960), and Neptune Central Dining Hall (opened—1960). It houses fifteen hundred women.

**University Apartments** (dedicated—1960) is located on the West Campus, to the north of Abraham Lincoln Residence Hall. It comprises forty modern efficiency apartments and forty one-bedroom apartments, all completely furnished for married students.
Abraham Lincoln Residence Hall (completed—1962) is located on the West Campus, across Glidden Road from the Northern Field House. The four wings, with a total capacity of one thousand co-ed students, ties into one large central recreational and food service center.

Stephen A. Douglas Residence Hall (completed—1963) is located on the West Campus, southwest of Lincoln, which it duplicates.

Ulysses Grant Towers (Phase I—completed 1965; Phase II— to be completed 1966) is located on the West Campus, northwest of Douglas. Each thirteen-story tower houses five hundred students. The central unit contains food and recreational services.

The University Center (completed—1962), located on a tract of land between Normal Road and Carroll Avenue, was constructed from funds supplied by students, alumni, and friends of the University. It contains a book store; cafeteria for 450; snack bar for 450; twelve bowling lanes; game room (Cavern) with 18 tables; browsing room; formal dining room for 150; grand ballroom for lectures and concerts (2,300), banquets (1,200), and dances (2,000 couples); large lounge; multiple-purpose rooms; offices; crafts room; meeting rooms; and twenty bedrooms for overnight guests of the University.
Lorado Taft Field Campus

The Lorado Taft Field Campus, covering 66 acres, is located approximately 35 miles west of DeKalb near the city of Oregon. This branch campus, adjacent to the Lowden Memorial State Park, is situated in a hilly and heavily wooded area on the east side of the Rock River, which was formerly the site of an art colony. The buildings in this scenic area have been completely rehabilitated and are now equipped for year-round use. The area is ideal for practical natural laboratory work. Here students have an opportunity to study various aspects of outdoor educational activities not available in the traditional classroom.

The Taft Campus is used during the regular school year for direct experiences in outdoor education for all Elementary Education majors and other University classes. It is also made available to public school systems which wish to give their students and teachers an opportunity to use the out-of-doors in the educational program of children. Student teachers work with the elementary school groups on a 24 hour a day basis while they are living at the field campus.

Graduate and undergraduate courses offered at the Lorado Taft Field Campus confer resident credit.

Overlooking the river is spacious Poley Hall, which houses the Field Campus library.

Taft House, the former home of the famous sculptor Lorado Taft, has a comfortable lounge room and offices. These rooms can be used for conference purposes.

A new dining hall, on a bluff overlooking the Rock River, has walls of glass on three sides to take advantage of the view.

Other buildings, not pictured, are as follows: Browne House has been converted into a comfortable and well-equipped bunk house for 16 persons. Dickerson House has been completely rebuilt and equipped to house 22 persons. Grover House, a multi-purpose building, contains a large classroom and science laboratory and sleeps 30. Clarkson Hall, a dormitory housing 56, is named for Ralph Clarkson, last trustee and teacher of Lorado Taft's art colony.
University Libraries

The Northern Illinois University Libraries include the Swen Franklin Parson Library, Faraday Library, the branch library at the Lorado Taft Field Campus, and a library in the University School, serving both the elementary and the junior high schools there.

The Swen Franklin Parson Library, the main library, is located directly north of the Science Building and west of Altgeld Hall. It was opened in 1952 and has two main service floors and a partial third floor. The building is well-lighted, fireproof, and air-conditioned throughout. The Library has been enlarged by three additions. The book capacity has been increased from a total of 174,000 volumes to 500,000; and the seating capacity increased from 686 to 2,000. There are 331 carrels for individual study use.

In the Library there are six large reading rooms, a browsing room, typing rooms, a Recordak room, an Educational Materials Center, the Fouser Music Room with record players and a choice selection of records, an auditorium, and the Library Science Department, a classroom for instruction in library usage, an archives and Southeast Asia collection area. The cataloging department is located in the South addition, along with other offices, typing, microfilm, conference, and work rooms.

A departmental library has been established for physics and chemistry in the Faraday Building.

Approximately 216,830 volumes, 8,916 pamphlets, 1,783 periodical titles, and 25 newspapers are available for use. While the direct needs of the various departments are given first consideration, recreational reading has not been neglected.

Museums

Museum of Biology

The Natural History Museum is located on the third floor of the Science Building. Collections include invertebrates, vertebrates, and plants. Specimens maintained by the museum are for classroom and research use.

The herbarium contains a representative collection of Northern Illinois plants. The Barber Collection of fossils and minerals is a permanent possession of the University. Limited collections of other Illinois vertebrates (fish, reptiles, mammals, etc.) are available. The Ellwood insect and mollusk collection is also maintained. The bird section includes a teaching and research collection of more than 2,000 study skins of North American birds. Many mounted specimens are included. Illinois species of birds are well represented.

Sanford Tyler Chesebro Collection

The Sanford Tyler Chesebro Collection of Indian arrowheads, presented to the University in 1951, is a significant aid in teaching some aspects of the early Indian culture of Illinois. This fine collection is kept at Lorado Taft Field Campus, where it is on public exhibition, and in the Department of Earth Sciences, where it is used in the classroom.
The Graduate School

History

Under authority granted by the Illinois State Teachers College Board, Northern Illinois University has offered work leading to the degree Master of Science in Education since 1951. More recently the following additional degrees at the fifth-year level were authorized: Master of Arts, Master of Science, and Master of Music. In 1958 a sixth-year program leading to the Certificate of Advanced Study or the degree Master of Fine Arts was authorized; and in 1961, the Teachers College Board approved programs leading to the degrees Doctor of Education and Doctor of Philosophy.

During the academic year 1965-66 graduate study will be offered in the following subjects: Accountancy, Art, Biological Sciences, Business Administration, Business Education, Chemistry, Earth Sciences, Economics, Education, English, Finance, Foreign Languages, History, Home Economics, Industry and Technology, Journalism, Library Science, Management, Marketing, Mathematics, Music, Outdoor Teacher Education, Philosophy, Physical Education for Men, Physical Education for Women, Physics, Political Science, Psychology, Social Sciences, Sociology and Anthropology, Southeast Asian Studies, Special Education, and Speech. Full majors leading to advanced degrees are offered in all these fields except Foreign Languages, Journalism, and Special Education. Students wishing to study one of these three subjects should major in a related field. As described on page —, area majors which cut across departmental lines are offered by certain groups of departments.

Purpose

The University seeks to create an environment that will foster attitudes of self-reliance and self-discipline conducive to professional excellence and intellectual maturity.

The University makes available to the graduate student a body of knowledge of his own and related disciplines; it provides the student with opportunities to acquire and apply techniques which will aid him in his pursuit of knowledge; and it encourages the student and the faculty to engage in research for the purpose of discovering truths and establishing previously unknown relationships.

Graduate Programs Offered

Master of Science in Education

The student may select a program leading to this degree in any of the following departments:

Art
Biological Sciences
Business Education
Chemistry

Earth Sciences
Economics
(Area program)
Education

English
History (Area Program)
Home Economics
Industry and Technology
Library Science  
Mathematics  
Outdoor Teacher Education  
Physical Education for Men  
Physical Education for Women  
Physics  
Political Science  
Sociology and Anthropology (Area program)  
Speech  

Area Majors

Area majors leading to the degree Master of Science in Education involve work in two (or occasionally more than two) departments. Usually a student divides his work about equally between two departments. Information about area majors may be obtained from the heads of the departments concerned.

Area majors are offered in the following combinations:

Biological Sciences and any of the following subjects:
- Chemistry, Earth Sciences, Physics, Psychology

Earth Sciences—Chemistry
Earth Sciences—Physics

Economics and any of the following subjects:
- Education, History, Political Science, Sociology and Anthropology

Education and any one of the following subjects:

English and any one of the following subjects:
- Economics, Foreign Languages, History, Journalism, Philosophy, Political Science, Sociology and Anthropology, Speech

General Science (Biological Sciences—Chemistry—Earth Sciences—Physics)

History and any one of the following subjects:
- Economics, Education, English, Political Science, and Sociology and Anthropology

History—Journalism

Journalism—Economics—Political Science—Sociology and Anthropology

Mathematics—any one of the following subjects:
- Biological Sciences, Chemistry, Earth Sciences, Physics

Political Science and any one of the following subjects:
- Economics, Education, History, Journalism, and Sociology and Anthropology.

School Business Management (Education, Accountancy, Management)

Social Sciences (Economics, Political Science, Sociology and Anthropology)

Sociology and Anthropology and any one of the following subjects:
- Economics, Education, English, History, Journalism, Political Science

Southeast Asian Studies (History and Political Science)

Master of Arts

The student may select a program leading to this degree in any of the following departments:

Art  
Economics  
English  
History  

Library Science, Philosophy, Political Science  
Sociology and Anthropology  
Psychology  
Sociology and Anthropology  
Speech
Master of Science

The student may select a program leading to this degree in any of the following departments:

Accountancy*
Biological Sciences
Chemistry
Earth Sciences

Finance*
Home Economics
Industry and Technology

Management*
Marketing*
Mathematics
Physics

Master of Music

A program leading to this degree is offered by the Department of Music.

Master of Fine Arts

A program on the sixth-year level leading to this degree is offered by the Department of Art.

Certificate of Advanced Study

The student may pursue a sixth-year program leading to the Certificate of Advanced Study in any of the following departments:

Accountancy*
Biological Sciences
Business Education
Chemistry
Earth Sciences
Economics
Education
English

Finance*
History
Industry and Technology
Management*
Marketing*
Mathematics
Music
Physical Education for Men

Physical Education for Women
Physics
Political Science
Sociology and Anthropology
Speech

Doctor of Education

Business Education

Doctor of Philosophy

English

History

*Courses leading to the degree Master of Science and Certificate of Advanced Study in Business Administration are offered by these departments.
Admission and Registration

Application for Admission

Students who wish to register for graduate study should write to the Dean of the Graduate School, requesting a copy of the form "Application for Admission to the Graduate School." This form should be completed and returned to the Dean of the Graduate School no later than two weeks before registration.

All applicants for admission must pay a $15.00 application fee, which is non-refundable. This fee in the form of a check or money order (NOT CASH) must accompany the application. Checks should be made out to Northern Illinois University.

A student who holds a baccalaureate degree from a college or university other than Northern Illinois University or who has pursued graduate study elsewhere should request the institutions which he has attended to send two copies of his transcripts to the Dean of the Graduate School.

Admission Requirements

I. Classified Students

A student must have at least a 2.5 average in the last two years of undergraduate work at an accredited institution and approval of the department in which he plans to major to be admitted as a classified student.

For admission to programs beyond a master's degree, a student must have at least a 3.2 average in graduate work at the master's level and approval of the department in which he plans to major; provided, that students undertaking doctoral work must have at least a 3.5 average in all graduate work taken in the sixth year (30 semester hours beyond the master's), or before being admitted to candidacy for the doctorate, whichever comes earlier.

II. Unclassified Students

A student must hold a baccalaureate degree from an approved institution in order to be admitted as unclassified. An unclassified student may register for any course for which he has the prerequisites but may not be admitted to a degree program. Courses completed while in an unclassified status may or may not be recognized in computing credit required for a degree or certificate. An unclassified student may request classified status after completing 12 semester hours of graduate work with a grade point average of 3.0 or better. This request is made to the head of the department in which the student plans to major. An unclassified student need not have a departmental adviser or advisory committee.

Physical Examination

All entering students enrolled for 7 semester hours or more must have a physical examination. This should be given by the family physician and is to be reported on a health chart furnished by the university. A smallpox vacc...
Vaccination at the time of examination is required unless a certificate of successful vaccination during the last three years can be furnished. A tuberculin test or a chest x-ray done during the past year is also required, and the report of it should be attached to the medical record. If the tuberculin test is positive, it should be followed by a chest x-ray. The report of the physical examination should be returned to the Student Health Service at least one week preceding the beginning of the semester in which the student plans to enroll. Registration is not complete until the complete health chart is on file at the Student Health Service.

**Graduate Record Examinations**

All graduate students seeking advanced degrees or certificates are required to have on file in the Graduate School Office their scores on the Aptitude Test of the Graduate Record Examinations. This test will be given on campus several times each year on dates to be announced. Classified graduate students are required to take the Graduate Record Examinations during their first semester or before they have completed 8 semester hours of graduate work. Unclassified graduate students must take the examination before they can become classified. Students who fail to meet this requirement will be prohibited from taking further courses toward an advanced degree or certificate unless they are excused by the Graduate Dean.

**Admission to Teacher Education**

Classified graduate students who wish to be certified for public school assignments must make application for admission to teacher education by securing an application form from the Dean of the Graduate School. Admission to teacher education is a selective process since the institution must recommend for certification those who prepare for teaching. To be admitted to teacher education the student

1. Must have a major and minor in subject matter areas for which student teaching assignments and teaching positions exist.
2. Must have the approval of the head of the major department involved and the Director of Student Teaching.
3. Must not have been rejected for teaching preparation previously by this institution or any other institution.
4. Must be of sufficiently high academic ability (2.5 for the last two years of undergraduate work, 3.0 graduate record) and possess personal qualifications to a degree that will contribute to success in the profession.

The degree M.S.Ed. is conferred only on students who meet Illinois certification requirements and who have the approval of this institution.

**Registration**

Graduate students are expected to register during the regular registration period at the beginning of each semester. (See calendar.) Those who register after this specified date are required to pay a "late registration fee" of $3.00. Arrangements for registration and for assignment to an adviser are made through the Office of the Dean of the Graduate School.
Maximum Loads for Graduate Students

Graduate students may not enroll for more than 17 semester hours during a semester. Graduate students holding assistantships are limited to 9 semester hours if their assistantship requires twenty to twenty-four hours of work a week for the department; they are limited to 12 semester hours if their assistantship requires ten to twelve hours of work a week for the department. Graduate students who are fully employed are not permitted to enroll for more than 6 semester hours during a semester. Summer school students may not enroll for more than 9 semester hours in an eight-week session or for more than 12 semester hours in an eleven-week session.

Auditors

Any full-time graduate student may be permitted to audit, without added fees, one or more additional courses, either undergraduate or graduate, provided approval is first obtained from the student's adviser, the instructor of the course, and the Dean of the Graduate School. A student who enrolls as an auditor in a course may not take the examinations in the course and will not receive credit.

Part-time students may be permitted to audit additional courses on the same basis as regular students upon the payment of an added fee of $9.00 per semester hour, with the provision that the total amount of fees paid will not exceed $119.25 per semester for residents of Illinois.

Grading System

Grades and their honor point values are as follows:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Honor Points Per Semester Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>4</td>
</tr>
<tr>
<td>B</td>
<td>3</td>
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<tr>
<td>C</td>
<td>2</td>
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<tr>
<td>D</td>
<td>1</td>
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<tr>
<td>F</td>
<td>0</td>
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<tr>
<td>I</td>
<td>(Incomplete)</td>
</tr>
<tr>
<td>W</td>
<td>(Passing at time of withdrawal from the University or from a course)</td>
</tr>
<tr>
<td>S</td>
<td>(Satisfactory)</td>
</tr>
<tr>
<td>U</td>
<td>(Non-satisfactory)</td>
</tr>
<tr>
<td>O</td>
<td>(Auditor, no grade and no credit)</td>
</tr>
</tbody>
</table>

Students are not permitted to repeat for credit any courses in which they have already received a passing grade ("C" or better). A course in which a failing grade ("D" or "F") has been received may be repeated once. If a course is repeated, both grades are computed in the honor point average.

Incompletes may be given to graduate students at the discretion of the instructor.

A student should make up an incomplete recorded for any course other than independent research or study within the first month of the next semester in which he is enrolled or make arrangements with the instructor of the
course about removing the incomplete in a specified time; otherwise the in-
complete work may be recorded as a failure. An incomplete not eliminated
within two years may be recorded as a failure unless extension of time is
granted by the instructor and the Dean of the Graduate School. No incom-
plete may be recorded as a failure unless the Dean of the Graduate School
authorizes the recording.

A graduate student who wishes to drop a course or withdraw from the
University must write a letter of notification to the Dean of the Graduate
School at least three weeks prior to the end of the semester or at least one
week prior to the end of a summer session. For all courses in which a student
is doing passing work ("C" or better) at the time of drop or withdrawal, he
will receive "W." For any course in which a student is not doing passing
work, he will receive "F." A student who fails to notify the Dean of the
Graduate School in writing of his intent to drop a course or to withdraw
from the University, or a student who drops a course or who withdraws from
the University after the deadline has expired, will receive "F." (See the Gradu-
ate School Calendar, pp 2-5, for the dates by which notification of intent to
drop a course or to withdraw from the University must reach the Graduate
Office.)

A student who receives 12 semester hours of graduate credit grades below
"B" will be disqualified as a candidate for a degree in the Graduate School.
A student who receives 6 semester hours of graduate credit grades of
"D" or "F" will be dropped from the Graduate School.

The grade average of all graduate students is computed on a cumulative
basis. The honor point average at any time is the quotient obtained by divid-
ing the total number of honor points by the total number of properly weighted
credit courses which the student has taken up to that time. Graduate work
transferred to Northern Illinois University from other institutions will not be
included in the computation of the grade point average for master's degree
work.

In general, graduate classes meet on the basis of one hour of credit for
each class hour. Certain classes, however, are of such nature that they require
more than one hour of attendance for each hour of credit; and some courses
confer more than one hour of credit for each hour in class. Particular infor-
mination regarding a specific course may be obtained from the instructor or
from the Office of the Dean of the Graduate School.
Expenses and Financial Aids

The average total expenses for room, board, books, and supplies is approximately $1,200 to $1,300 for the academic year. The fees for graduate students are as follows:

Fees

Fees per semester—full-time students

<table>
<thead>
<tr>
<th>Fee</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registration fee</td>
<td>$ 60.00</td>
</tr>
<tr>
<td>Activity fee</td>
<td>$ 18.00</td>
</tr>
<tr>
<td>Bond revenue fee</td>
<td>$ 33.00</td>
</tr>
<tr>
<td>Hospital-surgical-medical insurance</td>
<td>$ 8.25*</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$119.25</strong></td>
</tr>
<tr>
<td>Additional fee charged out-of-state students per semester</td>
<td>$ 85.00</td>
</tr>
</tbody>
</table>

Part-time students—6 semester hours or less

<table>
<thead>
<tr>
<th>Fee</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registration fee per semester hour</td>
<td>$ 9.00</td>
</tr>
<tr>
<td>Activity fee</td>
<td>$ 0.00</td>
</tr>
<tr>
<td>Bond revenue fee</td>
<td>$ 0.00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$ 9.00</strong></td>
</tr>
<tr>
<td>Minimum fee</td>
<td>$ 18.00</td>
</tr>
<tr>
<td>Additional fee charged out-of-state students per semester hour</td>
<td>$ 14.00</td>
</tr>
</tbody>
</table>

Fees for summer session—(eight weeks)—full time students—5 semester hours or more

<table>
<thead>
<tr>
<th>Fee</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registration fee</td>
<td>$ 30.00</td>
</tr>
<tr>
<td>Activity fee</td>
<td>$ 9.00</td>
</tr>
<tr>
<td>Bond revenue fee</td>
<td>$16.50</td>
</tr>
<tr>
<td>Hospital-surgical-medical insurance</td>
<td>$ 3.50*</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$ 59.00</strong></td>
</tr>
<tr>
<td>Additional fee charged out-of-state students</td>
<td>$ 42.50</td>
</tr>
</tbody>
</table>

Part-time students—summer session—less than 5 semester hours

<table>
<thead>
<tr>
<th>Fee</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registration fee per semester hour</td>
<td>$ 9.00</td>
</tr>
<tr>
<td>Activity fee</td>
<td>$ 0.00</td>
</tr>
<tr>
<td>Bond revenue fee</td>
<td>$ 0.00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$ 9.00</strong></td>
</tr>
<tr>
<td>Minimum fee</td>
<td>$ 18.00</td>
</tr>
<tr>
<td>Additional fee charged out-of-state students per semester hour</td>
<td>$ 14.00</td>
</tr>
</tbody>
</table>

Extension Students

<table>
<thead>
<tr>
<th>Fee</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum fee</td>
<td>$ 18.00</td>
</tr>
</tbody>
</table>

* The hospital-surgical-medical insurance fee is payable by all full-time students at the time of registration. This fee may be refunded to any student who can submit satisfactory proof within 10 days following the last day of registration that he already has equal or better medical coverage.
Per semester hour for residents of Illinois .............................................. 9.00
Per semester hour for non-residents of Illinois .................................... 23.00
(Minimum fee for non-residents) ................................................... 46.00

Special Fees

Graduate fee (payable at time of graduation only) ............................ $ 15.00
Late registration fee charged after scheduled registration day .......... 3.00
For each change of program after preregistration ............................ 1.00
Duplicate transcript of record (after the first is issued) ............ 1.00
Duplicate identification card (after the first is issued) ............. 1.50
**Examination fee (non-refundable) ................................................. 5.00

A veteran who entered service as a resident of the State of Illinois and
who no longer has educational entitlement under a federal bill or who does
not wish to use the GI bill may receive assistance under the Veterans State
Scholarship. For full-time students this amounts to $78.00; for the part-time
student (6 semester hours or less) it will pay the entire registration fee.

Transcripts are not issued to persons who are under financial obligation
to the University or the University Loan Fund.

Changes in class programs will be permitted only with the approval of
the student's adviser, and a charge of $1.00 will be made for each program
change after the third day of the semester.

Students registering for a laboratory course in chemistry are required to
purchase a $5.00 "breakage coupon" at the Bursar's Office. Refunds will be
made on unused portions of the coupon.

The incidental and activities fees cover the following services and priv-
ileges: registration; library; health service; gymnasium; admission to athletic
events, concerts, dramatic productions, lectures, speech events; and subscription
to the University newspaper, annual, and magazine.

Application Fee for Admission

All students applying for admission to the Graduate School must pay an
application fee of $15.00. This fee is due at the time of submission of the
application and is non-refundable.

Dates for Refunds

Fees are due at the time of registration. When a student officially with-
draws from the University on or before any of the following dates, his registra-
tion fee only will be refunded:

<table>
<thead>
<tr>
<th>Semester</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st semester 1965-66</td>
<td>Sept. 30, 1965</td>
</tr>
<tr>
<td>2nd semester 1965-66</td>
<td>Feb. 10, 1966</td>
</tr>
<tr>
<td>Summer 1966</td>
<td>June 24, 1966</td>
</tr>
</tbody>
</table>

The activity fee, bond revenue fee, and hospital-surgical-medical fee are
not included as part of the registration fee and are not refundable.

** All graduate students who are working for an advanced degree or certificate are
required to take the aptitude test of the Graduate Record Examinations.
Veterans Affairs Office

The Veterans Affairs Office, which operates in conjunction with the Office of the Dean of Men, serves as a liaison between student veterans and governmental agencies concerned with educational benefits for veterans. Assistance is given to both undergraduate and graduate students in making necessary reports to the Veterans Administration and in obtaining educational benefits under the various public laws providing for the education and training of veterans. Inquiries concerning educational benefits for veterans should be directed to the Coordinator of Veterans Affairs.

Loans

The National Defense Student Loan Program

Northern Illinois University is participating in the Student Loan Program of the National Defense Act of 1958. College students or prospective college students who are in need of financial assistance to continue or commence their college education may be able to borrow up to $1,000 a year through this loan program.

The law requires that each borrower be a full-time undergraduate or graduate student, that he be in need of the amount of his loan to pursue his course of study, and that he be, in the opinion of the University, capable of maintaining good standing in his chosen course of study. It is further provided in the law that special consideration in the selection of loan recipients be given to (a) students with a superior academic background who express a desire to teach in elementary or secondary schools and (b) students whose academic background indicates a superior capacity or preparation in science, mathematics, engineering, or a modern foreign language.

The borrower must sign a note for the loan. Repayment of the loan begins one year after the borrower ceases to be a full-time student, with payment being completed within ten years. No interest on the student loan may accrue prior to the beginning of the repayment period, and interest thereafter is to be paid at the rate of three percent a year.

The National Defense Education Act contains a provision that up to fifty percent of a loan (plus interest) may be canceled in the event a borrower becomes a full-time teacher in a public elementary or secondary school. Such cancellation is to be at the rate of ten percent a year up to five years.

Applications for the National Defense Student Loan may be secured by writing to or calling at the Office of the Coordinator of Student Financial Aids.

Other Loan Funds

Northern Illinois University Foundation. The Foundation administers five funds from which deserving students may borrow, at a low rate of interest, on personal notes: The Student Loan Fund, the Bertha Bennett Sawyer Loan Fund, the Lewis V. Morgan Loan Fund, the Emil A. Anderson Loan Fund, and the Janet Lynn Mary Rams Loan Fund. Loans are not made to entering students. Applications may be obtained in the Office of the Coordinator of Student Financial Aids.

Northern Illinois Men's Loan Fund. A loan fund is available to male students in good standing who have earned a cumulative grade average of at
least "B" at Northern Illinois University. Small emergency loans may be obtained from this fund in amounts up to approximately $100. All loans are repayable during the semester in which they are secured. Applications and further information may be secured from the Coordinator of Student Financial Aids.

John S. Clark Memorial Loan Fund. The elementary teachers of Waukegan, Illinois, have presented to the University a sum of money to be used as a loan fund for students facing emergency situations. The fund serves as a memorial to the late John S. Clark, who served as Superintendent of the Waukegan Elementary Schools for many years. Information concerning the procurement of a loan from this source may be secured from the Coordinator of Student Financial Aids.

Associated Women Students Loan Fund. This organization, to which all undergraduate women belong, has funds available for short term loan (not exceeding $100) to any graduate woman maintaining at least a "B" average at Northern Illinois University. Applications may be obtained in the Office of the Coordinator of Student Financial Aids.

Assistantships

Two types of graduate assistantships are offered. Graduate assistantships for students in the fifth-year program provide a maximum stipend of $260 per month for the academic year of nine months. Graduate assistantships for students with a master's degree enrolled in sixth-year or doctoral programs provide a maximum of $300 per month for the academic year.

For graduate assistants, there is a remission of the registration fee itself, but the student is required to pay the bond fee, activity fee, and major medical fee. Faculty assistants must pay full fees.

Assistants are selected for their ability and are appointed on a part-time basis with the understanding that their academic load may not exceed 9 semester hours each semester if they receive the maximum stipend.

Application forms for graduate assistantships may be procured from the Office of the Dean of the Graduate School.
Student Housing

University Residence Halls

The Office of the Director of Housing lists rooms that are for rent in private homes but does not make reservations for students. The cost of these rooms varies but averages approximately $160-$175 per semester.

Accommodations for approximately 5,400 students are provided on campus in nine residence halls. These halls provide comfortably-furnished rooms, study facilities, and recreational, reception, and lounge areas, as well as telephone and mail services. Currently, the residence halls provide housing for 2,000 men and 3,400 women, and additional residence halls are being planned for increasing student enrollments. The residence halls program, under the guidance of full-time staff members and upper-class student counselors, is designed to provide opportunities for academic and social development of the residents.

Because of unsettled conditions in prices of food and labor, the University reserves the right to adjust charges for room and board during the University year. If an adjustment is necessary, an announcement to that effect will be made well in advance of the beginning of the semester during which it will become effective.

Students who plan to live in the residence halls should make room reservations as early as possible before the opening of the academic year. In order to apply for a room in the residence halls, the student must have at least tentative acceptance of admission from the Dean of the Graduate School, and his academic standing must be checked for conformance to the campus housing assignment regulations. There is no need for eligible students to write concerning an application for housing unless they have not heard from the Housing Office within a reasonable length of time after receiving the notice of acceptance from the Graduate Office.

All application cards must be accompanied by the required $25.00 room deposit, which also serves as a breakage and damage fee during the year's residence, and all contracts are made for the full academic year.

In regard to housing on campus in the residence halls, applications from undergraduate students are given preference over those from graduate students.

Meals are served on campus at the University Center.

The University Apartments

The University has eighty units of modern permanent-type two-story apartments for married students. These units are completely furnished, and rentals cover all utilities including electric heat but not telephones. Rentals are $67.50 per month for the efficiency apartments and $77.50 for the one-bedroom apartments. There are forty units of each type. Applications and further information may be obtained from the Office of the Director of Housing.
Services and Facilities

Health Service

The Student Health Service, under the supervision of a physician, has headquarters in the Health Center and Speech Clinic on Lucinda Avenue. It is open during class hours. Students have the privilege of visiting the clinic for consultation, advice, and treatment and also for discussing health problems.

University Counseling Center

The University Counseling Center has been established as a regular part of the University’s program. The major function of the University Counseling Center is to help graduate and undergraduate students in selecting educational and vocational objectives and in meeting problems of personal adjustment. A staff of counselors is available to discuss with students problems of an educational, vocational, or personal nature. Through the use of measuring devices and counseling sessions, students may receive assistance in determining their strengths and limitations, assessing their interests, identifying their problems, and planning a systematic program of social and personal development. A library of materials on occupations is available in the Counseling Center for students who wish to inform themselves with respect to vocational opportunities.

Student Teaching

Since student teaching is required for certification in Illinois, facilities for student teaching will be made available to graduate students who have been admitted to the teacher education program under the conditions described on page 41.

Internship for Graduate Students

Field work under University supervision may be utilized to develop the required proficiencies and may be substituted for regular course work. Only those who have had student teaching or experience in schools are eligible for internship credit. For further information see the course description under Education 595 and inquire at the Student Teaching Office.

Speech Rehabilitation Center

During the summer session, Northern Illinois University, in cooperation with the University of Illinois, Division of Services for Crippled Children, offers a six-week residential program for organically handicapped children with associated speech problems. Undergraduate and graduate credit can be earned by participating in this instructional program. Speech correction majors may earn 1 to 3 semester hours in clinical practice, Speech 427 and 428.
addition, student teachers in elementary education may be assigned to conduct individual and group classes in reading, spelling, handwriting, arithmetic, social studies, creative dramatics, music, art, and physical education. There is also a limited number of staff positions available to qualified individuals.

Placement Bureau

The University maintains a Placement Bureau to aid students in securing positions. Systematically organized records and credentials are available for reference to superintendents, principals, and other prospective employers. The credentials are submitted to these officials as confidential information and supply the following data: 1. Academic record and scholastic standing; 2. Student teaching record; 3. Inventory of special interests and abilities; 4. Record of University activities; 5. Actual teaching or other experience; 6. Personal evaluation by instructors, critic teachers, and former employers. When the number of candidates seeking positions exceeds the number of requests for employment interviews, it is the policy of the Placement Bureau to consider the above factors in bringing the merits of candidates to the attention of employers.

The services of the Placement Bureau are available to all current graduates, and the bureau also promotes the candidacy of alumni who have had several years of successful employment experience. The Northern Illinois University Placement Bureau offers free service to all graduates, to all school administrators, and to personnel representatives in business and industry.

Recreational Facilities

The University sponsors an extensive intramural athletic program each semester. Regular tournaments are held in tennis, handball, playground ball, volleyball, basketball, wrestling, boxing, and golf.

Part of a fifty acre area has been improved for intramural recreation, physical education classes, and athletic practice. There are tennis, handball, speedball, and volleyball courts; baseball and softball diamonds; football fields; athletic practice fields; hockey, soccer, and touch football fields; and a golf driving range. The area provides an opportunity for men and women to participate in various sports under excellent conditions.

Picnic areas are readily accessible in the Annie Glidden Woods adjacent to the campus and in Hopkins Park north of the city. The municipal swimming pool is also available to students.

In general, graduate students are invited to participate in undergraduate activities, including band, orchestra, and chorus, which do not involve inter-collegiate competition. Information regarding specific organizations may be obtained at the Office of the Dean of the Graduate School.

Student Operation of Motor Vehicles

All student owned and student operated motor vehicles including those of evening and Saturday students must be registered with the University Security Office. Each student shall receive a registration and parking decal or a registration decal upon registration of the vehicle. All vehicles must be registered with the Security Office by the first regular day of classes or within
forty-eight hours after acquiring the vehicle. Information on the license number and ownership of the vehicle, driver's license of the applicant, and proof of liability insurance must be available at the time of registering the vehicle.

Parking space on the campus is limited; therefore, it is controlled. Parking space during the hours of 7 a.m. to 5 p.m. on Monday through Friday is available only to those students eligible to purchase parking decals.

Students eligible to purchase parking decals are those:

1. who reside in University housing,
2. who live beyond a designated geographical area as described in the published Motor Vehicle Regulations,
3. who have physical disabilities,
4. who have other extremely unusual circumstances which make a motor vehicle a campus necessity.

Students cannot, therefore, plan to use their motor vehicles to get to, from, or between classes.

The published regulations on the operation and registration of motor vehicles are available to all students. Each student is held responsible for registration and parking and traffic regulations in accordance with the Motor Vehicle Regulations of the University.
Requirements for Graduate Degrees

Requirements for Fifth-Year Programs

The following regulations apply to candidates for the degrees Master of Science in Education, Master of Arts, Master of Science, and Master of Music. For more detailed requirements for specific degrees, the student should consult the statement appearing immediately above the course descriptions of his major department.

Candidacy

Admission to the Graduate School does not necessarily imply admission to candidacy for a master's degree. Upon the completion of 8 semester hours of graduate work at Northern Illinois University, and not later than the first month of his final semester, a student shall file application in the Office of the Dean of the Graduate School for admission to candidacy.

A student will not be admitted to candidacy for a degree until he is following a program approved by his adviser or advisory committee, has a grade point average of at least 3.0, and has the scores of his Aptitude Test of the Graduate Record Examinations on file in the Graduate School Office.

Deficiencies

A graduate of an approved college or university is presumed to be eligible for advanced work in any department if he presents a major in the area of work of that department. Any specific courses or their equivalents which are prerequisites to advanced courses shall be looked upon as deficiencies, to be made up before the student takes such advanced courses.

Students who elect the sequence in education for elementary school teachers will be expected to regard as deficiencies those courses necessary for certification as an elementary school teacher in the State of Illinois.

Credit Requirement

A candidate for a master's degree must earn a minimum of 32 semester hours of graduate credit and a minimum grade average of "B." (This average must be earned in the major field as well as in the total program. Area majors must earn a "B" average in each of the fields comprising the major.) The minimum required number of semester hours in residence is 22. Graduate credit is given only in those courses in which a grade of "C" or better is earned.

Normally, a candidate for the degree Master of Science in Education is expected to earn not less than 10 semester hours in courses outside his major field. In exceptional cases, this requirement may be waived by the Dean of the Graduate School. In order for an exception to be considered, the candidate, with the consent of his adviser or advisory committee, must submit a written petition to the Dean of the Graduate School, stating clearly his reasons for desiring waiver.

The degree Master of Science in Education is conferred only on students following a program of courses which will satisfy Illinois Certification requirements.
Credits Transferable

Subject to the approval of the Dean of the Graduate School, a student will be allowed to transfer a maximum of 6 semester hours of graduate credit from another institution, none of which shall be in extension or correspondence work.* To receive consideration of work done elsewhere, the student must file a petition with the Dean and request the registrar of the other institution to send a transcript of his work to the Office of the Graduate School.

Credit for Extension Work

With the approval of the major department, a student will be permitted to offer for credit a maximum of 8 semester hours in extension work taken from this institution.* A list of centers approved for graduate extension work may be secured from the Dean of the Graduate School.

Courses for Which Credit Is Allowed

Only courses which are numbered 400-499, 500-599, and 600-699 and which are taught by members of the graduate faculty carry credit toward the master's degree. Not more than fifty percent of the credit counted toward a master's degree may be earned in courses numbered 400-499.

Some courses numbered in the 400's carry only undergraduate credit. Graduate students enrolled in 400-level courses are responsible for ascertaining whether these courses have been approved for graduate credit and whether they are taught by members of the graduate faculty. Only those courses listed in this catalog or its supplements carry graduate credit.

Completion of Graduate Work

All work for the master's degree, including work transferred from other institutions, must be completed within a period of six years unless exception is granted by the Graduate Council.

Advisory System

Each student is assigned, by the head of his major department, to an adviser or advisory committee whose purpose is to guide his selection of courses and to recommend him, when properly qualified, for the degree. The adviser or advisory committee is selected by the head of the department in which the student is majoring.

The program of studies should be formulated by the student in conference with his adviser or advisory committee during the first semester of graduate work. Proper forms may be obtained from the Office of the Dean of the Graduate School and must be completed before a student is admitted to candidacy. (See p. 52.)

Qualifying Paper

Before taking the final comprehensive examination, a candidate must submit a qualifying paper or thesis, which is to be a research study written in the candidate's major field. Its subject must be approved by the chairman of the student's advisory committee or by his adviser, and when completed it must be approved by the professor under whom it was written and the adviser. If the supervisor is also the adviser, a second reader must be appointed

* Students who wish credit by transfer and also wish to take courses in extension should keep in mind the requirement that a minimum of 22 semester hours must be earned in residence.
by the head of the major department. The paper must follow the recognized standard forms of footnoting and bibliography. The original paper and two carbon copies, together with a one-page abstract, must be submitted in a standard folder to the Office of the Dean of the Graduate School. A statement showing approval by the staff members involved must be filed in the Office of the Dean of the Graduate School at least one week before the candidate appears for examination.

Examinations

Final written comprehensive examinations are required of all candidates for the master's degree at some time within the latter half of the semester which marks completion of work for the degree, but in any case at least one week before such completion. In some departments an oral examination is required as well. These examinations are given by the department or departments in which the major is taken. Students eligible for an examination must file with their major adviser a notice of their intent to present themselves for it.

Departments concerned will post notices of the date and place for each examination at least two weeks before it is to be administered.

All students must meet the requirements of Senate Bill Number 195 of the 68th General Assembly of the State of Illinois. In brief, this law requires satisfactory completion of an examination on the Constitution of the United States, the Constitution of the State of Illinois, and the proper use and display of the American flag. Students who have not satisfied the requirement at the undergraduate level must satisfy it at the graduate level.

Requirements for Sixth-Year Programs

Master of Fine Arts and Certificate of Advanced Study

The purpose of the sixth-year programs leading to the Certificate of Advanced Study and the degree Master of Fine Arts is, in the main, to encourage and enable school administrators, supervisors, and classroom teachers (elementary, secondary, and junior college) to attain greater mastery of their chosen fields than they can attain in five years of formal study. Of secondary importance is providing the stimulation which will lead some qualified students through an intermediate stage toward the doctorate.

Credit Requirement

A candidate for the Certificate of Advanced Study or the degree Master of Fine Arts must earn a minimum of 30 semester hours beyond the master's degree or its equivalent with at least a "B" average exclusive of work taken to remove deficiencies. All credit may be concentrated in one major area or distributed in such fashion that a maximum of 10 semester hours is earned in fields closely related to the major area. Credit for at least 21 semester hours must be earned in courses given on the campus of Northern Illinois University. Students enrolled in a Sixth-Year Program in Administration (General Educational Administration, The School Principalship, and School Business Management) are required to enroll for full-time study during an eleven-week summer session or during one semester. A full load is 12 semester hours.
Admission

A candidate for admission to the sixth-year program (as distinct from admission to the Graduate School) must (a) hold a master's degree or equivalent from an approved institution whose requirements for the degree are substantially equivalent to those of Northern Illinois University or (b) be in the last semester of work leading to that degree from Northern Illinois University. To be admitted as a classified student working toward the C.A.S. or M.F.A., the student must have an average of 2.5 in the last two years of his undergraduate work and 3.2 in his graduate work at the master's level.

Students previously in attendance in the Graduate School of Northern Illinois University should request permission of the Graduate Office to continue work leading to the Certificate of Advanced Study or the degree Master of Fine Arts. Students from other institutions should submit completed application forms to the Dean of the Graduate School no later than two weeks before registration. A student who holds a master's degree or equivalent from another college or university should request the registrar of that institution to forward two official transcripts of his academic record to the Dean of the Graduate School.

Admission to Candidacy

Admission to the sixth-year program does not necessarily imply that a student is, or may become, a candidate for the Certificate of Advanced Study or the degree Master of Fine Arts. Upon completing 12 semester hours of work at Northern Illinois University and not later than the first month of the final semester, a student shall file application in the Office of the Graduate School for admission to candidacy.

A student will not be admitted to candidacy unless he is following a program of courses approved by his advisory committee.

Credits Transferable

If a transfer of graduate credit is desired, applicants should file a petition with the Dean and request the registrar of any institution concerned to send a transcript to the Office of the Graduate School. Subject to the approval of the Dean and the chairman of the advisory committee, a student will be allowed to transfer a maximum of 8 semester hours of graduate credit from another institution, none of which shall be in extension or correspondence work. The petition must be presented to the Graduate School at the time of application for admission to candidacy.

Advisory System

Each student is assigned an advisory committee appointed by the Dean of the Graduate School upon recommendation of the head of the major department. The committee will review the advisee's selection of a major, help the advisee confirm or revise the selection, assist in planning the program of courses, and evaluate his work periodically.

Program of Courses

Early in his first term or, if feasible, before his initial registration, a student should confer with members of his advisory committee to plan a program of courses leading to the certificate or degree. The original of the program, properly signed, must be filed with the Dean of the Graduate School,
a copy being retained by the chairman of the advisory committee and another being given the student. Any changes made necessary in the program shall be by means of a substitution slip, a copy of which shall be filed with the Dean of the Graduate School.

**Qualifying Examination**

During the first term of his work in the sixth-year program, a student shall successfully complete, at the option of the major department, a qualifying examination. Failure to complete the examination successfully will be considered sufficient cause for drop or probation notice at the discretion of the advisory committee, the head of the major department, and the Dean of the Graduate School.

**Government Examination**

All students must meet the requirements of Senate Bill Number 195 of the 68th General Assembly of the State of Illinois. In brief, this law requires satisfactory completion of an examination on the Constitution of the United States, the Constitution of the State of Illinois, and the proper use and display of the American flag. Students who have not satisfied the requirement at the undergraduate or fifth-year level must satisfy it at the sixth-year level to receive the Certificate of Advanced Study or the degree Master of Fine Arts.

**Credit for Extension Work**

With the approval of the major department, a student will be permitted to offer for credit at sixth-year level a maximum of 6 semester hours in extension work taken from this institution. A list of centers approved for graduate extension work may be secured from the Dean of the Graduate School.

**Courses for Which Credit Is Allowed**

Only courses which are numbered 400-499, 500-599, and 600-699 and which are taught by members of the graduate faculty carry graduate credit. Not more than 9 semester hours of the credit counted toward the Certificate of Advanced Study or the degree Master of Fine Arts may be earned in courses numbered 400-499. Credit for at least 21 semester hours must be earned in courses numbered 500-699.

Some courses numbered in the 400's carry only undergraduate credit. Graduate students enrolled in 400-level courses are responsible for ascertaining whether these courses have been approved for graduate credit and whether they are taught by members of the graduate faculty. Only those courses listed in this catalog or in its supplements carry graduate credit.

**Limitation of Time**

Students should so plan their programs at sixth-year level that all work beyond the fifth year toward the Certificate of Advanced Study or the degree Master of Fine Arts will be completed within six consecutive years unless exception is granted by the Graduate Council.

**Thesis**

Every candidate shall submit an original and two carbon copies of a significant research study, field study, or thesis, together with an abstract thereof, approved by a departmental committee. The original, the two car-
bon copies, and the abstract must be submitted in a standard folder to the Office of the Graduate School. A statement showing approval by the staff members involved must be filed in the Office of the Graduate School at least one week before the candidate appears for his final examination.

Final Examination

The final examination of each candidate is administered by the department responsible for the candidate’s major area some time within the latter half of the term which marks completion of work for the certificate or degree, but in any case at least one week before such completion. Comprehensive in nature, it is a written or oral examination, or both. No later than the end of the first week of the semester during which he plans to take it, the candidate must notify the Chairman of his Advisory Committee of his intent to take the examination.

Departmental Requirements

Other than the requirement previously indicated that, unless exception is granted, a candidate for a certificate or degree will be expected to earn a minimum of 20 semester hours in his major department, departmental requirements which govern the structuring of programs of study for individual students shall be flexible rather than rigid. The primary aim of Northern’s sixth-year program is to help experienced teachers, supervisors, and administrators improve themselves. It is to help these people become master teachers or administrators. Hence emphasis will be placed on individual needs as they are determined by the advisory committee in conferences with the student rather than on adherence to the requirements of a specifically prescribed program.

Requirements for Doctoral Programs

Doctor of Education
Doctor of Philosophy

The doctorate is the highest degree granted by the University. It is conferred only for work of distinction in which the student displays powers of original scholarship. The doctorate will not be conferred merely for accumulating credits.

1. Admission to and Retention in Doctoral Work

a. Admission—Normally a student will be expected to have bachelor’s and master’s degrees from Northern Illinois University or from other accredited institutions whose requirements are substantially equivalent to those of Northern. No student will be admitted to doctoral work unless his undergraduate and graduate record (including test scores) indicates ability to do work of high quality in his chosen field.

According to Graduate School Regulations, a student must have at least a 2.5 average in the last two years of undergraduate work at an accredited institution and approval of the department in which he plans to major to be admitted as a classified student.

For admission to programs beyond a master’s degree, a student must have at least a 3.2 average in graduate work at the master’s level and approval of the department in which he plans to major; provided, that students undertaking doctoral work must have at least a 3.5 aver-
age in graduate work taken in the sixth year (30 semester hours beyond the master's), or before being admitted to candidacy for the doctorate, whichever comes earlier.

Two copies of undergraduate and graduate transcripts should be sent to the Dean of the Graduate School. At least two letters of recommendation are required: one should be from the student's present employer, the other from one of his teachers who is qualified to judge his ability to do graduate work.

Admission to doctoral work in a specific department may also require passing whatever entrance tests, screening devices, or interviews are required by the individual department and approved by the Graduate Council.

b. Retention—Retention in doctoral work will depend upon a student's maintaining the honor point average required by Graduate School Regulations: A student who receives 12 semester hours of graduate credit grades below "B" will be disqualified as a candidate for a degree in the Graduate School. A student who receives 6 semester hours of graduate credit grades of "D" or "F" will be dropped from the Graduate School.

Furthermore, students will be expected to pass whatever qualifying and comprehensive examinations are required and to fulfill the language requirement and other special requirements.

2. Course Requirement—Graduate students working for a doctor's degree will be expected to complete at least three academic years of work beyond the bachelor's degree. This will include formal course work, independent study, research, and dissertation. When translated into semester hours, this will be approximately the equivalent of 90 semester hours. A minimum of 24 semester hours of graduate work must be taken at Northern Illinois University. Transfer credit will be allowed at the discretion of the department concerned and of the Dean of the Graduate School. Not more than 25 semester hours shall be in graduate courses numbered 400-499. Most of the work will be in the student's major field or area of concentration. At the discretion of the student's major department, some course work may be taken in related fields.

3. Dissertation Requirement—Normally the dissertation and research will be equivalent of about two full semesters' work (24-32 semester hours). The dissertation will be a substantial contribution to knowledge in which the student displays powers of original scholarship. Its subject must be approved by the student's adviser or advisory committee. The dissertation will be microfilmed.

4. Language Requirement—Students working toward a Ph.D. must demonstrate a reading knowledge of two foreign languages. The material on which a student is to be examined may be set by the major department, but the examinations will normally be graded by members of the Foreign Languages Department. The language requirement must be met before a student is admitted to candidacy.

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1 This is in keeping with the regulation that a student may take 16 semester hours toward a master's degree and 9 semester hours toward the C.A.S. or M.F.A. in graduate courses numbered 400-499. A student who begins graduate work at N.I.U. with a master's degree will not be permitted to take more than 9 semester hours in courses numbered 400-499. A student who begins work with a C.A.S., M.F.A., or equivalent will not be permitted to count for credit any additional courses at the 400-499 level.
5. Residence Requirement—Students working toward a doctor’s degree will be expected to spend one academic year of two consecutive semesters in residence.

6. Qualifying, Comprehensive, and Oral Examinations
   a. After at least one semester (about 12-15 semester hours of work beyond the master’s degree), the student may be required, at the discretion of his major department, to take qualifying examinations which may be written or oral or both and which will test the background of the student in his major and related fields, and his competence to pursue further graduate work. A student who fails this examination may, with the permission of his major department, repeat it after the lapse of at least one semester. A student who fails this examination a second time will not be permitted to continue work toward the doctorate.
   b. When a student has completed most or all of his course work, and not later than eight months before the granting of the doctor’s degree, he will take a written comprehensive examination. This examination will cover work in the student’s major department and related fields. A student who successfully completes this examination will be admitted to candidacy for the doctorate. A student who fails this examination may, with the permission of his examining committee, repeat it after the lapse of at least one semester. A student who fails this examination a second time will not be permitted to continue work toward the doctorate.
   c. After completing all other requirements for the doctorate (including the dissertation), the student will present an oral defense of his doctoral dissertation before an examining committee.
   d. Committees to conduct examinations will be nominated by the head of the student’s major department and appointed by the Graduate Dean. Representation on comprehensive and dissertation examining committees will be such as to insure the presence of professors representing appropriate major and minor fields. The size of the committees will normally be three to five. If a student has taken all his graduate work in one department, the Graduate Dean will appoint one or more professors in related fields to the examining committee for the oral defense of the doctoral dissertation.

7. Limitation of Time—Students working for a doctor’s degree should plan their programs so that all work beyond the master’s degree will be completed within seven years unless exception is granted by the Graduate Council.

8. Extension Work—Depending on the number of residence credits transferred from other institutions, from 4 to 8 semester hours in extension work taken at this institution will, with the approval of the major department, be allowed at the fifth-year level; but no further extension...
credits will be counted toward the Ph.D. or Ed.D.* No credit will be allowed for extension work taken at other institutions. More detailed requirements for the doctorate in Business Education, Education, English, and History are listed below under the specific departments.

Teaching in the Junior College

A program of courses can be arranged in certain master's degree programs so that students may qualify for certification to teach in the junior colleges in the State of Illinois. Students interested in such a program should check on the requirements in the Office of the Graduate School.

Planning a Program

When departmental programs are under consideration, the student is advised to consult carefully the section of this catalog devoted to requirements for admission to the Graduate School and requirements for the specific program he wishes to pursue.

Departmental offerings will depend largely on the demand. Except where prerequisites are stated for the courses listed below, a graduate student is presumed to be eligible for advanced work in a department if he has an undergraduate major in that subject. See above, p. 52, under Deficiencies.

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*In addition to the extension credits allowed at the fifth-year level, from 1 to 6 additional semester hours in extension work taken at this institution will, with the approval of the major department, be accepted toward the C.A.S. or M.F.A.
COLLEGE OF
LIBERAL ARTS
AND SCIENCES

DEPARTMENTS OF

Biological Sciences
Center for Southeast Asian Studies
Chemistry
Earth Sciences
Economics
English
Foreign Languages
History
Journalism
Library Science
Mathematics
Philosophy
Physics
Political Science
Psychology
Social Sciences
Sociology and Anthropology
Speech
Department of Biological Sciences

The Department of Biological Sciences offers graduate programs leading to the degrees Master of Science in Education and Master of Science and, at sixth-year level, to the Certificate of Advanced Study. The Departments of Biological Sciences, Chemistry, Earth Sciences, and Physics offer an area major in General Science leading to the degree Master of Science in Education.

The prospective graduate student in Biology should obtain the "Handbook for the Graduate Student in Biology" from the office of the Department of Biological Sciences. This booklet provides more detailed information about the program of the Department, and the student will be held responsible for a knowledge of the material.

The Biological Sciences Department requires that all graduate students must have achieved a satisfactory grade on the "General Advisory Examination for Biology Graduate Students" before they may obtain an approved graduate program or start on their research work. This examination is administered on the first Saturday after the start of classes in each regular semester or summer session. Each degree candidate must submit a score on the biology section of the Graduate Record Examinations.

Each student should understand that while one academic year is the minimum time for work leading to the degree Master of Science or Master of Science in Education, most students will find that an additional semester or summer session may be essential. If the student has deficiencies, the total number of hours required may exceed 32.

MASTER OF SCIENCE IN EDUCATION

Major in Biology

Students who elect a graduate major in Biology toward the degree Master of Science in Education must satisfy the following minimal course requirements in Biology:

(a) 416, 516, or 517; 408 or 540; 542, 561, and 670.
(b) 8 additional semester hours of credit from courses offered on the 400 or 500 levels.
(c) A maximum of 6 semester hours will be devoted to supervised research leading to a qualifying paper.

Major in General Science

Students who elect an area major in General Science leading to the degree Master of Science in Education must have completed as undergraduates a major or the equivalent in Biological Sciences, Chemistry, Earth Sciences, or
Physics or have completed an undergraduate General Science major. The student is advised to choose not more than three of the four fields mentioned above as his interdepartmental major.

In those science fields where no undergraduate major or equivalent has been earned, the following graduate courses are required:

1. Biological Sciences: 405, 406, 416, and 542. (Choose a minimum of 8 semester hours.)
2. Chemistry: 500 and 501 and a minimum of 8 semester hours chosen with the consent of the Department Head from the 400 or 500 course offerings of the Department.
3. Earth Sciences: 453, 465, 520, and 543. (Choose a minimum of 8 semester hours.)
4. Physics: A minimum of 8 semester hours from the 400 or 500 course offerings chosen with the advice and consent of the Department Head.

**MASTER OF SCIENCE**

Students who elect a graduate major in Biology toward the degree Master of Science will be required to take a proficiency examination prior to arranging a program of courses leading to the degree. Upon their satisfactory completion of the examination, the program of courses will be prepared. This program will include a minimum of 32 semester hours of work—a minimum of 6 semester hours being devoted to supervised research leading to a qualifying paper.

**CERTIFICATE OF ADVANCED STUDY**

Students working for the Certificate of Advanced Study in the Biological Sciences must consult with the Head of the Department before planning a program. The requirements will be flexible, the candidate's background and interests being the determining factors. There will be a program of supervised research leading to a thesis.

**Course Offerings**

**GENERAL BIOLOGY**

400. Methods and Materials for High School Biology (3)

Aims of biology in the life of the individual and the community and the methods and materials best suited to the development of these aims. Visits to high schools, field trips, and a three-day period at the Taft Campus. Students will pay their own expenses. Offered first nine weeks of each semester. Prerequisite: One year of Botany or Zoology equivalent.

405. Field Course in Natural History (2)

For teachers in the elementary and secondary schools. The use of natural materials in teaching. Daily field trips are taken on the Lorado Taft Field Campus and nearby areas. Discussions, demonstrations, visual aids, the identification and preservation of biological specimens, and the study of literature pertaining to the natural history of the area. Two weeks. On Taft Campus in summer only. Prerequisite: B.Sci. 305 or teaching experience.

406. Biological Conservation (3)

Biological basis of conservation practices and the relationship of those practices to human welfare. Materials and procedures of teaching conservation. Field trips. Prerequisite: A year of Biology.
408. Genetics (3)
   Principles of heredity. Primarily for the Biology major or minor. Four periods a week. Prerequisite: 8 semester hours of Biology. College algebra recommended.

409. Cytogenetics (3)
   Cell nuclei and the behavior of chromosomes in plants and animals. Prerequisite: 8 semester hours of Biology. B.Sci. 408 recommended.

413. Microbial Physiology (3)
   Physical and chemical aspects of the functions of bacteria and other microorganisms. Prerequisite: B.Sci. 313 and a year of Chemistry.

416. General Ecology (3)
   Principles and structure of plant and animal communities. Field trips to representative areas, two overnight trips. Students will pay their own expenses. Five periods a week. Prerequisite: B.Sci. 211, 251, or consent of instructor.

418. Human Heredity (2)
   Human heredity in individuals and populations. Primarily for non-Biology majors. Three periods a week. Prerequisite: A course in Biology.

458. Optical and Instrumental Methods in Biology (1)
   1. Optical equipment, especially the microscope; 2. measuring instruments; 3. homeostasis devices (incubators, water baths, etc.). Two periods a week. Prerequisite: A high school course in physics, or equivalent, and consent of instructor.

491. History of Biology (2)
   Origin and development of major ideas and syntheses in biology. Relation between condition of the other sciences and society and advances in biological knowledge. Prerequisite: 8 semester hours in Biology.

500a. Science Problems of Elementary Grades (2)
   Development of constructive attitudes toward modern science in relation to problems in the elementary school. Satisfies requirement for Educ. 584. Prerequisite: B.Sci. 305 or consent of instructor.

500b. Methods and Materials for High School Biology (2)
   Problems of teaching biology in high school. Current research in this area. Prerequisite: B.Sci. 400.

505. Institute of Science for High School Teachers of Biology and General Science
   New information in the fields and the interrelationships among the biological sciences usable in the secondary school. Field trips, lectures by visiting scientists, and individual student projects. May be repeated to a maximum of 12 semester hours, 8 of which may count toward the master's degree.

513. Epidemiology (3)
   Causes, detection, and prevention of approximately forty common communicable diseases. Prerequisite: B.Sci. 313 or equivalent.

530. Radiation Biology (3)
   The effects of radiation upon cells and organisms. The use of radioisotopes in biological problems. Prerequisite: B.Sci. 355, 408 or equivalent, and one year of Chemistry.

540. Experimental Genetics (2)
   Fundamental principles of genetics and cytogenetics illustrated by laboratory work with fruit fly, mold, or other suitable organisms. Laboratory fee—$3.00. Prerequisite: B.Sci. 408 or equivalent.
542. Evolution (2)
Theories of evolution; development of concepts of evolution; factors in organic evolution. Prerequisite: Graduate standing.

543. Cytology and Histology (3)
Cell structure and tissue differentiation including both plants and animals. Prerequisite: B.Sci. 211 and 251 or equivalent.

561. Introduction to Scientific Literature (2)
Practical use of biological literature. Prerequisite: 30 semester hours of Biology.

562. Aquatic Biology (3)
Aquatic environments—physiographic, physical, and chemical—and aquatic life. Collecting, preserving, identifying, and recognizing native animals and plants. Five periods a week. Prerequisite: B.Sci. 211 and 251.

570. Introduction to Research Methods (3)
Lectures and conferences on problems, techniques, and analysis of biological research.

600. A-B-C-D-E-F-G-H-L Special Topics in Biology
A—Invertebrate Zoology (1-9)
B—Ecology (1-9)
C—Physiology (1-9)
D—Entomology (1-9)
E—Embryology (1-9)
F—Genetics (1-9)
G—Protozoology and Parasitology (1-9)
H—Mycology (1-9)
L—Microbiology (1-9)

Lectures, discussions, and reports on topics of special interest in a particular field of biology. 1 to 9 semester hours as scheduled; course may be repeated in one or more fields of biology. The maximum number of semester hours is to be 9 in any field of biology. Prerequisite: Graduate standing and consent of instructor.

661. Seminar (1)
Special topics in biology. May be repeated to a maximum of 4 semester hours. Prerequisite: B.Sci. 561.

670. Research (1-9)
Independent study of problems under the supervision of an adviser in the Department. Credit may be directed toward the preparation of a thesis. May be repeated to a maximum of 12 semester hours toward one degree. Prerequisite: Consent of the research supervisor.

BOTANY

410. Plant Anatomy (3)

412. Mycology (3)
Culture, morphology, and economic significance of the fungi. Five periods a week. Prerequisite: B.Sci. 211.

414. Fresh-water Algae (3)
Identification, economic importance, and limnological relations of the algae. Five periods a week. Prerequisite: B.Sci. 211.
510. Advanced Plant Physiology (3)
Physico-chemical activities of plant growth and development. Prerequisite: B.Sci. 310, Chem. 211, or equivalent.

512. Plant Pathology (3)
Specific causal agents of plant diseases, their identification, and control measures. Parasitism and the economy of crop diseases. Prerequisite: B.Sci. 412 or equivalent.

514. Taxonomy (3)
Fundamental principles of classification of higher plants. Ecological distribution. Prerequisite: Beginning course in taxonomy.

515. Plant Histology and Microtechnique (3)
Practical laboratory methods in botanical (histochemical) and micro-technique including tests for wall and protoplasmic substances. Prerequisite: B.Sci. 310 and 410 or equivalent.

516. Plant Ecology (3)
Influence of environmental factors upon plant associations evaluated. Representative communities analyzed in detail. Research techniques used in field and laboratory. Students will pay expenses of field trips. Prerequisite: B.Sci. 416 or consent of instructor.

518. Soil Microbiology (3)
The major groups of soil microorganisms, their significance and reactions. Prerequisite: B.Sci. 313, one semester of Chemistry, and consent of instructor.

520. Advanced Plant Morphology (3)
Vegetative and reproductive structures and their development. Structural relationships between related groups. Prerequisite: B.Sci. 410 and consent of instructor.

ZOOLOGY

450. Animal Parasitology (3)
Introductory study of animal parasitism. Five periods a week. Prerequisite: B.Sci. 251 or equivalent.

451. Protozoology (3)
Systematic examination of the protozoa. Five periods a week. Prerequisite: B.Sci. 251 or equivalent.

453. Entomology (3)
Taxonomic, ecologic, and general economic significance of insects. Five periods a week. Prerequisite: B.Sci. 251 or equivalent.

455. Comparative Physiology (3)
Mechanisms responsible for maintaining the functional integrity of invertebrates and lower vertebrates. Prerequisite: One year of Zoology and one year of Chemistry.

456. Fish and Wildlife (2)
Taxonomy, ecology, conservation, and utilization of natural and introduced forms. Four periods a week. Prerequisite: B.Sci. 211 and 251.

457. Mammalogy (3)
Mammals of the world with emphasis on Illinois forms. Characteristics, ecology, economic value, and a collection of study skins. Four periods a week. Prerequisite: B.Sci. 251 and consent of instructor.

461. Endocrinology (3)
Ductless glands and their functions. Five periods a week. Prerequisite: B.Sci. 355 and consent of instructor.
463. Invertebrate Zoology (4)
Structure, behavior, and classification of major invertebrate types. Six periods a week. Prerequisite: B.Sci. 251 or equivalent.

517. Animal Ecology (3)
Ecology as found in the world of animals; emphasis on application of principles. Field trips and a student field problem. For Biology majors. Students will pay for field trips. Five periods a week. Prerequisite: B.Sci. 416 or consent of instructor.

553. Advanced Entomology (3)
History of insect classification, rules of nomenclature and procedures in systematic studies, evolutionary origin of basic insect structure, functional morphology, life cycles, systematic review of major insect groups and ecology. Saturday field trips and a student problem. Students will pay expenses of field trips. Six periods a week. Prerequisite: B.Sci. 453 or equivalent.

554. Advanced Embryology (3)
Continuation of B.Sci. 354. Detailed study of mammalian development. Assigned experimental work. Prerequisite: B.Sci. 354 or consent of instructor.

555. Advanced Physiology (3)
Special topics in regulatory physiology with emphasis on servomechanisms. Prerequisite: B.Sci. 355 or 455 and a course in Organic Chemistry.

560. Field Zoology (3)
Collection, preservation, and identification of lower vertebrates and terrestrial and aquatic invertebrates. Detailed study of habits and life histories of selected forms. Five periods a week. Prerequisite: B.Sci. 251 or equivalent.
Center for Southeast Asian Studies and Training

The Center for Southeast Asian Studies and Training commenced operations in September, 1963. The primary functions of the Center are: the coordination of Southeast Asian courses offered by various departments; the development of specialized library and research facilities; the facilitation of research by graduate students and faculty; the promotion of various exchange programs with universities in Southeast Asia; the provision of consultation to high schools and colleges desiring assistance in the development of their Asian studies; and the administration of various operational programs concerned with Southeast Asia.

Since the Center is not a degree offering unit, all graduate degrees will be obtained primarily through the departments whose special requirements must be met.

The following courses are suggested to students interested in Southeast Asian affairs concentration; see relevant departmental listings for further information.

Earth Sciences
451 Political Geography;

Economics
463 Comparative Economic Development; 468 International Economics; 563 Seminar in Modern Economic Systems; 566 Independent Study in Economics; 568 Seminar in International Economics;

English
379 Oriental Literature;

History
439 Southeast Asia; 440 Summer Institute in Asian Civilizations; 441 History of Modern India; 442 History of Russia in Asia; 535 Seminar in Asian History; 536-636 Independent Study in Asian History;

Political Science
446 Governmental Systems in the Far East; 450 Governmental Systems in Southeast Asia; 451 Far Eastern Political Thought; 461 Foreign Policy Abroad; 549 Independent Study in Political Science; 648 Seminar in Comparative Public Administration; 651 Seminar in Governmental and Administrative Problems of Underdeveloped Countries; 655 Foreign Study and Internship;

Sociology and Anthropology
220 Cultural Analysis; 495 Seminar in Current Problems.
Department of Chemistry

The Department of Chemistry offers programs leading to the degrees Master of Science and Master of Science in Education and, at the sixth-year level, to the Certificate of Advanced Study. The Departments of Biological Sciences, Chemistry, Earth Sciences, and Physics cooperate to offer an area major in General Science leading to the degree Master of Science in Education. A bulletin describing the Chemistry graduate program is available from the Department Head on request.

MASTER OF SCIENCE

A candidate seeking to qualify for the degree Master of Science with a major in Chemistry shall satisfy the following departmental requirements in addition to satisfying University graduate requirements.

a. The candidate shall meet the chemistry, physics, and mathematics requirements for the B.S. degree in Chemistry at Northern Illinois University.

b. The student is required to take background examinations in the fields of physical, organic, inorganic, and analytical chemistry prior to registration. These examinations are usually given a week before registration for the purpose of aiding the adviser in the preparation of a course of study for the candidate and to aid in counseling the candidate as to the advisability of continuing in the program for the M.S. degree.

c. A minimum of 32 semester hours of graduate work is required, of which a maximum of 15 semester hours may be in research.

d. The student must successfully complete three courses in a major field (chemistry), two courses in a minor field (in chemistry or a closely related field), and another course in a field (chemistry or a closely related field) not included in the major or minor.

e. The student must pass a reading examination in one of the following languages: German, Russian, or French.

MASTER OF SCIENCE IN EDUCATION

Major in Chemistry

Students who elect a graduate major in Chemistry leading to the degree Master of Science in Education must take a minimum of 11 semester hours from the graduate catalog offerings of the Department of Chemistry.

Area Major in General Science

Students who elect an area major in General Science will find the requirements listed under Biological Sciences on pages 62-63.
CERTIFICATE OF ADVANCED STUDY

The Certificate of Advanced Study may be awarded to students pursuing programs in Chemistry beyond the master's degree.

This certificate is given in accordance with the General requirements of the Graduate School to those students following a sequence of courses approved by the Department Head or by the assigned adviser.

The program of courses to be taken will be drawn up with consideration being given to the student's interests and background.

Course Offerings

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>407</td>
<td>History of Chemistry (2)</td>
<td></td>
<td>Historical development of the important theories of chemistry, covering the origins, critical periods of development, and the personalities of famous chemists who contributed.</td>
<td>At least one year of college chemistry.</td>
</tr>
<tr>
<td>408</td>
<td>Chemical Literature (2)</td>
<td></td>
<td>The use of chemical literature. Two lecture periods a week.</td>
<td>Chem. 331 and one year of college German or equivalent.</td>
</tr>
<tr>
<td>409</td>
<td>Science Institute for In-Service Elementary Teachers (1-8) (Also listed as Phys. 409)</td>
<td></td>
<td>Subject matter in biological sciences, chemistry, earth sciences, and physics necessary for effective science teaching in the lower grades.</td>
<td>Acceptance by the director of the institute.</td>
</tr>
<tr>
<td>420</td>
<td>Quantitative Analysis (5)</td>
<td></td>
<td>Fundamentals of quantitative chemical analysis. Separation techniques, gravimetry, titrimetry, and colorimetry. Three lectures and two three-hour laboratory periods a week.</td>
<td>Chem. 211 and Math. 150 or equivalent. Not offered for graduate credit for the M.S. in Chemistry or the M.S.Ed. with a major in Chemistry.</td>
</tr>
<tr>
<td>421</td>
<td>Analytical Chemistry (3)</td>
<td></td>
<td>More detailed treatment of the principles and systematic methods of chemical analysis. Two lectures and one three-hour laboratory period a week.</td>
<td>Chem. 420 and 440.</td>
</tr>
<tr>
<td>425</td>
<td>Instrumental Methods of Analysis (3)</td>
<td></td>
<td>Fundamentals of physico-chemical techniques of chemical analysis. Interpretation and application of electrical, optical, thermal, and magnetic measurements in chemical analysis. Two lectures and one four-hour laboratory period a week.</td>
<td>Chem. 440 or consent of instructor.</td>
</tr>
<tr>
<td>430</td>
<td>Organic Preparations (3)</td>
<td></td>
<td>Synthesis of representative organic compounds by application of fundamental organic reactions. One lecture and five laboratory periods a week.</td>
<td>Chem. 333 or equivalent.</td>
</tr>
<tr>
<td>432</td>
<td>Qualitative Organic Analysis (3)</td>
<td></td>
<td>Organic group reactions. Identification of organic compounds and mixtures by characteristic reactions and physical measurements. One lecture and five laboratory periods a week.</td>
<td>Chem. 333.</td>
</tr>
</tbody>
</table>
436. Advanced Biological Chemistry (2)

Detailed study of the intermediary metabolism of certain classes of biologically important compounds. Two lecture periods a week. Prerequisite: Chem. 471.

437. Advanced Biochemical Techniques (3)

Theory and practice in the use of current biochemical techniques, such as microbiological assays, chromatographic techniques, use of radioisotopes in biological systems. One lecture and two three-hour laboratory periods a week. Prerequisite: Chem. 471.

440. Physical Chemistry I (3)

Study of the gaseous, liquid, and solid states; thermodynamics; chemical equilibrium. Four lecture periods a week. Prerequisite: Chem. 420, Math. 231, Phys. 251. Not offered for graduate credit for the M.S. (Chemistry) or the M.S. in Education with a major in Chemistry.

441. Physical Chemistry II (3)

Solutions, phase rule, kinetics, electrochemistry. Four lecture periods a week. Prerequisite: Chem. 440. Not offered for graduate credit for the M.S. (Chemistry).

445. Laboratory Technique (3)

Procedures and methods of purification of liquids, solids, and gases. Design, construction, and use of modern laboratory equipment, including glass blowing and electronic instrumentation. One lecture and two three-hour laboratory periods a week. Prerequisite: Chem. 440.

446. Theoretical Chemistry (3)

Continuation of Chem. 440 and 441. Atomic structure, chemical bonding, and introduction to elementary quantum mechanics. Three lectures a week. Prerequisite: Chem. 441.

447-448. Physical Chemistry Laboratory (1)-(1)

One four-hour laboratory a week. Prerequisite: Concurrent or previous enrollment in Chem. 440-441.

450. Radiochemistry (3)

Principles of radioactivity. Properties and uses of radioactive isotopes. Detection instrumentation. Chemical applications. Two lectures and one four-hour laboratory period a week. Prerequisite: Chem. 440 or consent of instructor.

460. Inorganic Chemistry (3)

Application of the modern theories of bonding to inorganic chemistry. Study of certain selected elements in detail. Correlation of structure and properties. Structure and spectra of coordination compounds. Three lecture periods a week. Prerequisite: Chem. 441 or consent of instructor.

462. Inorganic Preparations (3)

Application of fundamental principles in inorganic chemistry. Preparation and purification of selected inorganic compounds. One lecture and two three-hour laboratory periods a week. Prerequisite: Chem. 460 or equivalent.

470. Biological Chemistry (3)

Structure and properties of biologically important compounds. Properties of enzymes. Metabolism of carbohydrates, lipids, and some nitrogenous compounds. Three lectures a week. Prerequisite: Chem. 331.

471. Biological Chemistry Laboratory (2)

Experiments in isolation and separation using chromatographic and electrophoretic techniques. Enzyme properties and purification. Metabolism experiments. Two three-hour laboratory periods a week. Prerequisite: Chem. 332. Co-requisite: Chem. 470.
499. Teaching of Physical Sciences (2)
   (Also listed as Phys. 499)
   Objectives of the teaching of the physical sciences in the secondary schools. Classroom and laboratory problems confronting the secondary school teacher. Four lectures a week for nine weeks. Prerequisite: Physics, Chemistry, or General Science major.

500. Advanced Principles of Chemistry (4)
   Fundamental particles, atomic structure, electronic configuration, periodic system, chemical bond, elementary organic and biochemistry. For secondary teachers. Not open to Chemistry majors for credit. Prerequisite: One year of college chemistry.

501. Advanced Principles of Chemistry (4)
   Energy relations in chemistry, chemical equilibrium, oxidation-reduction, acids and bases, complex ions. Methods of chemical separation and measurement. For secondary teachers. Prerequisite: One year of college chemistry.

505. Institute for Science Teachers (1-8)
   Lectures, demonstrations, laboratory work, and field trips, designed for the science teacher. Subject matter from chemistry, physics, biology, and earth sciences. May be repeated to a maximum of 16 semester hours. Invitation by institute director is required.

510. Theoretical Inorganic Chemistry (3)
   Modern treatment of principles of inorganic chemistry emphasizing chemical bonding, stereochemistry, coordination compounds, as well as other selected topics. Prerequisite: Chem. 460 or equivalent.

511. Advanced Inorganic Chemistry (3)
   Extension of Chem. 510 with emphasis on periodic properties, acids and bases, and non-aqueous solvents. Prerequisite: Chem. 510.

515. Chemistry Seminar (1)
   Discussion of selected topics in chemistry under staff supervision. May be repeated to a maximum of 4 semester hours. Prerequisite: Graduate standing and consent of instructor.

522. Advanced Analytical Chemistry (3)
   Fundamental principles of chemical separations and measurements with emphasis on non-instrumental methods. New reagents and techniques are surveyed. Prerequisite: Chem. 441 or equivalent.

524. Optical Methods in Analytical Chemistry (3)
   Theoretical and practical applications of spectral measurements in research and chemical analysis, with emphasis on emission and absorption spectrometry in the principal regions of the electromagnetic spectrum. Prerequisite: Chem. 425 or consent of instructor.

531. Organic Reactions (3)
   Analysis and classification of organic reactions using modern organic chemical theory. Prerequisite: Chem. 532 or equivalent.

532. Theoretical Organic Chemistry (3)
   Mechanism and structure in organic chemistry including structural theory, stereochemistry, and the study of the reactive intermediates of organic chemistry. Prerequisite: Chem. 331 and 441.

533. Theoretical Organic Chemistry (3)
   Physical factors affecting the course of organic reactions; quantitative structure-reactivity relationships; applications of modern theory. Prerequisite: Chem. 532 or equivalent.
541. Chemical Thermodynamics (3)
Fundamental laws of thermodynamics and applications to chemical problems. Calculation of thermodynamics quantities. Prerequisite: Chem. 441.

542. Kinetics (3)
Theories and applications of rates of chemical reactions including reactions in the gas phase and in solution. Applications of kinetics in the determination of reaction mechanisms. Prerequisite: Chem. 441.

543. Atomic and Molecular Structure (3)
Quantum theory, spectra, and chemical bonding. Determination of atomic and molecular structure. Prerequisite: Chem. 446 and Math. 420.

547. Quantum Chemistry (3)
Introduction to quantum mechanics and its application to chemical problems. Prerequisite: Chem. 543.

550. Statistical Thermodynamics (3)
Principles of statistical mechanics and application to the calculation of thermodynamic properties. Prerequisite: Chem. 541 or equivalent.

555. Electroanalytical Chemistry (3)
Theory, practice, and applicability of electrical measurements in analysis and research. Polarography, potentiometry, and conductometry are the major electrometric methods emphasized. Prerequisite: Chem. 425 or consent of instructor.

575. Physical Biochemistry (3)
Physical chemistry, molecular structure, and interactions involving proteins, nucleic acids, enzymes, and metabolites. Physical biochemical methods, radiation, tracer techniques, bioenergetics, and kinetics applied to biological systems. Prerequisite: Chem. 441 and 470.

600. A-B-C-D-E Special Topics in Chemistry
A—Inorganic (1-9)
B—Analytical (1-9)
C—Organic (1-9)
D—Physical (1-9)
E—Biological (1-9)

Lectures, discussions, and reports on topics of special interest in a particular field of chemistry. 1 to 9 semester hours as scheduled; course may be repeated in one or more fields of chemistry. The maximum number of semester hours is to be 9 in any field of chemistry. Prerequisite: Graduate standing and consent of instructor.

619. Research (1-15)
The individual investigation of a special problem under the supervision of an advisor. This work normally culminates in the writing of the thesis or qualifying paper. May be repeated to a maximum of 15 semester hours towards the M.S. degree. For the M.S. in Ed. a maximum of 6 semester hours may be earned for a non-laboratory investigation. An additional 15 semester hours may be earned towards the Certificate of Advanced Study. Prerequisite: Graduate standing and consent of instructor.
Department of Earth Sciences

The Department of Earth Sciences offers graduate programs leading to the degrees Master of Science in Education with a major in Earth Sciences or in Geography and Master of Science with a major in Geography or in Geology and, at the sixth-year level, a program leading to the Certificate of Advanced Study. The Departments of Biological Sciences, Chemistry, Earth Sciences, and Physics offer an area major in General Science leading to the degree Master of Science in Education.

MASTER OF SCIENCE IN EDUCATION

Major in Earth Sciences

A student who elects a major in the Earth Sciences toward the degree Master of Science in Education must satisfy the following course requirements in the Earth Sciences*:

(a) one year (8 semester hours) of undergraduate credit in each of the fields of Geography, Geology, and Meteorology or graduate courses Geography 434, 437; Geology 443, 444; and Meteorology 448, 470, respectively.

(b) 10 semester hours outside the Department of Earth Sciences.

(c) a minimum of 6 semester hours of graduate credit from each of the three fields: Geography, Geology, and Meteorology at the 400, 500, & 600 levels.

(d) remainder of 32 semester hours to be selected from E.Sci. 422, 460, 490, 492, 534, 543, 545, 547, 557, 562, and 570.

A candidate for this degree will meet the academic requirements of comprehensive examinations and will write a master's qualifying paper. Admission to the program will be by consent of a faculty advisory committee.

Major in General Science

Students who elect an area major in General Science will find the requirements listed under Biological Sciences on pages 62-65.

Major in Geography

A student who elects a major in Geography leading to the Master of Science in Education degree is required to have a deficiency hearing with a committee selected by his adviser before arranging a program of courses. A total of 32 semester hours of graduate credit will be required with at least 20 semester hours from the major field, of which 17 semester hours must be in subject matter courses. A candidate for this degree will also meet the academic requirements of a comprehensive written examination and will write a master's qualifying paper.

* Graduate students not majoring in Earth Sciences may elect graduate courses offered in this major if they meet the prerequisites listed or show credit for E. Sci. 520.
MASTER OF SCIENCE

Major in Geography

A student who elects a major in Geography leading to the Master of Science degree is required to have a deficiency hearing with a committee selected by his adviser before arranging a program of courses. A total of 32 semester hours of graduate credit will be required with at least 20 semester hours from the major field.

Additional requirements:
- reading comprehension of a foreign language
- a course in statistics approved by the Department
- a comprehensive written examination
- a master's qualifying paper

Major in Geology

Students who elect a major in Geology leading to the Master of Science degree must satisfy the following requirements. A total of 32 semester hours of graduate credit will be required, with at least 24 semester hours from the major field. The courses to be taken will be selected with the advice of the faculty adviser or advisory committee. A candidate for this degree will meet the academic requirements of a comprehensive examination and will write a master's qualifying paper. Admission to the program will be by consent of a faculty advisory committee.

CERTIFICATE OF ADVANCED STUDY

Candidates for the Certificate of Advanced Study in the area of Earth Sciences should consult with the Head of the Department.

Course Offerings

EARTH SCIENCE AND METEOROLOGY

429. Field Geology (1-3)

The origin and development of local landforms. For teachers and laymen. One-hour lectures given once weekly, prior to Saturday field trips. Six Saturday field trips. Prerequisite: Consent of instructor.

439. Aviation Institute (3-4)

The relationship of aviation and space developments to the earth sciences. Basic principles of flight, navigation, meteorology, air traffic control, and airport facilities. Flight experiences and field trips to commercial and military bases. To meet some aviation education needs of elementary and secondary school teachers. Three or four weeks.

448. Meteorology for Science Teachers (3)

To introduce the secondary school teacher to some of the basic principles of meteorology such as physical principles governing the atmosphere, weather systems, clouds, and instruments.
449. Earth Science Teaching Procedures for Elementary and (3) Secondary Teachers

For students who are interested in earth science teaching and supervision. The place of geology and geography in the curriculum. Study trips taken and wide use made of recent earth science books and teaching tools adapted to the public school levels of instruction. Prerequisite: Consent of instructor or major or minor in this field.

460. General Research Methods in the Earth Sciences (2)

A general research course covering the following: definition of research; scientific methods, technical, logical, and quantitative methods and techniques.

466. Photogrammetry (2)

Detailed photointerpretation studies of various landscape features: landforms, vegetation, soils; rural, urban, and industrial land uses. Use of advanced photogrammetric instruments. Field trip required. Prerequisite: E.Sci. 365.

470. Regional Climatology (3)

The distribution of climate and its cause. Prerequisite: E.Sci. 370.

474. Micro-climatology (3)

The effect of factors of climate in limited regions. Prerequisite: E.Sci. 370 or 372.

480. Introduction to Dynamic Meteorology (5)

Meteorological thermodynamics, equations of motion, verticity equations, continuity equation, etc. Prerequisite: Math. 418 and Phys. 251.

481. Dynamic Meteorology (3)

Continuation of E.Sci. 480. Prerequisite: E.Sci. 480.

485. Physical Meteorology (3)

Selected topics in atmospheric visibility, terrestrial and solar radiation, and precipitation physics. Prerequisite: E.Sci. 480 or consent of instructor.

505. Institute of Science for High School Teachers of (1-8) Earth Sciences and General Science

New information in the fields and the interrelationships between the earth sciences usable in the secondary school. Field trips, lectures by visiting scientists, and individual student projects. Prerequisite: Teaching experience in science.

520. Earth Science for Public School Teachers (3)

The principles and applications of earth science which are usable in the elementary and secondary schools. Discussion and student reports. Satisfies requirements for Educ. 584. It (or equivalent) will meet prerequisite requirements for graduate courses in the Earth Sciences major.

545. Matter and Energy Relations in Space (3)

A descriptive study of matter and energy in space; a ratio and proportion study of the causal relations between physical and chemical properties and of the forces which bring about changes in our universe. Recommended as a free elective.

547. Oceanography (3)

Describing and relating the information from the various marine sciences in the study of the chemical, physical, and biological nature of the world's oceans.

557. Survey of Literature in the Earth Sciences (1-3)

Individual reading directed to those phases of literature which are needed for critical thinking in earth sciences. May be repeated to a maximum of 6 semester hours.
560. Procedures and Techniques in Reporting of Research (2) in the Earth Sciences

The procedures and techniques for reporting the results of original investigations. Prerequisite: Eligibility to do graduate research in the Department of Earth Sciences.

570. Special Problems in Earth Sciences (1-3)

Independent study of problems made under the supervision of adviser appointed by the Department Head. Writing of qualifying paper will be a part of work. May be repeated to a maximum of 6 semester hours.

670. Independent Research in Geology or Geography (1-3)

Individual investigation of special problems in the fields of either geology or geography under supervision of one or more staff members. May be repeated to a maximum of 6 semester hours. Prerequisite: 22 semester hours of graduate work in the Earth Sciences.

GEOGRAPHY

402. Geography of Soils and Vegetation (3)

Geographic interpretation of soils, soil groups and associations, as products of other environmental factors, with special attention to relationships between soil characteristics and the forms and patterns of vegetation. Additional fee will be charged for required field trips. Prerequisite: E.Sci. 101 or 200-201 or consent of instructor.

422. Edaphology (4)

Chemical and physical interactions affecting the distribution and development of plants and soils. Three lectures, one two-hour laboratory. One field trip is required. Additional fee will be charged for required field trips. Prerequisite: Chem. 110 or 210 or E.Sci. 402 or consent of instructor.

434. Agricultural Geography (3)

The factors that help explain the nature and distribution of crop farming and animal husbandry in various parts of the world. Prerequisite: E.Sci. 101 or 200-201 or consent of instructor.

437. Industrial and Commercial Geography (3)

The factors that help explain the nature and distribution of manufacturing, transportation, and trade in various parts of the world. Prerequisite: E.Sci. 101 or 200-201 or consent of instructor.

438. Geography of Transportation (3)

Geographical aspects of transportation systems are examined empirically and theoretically. World survey with emphasis on the United States. Prerequisite: E.Sci. 437.

450. Geography of Illinois (2)

An intensive regional study of the State. The relationship and significance of various regions to each other and to the whole United States. Prerequisite: E.Sci. 101 or equivalent.

451. Political Geography (3)

Relation of the physical and social environments of human groups with the political character of the state or nation to which they belong and in which they live. A world survey of political geography. Prerequisite: E.Sci. 101 or equivalent.

453. Regional Problems in Conservation (3)

The social or human elements in conservation practices as they are related to the scientific aspects of the conservation of natural resources. Prerequisite: E.Sci. 353 or consent of instructor.
456. Advanced Cartography and Graphics (2)

Special problems in cartographic design and symbolization. Statistical graphs and charts, layout and overlays, reproduction methods. Prerequisite: E.Sci. 255 or consent of instructor.

458. Geography of the U.S.S.R. (3)

The U.S.S.R. from both a topical and regional approach. An attempt is made to obtain an accurate appraisal of the natural resources base of Russia as well as an estimate of her industrial and agricultural strength. Prerequisite: E.Sci. 101 or equivalent.

459. Geographical Aspects of Regional Planning (3)

An introduction to regional planning in the United States, particularly with reference to its regional aspects.

461. Quantitative Techniques in Geography (2)

Statistical design and processing of geographic data. Prerequisite: E.Sci. 200 and 201; Psych. 305 or equivalent.

462. Urban Geography (2)

An application of geography to the interpretation of urban settlement. The nucleated settlement in regard to its structure and functional base and as a regional center. Prerequisite: E.Sci. 101 or 200.

465. Field Mapping and Techniques in Geography (2)

Field observations, techniques, record taking, mapping and interpreting the geography of a local area. Prerequisite: E.Sci. 101 or 200 and major or minor in Department.

534. Advanced Studies in Landform Analysis (3)

Landforms analyzed on the basis of their characteristics to illustrate and improve methods of description, classification, and the portrayal of their geographic arrangement. Prerequisite: E.Sci. 442 or 443 or consent of instructor.

543. Advanced Regional Climatology (3)

Intensive study of the climates of selected regions of the earth's surface from the viewpoint of dynamic and synoptic climatology; the relationships between these climates, their natural vegetation, landforms, and soils. Prerequisite: E.Sci. 370 or 470 or consent of instructor.

550. Vegetation Regions of the World (3)

Plant physiognomy on an ecologic basis, including climatic, edaphic, and cultural factors that condition vegetation patterns, and transitions. Prerequisite: Consent of instructor.

562. Advanced Studies in Land Utilization (3)

Detailed examination, using the problem approach, of the major physical and cultural factors influencing the nature and pattern of land utilization. Prerequisite: E.Sci. 434 or 437 or consent of instructor.

568. History of Geographic Thought (2)

The evolution of concepts pertaining to the nature, scope, and methodology of geography since classical times; major emphasis on the modern period. Prerequisite: Consent of instructor.

652. Seminar in Commercial Geography (3)

An investigation and analysis of the structure and patterns of world trade with particular reference to commodities, transport means, and transit and terminal facilities.

667. Seminar in Regional Geography (3)

Topics pertaining to the nature of the geographic region will be discussed, and students will work on problems concerning a particular area of the world. May be repeated once.
GEOLOGY

400. Sedimentation (3)
A quantitative analysis of the properties of sediments and sediment deposition. Methods of analysis of modern sediments utilized as a basis for classification in recent and ancient environments. Three lectures, one two-hour laboratory. One field trip. Prerequisite: Math. 150.

401. Stratigraphy (3)
Introduction to principles of stratigraphy and study of selected invertebrate faunas and stratigraphic sections of North America. Prerequisite: E.Sci. 240 and 340.

404. Summer Field Course (1-6)
Attendance at a departmentally approved geology field camp.

440. Optical Mineralogy (3)

441. Petrology (3)
The classification and origin of rocks based on thin section examination. Prerequisite: E.Sci. 440.

442. Geomorphology (3)
The origin and development of typical landforms throughout the world. Past landforms and processes of formation. Prerequisite: E.Sci. 443 or 342 or consent of instructor.

443. Regional Physiography (3)
The principal relief features of North America. A systematic textbook and laboratory manual study of the physiographic provinces of North America. Field trip required. Prerequisite: E.Sci. 220 or consent of instructor.

444. Economic Geology (Metallic Minerals) (2)
The nature, origin, and accepted refinement methods of the metallic mineral reserves of the world. Special reference to their recovery costs and problems. Classroom work is supplemented by hand study of representative specimens and by field observations. Prerequisite: E.Sci. 220 and 221 or equivalent.

445. Economic Geology (Non-Metallic Minerals) (2)
The nature, origin, and accepted refinement methods for the non-metallic and fuel mineral reserves of the world. Special reference to their recovery costs and problems. Classroom work supplemented by hand study of representative specimens and by field observations. Prerequisite: E.Sci. 220 and 221 or equivalent.

446. Advanced Geologic Principles (3)
Graduate-undergraduate seminar in advanced principles of physical and historical geology. Stresses the use of geologic principles in the solving of current field and theoretical problems in geology. (Field trips required.) May be repeated to a maximum of 6 semester hours.

490. Hydrogeology (3)
Ground water resources, sources and occurrences. Factors governing its movement through aquifer strata. Physical and chemical changes produced during the complete hydrologic cycle. An analysis of procedures for measuring a water resource. Prerequisite: E. Sci. 200 and 201 or 220 and 221 or equivalent.

492. Hydrology (3)
Quantitative study of precipitation, run-off, evaporation, transpiration, and infiltration. Mass diagrams, hydrographs, and distribution graphs. Relation of hydrology to hydraulic structures, and public water demands. Prerequisite: E.Sci. 200 and 201 or 275 and 276 or consent of instructor.
540. Advanced Mineralogy (3)
Discussion of modern methods in mineralogy including X-Ray, infrared, and NMR methods. Prerequisite: E. Sci. 440 and Chem. 441 or consent of instructor.

541. Studies in Quantitative Geomorphology (3)
Hydrologic parameters and techniques of landform measurement discussed as tools in the reclassification and refinement of classical geomorphic systems. Field trip required. Prerequisite: E. Sci. 442 and Math. 410.

544. Glacial Geology (2)
A detailed study of the origin, development, and topographical effects of the Pleistocene Period in North America. Implications are made relative to the influence of the Pleistocene glacial deposits of the North Central states in the United States upon the agricultural and industrial activities. Prerequisite: E. Sci. 346 or equivalent.

546. Paleontology (Vertebrate and Invertebrate) (3)
History identification and ecology of past life forms. Plant fossils as well as invertebrate and vertebrate animal forms. Major emphasis placed on the living conditions of vertebrate animal forms. Prerequisite: E. Sci. 346 or consent of instructor.

548. Stratigraphy (3)
Principles and methods of biostratigraphy and their application to problems of classification and correlation of the sedimentary record.

549. Advanced Structural Geology (3)
The origin and the mechanics involved in the formation of various structural features occurring in nature. Source literature, advanced texts, and dynamic models provide the material content of this course. Prerequisite: E. Sci. 342 and 346.

551. Paleomagnetism (3)
The earth's magnetic field in past geologic time as determined from measurements of remanent magnetism of rocks. Various theories explaining the mechanism of rock magnetism. An extensive study of the literature which pertains to worldwide paleomagnetic studies and their significance. Prerequisite: E. Sci. 342 and 346.

552. Sedimentary Petrology (3)
The classification and origin of sedimentary rocks based on hand specimen and thin section examination. Source literature and laboratory study of rocks and thin sections as the basis for student reports and oral presentations. Prerequisite: E. Sci. 400 and 440.

590. Field Problems in Geology (3)
Use of basic field techniques in studying the geology of a selected area. Field trips required. Prerequisite: E. Sci. 342 and consent of instructor.

591. Micropaleontology (3)
Microscopic fossils useful in solving stratigraphic problems. Prerequisite: E. Sci. 246.

646. Geology Seminar (2-3)
Seminar in selected geologic topics.
Department of Economics

The Department of Economics offers graduate programs leading to the degrees Master of Science in Education and Master of Arts and to the Certificate of Advanced Study.

MASTER OF SCIENCE IN EDUCATION
(Area Programs)

The Department of Economics cooperates with such other departments as Education, History, Political Science, and Sociology and Anthropology to devise area programs leading to this degree. The actual division of course study is determined by the student with his adviser. A minimum of 16 semester hours in Economics will be required. Foreign language proficiency is not required, but a qualifying paper must be written.

MASTER OF ARTS

This program is a basic course of study which combines theoretical, historical, and institutional approaches in the major areas and additional breadth through the requirement of a minor. A minor of 8 semester hours is required. Students are encouraged to minor in one of the Social Sciences, in History, in Business, or in Mathematics, and to include at least one course in statistics. A total of 16 semester hours in Economics including two courses in theory and the thesis course is required. The additional 8 semester hours may be taken in fields of the student's choice, in consultation with his adviser. The student must also meet the general University requirement of a comprehensive examination in his final semester. Total for the degree, 32 semester hours.

Comprehensive Examination

All candidates for a master's degree with a major in Economics will be required to complete satisfactorily a written examination and an oral examination.

CERTIFICATE OF ADVANCED STUDY

Students who wish to pursue the sixth-year program leading to the Certificate of Advanced Study with a major in Economics should consult with the Head of the Department of Economics.

Departmental and Inter-Disciplinary Concentrations

The Department of Economics, with the cooperation of other departments, offers a number of areas of concentration. Candidates for either the Master of Arts or the Certificate of Advanced Study are eligible to participate. These concentrations are Asian Studies, Comparative Economics, Economics of Development, Government and Industry, International Economics, Labor and Industrial Relations, and Metropolitan Problems.
Course Offerings

422. Economic History of the United States (3)
   The evolution and expansion of American economic institutions and processes from colonial times to the 20th century. Stresses environmental factors, strategic location of raw materials, the impact of functional technology, and the transition to finance capitalism.

441. Advanced Statistics for Economists (3)
   Reliability and significance; index number construction; multiple and partial correlation, non-linear; and forecasting. Prerequisite: A 3 semester hour course in statistics and Econ. 260-261.

452. Comparative Labor Relations (3)
   Patterns of industrial relations systems in European and selected emerging economies. Scope of collective bargaining and social welfare legislation. Cooperation between the various national labor movements. Prerequisite: Econ. 365.

463. Comparative Economic Development (3)
   Contemporary economies and their development. Particular emphasis on the development of the economies of the Soviet Union, England, China, India, and the United States. In each case economic development is related to the system in existence (viz. communism, welfare state, private enterprise, etc.). Prerequisite: Econ. 260. Econ. 363 is desirable but is not required.

464. Public Finance (3)
   Local, state, and national tax systems within the total economy; public debt and fiscal policies; public finance and education in Illinois. Prerequisite: Econ. 261 or consent of instructor.

465. Government and Business (3)
   Government in economic life; analysis of why government has undertaken certain activities, especially regulatory, and how regulatory commissions function and evaluation of effectiveness of regulation. Prerequisite: Econ. 260 or Pol.S. 140.

466. History of Economic Thought (3)
   The ideas of economics as they have been developed through the centuries, and how these ideas are related to the economic conditions of the times. Main emphasis on classical and more recent schools of thought. Prerequisite: Econ. 261.

467. The Cooperative Movement (2)
   Theory of cooperative enterprise; the practice of cooperative techniques in the United States and abroad. Prerequisite: Econ. 260.

468. International Economics (3)
   International payments, international economic theory, contemporary economic nationalism, international investment and currency problems, and the commercial policies of the major nations. Prerequisite: Econ. 261.

469. Economic Education (3)
   In-service contribution to the work of the Illinois Curriculum Program and the Illinois Council on Economic Education. For summer and extension offering.

470. Research Methods in Economics (3)
   An introduction to research techniques applicable to economics.

495. Seminar in Current Problems (2-4)
   Issues and policies in government, politics, and economics in their historical and sociological perspectives.
510. Seminar in Comparative Central Banking (3)
Comparative institutions, problems, and developments in the operation of the central
banks. Current problems in monetary policy throughout the world. Prerequisite: 3 semester
hours in money and banking.

550. Problems in Industrial Relations (3)
Through case studies industrial relations are examined in a wide variety of contexts.
Understanding of the fundamental economic and social factors is stressed. Prerequisite:
Econ. 365 or consent of the instructor.

560. Seminar in Money, Income, and Prices (3)
The role of money in the level of income, employment, and prices. Relationship be­
tween monetary and fiscal policies. Prerequisite: Consent of instructor.

561. Local Government’s Impact on Economic Activity (3)
History and types of local government intervention in economic activity; regulation,
assistance, public ownership. Coordination of the activities of governmental and quasi­
governmental agencies in these areas. An attempt will be made to analyze the effects of
local government activities upon local and area growth.

562. Business Cycles (3)
Prosperity-recession-depression-recovery patterns of modern economic society presented
against a background of earlier attempts to account for the cyclical character of the economy.
Prerequisite: Econ. 360.

563. Seminar in Modern Economic Systems (3)
The economic systems of the United States, Great Britain, the Soviet Union, Fascist
Italy, and Nazi Germany. Stresses the actual operation of the respective economies. Pre­
requisite: Econ. 363.

564. Economic Well-Being and Education (3)
Public education as an agency of social control and its effect on long run economic
welfare. Specific aspects of consumption, savings, distribution, and production influenced by
education are dealt with. Prerequisite: Consent of instructor.

565. Econometrics (3)
Measurement of supply and demand functions, consumption functions, production func­
tions, cost curves, and systems of economic relations. Prerequisite: Econ. 261 and consent
of instructor.

566. Independent Study in Economics (2)
Individually arranged readings for graduate students to complete requirements in
Economics and to meet student's needs. May be repeated for additional credit at post-master's
level of study. Prerequisite: Econ. 360 and written consent of Department Head.

567. Seminar in Transportation and Public Utilities (3)
Research in the fields of transportation and public utilities. Emphasis on current prob­
lems of the industries. When taken in connection with the Metropolitan Resource Develop­
ment program, research will be in the area of the problems facing these agencies in metrop­
olitan areas. Prerequisite: Beginning course in Economics or government.

568. Seminar in International Economics (3)
Recent development in the theory in international trade and finance. International
factor pricing, trade, and employment, and international economic cooperation. Prerequisite:
Consent of instructor.

569. Seminar in Trusts and Monopolies (3)
History of attempts to control large scale enterprise through government regulation.
A substantial amount of individual research required. Prerequisite: A beginning course in
Economics or government.
570. Thesis (1-6)

650. Seminar in Economic and Social Security (3)
Definitions the dynamic forces that now create insecurity and examines public and private measures designed to lessen insecurity.

663. Seminar in Alternative Economic Systems (3)
The private enterprise, socialistic and communistic economic models contrasted with the economic institutions and practices of the United States, Europe, the Soviet Union, and China. Prerequisite: Econ. 363 or equivalent.

664. Seminar in Public Finance (3)
An advanced seminar in the theory of public finance. Prerequisite: An undergraduate course in public finance or fiscal policy.

671. Seminar in Economic Theory (3)
Individual research in those areas of economic theory that meet the needs of the students. May be repeated once for additional credit at post-master's level of study. Prerequisite: Consent of instructor.

672. Seminar in Economic Growth (3)
An analysis of the causes, mechanisms, and patterns of economic growth, with special emphasis on capital formation. Prerequisite: Consent of instructor.

673. Seminar in the History of Economic Thought (3)
Studies in the development of economic ideas using original source materials. May be repeated once for additional credit at post-master's level of study. Prerequisite: Consent of instructor.

674. Seminar in Labor Economics and Labor Relations (3)
The economics of labor and of labor-management relations. Emphasis upon individual research. May be repeated once for additional credit at post-master's level of study. Prerequisite: Consent of instructor.

675. Seminar in Post-Keynesian Economics (3)
Development in economic thought since the time of John Maynard Keynes. Prerequisite: An undergraduate course in the history of economic thought or the equivalent.
The Department of English offers graduate programs* leading to the degrees Master of Science in Education, Master of Arts, Certificate of Advanced Study, and Doctor of Philosophy.

**MASTER OF SCIENCE IN EDUCATION**

Students who elect a graduate major in English toward the degree Master of Science in Education will be expected to do approximately two-thirds of their graduate work in courses in the Department of English. The nature and scope of the courses prescribed will be determined by an examination of the individual student's undergraduate academic record and his general background. There are no specific prerequisites for any of the courses in this department.

**MASTER OF ARTS**

Students who elect a graduate major in English toward the degree Master of Arts must pass a proficiency examination in one of the following languages: French, German, Spanish, Italian, Latin, Greek, or Russian administered by the Department of Foreign Languages. It is recommended that students take all their work in the English Department, but advisers may grant permission for limited study in other closely related fields.

*Comprehensive Examination*

All candidates for a master's degree with a major in English will be required to complete satisfactorily a written examination on a list of books selected by the Department of English. This list will be available to each student at the beginning of his candidacy and should be used continually in preparation for the examination.

**CERTIFICATE OF ADVANCED STUDY**

Students who wish to pursue the sixth-year program leading to the Certificate of Advanced Study with a major in English should consult with the Head of the Department of English.

**DOCTOR OF PHILOSOPHY**

*Requirements*

1. Admission to the Program. For admission to the program leading to the degree Doctor of Philosophy in English, the student must:
   a. Show evidence of his capability of pursuing doctoral work either by passing with distinction his comprehensive examination for the master's degree at Northern Illinois University or by passing a qualifying examination during his first year of work.

*English 603 is required of all Ph.D. candidates.*
b. Secure departmental approval of a program of study. The pro-
gram shall include courses in Old English, Chaucer, Shakespeare,
and Milton, unless the student has previously taken such courses
at the graduate level. The program shall include at least 6 semes-
ter hours of graduate work in each of the following areas (graduate
courses which the student has previously taken in these areas
shall count toward fulfilling this requirement):

a. Linguistics  
b. Medieval English Literature  
c. Renaissance English Literature  
d. 17th Century English Literature  
e. 18th Century English Literature  
f. 19th Century English Literature  
g. 20th Century English Literature  
h. American Literature to 1855 (3)  
i. American Literature, 1855 to the Present (3)

The student shall have the option of electing a minor field con-
sisting of a program of not more than 12 semester hours of closely
related courses in any one of the following fields or in some other
field approved by the Department:

American Studies  Linguistics  
Comparative Literature  Philosophy  
Drama  Political Science  
Foreign Languages  Psychology  
History  Sociology and Anthropology

2. Admission to Candidacy. For admission to candidacy to the Ph.D.
in English, the student must:

a. Demonstrate a satisfactory reading knowledge of two foreign
languages, of which at least one shall be a modern language. The
choice of languages shall be subject to departmental approval.

b. Secure departmental approval of a dissertation topic and prospec-
tus.

c. Pass written examinations demonstrating his mastery of subjects
in the following areas. At least one examination must be taken
in each group, plus one optional, for a total of four:

Group A: Linguistics or Old English  
Medieval English Literature  
Renaissance English Literature (through Shakespeare)  
17th Century English Literature

Group B: 18th Century English Literature  
19th Century English Literature  
20th Century English Literature

Group C: American Literature to 1855  
American Literature, 1855 to the Present
Dissertation Requirement. The candidate must write a dissertation which shall be an original contribution to literary or linguistic scholarship. The candidate will present an oral defense of his dissertation before his dissertation committee for its final approval. This committee shall consist of three or more members of the graduate faculty of the Department especially qualified in the area of the dissertation, one of whom shall be the dissertation director; it may comprise members from related fields.

Course Offerings

NOTE: Graduate students enrolling in "400" courses should secure permission from the instructor. Courses marked with an asterisk (*) may not apply toward the Ph.D. in English.

*400. Creative Writing (3)

Practice in developing papers of varying length and character. Conducted informally, much of the time being devoted to conferences and to critical evaluation of papers written by members of the class. Prerequisite: Eng. 104.

408. Elizabethan Non-Dramatic Literature (3)


410. 17th Century English Writers (3)

Selected works of such representative writers as Jonson, Bacon, Donne, Herrick, and Herbert but not including Dryden and Milton.

411. Neo-Classical English Writers (3)

Later 17th and early 18th century literature, including the works of such representative writers as Dryden, Addison, Swift, and Pope.

412. Age of Johnson (3)

Literature of the later 18th century, including the works of such representative figures as Johnson, Goldsmith, Burke, Cowper, Gray, and Walpole.

430. The Phonology of English (3)

The phoneme as a grammatical signal; the sounds of American English; the study of stress, pitch, and pause phonemes as they combine to form intonation contours.

431. Morphology and Syntax (3)

Parts of words and parts of speech; analyses of English sentences.

*450. Great Books: First Series (2)

An opportunity for adult students to read and discuss selected writings from the great minds of the past. Discussions are focused on the human problems dealt with in the works of such authors as Plato, Aristotle, Machiavelli, Smith, Tolstoy, and Marx. Emphasis is on straight thinking through careful reading, constructive criticism, and democratic discussion of ideas. Extension and summer only.

*451. Great Books: Second Series (2)

Continuation of Eng. 450, with a further examination of Plato and Aristotle, and brief inquiries into such thinkers as Sophocles, Lucretius, Hobbes, Swift, Pascal, Rousseau, Kant, and Mill. Extension and summer only.
471. Victorian Prose (3)
The main currents of 19th century thought as expressed in the writings of Carlyle, Mill, Ruskin, Macaulay, and others whose pronouncements exerted seminal influence.

475. Modern British Poetry (2)
Poetry of leading writers such as Hopkins, Hardy, Yeats, Eliot, Auden, and Thomas, from the point of view of its intrinsic interest and its position in modern literary developments.

476. Modern European Novel (3)
Representative novelists such as Flaubert, Conrad, Lawrence, Woolf, Forster, Joyce, and Beckett.

477. Contemporary American Poetry (2)
Close reading of selected texts by such poets as Frost, Cummings, and Stevens. Attention paid to idea, style, and poet's sense of his place in the modern world.

478. Early American Writers (3)
American writers from the beginnings to 1830, stressing such figures as Edwards, Taylor, Franklin, Paine, Irving, Cooper, and Bryant.

480. The Materials of High School English (2)
The methods, devices, techniques, and curriculum materials useful to the English teacher in the secondary school.

483. Renaissance Literature (3)
A comparative study of works by such Continental figures as Petrarch, da Vinci, Erasmus, Cellini, Michelangelo, Montaigne, and Machiavelli.

485. English Drama to 1642 (3)
Miracle and mystery plays, moralities, interludes, imitations of Latin tragedy and comedy, and plays of such writers as Lyly, Greene, Kyd, Marlowe, Jonson, Beaumont and Fletcher.

486. Modern Drama (3)
Trends in British, Continental, and American drama from Ibsen to the present day as illustrated by representative plays.

490. Classical Drama in English Translation (3)
The development of Greek and Roman tragic and comic traditions.

*500. The Relationship between Society and Literature (3)
Literature and the society which produces it. The class will develop four or more core units with considerable emphasis on the materials available in the junior high school.

*501. Independent Study and Research (2)
Individual research in problems in English and American language and literature, under the supervision of a designated member of the Department as a part of the master's qualifying paper. Available only to master's candidates after completion of 24 semester hours. May be repeated to a maximum of 4 semester hours. Prerequisite: Consent of Department Head.

502. Literary History of England (2)
A synoptic view of important English literary movements intended to define the characteristics and to explain the roles of the principal literary figures in each; a study of interrelationships among movements.

503. Literary History of America (2)
A synoptic view of important American literary movements intended to define the characteristics and to explain the roles of the principal literary figures in each; a study of interrelationships among movements.
504. Analysis and Interpretation of Literary Texts (3)

The techniques of close reading. Intensive analysis, interpretation, and assessment of selected critical and imaginative works. Recommended for first-year graduate students.

505. History of Literary Criticism (3)

Analytical, judicial, and interpretative functions of criticism considered in their relationship to creative achievement.

506. History of the English Language (3)

Historical development of the sounds, grammar, and vocabulary of English from the 10th century to the present.

507. Chaucer: A Critical Study of "The Canterbury Tales" (3)

508. Old English (3)

The phonology, morphology, and syntax of Old English. Reading and critical study of selected prose and poetry.

509. "Beowulf" (3)

Reading and critical study of the oldest English epic and related texts.

510. Middle English Literature (3)

*Piers Plouman. Gawain and the Green Knight, The Pearl, and selections from Wiclif, Gower, Lydgate, Trevisa, James I, Henryson, and others.*

511. Descriptive English Linguistics (3)

Phonemics, morphemics, syntax and graphics of American English. The methods of structural analysis; an introduction to tagmemics and linguistic transformations.

513. The Romantic Movement in American Literature (3)

Such leading 19th century figures as Emerson, Poe, Hawthorne, Lowell, and Melville.

514. Realism and Naturalism in American Literature (3)

Such writers as Whitman, Howells, Mark Twain, James, Crane, Norris, and Dreiser.

515. American Literature since 1920 (3)

Such figures as Lewis, Anderson, Cather, Wolfe, Hemingway, and Faulkner.

516. 19th Century American Writers (3-9)

A comparative study of two major 19th century American writers such as Hawthorne and Melville, Whitman and Dickinson, Mark Twain and Henry James. May be repeated with consent of instructor.

517. 20th Century American Writers (3-9)

A comparative study of two major 20th century American writers such as O'Neill and Arthur Miller, Hemingway and Faulkner, Frost and Stevens. May be repeated with consent of instructor.

520. Chaucer: "Troilus and Criseyde" and Minor Poems (3)

Critical study of Troilus and Criseyde and selected poems, excluding the Canterbury Tales.

521. Grammar of Modern English (3)

For elementary and high school teachers wishing to develop an understanding of the grammar of English. Recent trends in grammar and composition. Not open to English majors except with consent of Department Head.

558. English Drama from 1600 to 1642 (3)

The plays of such writers as Chapman, Jonson, Beaumont and Fletcher, and Webster.
559. English Drama to 1600 (3)
Miracle and mystery plays, interludes, imitations of Latin tragedy and comedy, and
plays of such writers as Lyly, Greene, Kyd, and Marlowe.

561. Milton (3)
Milton's prose and poetry, with emphasis on *Paradise Lost*.

562. Spenser (3)
Detailed readings of Spenser's principal works, with emphasis on *The Faerie Queene*.

563. Later 18th Century English Literature (3)
Poetry and prose, including such writers as Johnson, Boswell, Goldsmith, Gray, Sterne,
and Walpole.

570. The 19th Century English Novel (3)
Concentration on such major figures as Austen, Dickens, Thackeray, Eliot, and Trollope.

571. Victorian Prose (3)
Mill, Carlyle, Ruskin, Pater, and others.

572. Coleridge and Wordsworth (3)
The philosophy of composition and the practice of these poets, together with revelatory
memoirs of the period.

573. Shelley and Keats (3)
Shelley as a proponent of political and social reform, with attention to critical opinion
regarding this poet. Classical, as well as romantic, elements in Keats.

575. Studies in Modern Poetry (2)
Intensive readings of selected texts.

576. Studies in the Modern Novel (3)
Intensive reading in selected texts.

578. Comparative Medieval Literature (3)
The epic and romantic traditions in Europe, studied through such works as *Chanson
de Roland*, *Roman de la Rose*, *Vita Nuova*, *Aucassin and Nicolette*, *Reynard the Fox*, *Tristan and Iseult*, *Parzival*, Provencal lyrics, and the legendary cycles.

580. Studies in Shakespeare: Early Works (3)
Shakespeare's development, studied through selected works up to 1600, including the
early comedies, tragedies, chronicle plays, and poems.

581. Studies in Shakespeare: Later Works (3)
Shakespeare's development, studied from 1600 to the end of his career, including the
major tragedies, problem comedies, later historical and romantic plays.

584. Restoration Drama (3)
The heroic drama, Restoration comedy and farce, classical tragedy, the ballad opera,
and the beginnings of middle class theatre.

586. Trends in 20th Century Drama (3)
An analysis of representative plays of dramatists from Shaw to T. S. Eliot, showing
trends in naturalism, realism, romanticism, symbolism, and expressionism. Special attention
given to poetic drama.

587. Modern British and Irish Writers (3-9)
Comparative studies of such writers as Yeats and Eliot, Joyce and Woolf, and Shaw
and O'Casey. May be repeated with consent of instructor.
601. Doctoral Research and Dissertation (2-15)
May be repeated for additional credit.

602. Directed Readings in English (2)
A program of library reading and research designed to enable the student to fill in gaps in his previous English studies. The student will be assigned to a supervising instructor in the appropriate field. Periodic quizzes and papers. May be repeated to a maximum of 6 semester hours. Open only to Ph.D. candidates and master’s candidates who have completed 24 semester hours. Prerequisite: Consent of Department Head.

603. Bibliography and Methods of Research (2)
To acquaint the graduate student with bibliographical resources and research methods. Required of all Ph.D. candidates.

604. Problems in the Teaching of College Composition (2)
Functional grammar as an aid to writing; reading and discussion as motivation for writing; organization and presentation of material; the research paper; grading standards.

605. Problems in the Teaching of Literature in College (2)
Methods of approach (critical, historical, and biographical); technical problems connected with assignments, class discussion, the lecture, supplementary reading, reports, testing.

606. Seminar in English Linguistics (3)
Selected problems involving the historical, comparative, normative or descriptive study of the various periods and dialects of the English language from the earliest records to the present day.

610. Seminar in Medieval English Literature (3)
A detailed examination of two or three medieval texts, excluding Chaucer.

611. Seminar in Renaissance English Literature (3)
Close analysis of the development of non-dramatic poetry and prose of the period, excluding Spenser, Shakespeare, and Milton.

612. Seminar in 17th Century English Literature (3)
A detailed examination of the work of two or three major writers of the period from Donne to Cowley, excluding Milton.

613. Seminar in 18th Century English Literature (3)
A detailed examination of the work of two or three major writers of the period from Dryden to Johnson.

614. Seminar in 19th Century English Literature (3)
A detailed examination of the work of two or three major writers of the period.

620. Seminar in the Modern Novel (3)
An intensive study of two or three modern novelists.

621. Seminar in Contemporary Literature (3)
Intensive study of dominant movements in recent American or English literature.

650. Seminar in 17th and 18th Century American Literature (3)
An examination of dominant movements in the thought and writing of Colonial and Early National America.

651. Seminar in the Romantic Movement in America (3)
An intensive study of two or three writers of early and mid-19th century America.

652. Seminar in Modern American Literature (3)
Selected figures from late 19th and 20th century American literature.
Department of Foreign Languages

Though a graduate major in Foreign Languages is not offered, properly qualified students may carry the following courses for graduate credit. It is advisable, however, for the student to consult with the instructor of the class before enrollment.

Course Offerings

**FRENCH**

405-406. 18th Century French Literature (4)-(4)
A survey of French literature of the 18th century, conducted in French, with work in advanced composition and conversation. Prerequisite: F.Lan. 302 or consent of instructor.

410. Moliere (4)
An intensive study of Moliere and the theory of comedy, conducted entirely in French. Prerequisite: F.Lan. 301-302 or special permission.

411-412. 19th Century French Literature (4)-(4)
A survey of French literature of the 19th century, conducted in French, with work in advanced composition and conversation. Prerequisite: F.Lan. 302 or consent of instructor.

421. French Literature of the Renaissance (4)
A survey of early French literature with special emphasis on the authors of the 16th century, conducted in French, with work in advanced composition. Prerequisite: F.Lan. 302 or consent of instructor.

425-426. 20th Century French Literature (4)-(4)
French writers of the 20th century, conducted in French, with work in advanced composition and conversation. Prerequisite: F.Lan. 302 or consent of instructor.

**GERMAN**

451-452. 19th Century German Literature (4)-(4)
A survey of 19th century literature, conducted in German, with work in composition and conversation. Prerequisite: F.Lan. 352 or consent of instructor.

453-454. Early German Literature (4)-(4)
A survey of German literature before the 18th century, conducted in German, with work in composition and conversation. Prerequisite: F.Lan. 352 or consent of instructor.

455-456. 18th Century German Literature (4)-(4)
A survey of 18th century literature, conducted in German, with work in composition and conversation. Prerequisite: F.Lan. 352 or consent of instructor.

457-458. 20th Century German Literature (4)-(4)
A survey of 20th century literature, conducted in German, with work in composition and conversation. Prerequisite: F.Lan. 352 or consent of instructor.
LATIN

431-432. Survey of Roman Historians (4)-(4)
Readings from Tacitus. Survey of Roman historians. Prerequisite: F.Lan. 232 or equivalent.

433. Cicero (4)
Cicero. Readings from his works (letters, speeches, philosophical writings). Prerequisite: F.Lan. 232 or equivalent.

434. Roman Poets (4)
Readings from Roman poets (e.g., Ovid, Vergil, Horace, Juvenal). Prerequisite: F.Lan. 232 or equivalent.

435. Roman Playwrights (4)
Readings from Roman playwrights (e.g., Plautus, Terence). Prerequisite: F.Lan. 232 or equivalent.

436. Selected Readings in Latin (4)
Readings from medieval and modern Latin authors (e.g., Einhard, St. Thomas Aquinas, Grotius) and discussion of their work. Prerequisite: F.Lan. 232 or equivalent.

RUSSIAN

481-482. Pushkin and His Time (4)-(4)
Pushkin's poetic, dramatic, and historical works and their influence on the literary and social trends of 19th century Russia. A survey of Russian literature from the beginning till Pushkin, conducted in Russian, with work in composition and conversation. Prerequisite: F.Lan. 282 or equivalent.

483-484. 19th Century Russian Literature (4)-(4)
A survey of Russian literature of the 19th century, conducted in Russian, with work in advanced composition. Prerequisite: F.Lan. 282 or equivalent.

485-486. 20th Century Russian Literature (4)-(4)
A survey of Russian literature of the 20th century, conducted in Russian, with work in advanced composition. Prerequisite: F.Lan. 282 or equivalent.

SPANISH

461-462. Spanish Dramatic Literature of the "Siglo de Oro" (4)-(4)
Spanish dramatic literature of the "Siglo de Oro," conducted in Spanish with work in composition and conversation. Prerequisite: F.Lan. 364 or consent of instructor.

463-464. Spanish Non-dramatic Literature of the "Siglo de Oro" (4)-(4)
Don Quixote (F.Lan. 463), the writings of the mystics and other non-dramatic literature (F.Lan. 464), conducted in Spanish, with work in composition and conversation. Prerequisite: F.Lan. 364.

471-472. 19th Century Spanish Literature (4)-(4)
Spanish literature of the 19th century, conducted in Spanish, with work in composition and conversation. Prerequisite: F.Lan. 364 or consent of instructor.

473. 20th Century Spanish Novel (4)
Special emphasis on Pio Baroja, conducted entirely in Spanish, with work in composition and conversation. Prerequisite: F.Lan. 364 or consent of instructor.
474. 20th Century Spanish Drama (4)
Conducted in Spanish, with work in composition and conversation. Prerequisite: F.Lan. 364 or consent of instructor.

478-479. Spanish-American Literature (4)-(4)
Spanish-American literature, conducted in Spanish, with work in composition and conversation. Prerequisite: F.Lan. 364 or consent of instructor.

GENERAL

490. Teaching Practices in the Foreign Languages (2-8)
The content and focus may vary with each offering. The problems of teaching foreign languages at the elementary, secondary, or junior college and college levels. The normal credit for the course when offered during a school semester will be 3 semester hours. When the work is offered on an intensive basis, such as a summer workshop, the course will carry 1 semester hour of credit a week. Prerequisite: The basic minimum requirement is two years of a foreign language in college. Other stipulations may apply, depending upon the content and focus of each offering.

499. Independent Study in a Foreign Language (2-4)
Individually arranged programs for graduate students; designed to meet special needs. Prerequisite: Advanced standing in that language and consent of the Department of Foreign Languages.
Department of History

The Department of History offers three degrees and a certificate at the graduate level: Master of Arts, Master of Science in Education, Doctor of Philosophy, and the Certificate of Advanced Study. These may be sought by persons wishing to enlarge their knowledge and understanding of human experience, past and present. This goal may be attained by historical research and investigation as well as by study in advanced history courses. Specifically, graduate work in History may be undertaken by those persons who desire to improve their competence or to enter upon careers in teaching or administration (in the public schools or in institutions of higher learning), branches of state and Federal government, the arts, literature, journalism, or law. Any individual with a grade-point average of 2.5 or better in the last two years of undergraduate work will be permitted to engage in graduate study as outlined below. The student who has not had much previous work in history may be required to enroll in one or more undergraduate courses to make up deficiencies.

Graduate courses in History are principally of three types: advanced undergraduate courses taken for graduate credit in which lecture and discussion predominate; seminars in which the student prepares papers having to do with a particular historical topic and in the process gains experience in historical methodology and the use of primary and secondary source materials; independent study in which the student, with the help of a member of the History faculty, seeks to acquaint himself through individual reading with the literature of one or more topics or themes. Three to five courses each semester constitute a full load; not more than two seminars should be taken concurrently.

Each entering student must submit his proposed program of study for the approval of the appropriate departmental graduate adviser. Graduate advisers are available on certain evenings and some Saturday mornings to meet off-campus students. Such students are advised to write or telephone for an appointment before coming to the University. Final written and oral examinations are required for each of the degrees described below. Students are responsible for ascertaining the dates on which application to take these examinations must be filed. They should consult with the graduate adviser well in advance of the dates set for language proficiency examinations, submission of theses and qualifying papers, and filing of applications for degree candidacy.

MASTER OF ARTS

The Department offers two programs leading to the Master of Arts degree. The first ("A") is intended primarily for the person who wishes to obtain experience in historical scholarship and who hopes ultimately to study for the Ph.D. The student who elects this program and obtains the degree may, at the Department's discretion, be permitted to study for the doctorate in History at Northern Illinois University without having to pass a qualifying examination, provided he meets other requirements for Ph.D. candidacy. The individual who wishes to teach in a four-year college or university will be well advised to take this degree. The second ("B") is intended chiefly for
those persons who wish to acquire as broad a background as possible in graduate course work in History. Additional study for the student who follows this program would ordinarily include not more than that which leads to the Certificate of Advanced Study.

In both programs, students are expected to complete not less than 24 semester hours of work in History. The remaining hours necessary to fulfill the 32 semester hours required for the degree may be taken in History or in some related subject, usually in the social sciences or humanities.

A

Of the 24 semester hours required in History, not less than 12 nor more than 18 semester hours may be concentrated in one of the following fields of History: European, American, Russian, Asian, or British. Students who have not had an equivalent course in historiography must enroll in Hist. 624 Philosophies of History. Students who intend to teach history in a college or university may enroll in Hist. 625 Teaching History at the College Level.

A thesis is required. It is usually written in the field of concentration, and 6 semester hours earned for the thesis may be counted as part of the 12 to 18 semester hours in the field. The thesis topic should be carefully chosen, and discussion of possible topics should begin as early as possible. In preparing the thesis, the student will be expected to demonstrate his ability to do research in original source material, to evaluate the materials with which he is working, and to organize and present his work in acceptable literary form.

Depending on his field of concentration and thesis topic, the student will be required to demonstrate his reading proficiency in one foreign language, usually French, German, or Russian. Another language may be substituted with the approval of the faculty member supervising the thesis. Several works in French, German, and Russian can be recommended to aid the student in preparing for the examination.

B

Of the 24 semester hours required in History, not less than 9 semester hours must be concentrated in each of two of the following fields of History: European, American, Russian, Asian, and British. Students who have not had an equivalent course in historiography must enroll in Hist. 624 Philosophies of History. A foreign language proficiency and a thesis are not required, but a qualifying paper is necessary. The paper is usually written in one of the two fields of concentration. Discussion of topics should begin as early as possible. By enrolling in one of the independent study courses, 3 semester hours may be obtained for the paper and may be counted as part of the 9 semester hours in one field of concentration.

MASTER OF SCIENCE IN EDUCATION
(Area Programs)

The History Department cooperates with other departments, particularly with the Departments of Education, English, Journalism, Economics, Sociology-Anthropology, and Political Science, to devise area programs leading to this degree. The student does not take less than 8 semester hours in History. The
actual division of work between departments is, however, determined by the student, the History Department's graduate adviser, and the adviser appointed by the cooperating department. A qualifying paper is necessary either in History or in the subject matter of the cooperating department.

CERTIFICATE OF ADVANCED STUDY

The Certificate of Advanced Study in History is designed primarily for those persons who wish to broaden their historical perspective through additional course work. Any student with a master's degree (not necessarily in History) and a graduate record averaging 3.2 or better will be permitted to seek the Certificate. Of the 30 semester hours required for the Certificate, not less than 20 semester hours must be in History, divided approximately equally between any two of the following fields of History: European, American, Russian, Asian, and British. If the student has the master's degree in History, at least one of the fields chosen for the Certificate must be different from those studied for the master's degree.

Foreign language proficiency is not required, but a research paper is necessary. The student will usually write the paper in one of the two fields of concentration. Discussion of possible topics should begin as early as possible. A total of 3 semester hours may be obtained for the paper and may be counted toward one of the fields of concentration by enrollment in an independent study course.

CERTIFICATE OF ADVANCED STUDY
(Area Programs)

The History Department cooperates with other departments, particularly Economics, Sociology-Anthropology, and Political Science, to offer an area program leading to the Certificate.

DOCTOR OF PHILOSOPHY

The Ph.D. is the highest mark of intellectual achievement obtainable in the United States in the humanities and social sciences. It has traditionally been a research degree and has been awarded only to those who have met rigorous standards, including the demonstration of excellence in scholarship. By common consent, the Ph.D., is also regarded as the indispensable qualification for college and university teachers. The members of the History Department are concerned that the high ideal of excellence associated with the degree be maintained at Northern Illinois University.

Departmental Requirements

A. Fields of Concentration
Each student shall complete approximately 30 semester hours in one major field and approximately 15 semester hours in each of two minor fields, exclusive of credit allowed for the dissertation. Major and minor fields are listed below. Students majoring in Modern European History must choose one minor in Ancient or Medieval History; students majoring in United States History must choose one minor in
British or Modern European History. With the approval of the Department's Director of Graduate Studies, one minor field may be taken outside the Department.

**Major Fields:**
- Modern European History
- United States History

**Minor Fields:**
- Ancient History
- Medieval History
- Modern European History
- Russian History
- Asian History
- British History
- United States History
- Latin American History

Further information regarding major and minor fields may be found in the *Graduate Students' Manual* of the History Department.

**B. Course Requirements**

1. Hist. 624 Philosophies of History  
   Designed to acquaint the student with the major works and philosophies of history.  
2. A minimum of 12 semester hours in History seminars.

**C. Language Proficiency**

The candidate must pass examinations designed to test his reading proficiency in two foreign languages, usually French and German. With the agreement of the dissertation adviser, another modern or ancient foreign language may be substituted for one of these. The examination will be set by the History Department and graded by the Department of Foreign Languages; the use of a dictionary is permitted, but passing grades will be given only for literate, idiomatic translations which accurately convey the shades of meaning in the original. One of these language proficiency examinations must be passed before the candidate sits for the Qualifying Examination. The second must be passed before he sits for the Comprehensive Examination.

**D. Dissertation**

Every candidate for the doctorate must present an acceptable dissertation in his major field. It must be in a form suitable for publication. This study must be based on primary sources, and it must present a substantial new contribution to knowledge. The candidate must make a satisfactory public defense of his dissertation before an examining board appointed by the Dean of the Graduate School; any holder of an earned doctorate, upon invitation of the Dean of the Graduate School, may attend such an examination and shall have the right to ask questions. Examinations may not be scheduled without the written approval of the dissertation adviser and at least one additional member of the graduate faculty appointed by the Dean as reader.

**E. Examinations**

1. Qualifying Examination. In order to become a departmental candidate for the degree, every student must pass a Qualifying Examination designed to ascertain the student's ability to pursue advanced
graduate study in History. Specifically, the student will be examined on 1) his capacity for critical reading; and 2) his knowledge of significant problems and of bibliography in his proposed field of concentration; and 3) his ability to define and undertake a preliminary investigation of a valid and feasible historical research project which might well serve for a doctoral dissertation. Ordinarily this will be an oral examination conducted by at least two members of the graduate faculty designated by the Department's Director of Graduate Studies. This examination may be taken at any time after the completion of 15 semester hours of graduate credit and must be passed before registering for more than 45 semester hours. Although a student who has successfully completed requirements for the M.A. degree "A" program may claim exemption from the Qualifying Examination, the Chairman of the Department must be satisfied that the student is able to pursue advanced study in History.

2. Comprehensive Examination on Subjects. Subsequent to the Qualifying Examination but prior to submitting the dissertation, every candidate must pass a comprehensive written and oral examination designed to test his knowledge of subject matter in major and minor fields. The questions on the written part of the examination shall be set by an examining committee consisting of the dissertation adviser and two other members of the History Department. The oral part will be conducted by a board appointed by the Dean of the Graduate School and consisting of three members for the major field and two members for the minor fields; the dissertation adviser is the chairman of the examining board. A candidate who fails either the written or the oral part may take that part a second time after the lapse of at least six months; a second failure shall be final. The oral examination may not be taken until the written examination has been passed.

Course Offerings

GENERAL

410. European Seminar (8)

In cooperation with the Department of Economics, Political Science, and Sociology and Anthropology, offered summer 1965 and every third year, a study-tour that includes one month in residence at Oxford; lectures by British scholars on contemporary British life, the Empire and Commonwealth, and Britain's world relations; study trips to places in and near London and a five-day tour of the Southwest of England; a three-week tour of the continent; and about one week crossing the ocean in each direction. Includes advance reading assignments, shipboard lectures, discussions on shipboard returning to America—all under the supervision of two Northern faculty members; and a graduate paper to be prepared by those taking the course for graduate credit, after returning from the tour. Specific information concerning costs and fees will be published in a special announcement about one year in advance of the tour. Carries either graduate or undergraduate credit. May be counted as History, Political Science, Economics, or Sociology credit. About ten weeks.
100 HISTORY

420. Historiography (2)

The art and craft of history, the development of historical interpretations, and the great historians in their intellectual milieu from the dawn of history through the mid-20th century.

526. Independent Study in American or Latin American History (3)

Open to qualified students who wish to work independently in American or Latin American History. Consent of the faculty member with whom the student seeks to study is necessary. May be repeated to a maximum of 9 semester hours.

536. Independent Study in European, Russian, Asian, or British History (3)

Open to qualified students who wish to work independently in any of these fields. Consent of the faculty member with whom the student seeks to study is necessary. May be repeated to a maximum of 18 semester hours.

538. Thesis (3-6)

Open only to the student engaged in writing a thesis under Master of Arts "A" program. The student enrolls with the faculty member directing the thesis.

601. Doctoral Research and Dissertation (2-15)

May be repeated for additional credit.

624. Philosophies of History (3)

Designed to acquaint the student with the major works and philosophies of the great historians of the world.

625. Teaching History at the College Level (2)

Lectures and discussions of the problems of university instruction in history.

626. Advanced Independent Study in American or Latin American History (3)

Open to qualified students who wish to undertake advanced work in American or Latin American history. Consent of the faculty member with whom the student seeks to study is necessary. May be repeated to a maximum of 9 semester hours.

636. Advanced Independent Study in European, Russian, Asian, or British History (3)

Open to qualified students who wish to undertake advanced work in any of these fields. Consent of the faculty member with whom the student wishes to study is necessary. May be repeated to a maximum of 18 semester hours.

ASIAN HISTORY

439. Southeast Asia (3)

Historical introduction to Southeast Asia. Lectures deal with the Hindu, Buddhist, and Islamic religions, cultural backgrounds of Southeast Asian peoples, the centuries of European domination, and 20th century nationalism and communism.

440. Summer Institute in Asian Civilizations (6)

Lectures, readings, addresses by guest speakers, films, and exhibits, designed to acquaint public school teachers and other persons in public life who received little or no formal training in Asian subjects in their university careers with the basic history, the religious and cultural foundations, and the contemporary problems of the major civilizations of Asia. Time will also be devoted to the use of bibliographic and other materials useful to secondary school teachers. Not open to students who have had both Hist. 339 and 439.

441. History of Modern India (3)

Ancient India and the foundations of Hindu society, with particular attention to Indian history from the beginning of Mogul rule through the British conquest to the attainment of national independence in 1947.
445. The Chinese Revolution (3)
Intellectual and social backgrounds of the Nationalist revolutionary movement; political history of the revolutionary period to the present.

535. Seminar in Asian History (3)
The subject matter of the seminar will vary according to the background and interests of the students and the instructor but usually will deal with some aspect of the political, economic, or social history of Eastern Asia since c. 1500. May be repeated to a maximum of 6 semester hours.

**BRITISH HISTORY**

466. British Constitutional History (3)
British political and legal institutions from Anglo-Saxon times to the mid-20th century.

467. History of the Empire and Commonwealth (3)
The British Empire and the Commonwealth of Nations from the 16th century to the present.

468. Tudor and Stuart England (3)
Elizabethan and Jacobean culture; the Reformation; the Revolution of 1640-60.

533. Seminar in Tudor and Stuart History (3)
Selected problems in the history of early modern Britain. May be repeated to a maximum of 6 semester hours.

537. Seminar in Modern British History (3)
Selected problems in the political, economic, and social history of modern Britain. May be repeated to a maximum of 6 semester hours.

**EUROPEAN HISTORY**

402. The Greek City State (3)
Greek political ideas and practice. The problem of government and the major philosophers, historians, and dramatists. Special attention is given to the Athenian democracy of Pericles.

403. The Roman Revolution (3)
A source-based study of the end of the Roman Republic 146-29 B.C.; development of the Roman constitution and Roman views of the state; analysis of the failure of democracy in the ancient world.

404. The Later Graeco-Roman World (3)
The decline of classical civilization and the foundations of the Middle Ages from Marcus Aurelius to the end of the sixth century.

430. The Renaissance (3)
The social, political, and ideological breakdown of Medieval Europe with consideration of the reaction of the new class of artists and intellectuals to the special problems of their age.

431. The Reformation (3)
A survey examination of the varieties of religious revolutions and counter-revolutions which led Western Europe to the threshold of modernity.

432. History of Ideas to 500 A.D. (3)
Definition and limitation of the field of intellectual history and its relationship to other fields such as science and philosophy. The big questions about which man has always speculated and an exploration of the effect of ideas on people in the periods of the primitive and Near Eastern Origins, the Classical and Hellenistic Greeks, the Hebrews, the Romans, and the Early Christians.
433. History of Ideas, 500-1600 A.D. (3)
A continuation of Hist. 432. The Medieval fusion of Classical, Teutonic, Christian, Islamic, Celtic cultures; education, philosophy, science, religion, government, law, art, literature, as they reflect the fusion. The transition to modern culture in the Renaissance and Reformation.

434. Europe in the Age of the Democratic Revolution, 1750-1815 (3)
The origins of modern democratic ideas and institutions are studied in the context of the 18th century Enlightenment, the radical reorganization brought about by the Revolution of 1789-94, the conservative reaction and the consolidation and diffusion of the Revolutionary achievement by Napoleon.

435. 20th Century Europe (3)
European and world affairs in this century. Origins of the two World Wars, the Great Depression, rise of totalitarian governments, retreat of Europe from Asia and Africa, attempts at international organization.

436. Great Revolutionary Movements of Modern History (3)
Exercises in analyzing the nature of revolutionary ideas and action in the history of Europe since the 15th century.

437. Reaction, Romanticism, Revolution and Realism, 1815-1870 (3)
Europe from the Restoration to the Paris Commune. The age of Metternich, the revolutions of 1848, the transitions from romantic idealism to militarism and Realpolitik.

438. Europe in the Age of Imperialism, 1870-1914 (3)
National power politics; colonial expansion; mass education, democracy, and socialism; the formation of hostile alliance systems; the coming of World War I.

447. Medieval Europe, 500-1200 (3)
Surveys the life and culture of the early Middle Ages, from the Germanic migrations to the 13th century.

448. Europe in the Later Middle Ages (3)
A continuation of Hist. 447. Surveys the renewal of town life, the age of scholasticism, the development of monarchies and parliaments, the flowering of art and architecture.

461. Diplomatic History of Modern Europe (3)
The development of the idea of a balance of power and its consequences, especially since the Congress of Vienna.

462. European Intellectual History, 1500-1815 (3)
A general discussion of the ideas and ideologies which have created much of modern world civilization.

463. European Intellectual History, 1815 to the Present (3)

464. France since 1815 (3)
French society, government and culture from the fall of Napoleon I to the present, emphasizing the Revolutionary heritage, the coming of industrialism and democracy, the rise and fall of the French colonial empire; the ordeal of France in the twentieth century.

465. Germany and Central Europe since 1815 (3)
Against the background of the age of absolutism and of revolution, the course surveys the Napoleonic era, the rise of Prussia, nationalism and unification, power politics, imperialism, two World Wars, National Socialism and its aftermath.
473. History of Science from Antiquity to 1500 (3)
Near Eastern and Mediterranean beginnings; the Greek, the Hellenistic age; the Arabs; the science of late medieval and Renaissance Europe.

474. Science since 1500 (3)
The Copernican revolution; Bacon, Galileo and Descartes; the Newtonian synthesis; the Enlightenment; chemistry, electricity, and the life sciences; geology and evolution; the new physics.

530. Seminar in Ancient History (3)
Selected problems of European history during the ancient period to 500 A.D. May be repeated to a maximum of 6 semester hours.

531. Seminar in Medieval History (3)
Selected problems of European history during the Medieval Period, 500-1500 A.D. May be repeated to a maximum of 6 semester hours.

532. Seminar in the Renaissance and Reformation (3)
Selected problems of European history during the Renaissance and Reformation Periods. May be repeated to a maximum of 6 semester hours.

534. Seminar in Modern European History (3)
Selected problems of European history since 1600 A.D. May be repeated to a maximum of 6 semester hours.

631. Seminar in Modern European Economic History (3)
Studies in the development of economic institutions and ideas. May be repeated to a maximum of 6 semester hours.

632. Seminar in European Intellectual History (3)
Selected topics inviting the student to describe and analyze interesting patterns of thought and feeling which have shaped the lives of Europeans from the decay of the Catholic imagination through the new consciousness of Enlightenment, Romanticism, Scientism, and secular social and political ideologies. May be repeated to a maximum of 6 semester hours.

HISTORY OF THE AMERICAS

418. Civil War and Reconstruction, 1850-1877 (3)
The sectional crisis of the 1850's, the Civil War, and the period of political reconstruction; special attention to cultural and social factors involved in the sectional conflict and the war's lasting effects upon national and regional life.

419. Emergence of Modern America, 1877-1917 (3)
America's urban-industrial transformation, national emergence as an imperial power, and political movements through the era of Populist protest and Progressive reform.

421. The United States since 1917 (3)
American development from the First World War to the present, with attention to the political alterations and the national role in world affairs which have influenced present policies.

423. American Intellectual History to 1865 (3)
America's intellectual and social heritage from Western civilization, and the changes in that heritage which entered into the development of an American ideology. Prerequisite: Hist. 220.

424. American Intellectual History since 1865 (3)
Traditional American ideas and concepts in relation to the intellectual challenges arising from America's transition to a secular, urban-industrial society during the past century. Prerequisite: Hist. 221.
425. American Culture in the 18th Century (3)
   The 18th century background of some more important aspects of contemporary American culture. Topics for intensive study to be selected by students in consultation with the instructor.

429. History of American Labor from 1787 (3)
   Role of the working class in American history from the Early National Period to the present, with emphasis upon the growth of organized labor, labor problems, and labor's relation to other segments of American society during the 20th century.

450. Diplomatic History of the United States to 1898 (3)
   American diplomacy, the theory and conduct of foreign affairs, and America's world role from colonial backgrounds to the Spanish-American War.

451. Diplomatic History of the United States since 1898 (3)
   The theory and practice of American foreign relations, the United States' emergence as a world power, and the conduct of diplomatic affairs from the Spanish-American War to the Cold War.

452. Illinois and the Old Northwest (3)
   Settlement of the Northwest Territory and its regional history, with primary attention to the history of Illinois.

455. American Social and Cultural History to 1865 (3)
   The development of the American character in relation to social institutions, economic life, and cultural changes.

456. American Social and Cultural History, 1865 to the Present (3)
   Continuation of Hist. 455. Special emphasis on economic abundance, the frontier, the American college and university, immigration, industrialism, and religious denominationalism.

520. Seminar in American Colonial History (3)
   Selected problems in American 17th and 18th century history, including the Early National Period. May be repeated to a maximum of 6 semester hours.

521. Seminar in 19th Century American History (3)
   Selected problems of American history in the 19th century. May be repeated to a maximum of 6 semester hours.

522. Seminar in 20th Century American History (3)
   Selected problems of American history in the 20th century. May be repeated to a maximum of 6 semester hours.

523. Seminar in Latin-American History (3)
   Selected problems in Latin-American history. May be repeated to a maximum of 6 semester hours.

524. Seminar in American Frontier History (3)
   Frontier historiography and selected research problems in American frontier studies. May be repeated to a maximum of 6 semester hours.

525. Seminar in American Economic History (3)
   Studies in the development of institutions and ideas. May be repeated to a maximum of 6 semester hours.

623. Seminar in American Intellectual and Social History (3)
   An intensive examination of ideas and preconceptions in American thought on both the popular and scholarly levels during various periods.
RUSSIAN HISTORY

442. History of Russia in Asia (3)
The Russian Empire in Asia from its origins to the present. Both internal developments and Russia's relations with Asian countries, including relations with the European imperial powers when they are involved, will be treated.

443. Russian Thought and Culture before 1917 (3)
Pre-Soviet social, cultural, and intellectual life. Emphasis on the period since Peter the Great.

444. History of Soviet Russia (3)
Soviet Russia from the Bolshevik Revolution in 1917 to the present.

540. Seminar in Russian History (3)
Selected problems in Russian history. May be repeated to a maximum of 6 semester hours.
Department of Journalism

A Master of Arts program in Journalism is not yet complete; however, properly qualified students may take the following courses for graduate credit in consultation with the Department Head.

The Journalism Department cooperates with other departments, particularly with the Departments of Education, English, Political Science, Speech, Home Economics, Industry and Technology, Sociology and Anthropology, Philosophy, and Psychology and the College of Business to devise area programs leading to the degree Master of Science in Education.

The division of work between departments is determined by the student and his graduate program advisers, but usually a minimum of 15 semester hours is required in Journalism. A thesis either in Journalism or in the subject matter of the cooperating department is required.

Course Offerings

400. History of Journalism (3)
Development of newspapers and periodicals from beginnings in Europe through the emergence of modern journalism. Current world news gathering agencies.

435. Publicity Methods (3)
For students who do not plan to become professional journalists, but desire an introduction to writing publicity releases for newspapers and periodicals about their specialized fields. Open to all students.

450. School Publications (1-3)
For high school and junior college journalism teachers and school publications directors. Instruction in technical skills, staff organization, and production problems for newspaper and yearbook advisers.

451. Teaching Journalism (2)
Teaching methods of journalism in secondary schools and junior colleges; courses of study, organization, bibliography; use of journalism courses for school publication production.

460. Law of the Press (3)
Legal regulations, libel laws, and restrictions on the press, publishing, radio, and television. Required of all majors except Journalism-Education majors.

470. The Industrial Press (3)
Practical work in planning, editing, and producing specialized publications, including reporting, copywriting, picture editing, advertising layout, and business management.

490. Readings in Journalism (2)
A selected review of journalism literature including books, research studies, periodicals. Open to students of senior standing or above.

500. Independent Study (2-4)
Open to qualified students who wish to do individual advanced work in Journalism or mass communications. Prerequisite: Consent of instructor.

501. Mass Communications Research Methods (1-3)
Procedures; sources of information; introduction to and use of mass communication research tools; application of research techniques to restricted problems.
520. Seminar in Press Problems (3)

Selected problems in press freedom, federal-local censorship, press privileges, display and suppression of news, and the public's right to know. Also selected problems in influences of the press on social, economic, and political affairs; public opinion; and the formation of thought processes. Course may be repeated once.

550. Press and World Affairs (3)

International communications problems of the press in international affairs; a detailed study of international news agencies and services; investigation of the foreign press by countries with emphasis on the press under Fascism, Communism, and Democracy; and world censorship.

599. Thesis (3-6)

The student is eligible to register for this course after he has completed Journ. 501 and has been accepted as a candidate in an area major leading to the degree M.S.Ed.
Department of Library Science

The Department of Library Science offers graduate programs leading to the degrees Master of Science in Education and Master of Arts.

MASTER OF SCIENCE IN EDUCATION

Students who elect an area major in Library Science and Education leading to the degree Master of Science in Education will be expected to do approximately half of their graduate work in courses prescribed by the Department of Library Science. The nature and scope of the courses prescribed will be determined by an examination of the individual student's undergraduate academic record and his general background.

MASTER OF ARTS

In addition to the general admission requirements listed in the graduate catalog, candidates for the M.A. in Library Science must have completed the following undergraduate courses or their equivalents unless exempted by examination:

Lib.S. 311 Introduction to Selection of Library Materials (3)
Lib.S. 312 Introduction to Reference Materials (3)
Lib.S. 412 Cataloging and Classification (3)

Graduate Course Requirements

1. The following three courses are required of all students:
   Lib.S. 521 Bibliography of the Humanities (3)
   Lib.S. 522 Bibliography of the Social Sciences (3)
   Lib.S. 524 Bibliography of the Sciences (2)

2. The student must elect one of the following four courses:
   Lib.S. 433 The Library in the Modern School (3)
   Lib.S. 434 The Public Library as a Service Organization (3)
   Lib.S. 515 College and University Libraries (3)
   Lib.S. 516 Special Libraries (2)

3. The student must have a reading knowledge of one foreign language.

4. The student must take a minimum of 10 semester hours in graduate courses offered by the College of Liberal Arts and Sciences or, where the student's special interests require, other graduate courses. The selection of these courses, with the aid and approval of the student's advisory committee, must be integrated with the student's graduate program in Library Science.

5. The student must take sufficient additional courses in Library Science to bring the total credits to a minimum of 32 semester hours. These courses are to be selected with the help of the advisory committee.

6. Comprehensive examination. The student must complete satisfactorily an oral examination on a list of books selected by the Department
of Library Science. This list will be available to each student at the beginning of his candidacy and should be used continuously in preparation for the examination.

7. The student will prepare a qualifying paper to meet the requirements of Lib.S. 530.

Course Offerings

411. Introduction to the Functions of Librarianship (3)
Administrative problems of the library: budget, accounting, planning, personnel. General principles of administration for all types of libraries. Students will prepare a semester project applicable to the type of library in which they expect to work.

413. History of Books and Libraries (2)
The role of books and libraries in Western culture. The invention of printing and the rise of the idea of literary property. Development of the great world libraries to 1840. Open to all students.

414. The American Library Movement (2)
The rise of the American public and school library as part of the 19th century growth of popular education. The continued development in the 20th century of the library: school, public, local, and regional.

415. Library Work with Children and Young People (3)
The objectives and services of library work with children and young people.

418. Reading Interests of Adolescents (2)
Intensive study of principles of selection of materials for the secondary school and for young people's division of public library, with emphasis on literature and biography; study of the reading interests of young people; methods of stimulating and guiding reading.

433. The Library in the Modern School (3)
Intensive study of administrative and planning problems of the school library: budget, personnel, physical plant. Development of standards. Special emphasis on coordination for library and curriculum and on the library as a laboratory.

434. The Public Library as a Service Organization (3)
The role of the public library in adult education and as information center of the community. Special emphasis on problems of public support, public relations, and community development. Administrative principles and techniques; library surveys and wider areas of service.

500. Workshop (1-3)
Intensive study of problems of the school or public library in the areas of selection, reference, and cataloging. May be repeated to a maximum of 6 semester hours.

512. Advanced Cataloging and Classification (3)

515. College and University Libraries (3)
A survey of problems in the field: administration, personnel, purposes. Special emphasis on cooperation, buildings, and service to research workers.

516. Special Libraries (2)
Intensive study of the techniques of selection, cataloging, preparation, and service of materials in specialized libraries. A field trip to the Chicago area will be part of the course.
520. Colloquium (1)
Lectures by University faculty and special guests on problems of librarianship or allied
fields. May be repeated for additional credit.

521. Bibliography of the Humanities (3)
Intensive study of reference materials in this area of knowledge. Refinement of selection
principles and techniques. Evaluation of collections.

522. Bibliography of the Social Sciences (3)
Intensive study of reference materials and the formation of working collections in
this field of knowledge. Special emphasis on sources of education and of business information.

524. Bibliography of the Sciences (2)
Intensive study of reference materials, periodicals, as well as popular reading in the
pure sciences and technology.

530. Special Problems in Librarianship (1-4)
Research in the field of librarianship. Class will meet one day a week, and students
will prepare a research paper for varying credit, dependent upon subject and scope.
The Department of Mathematics offers graduate programs leading to the degrees Master of Science in Education and Master of Science and to the Certificate of Advanced Study.

Admission to graduate work in mathematics presupposes an undergraduate major, including a minimum of 12 semester hours beyond the calculus. Students with any deficiency in this respect will be required to take additional courses to complete the work for the master's degree.

MASTER OF SCIENCE IN EDUCATION

Students who elect a graduate major in Mathematics toward the degree Master of Science in Education must satisfy the following course requirements in Mathematics:

(a) 450 and 451 or equivalent if these courses were not included in the undergraduate program.

(b) 550 and 660.

(c) At least five courses to be selected from 405, 407, 410, 420, 425, 430, 435, 507, 510, 512, 515, 518, 520, 525, 528, 530, 532, 534, 535, 540, 560, 612, 615, 616, 625, 632, 634. At least two of these courses must be on the 500 or 600 level.

MASTER OF SCIENCE

Students who elect a graduate major in Mathematics toward the degree Master of Science must satisfy the following course requirements in Mathematics:

(a) 430 or equivalent if this course was not included in the undergraduate program.

(b) 530, 532, and 660.

(c) At least five courses to be selected from 405, 407, 418, 422, 425, 435, 442, 507, 510, 512, 515, 518, 520, 525, 528, 534, 535, 540, 542, 560, 612, 615, 616, 625, 632, 634. At least three of these courses must be on the 500 or 600 level.

(d) Courses in related areas up to 6 semester hours outside the Department of Mathematics, may be included only in special cases where approval is given by the major adviser.

CERTIFICATE OF ADVANCED STUDY

The requirements for the Certificate of Advanced Study vary according to the background and needs of individual students. Each program must be approved by the Head of the Department of Mathematics.
Course Offerings

402. Teaching Practices in Arithmetic (3)
   The function of arithmetic in the elementary school, selection and organization of material, and good teaching methods as indicated by scientific studies on the teaching of arithmetic.

405. Matrices and Determinants (3)
   Equivalence of matrices and forms; linear spaces, matrix fields, applications. Prerequisite: Math. 230 or equivalent.

407. Theory of Numbers I (3)
   Topics selected from properties of integers, Euclid’s algorithm, divisibility topics, fundamental theorems of arithmetic, Diophantine equations, prime numbers, Euler’s function, number theoretic functions, Pythagorean triplets, congruences, Euler-Fermat theorems, exponents, primitive roots, indices, quadratic residues and reciprocity law, Lagrange’s theorem, Bernoulli numbers, quadratic forms. Math. 507 is a continuation of this course. Prerequisite: Math. 230 or equivalent.

410. Mathematics of Statistics I (3)
   Classification and presentation of data; probability; the normal probability curve; errors and computation; moments, curve fitting, including the graduation of the normal curve; and the theory of correlation. Math. 510 is a continuation of this course. Prerequisite: Math. 230 or equivalent.

418. Vector Analysis (3)
   Basic vector operations with applications to geometry; also gradient, divergence and curl, Green’s theorem, Stokes’ Theorem. Prerequisite: Math. 231 or equivalent.

420. Differential Equations I (3)
   Methods of solution of ordinary differential equations of the first order and higher orders. Applications of differential equations in solving problems in geometry and in science. Math. 520 is a continuation of this course. Prerequisite: Math. 231 or equivalent.

422. Applied Mathematics (3)
   Complex variables, elementary theory of analytic functions, conformal mappings, Schwarz-Christoffel transformation and applications, operational calculus, Laplace transform methods and applications; numerical differentiation and integration methods. Prerequisite: Math. 231 or equivalent.

425. Introductory Topics in Modern Algebra (3)
   An introduction to sets and the basic properties of sets; real and complex numbers, groups, rings, and fields; matrices. Prerequisite: Math. 230 or equivalent.

430. Advanced Calculus I (3)
   Topics selected from sequences, limits, continuity, differentiation, integration, line integrals, Green’s theorem, improper integrals, infinite series, power series, uniform convergence, Bessel functions, Gamma and Beta functions, implicit functions. Math. 530 is a continuation of this course. Prerequisite: Math. 231 or equivalent.

435. Foundations of Geometry (3)
   Development of postulational systems in geometry, Euclidean geometry, non-Euclidean geometries, projective geometry. Prerequisite: Math. 230 or equivalent.

442. Numerical Analysis I (3)
   Topics selected from roots of equations, finite, difference tables, theory of interpolation, central differences, Lagrange’s interpolation formula, inverse interpolation, numerical solution of ordinary differential equations, simultaneous equations, determinants, matrices, Graffe’s root squaring method. Math. 542 is a continuation of this course. Prerequisite: Math. 231 or equivalent.
450. Teaching Practices in High School Mathematics I (3)
Mathematics of the seventh, eighth, and ninth years. Social and mathematical aims, selection and organization of content, methods of presenting topics in the classroom, classroom procedure, and supplementary instructional equipment. Prerequisite: Math. 230 or equivalent or consent of instructor.

451. Teaching Practices in High School Mathematics II (3)
Mathematics of the tenth, eleventh, and twelfth years. Topics similar to those listed for Math. 450. Prerequisite: Math. 230 or equivalent or consent of instructor.

502. The Teaching of Arithmetic in the Elementary School (3)
(Also listed as Educ. 502)
Consideration of the implications of research for methods of teaching, and the selection and arrangement of concepts and materials. Prerequisite: Math. 402 or equivalent.

507. Theory of Numbers II (3)
Continuation of Math. 407. Prerequisite: Math. 407 or equivalent.

510. Mathematics of Statistics II (3)
Continuation of Math. 410. Probability and statistical theory, frequency curves, partial correlation, multiple correlation, theory of sampling, Chi-square distribution, and interpolation and graduation. Prerequisite: Math. 410 or equivalent.

512. Probability I (3)
Topics selected from classical definitions of probability, theorems of total and compound probability, repeated trials, probability of hypotheses, Bayes' theorem, Bernoulli's theorem, binomial and Poisson distributions, games of chance, mathematical expectation, laws of large numbers, recurrent continuum. Math. 612 is a continuation of this course. Prerequisite: Math. 231 or equivalent.

515. Advanced Analytic Geometry (3)
Coordinates and cosines, planes and lines, determinants and matrices, surfaces and curves, quadric surfaces, and transformations. Prerequisite: Math. 231 or equivalent.

518. Synthetic Projective Geometry (3)
Projective transformations, ideal elements, cross ratio, duality; poles, polars, collineations, involutions; the theorems of Desargues, Pascal, Brianchon, the projective theory of conics. Prerequisite: Math. 231 or equivalent.

520. Differential Equations II (3)
Continuation of Math. 420. Further consideration given to ordinary differential equations of the first order and higher orders. Partial differential equations of the first and second orders. Prerequisite: Math. 420 or equivalent.

525. Modern Algebra I (3)
Topics selected from number theory, integral domains, rational and real numbers, polynomials, group theory, rings and ideals, algebraic number fields, Galois theory and applications. Math. 625 is a continuation of this course. Prerequisite: Math. 425 or equivalent or consent of instructor.

528. Theory of Finite Groups (3)
Abstract groups, subgroups, invariant subgroups and the Jordan-Holder Decomposition Theorem, Abelian groups. Prerequisite: Math. 231 or equivalent.

530. Advanced Calculus II (3)
Continuation of Math. 430. Prerequisite: Math. 430 or equivalent.

532. Introduction to Complex Variables and Applications I (3)
Topics selected from point sets, paths, regions, continuity and differentiability, the Cauchy-Riemann differential equations, Cauchy's Integral Theorem, Cauchy's Integral Formula, Laurent Expansion, singularities, transformations, conformal mapping, Riemann Surfaces. Math. 632 is a continuation of this course. Prerequisite: Math. 530 or consent of the instructor.
534. Real Variables I (3)
    The properties of sets, the theory of functions, and an introduction to measure theory.
    Prerequisite: Math. 530 or consent of instructor.

535. Foundations of Mathematics (3)
    The construction of the number system, axiomatics, the algebras of sets and statements; symbolic logic, quantification theory, infinite sets, transfinite cardinals and ordinals; the philosophies of mathematics. Prerequisite: Math. 231 or equivalent.

540. Non-Euclidean Geometry (3)
    Topics include the foundations of Euclidean geometry, the Fifth Postulate, discovery of non-Euclidean geometry, and a brief treatment of hyperbolic and elliptic plane geometry. Prerequisite: Math. 230 or equivalent.

542. Numerical Analysis II (3)
    Continuation of Math. 442. Prerequisite: Math. 442 or equivalent.

550. The Teaching of Secondary School Mathematics (3)
    Intensive study of improvement in the teaching of selected topics in secondary school mathematics. Prerequisite: Consent of instructor.

560. Directed Readings in Mathematics (2-3)
    A directed study in some area of mathematics. The purpose is to acquaint the graduate student with an area of mathematics for which there is insufficient demand to warrant a regular class. Prerequisite: 9 semester hours of graduate mathematics and permission of the Department Head. (May be repeated up to a total of 6 semester hours.)

612. Probability II (3)
    Continuation of Math. 512. Prerequisite: Math. 512 or equivalent.

615. Point-Set Topology (3)
    Algebra of sets, topological spaces, limit points, the topology of Euclidean space; transformations, continuity, homeomorphisms. Varieties of topological space; metric spaces and the metrization theorems. Prerequisite: Math. 425 and 430 or equivalent.

616. Topics in Point-Set Topology (3)
    Selections from the following topics: spaces satisfying the Jordan curve theorem, plane continuous curves, topological characterization of the plane, upper semi-continuous collections. Prerequisite: Math. 615 or equivalent.

625. Modern Algebra II (3)
    Continuation of Math. 525. Prerequisite: Math. 525 or equivalent.

632. Introduction to Complex Variables and Applications II (3)
    Continuation of Math. 532. Prerequisite: Math. 532 or equivalent.

634. Real Variables II (3)
    Continuation of Math. 534. Measure and types of integrals. Prerequisite: Math. 534.

660. Individual Problems in Mathematics and Mathematics Education (2)
    Individual problems related to mathematics or to the teaching of mathematics in the elementary or secondary schools. Opportunity for preparation of the qualifying paper is offered. May be repeated to a maximum of 4 semester hours. Prerequisite: Consent of instructor.
Department of Philosophy

MASTER OF ARTS

Every candidate for a master's degree in Philosophy is expected to fulfill the requirements stated below. In these requirements the principles of depth, concentration, and skill in writing and research will be emphasized over the principle of width, although the latter principle will not be neglected.

A. For width and depth the graduate student in conference with his adviser will choose graduate courses in three areas, one of which will be his area of concentration. These areas should generally follow up and be continuous with work already done at the undergraduate level. A minimum of 9 semester hours outside the field of concentration is required, this minimum applying to the two areas taken together and not to each area taken alone. In exceptional cases, and only in such cases, if it is the judgment of the Department that the background of a student warrants it, the above requirement of three areas may be suspended and the number of areas reduced to two.

B. In the area of concentration the graduate student is expected to take at least 3 semester hours of Special Studies and Research plus whatever other 500 level courses he may decide, with the guidance and agreement of his adviser, are necessary for his area of concentration. Ordinarily, 12 semester hours in the area of concentration will be considered maximum.

C. In addition he is required to take at least 3 and not more than 6 semester hours of Thesis during which he is expected to write and complete his thesis.

D. In order that the graduate student have a sound basis for his work in Philosophy, he is expected to take 6 semester hours of courses at the graduate level in some discipline outside of Philosophy, but closely related to his philosophic interests. Such courses, if possible, should generally follow upon work already done in some non-philosophic discipline at the undergraduate level.

E. Every graduate student, as required by graduate school regulations, must pass a comprehensive examination prepared by the Philosophy Department. This examination will be judged as a whole. If the student seeking candidacy status should fail, he will be given a second opportunity. No student who twice fails the comprehensive examination will be admitted to candidacy.

F. The graduate student must complete a minimum of 32 semester hours, 26 semester hours of which must be in Philosophy.

Course Offerings

400. Esthetics (3)
Theories of the nature of art. The philosophic problems and concepts involved in the understanding and criticism of the fine arts. Selected readings from historical and contemporary sources.
412. Symbolic Logic (3)

An introduction to modern mathematical logic covering such topics as axiomatics, relations, the propositional calculus, and the functional calculus. Prerequisite: Phil. 100 or Math. 130 or consent of instructor.

420. Philosophy of Language (3)

The nature, scope, and importance of certain linguistic problems. Representative theories of meaning. The function of symbolism in science, poetry, religion, politics, and morals. Prerequisite: 6 semester hours in Philosophy including Phil. 100, or consent of instructor.

440. Theory of Knowledge (3)

A philosophical study of the nature of knowledge, the methods by which it is obtained, and the presuppositions of these methods. Special attention will be given to the philosophical problems of memory, perception, truth, belief, and judgment. Prerequisite: 6 semester hours of Philosophy or consent of instructor.

450. Advanced Ethics (3)

An intensive study of basic ethical problems with special attention to recent developments in ethical theory. Prerequisite: Phil. 200 or consent of instructor.

460. Philosophy of Science (3)

The nature and historical development of the philosophic foundations, problems, and implications of modern science. Diverse interpretations of the character of scientific knowledge and its place in culture generally. Problems of operationalism, determinism, causality, and the concept of relativity. Prerequisite: 3 semester hours in Philosophy or a major in any of the sciences.

465. 20th Century Philosophy (3)

Some dominant 20th century movements in philosophy including pragmatism, positivism, logical analysis, and existentialism. Special attention will be given to modern developments in analytical philosophy. Prerequisite: 6 semester hours of Philosophy or consent of instructor.

488. Philosophical Issues (3)

Some fundamental issues in theory of knowledge, ethics, and metaphysics and their relations to modern trends of thought. Among the topics discussed will be the mind-body problem, determinism and freedom, the nature of ethical judgments, the nature of meaning, the nature of truth, and the nature of causation.

490. Seminar in Philosophy (3)

An intensive study of one major figure, problem, or position in historical or contemporary philosophy. May be repeated to a maximum of 6 semester hours. Prerequisite: 9 semester hours in Philosophy or consent of instructor.

495. Directed Readings (2-4)

Directed reading on selected topics of an advanced nature. Students will have regular conferences with the instructor and will have the opportunity for detailed discussion of their readings with him. Primarily for Philosophy majors and graduate students. May be repeated to a total of 8 semester hours. Prerequisite: 9 semester hours of Philosophy and consent of instructor.

500. Advanced Logic (3)

A more intensive study of special problems in logical semantics, modal logics, pragmatics or in special logics which do not fit into any accepted pattern of modern logical analysis. A single problem such as partial or complete formalization or several logical problems related to each other may be studied. Prerequisite: Phil. 100 and 412 or consent of instructor.
502. Seminar in Advanced Logic and Theory of Signs (3)*
Advanced topics in mathematical logic, modal logic, semantics, pragmatics, and various philosophical issues related to logical theory. Prerequisite: Phil. 412 or consent of instructor.

510. Seminar in Advanced Metaphysics and Epistemology (3)*
Advanced topics in metaphysics and epistemology. Prerequisite: Phil. 440 or 465, or consent of instructor.

520. Seminar in the History of Philosophy (3)*
Advanced topics in ancient, medieval, and modern history of philosophy. Prerequisite: Phil. 300 and 301, or consent of instructor.

531. Seminar in Advanced Ethical Theory (3)*
Special topics in advanced ethical theory. Prerequisite: Phil. 450 or consent of instructor.

540. Philosophy of Mind (3)
Some recent developments in philosophy having a bearing on such concepts as perception, thought, intentionality, and belief, and the role of these concepts in such philosophical problems as the relation of mind and body, the veridicality of perception, and the nature of personal identity. Prerequisite: Two courses in Philosophy or consent of instructor.

550. Contemporary Political and Social Philosophy (3)
A critical study of selected political and social concepts such as justice, equality, freedom, and related issues with reference to the views of representative contemporary thinkers. Prerequisite: Two courses in Philosophy or consent of instructor.

591. Special Topics in Recent Philosophy (3)*
Intensive studies of selected topics in recent philosophical literature. Extensive use will be made of journal articles and books that are of importance in current philosophical thought. Prerequisite: Phil. 300 and 301 or consent of instructor.

595. Special Studies and Research (1-4)*
Guided research for students wishing to do special studies of an advanced nature. Students will be expected to write a number of short papers and will select their research topics in consultation with the instructor. Prerequisite: Consent of instructor.

598. Thesis (3)
Guidance in the writing of the master's thesis. May be repeated to a maximum of 6 semester hours. Prerequisite: Consent of instructor.

* May be repeated for additional credit providing no repetition of subject matter occurs.
The Department of Physics offers programs leading to the degrees Master of Science in Education and Master of Science and, at sixth-year level, to the Certificate of Advanced Study. The Departments of Biological Sciences, Chemistry, Earth Sciences, and Physics cooperate in offering an area major in General Science leading to the degree Master of Science in Education.

**MASTER OF SCIENCE IN EDUCATION**

**Major in Physics**

Students who elect a graduate major in Physics leading to the degree Master of Science in Education must take a minimum of 11 semester hours from the offerings of the Department of Physics.

**Area Major in General Science**

Students who elect an area major in General Science will find the requirements listed under Biological Sciences on pages 62-63.

**MASTER OF SCIENCE**

A candidate seeking to qualify for the degree Master of Science with a major in Physics shall satisfy the following departmental requirements:

a. The candidate must meet the requirements for the B.S. degree in Physics at N.I.U. In some cases deficiencies in courses of 400 level may be made up for credit as part of the 12 semester hours of electives in the M.S. requirements.

b. A minimum requirement is 20 semester hours in Physics of which at least 2 semester hours must be Phys. 555 and, in addition, at least 6 semester hours from 500 to 600 level courses excluding Phys. 559 and 659. The remaining 12 semester hours required to satisfy the minimum of 32 semester hours for the graduate degree are to be chosen from Physics or closely related fields after consultation with the adviser.

c. Proficiency examinations may be administered at an early stage of the program for the purpose of aiding the adviser in the preparation of a course of study for the candidate and counseling the candidate as to the advisability of continuing in the program for the M.S. degree.

d. The student must pass a reading knowledge examination in one of the following languages: French, German, or Russian.

**CERTIFICATE OF ADVANCED STUDY**

The Certificate of Advanced Study may be awarded to students pursuing programs in Physics beyond the master's degree. This certificate is given, in accordance with the general requirements of the Graduate School, to those students following a sequence of courses approved by the Depart-
ment Head or by the assigned adviser. The program of courses to be taken will be drawn up with consideration being given to the student’s interests and background.

Course Offerings

400. Classical Mechanics (3)

409. Science Institute for In-Service Elementary Teachers (1-8)
(Also listed as Chem. 409)
Subject matter in Biological Sciences, Chemistry, Earth Sciences, and Physics necessary for effective science teaching in the lower grades. Prerequisite: Acceptance by the director of the institute.

450. Advanced General Physics (2-4)
Topics selected to furnish thorough background for teaching. Not open to Physics majors. Two to six periods a week. Prerequisite: Phys. 250-251.

451. Advanced General Physics (2-4)
Continuation of Phys. 450. Not open to Physics majors. Two to six periods a week. Prerequisite: Phys. 450 or equivalent.

460. Quantum Mechanics I (3)
Schroedinger wave equation, eigen-values and eigen-functions, methods of approximation, and simple applications. Prerequisite: Phys. 400.

463. Statistical Mechanics (3)
Distribution functions; transport phenomena; Maxwell-Boltzmann, Fermi-Dirac, and Bose-Einstein Statistics. Prerequisite: Phys. 320.

466. Solid State Physics I (3)

467. Optics and Wave Phenomena (3)
Physical optics, elements of spectroscopy, acoustics and electromagnetic waves. Prerequisite: Phys. 370.

470. Electricity and Magnetism II (3)

472. Physical Measurements (2)
Special laboratory problems. Prerequisite: Phys. 371.

477. Introduction to Astro-Physics (3)
Kepler’s laws and solar system, analysis of solar radiations, nuclear reactions in the sun, and other selected topics. Prerequisite: Phys. 300.

480. Modern Physics (3)
Electrons, waves and particles, special relativity, hydrogen atom, atomic and molecular structure; nuclear reactions; selected topics in solid state physics. Prerequisite: Phys. 300 and Math. 420.
481. Modern Physics Laboratory (2)
Laboratory supplement to Phys. 480. Four periods a week for one semester or eight periods a week for nine weeks. Prerequisite or co-requisite: Phys. 480 or equivalent.

482. Nuclear Physics I (3)
Radioactivity, nuclear structure and reactions. Prerequisite: Phys. 480.

485. Methods of Mathematical Physics II (3)
Continuation of Phys. 385. Tensors and matrices, special functions (polynomials, Bessel functions, etc.), calculus of variation. Prerequisite: Phys. 385.

490. Science in the Public Schools (3)
For teachers, supervisors, and administrators in the elementary and junior high schools. Problems of science teaching in elementary and junior high schools. Principles and applications of physics illustrated by simple apparatus constructed by members of the class. Not open to Physics majors or minors. Four periods a week. Prerequisite: Phys. 150 or equivalent.

499. Teaching of Physical Sciences (2)
(Also listed as Chem. 499. See page 72.)

505. Institute for Science Teachers (1-8)
Lectures, demonstrations, laboratory work, and field trips, designed for the science teacher. Subject matter from the fields of chemistry, physics, biology, and earth sciences. May be repeated to a maximum of 16 semester hours. On application to institute director and by invitation only.

550. Topics in Nuclear and Solid State Physics (3)

551. Topics in Relativity and Spectroscopy (3)

555. Physics Seminar (1-2)
Problems in physics discussed under guidance of staff. May be repeated for credit, but total credit is limited to 6 semester hours. Prerequisite: Graduate standing and consent of Department.

559. Special Problems in Physics (1-10)
Special problems in physics under supervision of staff. Problems may be technical in nature or concerned with teaching procedure. May be repeated for credit, but total credit is limited to 10 semester hours. Prerequisite: Graduate standing and consent of Department.

560. Quantum Mechanics II (3)
Matrix algebra, perturbation theory, Dirac theory of electron. Prerequisite: Phys. 460.

566. Solid State Physics II (3)
Thermal and electrical properties of metals, semi-conductors, and insulators; crystal structure. Prerequisite: Phys. 466 and 463. Co-requisite: Phys. 460.

570. Electromagnetic Theory (3)
Maxwell's equations, multipole radiation, Lorentz electron theory. wave guides. Prerequisite: Phys. 470 and 485.

580. Atomic Physics (3)
Atomic spectra, Zeeman effect, Stark effect, Hyperfine structure. Prerequisite: Phys 480 and 460.
581. Nuclear Physics Laboratory (2)
The properties of particles from natural and artificial disintegration of nuclei; the
corresponding measuring instruments. Prerequisite: Phys. 482.

582. Nuclear Physics II (3)
A continuation of Phys. 482. Prerequisite: Phys. 482 and 460.

585. Theoretical Physics I (3)
Fields, variational principles, approximate methods, Green's functions, integral equa­
tions of physics. Prerequisite: Phys. 485 and 460 or equivalent.

659. Research (1-8)
Topic selected with consent of staff. Prerequisite: Consent of Department.

660. Quantum Mechanics III (3)
Relativistic quantum mechanics, the Klein-Gordon equation, Coulomb scattering,
Dirac equation, quantization of scalar, electromagnetic, and spinor fields. Prerequisite:
Phys. 560 and 585.

682. Theoretical Nuclear Physics (3)
Theory of light nuclei, nuclear forces, nuclear models, nuclear reactions, nuclear
spectroscopy. Prerequisite: Phys. 560 and 582.

690. A-B-C-D-E, Special Topics in Physics
A—Classical and Relativistic Theories (1-6)
B—Quantum Physics (1-6)
C—Reactor Physics (1-6)
D—Plasma Physics (1-6)
E—Solid State Physics (1-6)

Lectures and discussions on topics in various fields of physics at the graduate level.
To 6 semester hours as scheduled; course may be repeated in one or more fields of
physcis. 6 semester hours is the maximum in any one area; not more than 15 semester
hours will count toward a master's degree. Prerequisite: Graduate standing and consent
of Department.
Department of Political Science

The Department of Political Science offers graduate programs leading to the degrees Master of Arts and Master of Science in Education and to the Certificate of Advanced Study. Study for the doctorate in Political Science, if and when the degree is authorized, will be integrated with these programs.

Five fields of concentration are available in Political Science: American Government and Politics, International Affairs, Foreign and Comparative Government, Political Theory and Political Behavior, and Public Administration. Graduate study may lead to careers in government service (federal, state, and local), community group work, teaching, and professional writing and research. The Public Administration program offers professional preparation leading to internship opportunities in government agencies as part of course work toward a graduate degree; active efforts are made to place students in career government positions upon completion of their studies. Foreign study and overseas internship opportunities also exist in the Comparative Government concentration. All programs are related to the student's career objectives by the departmental adviser.

MASTER OF ARTS

Students interested in pursuing a Master of Arts degree with a major in Political Science normally should have had at least 9 undergraduate semester hours in Political Science. When this is lacking, the student may be required to compensate during the graduate program.

Of the 32 semester hours of graduate credit required for the degree, at least 24 semester hours are to be taken in Political Science at the graduate level, including:

1. Not less than 9 semester hours in one, and 6 semester hours in a second of the five fields of concentration listed above.
2. Pol.S. 550 Scope and Method of Political Science (3)

The remaining hours may be taken in Political Science or some closely related field in accordance with the recommendations of the departmental adviser and the student's committee. A special qualifying examination may be required prior to departmental recommendation to candidacy for the degree. A written comprehensive examination is required upon completion of course work, or during the last semester of study, prior to approval of thesis topics. Final examinations are also required.

MASTER OF SCIENCE IN EDUCATION

(Area Programs)

The Department of Political Science cooperates with such other departments as Economics, Education, History, Journalism, and Sociology and Anthropology to devise area programs leading to this degree. The actual division of course study to produce the required 32 semester hours is determined by the student with advisers representing the departments concerned. A minimum of 8 semester hours in Political Science is necessary,
and approximately 16 semester hours normally will be required. A qualifying research study must be written and Pol.S. 549 Independent Study may be used by students to earn 2-4 semester hours for this research.

**CERTIFICATE OF ADVANCED STUDY**

Any student with a master’s degree who meets the admission requirements of the Graduate School and has a good graduate record will be permitted to pursue the Certificate. Of the 30 semester hours required, not less than 20 semester hours must be in Political Science, divided approximately equally between any two of the five fields: American Government and Politics, International Affairs, Foreign and Comparative Government, Political Theory and Political Behavior, and Public Administration. A significant research study in one of the fields of concentration is required, and 2-4 semester hours may be obtained for work on it in an independent study course. These semester hours may be counted in the relevant concentration field. Reading knowledge of a foreign language as well as a qualifying examination prior to admission to candidacy also may be required. A final comprehensive examination, written, oral, or both, is required.

**CERTIFICATE OF ADVANCED STUDY**

**(Area Programs)**

The Department of Political Science cooperates with other departments to devise area programs leading to this certificate. Students in such area programs shall select one department for major concentration and a second for minor concentration, the exact distribution of courses to produce the required 30 semester hours being determined in consultation with departmental faculty advisers. A significant research study, for which 2-4 semester hours of independent study may be obtained, and a final comprehensive examination are required.

**Course Offerings**

**AMERICAN GOVERNMENT AND POLITICS**

445. American Constitutional Development (3)

American constitutional law and its growth, based on an analysis and discussion of leading judicial decisions, with attention to the environmental setting of the cases. Prerequisite: Pol.S. 140 or equivalent.

520. Administrative Law (3)

The law as it affects public officials and their activities, the legal control of relations of public and private groups, rights and duties of interested parties.

544. Legislative Behavior (3)

Research and discussion of problems in legislative organization.

545. Seminar in American Government and Politics I-II (3)

Research and discussion of selected topics. May be repeated to a maximum of 6 semester hours.

**INTERNATIONAL AFFAIRS**

460. International Organization (3)

461. Foreign Policies Abroad (3)
The traditional and contemporary foreign policies of such major countries as Great Britain, France, Germany, India, Communist China, and Japan. Prerequisite: Pol.S. 140 or equivalent. Recommended: Pol.S. 210 or equivalent.

541. International Law (3)
Principles of the international law of Peace, War, and Neutrality.

546. Soviet Foreign Policy (3)
The traditional objectives of Russian foreign policy and the contemporary policies of the Soviet Union.

560. The Commonwealth of Nations (3)
The development, structure, and functioning of the Commonwealth as an international organization.

644. Seminar in International Politics (3)
Research and class discussion of selected topics.

FOREIGN AND COMPARATIVE GOVERNMENT

443. Government and Politics in Western Europe (3)
An analysis of governmental institutions, political processes, and environmental factors which affect political behavior in such countries as France, Germany, and Italy. Prerequisite: Pol.S. 140 or equivalent. Recommended: Pol.S. 230 or equivalent.

444. Government and Politics in the Soviet Union (3)
Russian society and the development, structure, and functioning of government and politics in the U.S.S.R. Prerequisite: Pol.S. 140 or equivalent. Recommended: Pol.S. 230 or equivalent.

446. Governmental Systems in the Far East (3)
Political and administrative institutions, processes, and politics in such major Asian countries as contemporary China, Japan, and India in terms of their cultures, traditions, and current problems. Prerequisite: Pol.S. 140 or equivalent. Recommended: Pol.S. 230 or equivalent.

448. Government and Politics in Eastern Europe (3)
The development, structure, and functioning of government and politics in the East European societies other than the U.S.S.R. Prerequisite: Pol.S. 140 or equivalent. Recommended: Pol.S. 230 or equivalent.

450. Governmental Systems in Southeast Asia (3)
A comparative study of governmental and administrative institutions, processes, and politics, in such countries as contemporary South Viet-Nam, Malaysia, Cambodia, Laos, Thailand, Indonesia, and the Philippines in terms of their cultures, traditions, current aspirations, and problems. Prerequisite: Pol.S. 140 or equivalent. Recommended: Pol.S. 230 or equivalent.

452. Governmental Systems in Latin America (3)
An analysis of governmental and administrative institutions, processes, and politics in selected countries of Latin America in terms of their cultures, traditions, current aspirations, and problems. Prerequisite: Pol.S. 140 or equivalent. Recommended: Pol.S. 230 or equivalent.

453. British Government and Politics (3)
The development, structure, functions, and processes of government and politics in Great Britain. Prerequisite: Pol.S. 140 or equivalent. Recommended: Pol.S. 230 or equivalent.

547. Governmental Systems in Africa (3)
Colonialism and nationalism in Africa; the emergence of independent governments; contemporary political and administrative problems.
643. Comparative Political Parties (3)
Political party systems in major foreign countries.

646. Seminar in Comparative Government (3)
Research and class discussion of selected topics in government and politics of various national states.

655. Foreign Study and Internship (3-9)
Individual research, study, and work abroad. May be counted in Public Administration concentration.

POLITICAL THEORY AND POLITICAL BEHAVIOR

420. Political Opinion and Behavior (3)
The nature and formation of political opinion, techniques for its measurement, political and electoral behavior. Prerequisite: Pol.S. 140 or equivalent. Recommended: Pol.S. 370 or equivalent.

441. Modern and Contemporary Political Thought (3)
The major political theories developed since the advent of the nation-state. Democracy, Socialism, Fascism, and Communism. Prerequisite: Pol.S. 140 or equivalent. Recommended: Pol.S. 370 or equivalent.

442. American Political Thought (3)
Leading American political thinkers and their ideas from colonial times to the present. Prerequisite: Pol.S. 140 or equivalent. Recommended: Pol.S. 370 or equivalent.

451. Far Eastern Political Thought (3)
Major political concepts which have influenced Japanese, Chinese, Indian, and Southeast Asian societies. Prerequisite: Pol.S. 140 or equivalent. Recommended: Pol.S. 370 or equivalent.

521. Jurisprudence (3)
The nature and source of law, law and the state, law and justice, principal schools of legal theory, the role of law in political behavior.

640. Seminar in Political Thought and Behavior (3)
Research and class discussion of selected topics.

641. Theory and Practice of Communism (3)
Marxism and the origins of modern communism. The theories of Lenin, Trotsky, Stalin, Mao Tse-Tung, and Tito. Discussion of the practice of communism in the Soviet Union, Soviet Satellites, and China; the international communist movement.

PUBLIC ADMINISTRATION

402. Administration in Government (3)
The general organization of the federal administration and its role in the political process. Relation to executive political leadership, the Congress, judiciary, pressure groups, and public opinion. Prerequisite: Pol.S. 140 or equivalent. Recommended: Pol.S. 347 or equivalent.

405. Municipal Government and Administration (3)
The organization, politics, problems, and administration of urban government in the United States. May be counted in American Government concentration. Prerequisite: Pol.S. 140 or equivalent. Recommended: Pol.S. 340 or 347 or equivalent.

415. Public Policy Formulation (3)
The dynamics of public policy formulation in the executive branch of government. May be counted in American Government concentration. Prerequisite: Pol.S. 140 or equivalent. Recommended: Pol.S. 347 or equivalent.
502. Urban Planning and Zoning (3)
   The basic theory, techniques, and practice of modern urban planning and land use
   regulation; current trends and problems; social, political, and economic characteristics of
   urban, suburban, and metropolitan political systems.

556. Public Personnel Administration (3)
   Personnel theory and practice in public administration. Recruitment and selection,
   job and salary classification, grievance and complaint procedures, human relations, retire­
   ment.

557. Fiscal Administration (3)
   Basic concepts and practices in government budget and finance administration.

558. Organization and Methods in Public Administration (3)
   Basic concepts and techniques in connection with management analysis. Organiza­
   tion theory.

647. Seminar in Public Administration (3)
   Research and discussion of selected topics.

648. Seminar in Comparative Public Administration (3)
   Research and discussion of administrative problems, processes, and methods in various
   governments. May be counted in Foreign and Comparative Government concentration.

651. Seminar in Governmental and Administrative Problems of Underdeveloped Countries
   Research and discussion of selected topics. May be counted in Foreign and Com­
   parative Government concentration.

656. Internship in Public Administration (2-6)
   Individual work in government agency. May be repeated. Prerequisite: Written
   consent of Department Head.

GENERAL

490. Materials and Problems of High School Instruction (2) in the Social Sciences
   Offered in conjunction with the Departments of History, Sociology and Anthropology,
   and Economics.

491. Materials and Problems of Elementary School Instruction (2) in the Social Sciences.
   Offered in conjunction with the Departments of History, Sociology and Anthropology,
   and Economics.

495. Seminar in Current Problems (2-4)
   Contemporary issues and policies in government and politics. May be repeated. Pre­
   requisite: Consent of departmental adviser.

549. Independent Study in Political Science (2-4)
   Open to qualified students who wish to do individual advanced work in political
   science. Qualifying research papers for M.S. in Ed. and C.A.S. may be written under this
   course. May be repeated. Prerequisite: Written consent of Department Head or Depart­
   ment graduate student adviser.

550. Scope and Method of Political Science (3)
   Methodology for thesis preparation, research problems, discussions, and criticism.

649. Thesis (2-6)
Department of Psychology

MASTER OF ARTS

The degree Master of Arts, with a major in the field of Psychology, is designed to give the student an adequate graduate foundation on which to build the remainder of his professional education. It is recognized that in no way should the M.A. in Psychology be regarded as a terminal degree from the professional standpoint, since there are few opportunities in the field of Psychology for one with this limited educational level. There is need for further preparation before one can be regarded as a psychologist, either in the research or applied areas. The major is designed to give the student: (1) some core experiences in the field of Psychology; (2) an opportunity to do some intensive study in a restricted area of the field; (3) an opportunity to take two or three courses from outside the field of Psychology to enrich his educational experiences; and (4) experience in research and thesis writing.

Students who elect a graduate major in Psychology must satisfy the following requirements:

Required Core Courses: 500, 501, 502, 503
Required Cognate Courses: To be determined by the student and his adviser
Area of Concentration in Psychology: To be determined by the student and his adviser
Thesis: Psych. 599

12 semester hours
6-9 semester hours
8-11 semester hours
3 semester hours

32 semester hours

Course Offerings

405. Industrial Psychology (3)
The functions of psychology as a science and as a profession in contemporary industry. Emphasis on the technical literature in the field. Prerequisite: Psych. 102.

415. Psychology of Exceptional Children (3)
Psychology of atypical children—gifted, mentally abnormal, physically handicapped, chronically ill, and socially maladjusted. Their needs and dynamics of behavior in home, classes, and institutions. Prerequisite: Psych. 102.

416. Introduction to Psychopathology (3)
An introduction to the study of abnormal behavior with emphasis on the neuroses and psychoses. The dynamics of mental disorders and psychological factors involved in treatment of mental disorders. Prerequisite: Psych. 102 and one other Psychology course.

426. Interpreting Theories of Personality (3)
A systematic study of theoretical contributions of major psychologists to basic understanding of the dynamics of human personality. Prerequisite: Psych. 102 and one other Psychology course.

428. History and Systems of Psychology (3)
The major viewpoint in earlier systematic psychology and their relations to contemporary systematic trends. Prerequisite: Psych. 102.
435. Theories of Learning (3)
A general study of theories of learning with particular emphasis on theories which have emerged from the psychological laboratory. Prerequisite: Psych. 102.

465. Developmental Psychology (3)
The span of life from conception to death, emphasizing the outstanding characteristics of normal behavior for each period. Prerequisite: Psych. 102.

485. Individual Study in Psychology (1-3)
Qualified students interested in specific problems in psychology may take this course, working with any faculty member of the Department. The student must have written permission from the faculty member with whom he is doing the work and the Head of the Department. May be repeated to a maximum of 6 semester hours.

500. Proseminar in Psychology (3)
Orientation to the world of contemporary psychology. Familiarizes students with major areas, departmental staff, and program at Northern. A common experience in the field for all Psychology students.

501. Foundations of Psychological Research (3)
Consideration of philosophy of science, measurement, and inductive logic showing their significance for all kinds of psychological research. Acquaintance with research design and tools. Prerequisite: Psych. 305 or equivalent.

502. Introduction to Clinical Psychology (3)
Introduction to specific skills, knowledges, and techniques with initial clinical experience. Prerequisite: Psych. 416 or concurrent registration.

503. Experimental Psychology for Graduate Students (3)
Discussion and demonstration of advanced experimental designs and procedures. Supervised laboratory experiences on problems of significance to the field. Prerequisite: Psych. 410 or equivalent.

505. Statistical Problems in Psychology (3)
Consideration of advanced, statistical techniques used in psychological research, such as analysis of variance, correlational methods, and factor analysis. The topics will vary with each offering. Prerequisite: Psych. 305 or equivalent. May be repeated to a maximum of 6 semester hours. Consent of adviser required.

510. Psychodiagnostics (3)
Introduction to and rationale of various projective tests. Methods of administration and interpretation. Lecture and laboratory. Prerequisite: Psych. 502 or equivalent and consent of instructor.

511. Clinical Methods (3)
Interpretation of personality and adjustment through clinical methodology. Diagnosis of maladaptive behavior. Prerequisite: Psych. 510.

512. Principles of Psychotherapy (3)
Analysis of the various techniques and theories of psychotherapy and an evaluation of their respective effectiveness. Prerequisite: Psych. 502 or equivalent and consent of instructor.

513. Experimental Studies in Clinical Psychology (3)
Current investigations in experimental-clinical psychology are examined, with emphasis on the investigated problems, experimental procedures, and theoretical significances. Lecture and laboratory. Prerequisite: Psych. 502. May be repeated to a maximum of 6 semester hours.

514. Practicum in Clinical Psychology (3)
Application of clinical methodology in a clinical situation. Practice in diagnosis and initial supervised therapy of clinical cases. Open only to candidates for the master's degree in Psychology, with consent of instructor.
515. Psychology of Personality (3)

The nature and development of personality with a critical study of modern interpretations and research. Recommended: Psych. 426 and an understanding of quantitative methods.

530. Contemporary Behavioral Theories (3)

The theoretical contributions of psychologists publishing today. An examination of historical roots, main emphases, and merits of each theory. Prerequisite: Psych. 426 or 435.

531. Physiological Bases of Behavior (3)

A detailed study of the behavior of the organism traceable to organic functioning. Prerequisite: A course in physiological psychology or a laboratory course in physiology.

532. Comparative Psychology (3)

A critical examination of experimental studies using animals as subjects. A comparison of the behavior of the various species. Lecture and laboratory.

550. Experimental Studies in Learning (3)

Current experimental investigation of the basic learning processes. Examination of the nature of investigative problems, experimental procedures, and theoretical significances. Lecture and laboratory. Prerequisite: A course in learning.

551. Experimental Studies in Perception (3)

Investigations of perception with emphasis on the interrelationships of learning, motivation, and perception. Lecture and laboratory.

565. Psychology of the Gifted (3)

The adaptive problems of the gifted, including self-concept, attitude toward others, and meeting of special needs, with emphasis on research findings. Prerequisite: Psych. 415.

566. Psychology of the Retarded (3)

The characteristics of the retarded as they relate to his perceptions of self and others and as they affect his behavior, with emphasis on research findings. Prerequisite: Psych. 415.

567. Psychology of Reading (3)

The dynamics of reading as it relates to the adaptive behavior of the reader, including the problems of meaning, functional readiness, and individualization.

569. Individual Intelligence Testing (3)

Practice in administering and analyzing individual intelligence tests. Emphasis placed on Stanford-Binet and Wechsler Scales. Prerequisite: Measurement course and Psych. 465 or 502 or concurrent registration and consent of instructor.

599. Thesis (3)

The student is eligible to register for this course after he has completed Psych. 501 and has been accepted as a candidate for the master's degree by the Department of Psychology.
Area majors involving the Social Sciences are described under Economics, Political Science, and Sociology and Anthropology.

The following course will be accepted for credit toward a major in Economics, Political Science, or Sociology and Anthropology.

Soc. & A. 492. Social Science Research (3). Described under Sociology and Anthropology.

The following courses are offered for credit in History as well as in Economics and Political Science:

Hist. 410. European Seminar (8). Described under History. Students who propose to take this course for credit toward a major must receive written permission from the head of their major department before enrolling.


Department of Sociology and Anthropology

The Department of Sociology and Anthropology offers graduate courses and research opportunities leading to the degree Master of Arts and to the Certificate of Advanced Study. The Department also cooperates with other departments in offering an area major leading to the degree Master of Science in Education. Students desiring to pursue the graduate curriculum in Sociology and Anthropology are required to consult with the departmental graduate adviser before being admitted to courses. Unclassified students who wish to be admitted to the graduate curriculum in Sociology and Anthropology are also urged to consult with the departmental graduate adviser in order to insure that the requirements of the Department are being met in the program of courses which they elect.

Graduate work in this field is designed to prepare students for teaching or research in Sociology and Anthropology, for positions in public and private administration, and for further advanced study.

Students who elect the master's program with a major in Sociology and Anthropology must have had at least 10 semester hours in Sociology or Anthropology and a course in statistics. When this is lacking, they will be required to compensate during the graduate program before being admitted as a classified student in Sociology and Anthropology.

MASTER OF ARTS

Major in Sociology and Anthropology

All candidates for the master's degree in Sociology and Anthropology shall be required to complete at least one graduate course or seminar in sociological theory (580 or 686B), one graduate seminar in research methods (686F), and a thesis (680). (Minimum, 12 semester hours.)

The remaining work for the degree (Minimum, 20 semester hours) may be elected in any one of the following options:

**Option A, Theory:** 420, 470, 472, 485, 520, 580, 581, 582, 585, 686A.

**Option B, Social Organization and Institutions:** 421, 486, 489, 570, 581, 582, 583, 620, 686A, 686E.

**Option C, Criminology, Corrections and Social Disorganization:** 400, 471, 481, 483, 488, 581, 582, 583, 585, 686A, 686D, 686G.

**Option D, Social Psychology:** 421, 484, 489, 581, 582, 587, 620, 670, 686A.

**Option E, Anthropology:** 420, 421, 422, 425, 484, 520, 581, 582, 620, 670, 686A, 686E.

Independent study courses (584, 530) may be counted for credit in any of the options. Courses with variable content (495) may be counted for credit in any of the options, with the consent of the Department Head.

All candidates for the master's degree are required to take a final written examination, based on a reading list prepared by the Department staff and
available at Department Office (Watson 215). An oral examination may be required at the option of the Department.

Total for the degree, 32 semester hours.

MASTER OF SCIENCE IN EDUCATION

Area Major

The Department of Sociology and Anthropology cooperates with other departments in the University in offering an area major leading to the Master of Science in Education degree. Students who elect this program will be expected to complete at least half the work for the degree in Sociology and Anthropology. The program of courses will be selected in conference with the graduate adviser and will include at least one course or seminar in theory (470, 485, 580, 585, 686B) and one course or seminar in research methods (492, 686F). Students who elect to write their qualifying papers in Sociology and Anthropology may earn 2 to 4 semester hours for the paper by enrolling in Soc. & A. 584 Independent Study.

CERTIFICATE OF ADVANCED STUDY

Major in Sociology

Prerequisite, master's degree. Candidates working toward the Certificate of Advanced Study in Sociology will plan a course of study designed especially to meet their needs. The course of study will then be presented to the advisory committee for its approval. The program may be concentrated entirely in Sociology, although a minor of 9 semester hours in a closely related field is acceptable. A comprehensive examination, either written or oral, or both, and a thesis are required. Total for the certificate, 30 semester hours.

Course Offerings

SOCIOLOGY

400. Gerontology (3)

The social problems of the aged and the aging. Prerequisite: Soc. & A. 170 or equivalent.

470. History of Social Thought (3)

Ancient and medieval philosophies leading to the development of modern sociological theory.

471. Probation and Parole (3)

Early development, types of service, administrative organization, investigative and supervisory aspects of probation and parole within the legal structure of society. Prerequisite: Soc. & A. 288.

472. Proseminar in Sociology (3)

Intensive analysis of principles. A synthesis of the various areas of study which comprise the field of sociology. Primarily for senior majors and beginning graduate majors whose undergraduate major was in a related field.
475. Sociological Statistics (3)

Sampling methods and the use of sampling distributions in testing statistical hypotheses. The application of correlation techniques to social research; total, partial, and multiple correlation; estimates of correlation and measures of association for nonquantitative variables and combinations of quantitative and nonquantitative variables. Prerequisite: A prior course in statistics.

481. Sociology of Marriage and Family Counseling (3)

A survey of recent trends in marriage counseling; attention to case studies of teenage marriage, marital conflict, other family problems and the counseling opportunities associated; methods and materials for educational work with individuals and small groups. Prerequisite: Soc. & A. 380 or permission of instructor.

483. Social Disorganization (3)

Culture patterns defined by society as undesirable; the sociology of pathological patterns associated with physical and mental ill-health and other patterns resulting in personal disorganization; frames of reference for analyzing social disorganization. Prerequisite: Soc. & A. 171 or equivalent.

484. Intergroup Relations (3)

Analysis and exposition of cultural and social-psychological influences underlying relations among racial, ethnic, and other minority and majority groups. Emphasis upon problems of prejudice and discrimination, and the promotion of harmonious intergroup relations. Prerequisite: Soc. & A. 170 or equivalent.

485. Sociological Theory (3)

Sociological theory as a body of unifying principles and as a guide for research. The significant contributions of outstanding sociologists past and present. Primarily for majors in Sociology.

486. Industrial Sociology (3)

Analysis of social roles and relationships within the occupational structure; formal and informal groups and organizations in industry; the relation of industrial organization to other aspects of the community. Prerequisite: 6 semester hours of social science or consent of instructor.

488. Juvenile Delinquency (3)

Social and psychological factors in delinquent behavior; causation, prevention, and rehabilitation; the role of community agencies; the juvenile court. Visits to juvenile correctional agencies. Prerequisite: Soc. & A. 170, 288.

489. Social Stratification (3)

Social class and caste systems, with special emphasis on American culture; indexes of social class; interaction among social classes; social mobility; relationship of class position to behavior in family, economic, religious, political, and other phases of social life. Prerequisite: Soc. & A. 171 or equivalent.

492. Social Science Research (3)

Principal methods of research in the social sciences; the planning and execution of a research project; current techniques of collecting, analyzing, interpreting, and reporting data. Prerequisite: 6 semester hours in one of the social science fields.

495. Seminar in Current Problems (2-4)

Issues and policies in government, politics, and economics in their historical and sociological perspectives.

580. Systematic Sociology (3)

The historic patterns of sociology thought as developed by Comte, Giddings, Cooley, Sumner, Thomas, and others, and an attempt to synthesize the current patterns of sociological thought into a coherent system. Prerequisite: Soc. & A. 470 or 485 or equivalent.
581. Social Dynamics (3)

The constants of social change, the variability of rates of change, the factors involved from a sociological point of view in the various forms of revolution typified by the Industrial Revolution, the Protestant Reformation, and various political movements. Prerequisite: 9 semester hours of Sociology or consent of instructor.

582. Social Attitudes (3)

The nature of social attitudes, their importance in modern society, their growth and development, their measurement, and their control. An advanced study of attitude-forming techniques in a special area will be required of the student. Prerequisite: 9 semester hours of Sociology or consent of instructor.

583. Community Analysis (3)

Selected topics and studies in the structure and functioning of urban communities. Attention given to urbanization and other processes and factors associated. Prerequisite: 9 semester hours of Sociology or consent of instructor.

584. Independent Study in Sociology (2)

Open to qualified students who wish to do individual advanced work in sociology. May be repeated to a maximum of 4 semester hours. Prerequisite: Written permission of Department Head.

585. Theory of Criminology (3)

Historical and theoretical aspects of academic criminology. Contributions of the great individual thinkers with special emphasis on recognized schools of criminological theory. Prerequisite: 9 semester hours of Sociology or consent of instructor.

587. Personality and Political Ideology (3)

Recent theories and research on the relationship between personality and political opinions, with special reference to democratic and authoritarian tendencies. Social and psychological foundations for conformity, authoritarianism, rigidity, "other-directedness," and apathy, and the presumed manifestations of these in political preferences. Prerequisite: Consent of the instructor.

*670. Seminar in the Sociology of Religion (3)

Intensive study of selected aspects of religious behavior. Prerequisite: Soc. & A. 386 or consent of instructor.

680. Thesis (6)

*686A. Seminar in Social Psychology (3)

Analysis of advanced topics in social psychology such as collective behavior, personality formation, and social control. Prerequisite: Soc. & A. 315 or equivalent.

*686B. Seminar in Sociological Theory (3)

Intensive analysis of selected theories in sociology. Prerequisites: Soc. & A. 485 or consent of instructor.

*686D. Seminar in Social Disorganization (3)

Intensive analysis of selected areas of disorganization such as intergroup conflict, divorce, war, and drug addiction. Prerequisite: Soc. & A. 483 or consent of instructor.

*686E. Seminar in Marriage and Family (3)

Selected aspects of marriage and family behavior, institutional patterns, problems, and adjustment. The modern American family. Prerequisite: Soc. & A. 380 or consent of instructor.

*686F. Seminar in Research Methodology and Techniques (3)

The scientific approach, selection of research problems, study design, methods of analysis, research techniques. Prerequisite: Soc. & A. 492 or consent of instructor.

* May be repeated to a maximum of 6 semester hours.
*686G. Seminar in Criminology and Juvenile Delinquency (3)


*686H. Seminar in Gerontology (3)

Intensive analysis of current gerontological theories and research. The significance of middle age. The role of social geriatrics.

ANTHROPOLOGY

420. Culture Process (3)

A historical and critical examination of various theories of culture process and their applications. Attention will be given to invention, diffusion, evolution, and acculturation. Similarities between biologic and culture process will be considered. Prerequisite: Soc. & A. 120.

421. Kinship and Social Structure (3)

Cross-cultural examination of social institutions with special attention to kinship in primitive and peasant societies. Functional requisites of various kinship systems and their development. Prerequisite: Soc. & A. 120.

422. History and Theory of Anthropology (3)

An overview of the historical development of principal anthropological concepts through primary sources. Attention is focused upon major schools of thought and associated figures in social anthropology; also considered are areas within cultural anthropology such as linguistics, archaeology, ethnology, along with physical anthropology.

425. Seminar in Anthropology (3)

An intensive study of selected topics in anthropology.

520. Cultural Systems (3)

Organizing principles and theories currently used in anthropology: culture areas; culture patterns; themes and models. Prerequisite: Soc. & A. 220 or consent of instructor.

*530. Special Problems in Anthropology (3)

Supervised readings and field work in special problem areas of anthropology. Prerequisite: Written permission of Department Head.

*620. Seminar in Cultural Anthropology (2 or 3)

Intensive study of special topics such as marriage and the family, mythology, the arts, linguistics, acculturation, and ethnology. Prerequisite: Soc. & A. 220 or equivalent.

* May be repeated to a maximum of 6 semester hours.
Department of Speech

The Department of Speech offers graduate programs leading to the degrees Master of Science in Education and Master of Arts and to the Certificate of Advanced Study.

The graduate program in Speech is adapted to the student's individual needs and academic background. When a student elects a major in Speech, he must consult with his adviser for the purpose of planning a graduate program.

MASTER OF SCIENCE IN EDUCATION

Students who elect a graduate major in Speech toward the degree Master of Science in Education must meet the following course requirements:

1. Approximately two-thirds of the graduate study program must be in courses offered by the Department of Speech.

2. A student may concentrate his graduate study in the area of Drama, Public Address, or Speech Pathology and Audiology. The student's adviser, however, will reserve the right to require courses in more than one area if the student's academic background is deficient in certain basic courses.

3. The seminar course in Speech, Spch. 591, will be required of all students. If the student's area of concentration is Drama, Spch. 513 will be required; if the student's area of concentration is Public Address, Spch. 593 will be required. Students who are majoring in Speech Pathology and Audiology will be expected to fulfill the state's requirements for certification as speech and hearing therapists.

Regardless of whether the student's area of concentration is Drama, Public Address, or Speech Pathology and Audiology, the departmental philosophy is that the student should demonstrate a fundamental knowledge of the entire field of Speech. The Department of Speech recommends, therefore, that the student elect at least one course from each area other than his major field of concentration. The suggested electives are DRAMA: 411, 511, 513, 515, 612; PUBLIC ADDRESS: 400, 503, 506, 507, 607, 608; SPEECH PATHOLOGY AND AUDIOLOGY: 424, 525, 530, 540.

MASTER OF ARTS

The degree Master of Arts may be earned with a concentration in Drama in Public Address, or in Speech Pathology and Audiology, but the program of study must be approved by a committee of the Department.

A candidate seeking to qualify for the degree Master of Arts in Speech shall satisfy the following departmental requirements:

1. The student must earn a minimum of 32 graduate semester hours. At least 22 of these semester hours must be in courses offered by the Department of Speech. With the approval of the major adviser.
the student may elect a maximum of 10 semester hours in allied studies.

(2) The seminar course, Spch. 591, will be required of all students.

(3) The student must pass both oral and written examinations administered by a graduate faculty committee of the Department of Speech. These examinations will attempt to assess the candidate's ability in his individual field of study.

(4) Proficiency in reading a foreign language is recommended.

CERTIFICATE OF ADVANCED STUDY

The candidate for the Certificate of Advanced Study must arrange a program which meets the approval of the Department of Speech. The nature of the program will depend on the student's experience and academic background.

The candidate shall pass a basic reading proficiency examination in a foreign language.

Course Offerings

THEATRE AND ORAL INTERPRETATION OF LITERATURE

411. Directing (3)

Principles of blocking, timing, control of focus, and other fundamentals of directing. Planning the interpretive concept of a production and reporting such plans in prompt book form. Problems of training and directing amateur actors. Procedures of supervising the production from casting to performance. Laboratory experience in directing scenes and one-act plays. Prerequisite: Consent of instructor.

412. Playwriting (3)

The conventions and techniques that playwrights use to communicate in the theatre. Analysis of selected plays. Lectures and discussion combined with exercises in the planning and writing of scenes and short plays.

413. Dramatic Theory (2)

An analysis of the basic elements of the art of drama—dramatic action, characterization, and dialogue form—together with an historical consideration of how these elements functioned in the major forms and styles of drama.

415. Educational Theatre Methods (2)

Place of play production in the high school and college. Objectives, principles, procedures and materials. Laboratory experience in play selection and educational theatre organization and supervision.

430. Advanced Oral Interpretation of Literature (3)

Summary of the literature concerning selecting, arranging, and presenting materials to be read orally. Practice in techniques of oral expression. Prerequisite: Consent of instructor.
431. Creative Dramatics (3)
A presentation of the theory of creative dramatics through a survey of research and methodological literature. Laboratory practice in creative dramatics and dramatic play with children will be required.

436. Stage Design (3)
Modern techniques in designing stage scenery. Analysis of production requirements, historical period, and theatrical style. Preparation of designs through initial research, sketches, designer's elevations and floor plans. Practical experience through supervised participation in the mounting of theatrical productions.

511. Seminar: Performing Arts in the Theatre (3)
The subject and material of this seminar will change from term to term. Each unit will be related to some advanced concept in the performing arts and will include laboratories and artistic projects. May be repeated for credit.
A—Classical Styles of Performance
B—Experimental Styles of Performance
C—Directing Problems in the Modern Theatre
D—Acting Problems in Varying Forms of Theatre

513. Seminar: Theatre History (3)
The subject and material of this seminar will change from term to term. May be repeated for credit.
A—Classical and Neo-Classical Theatre
B—British Theatre
C—Roots of the Modern Theatre
D—Early American Theatre
E—Modern American Theatre

515. Seminar: Production, Design and Technical Problems (3)
The subject and material of this seminar will change from term to term. Historical and artistic developments in theatre design, mechanics, or technical practices will be treated. Laboratories and artistic projects will be included. May be repeated for credit.
A—The Physical Theatre
B—Developments in Technical Practices
C—Theatre Architecture
D—History of Costume
E—Lighting Theory
F—Scene Design

516. Voice and Diction in the Educational Theatre (2)
Training methods involved in the development of good stage speech and an effective stage voice, including a study of foreign and regional dialects for character impersonation.

612. Theatrical Criticism (3)
The major contributors to the arts of dramatic and theatrical criticism from the Greeks to the present day as they have influenced dramatic and theatrical practices.

617. Seminar in Theatre Research (3)
An intensive investigation of a single significant dramatic form or theatrical phenomenon. The selection of each topic will be made on the basis of current research needs and will be announced prior to each semester. May be repeated to a maximum of 6 semester hours. Prerequisite: Consent of instructor.
PUBLIC ADDRESS

400. Introduction to Rhetorical Criticism (3)
   Introduces the student to basic concepts, terminology, and methods of rhetorical
   criticism, both classical and modern, and emphasizes the historical continuity in the
   evolution of public speaking from the ancient Greeks to the present age.

401. Contemporary Public Address (3)
   An application of the logical, historical, and aesthetic disciplines to the study of
   the speeches of representative spokesmen of 20th century thought.

402. Group Communication (2)
   The nature of group processes. Leadership, communication, and decision-making
   problems in small groups.

500. Ancient and Medieval Rhetoric and Public Address (3)
   The contributions of Plato, Aristotle, Cicero, Quintilian, Augustine, and others to
   rhetorical theory, and analysis of the speeches of some of the principal ancient and
   medieval orators.

501. Critical Studies in Oratorical Theory (3)
   The contributions of Bacon, Wilson, Campbell, Blair, Whately, John Quincy Adams,
   and others to rhetorical theory, with its adaptation to modern conditions. This course
   and Spch. 500 examine the theory of public speaking from the earliest times to the
   present.

502. History and Criticism of British Public Address (3)
   The application of the principles of rhetorical criticism in the study of the speeches
   of some of the principal 18th and 19th century British speakers.

503. History and Criticism of American Public Address I (3)
   Rhetorical criticism of the speeches of some of the principal American speakers in
   the period from colonial times to the close of the Civil War, including consideration
   of the historical setting of the speeches and an analysis of the ideas, structure, style, and
   presentation of the speeches.

504. History and Criticism of American Public Address II (3)
   Continuation of Spch. 503 with the focus on the speeches of some of the principal
   American speakers in the period from the close of the Civil War to the end of the 19th
   century.

505. The Forensic Program (3)
   The organization, direction, and evaluation of intra-school, community, and inter-
   school activities in debate, discussion, extempore speaking, and oratory.

506. Advanced Public Speaking and Group Discussion (2)
   For school administrators and teachers who are not specialists in speech but who, in
   the discharge of their professional and civic duties, are called upon to give various types
   of speeches, to lead group discussions, and to preside at meetings governed by parliamentary
   law.

507. Theory of Discussion (3)
   The philosophical, political, rhetorical, and psychological contributions to an under-
   standing of discussion, conference, and group processes. Emphasis on origins and de-
   velopment of contemporary theory. Survey of current research findings and methods
   in the study of discussion. Prerequisite: Spch. 201 or equivalent.

607. Seminar in Persuasion (3)
   Survey of the literature and research in the field of persuasion with special reference
   to the analysis of theories and techniques of obtaining attention and motivation in oral
   advocacy.
608. Language in Oral Discourse (3)

An approach to the problems in the use of symbols of thought and attitude in speech. Consideration of recent contributions in the fields of linguistics, and notably semantics, the impact of semantics on logic, and the psychology of speech.

SPEECH PATHOLOGY AND AUDIOLOGY

420. Hearing Problems and Audiometric Methods (3)

An introduction to clinical audiology; etiology, diagnosis and rehabilitation of auditory disorders. Observation and orientation in hearing testing.

421. Aural Rehabilitation (3)

Methods and materials of speech reading, auditory training, hearing aids, and speech conservation for the hard-of-hearing. Observation and presentation of sample lessons. Prerequisite: Spch. 420.

422. Clinical Methods in Speech Pathology (3)

Therapeutic procedures for the correction of speech defective children in the public school. Problems of surveying, scheduling, and administering a public school speech correction program. Six periods a week for first nine weeks. Prerequisite: Consent of instructor.

424. Stuttering (3)

Modern theories of stuttering. An overview of etiological and concomitant factors in stuttering with emphasis on basic therapy procedures for stuttering children and adults.

425. Organic Disorders of Speech (3)

Causes, symptoms, and speech therapy procedures for cleft palate, cerebral palsy, post-laryngectomy speech, aphasia, and other language disabilities.

426. Assessment of Hearing (3)

A lecture-laboratory course in the standard audiometric battery, special tests of auditory function, and their evaluation and interpretation. Clinical practice in hearing testing. Prerequisite: Spch. 420 and consent of instructor.

427. Clinical Practice in Speech Pathology (1-3)

Supervised clinical practice in the University Clinic, Out-Patient Diagnostic and Therapy Clinic, or the Summer Speech Center. Forty-five clock hours of clinical practice for a semester hour of credit. May be repeated to a maximum of 3 semester hours. Prerequisite: Consent of instructor.

428. Clinical Practice in Audiology (1-3)

Hearing testing, aural rehabilitation and conservation of speech in the University Speech and Hearing Clinic, Summer Speech and Hearing Center, or other clinical opportunities. May be repeated to a maximum of 3 semester hours. Prerequisite: Consent of instructor.

525. Speech Science (3)

The acoustical, physiological, and psychological foundations of oral communication: laboratory experimentation.

530. Speech Handicaps (3)

A theoretical consideration of classification, etiologies, and symptomatologies of speech problems among children and adults with special attention to rehabilitative procedures; clinical observation.

531. Seminar in Voice and Articulation Disorders (3)

Current research findings in the etiology, diagnosis, and therapy of voice and articulation problems.
532. Clinical Measurement in Speech Pathology (3)

Principles and methods of assessing the significant parameters of normal and defective speech with particular emphasis upon measurement and statistical procedures; clinical and laboratory experimentation.

540. Seminar in Audiologic Assessment (3)

Recruitment, non-organic hearing loss or other specialized considerations in the functioning of the auditory system. May be repeated for credit. Prerequisite: Spch. 420 and 426.

541. Seminar in Aural Rehabilitation (3)

Speech reading, auditory training, hearing aids, or speech conservation for the hard-of-hearing. May be repeated for credit. Prerequisite: Spch. 420 and 421.

544. Seminar in Stuttering (3)

Advanced study of the stuttering complex, including an intensive investigation of research with particular emphasis upon theories of behavior and their application to the stuttering problem; clinical practicum.

545. Seminar in Organic Disorders of Speech (3)

Special problems of diagnosis and therapy of speech and language handicaps associated with cleft palate, cerebral palsy, post-laryngectomy speech, aphasia, and related problems. Emphasis on current research findings.

546. Audition (3)

Acoustics, psychophysical methods, and the measurement of the normal ear's response to sound.

SPEECH EDUCATION AND RESEARCH

440. The Teaching of Speech (3)

The problems confronting the teacher of speech. Lectures and collateral reading on the following major subjects: the organization, content, and methods of teaching the foundation course in speech and other courses in a balanced speech curriculum. Six periods a week for first nine weeks.

591. Seminar in Speech (3)

An overview of history and contemporary philosophy in the field of speech with special reference to the cooperative interaction of audiology, dramatics, public address, and speech pathology, and their mutual contributions to the humanities and the sciences.

592. Seminar in Oral Interpretation in Senior High School (3)

A summary and critical analysis of literature concerning oral interpretation on the senior high school level. Consideration in the planning of a high school program.

593. Seminar in Problems in the Teaching of Public Speaking, (2-3)

Discussion, and Debate

An exploration of the problems and the findings of research in these areas of speech education.

599. Directed Individual Study I (1-3)

Independent study of problems in any area of speech: speech pathology, interpretation, radio and television, public address, speech education, audiology, and related fields. May be repeated to a maximum of 5 semester hours. Prerequisite: Consent of instructor.

632. Experimental Design (3)

A survey of research problems and procedures in speech with considerations of treatments and analyses of experimental data.
699. Directed Individual Study II (1-5)
Independent pursuit of advanced problems in speech of special concern to qualified
graduate students. Open only to candidates enrolled in the sixth-year program. May be
repeated to a maximum of 5 semester hours. Prerequisite: Consent of instructor.

RADIO AND TELEVISION

449. Mass Media Laboratory (1)
The practical experience of responsible positions in Northern Illinois University's
campus broadcasting and film facilities. May be repeated up to four times. Prerequisite: Spch. 350 or consent of instructor.

450. Educational Radio and Television (2)
The literature in the areas of radio and television programming with an analysis of
their pedagogical applications. Composition and delivery of various types of programs
and continuity. Four periods a week for first nine weeks.

611. Educational Television Programming (3)
Preparation, presentation, and evaluation of educational television programs. Pre-
requisite: Consent of instructor.
COLLEGE OF FINE AND APPLIED ARTS

DEPARTMENTS OF

Art

Home Economics

Industry and Technology

Music
The Department of Art offers graduate programs leading to the degrees Master of Science in Education with a major in Art, Master of Arts, and Master of Fine Arts. Before being admitted to candidacy for a graduate degree, the student may be required to submit a portfolio of his work or other evidence of his competency in the arts in addition to the regular admission requirements. Deficiencies may be removed by taking courses in the Department; however, courses used to remove deficiencies may not also be used toward satisfying degree requirements. The Department reserves the right to retain for its collection any work produced in scheduled classes.

MASTER OF SCIENCE IN EDUCATION

Candidates for the degree Master of Science in Education with a major in Art must present 32 semester hours of work selected from the offerings at the 400, 500, and 600 level. Art 504 and 507 should be included early in the student’s program. The program of study must also include:

1. A minimum of 2 semester hours of Art 509.
2. 6 semester hours in the field of art history.
3. 10 semester hours outside the major field with the remaining hours selected from the Art Department offerings.

Each candidate will be assigned an adviser who will guide him during the preparation of his thesis and who will also assume responsibility for the preparation and administration of the final departmental examination.

MASTER OF ARTS

The degree Master of Arts is designed for those students who wish to concentrate their study in one of the major expressive areas in art or in the history of art. Included in the student’s program of 32 semester hours of graduate study must be:

1. A minimum of 4 semester hours in Art 603.
2. A minimum of 9 semester hours in art history.

Candidates for the Master of Arts degree in art history must have a reading knowledge of at least one modern foreign language.
An adviser will be assigned to the student at the time he becomes a
degree candidate. He will be responsible for helping the student in the
planning of his program, the preparation of his thesis, and in the presenta-
tion of his studio work by means of a one-man show.

**MASTER OF FINE ARTS**

The degree Master of Fine Arts requires 62 semester hours of graduate
study. Although the requirements are flexible, depending upon the back-
ground and interests of the student, he may expect to complete from 12 to
15 semester hours in art history, 35 to 40 semester hours in studio courses, 
and from 8 to 10 semester hours in seminar and thesis.

The student's adviser will assist in planning the program, the prepara-
tion of the thesis, the one-man show, and the final examination.

*Course Offerings*

**413. Advanced Photography (3)**
The fundamentals of photography with emphasis upon the creative approach. Studio
and lecture. Six periods a week. Prerequisite: Art 313 or equivalent.

**421. Advanced Painting (2)**
Individually selected problems in studio techniques of painting in a variety of
media. Studio and lecture. Four periods a week. Prerequisite: Art 326.

**422. Advanced Painting (2)**
Advanced studio problems in various painting media. Four periods a week. Studio
and lecture. Prerequisite: Art 421.

**431. Advanced Printmaking (3)**
Opportunity for individual development of printmaking skills and techniques through
selected problems. Studio and lecture. Six periods a week. Prerequisite: Art 336.

**432. Advanced Printmaking (3)**
Continuation of the study of printmaking techniques through work in selected
areas. Studio and lecture. Six periods a week. Prerequisite: Art 431.

**461. Advanced Sculpture (2)**
Further work in processes, materials, and design of sculpture in selected media.
Studio and lecture. Four periods a week. Prerequisite: Art 364.

**462. Advanced Sculpture (2)**
Continuation of Art 461 with emphasis on expression and competency in the processes
and design of sculpture. Individual problems. Studio and lecture. Four periods a week. Prerequisite: Art 461.

**483. Art in Elementary Schools (3)**
Art education in relation to the needs, growth, and development patterns of children.
Studio and lecture. Not open to Art majors.

**490. Independent Research (1-9)**
Work on individual problems in the student's major field. May be repeated to a
maximum of 9 semester hours. Prerequisite: Consent of Head of Department and in-
structor.
491. History of Prints and Graphic Processes (3)
A survey of the chief works of art in woodcut, engraving, etching, and lithography from the 16th century to the present day.

504. Drawing (3)
Analytical studies of style and composition in the drawing media. Attention will be given to the capacities and limitations of pencil, pen, brush, ink, silverpoint, reed, etc. May be repeated to a maximum of 9 semester hours.

507. Advanced Design (3)
Varied and comprehensive problems involving two and three dimensional design in various media.

508. Studies in the Technical Resources of the Artist (3-6)
The media and processes of the artist and their art historical significance. These studies may be directed toward ceramics, printmaking, art metal, or painting. May be repeated to a maximum of 9 semester hours.

509. Seminar in Art Education and M.S. Ed. Thesis (2)
The philosophy and practice of art and art education. Supervised introduction to the tools of research in preparation for writing the thesis.

510. Studies in Medieval Art (3)
Architecture, painting, and sculpture from early Christian times to the end of the Middle Ages.

511. Studies in Italian Renaissance (3)
Representative masters in the historical development of Italian painting, sculpture, and architecture from 1350 to 1600.

512. Studies in Northern Renaissance (3)
Painting and sculpture in The Netherlands, Germany, France, and Spain from 1400 to 1600.

513. Studies in Baroque Art (3)
Painting, sculpture, and architecture in Europe from 1600 to 1800.

514. Studies in 19th Century Art (3)
Painting and sculpture in Europe and America from the French Revolution until 1900.

515. Studies in American Art (3)
Painting in America from 1670 to the present day.

523. Advanced Painting—various media (3)
Emphasis on mature studio performance by means of technical knowledge and significant insight. May be repeated to a maximum of 9 semester hours.

528. Technical Studies in Printmaking—various media (3)
Amplification of the student's abilities and knowledge of printmaking gained in earlier courses, directed toward a more mature productivity. May be repeated to a maximum of 9 semester hours.

531. Creative Ceramics (3)
Exploration of three dimensional form using fired clay. May be repeated to a maximum of 9 semester hours.

533. Creative Sculpture—various media (3)
Advanced work in sculpture stressing individual development through the use of a variety of media. May be repeated to a maximum of 9 semester hours.
540. Creative Weaving (3)
Intensive work in the area of creative weaving. May be repeated to a maximum of 9 semester hours.

553. Principles of Art Education (3)
The contribution which art can make to individual and group development in the school program. Discussion of problems and procedures. Open only to Art majors.

580. Independent Study (2)
Individual research and experimentation beyond that covered in course work. Consent of supervising instructor required. May be repeated to a maximum of 6 semester hours.

600. Studies in Primitive Art (3)
Prehistoric art; art of the cultures of Africa, Oceania, and the Americas.

601. Studies in Oriental Art (3)
Art and architecture of India, China, and Japan in their major periods.

602. Special Problems in Art History (3)
Special problems in historical research for students who wish special guidance in reading, methodology, and research in areas of art history. May be repeated to a maximum of 9 semester hours.

603. Seminar in Art and M.A. & M.F.A. Thesis (2)
Investigation of the theory, history, and technical procedures of the artist in preparation for the thesis. May be repeated to a maximum of 4 semester hours on the M.A. and to a maximum of 8 semester hours on the M.F.A.
The Department of Home Economics offers graduate programs leading to the degrees Master of Science and Master of Science in Education. The graduate programs offer graduate instruction in the following areas:

1. Marriage and Family Life
2. Child Development—Nursery School Education
3. Food and Nutrition
4. Home Economics Education

A candidate for an advanced degree in Home Economics is expected to have an undergraduate major in Home Economics or a major in a closely related field and a minor in Home Economics. Those who plan to teach must fulfill state certification requirements. Deficiencies in the area of specialization at the undergraduate level will be determined by a committee of graduate staff and must be made up before admission to candidacy.

The graduate student works with an adviser in her major area. Approval of her program is subject to a committee of graduate faculty in the Department.

All candidates for master's degrees are to complete 32 semester hours of credit, write a qualifying paper, and take a final examination. An oral examination may be given upon request of the Department.

All students planning to major in Home Economics should have a conference with the Head of the Department before registering the first time.

MASTER OF SCIENCE

Major in Food and Nutrition

This major increases the student's ability to work as a nutritionist with a promotional organization, as a community nutritionist, as a home economist with a public service company, and as a research assistant in test kitchens.

Candidates for a Master of Science degree with a major in Food and Nutrition are required to elect 20 semester hours in the Department of Home Economics. The 10 additional semester hours should be elected outside the candidate's major field.

Prerequisite to a major in this area is a minimum of 16 semester hours in Chemistry, including General and Organic Chemistry, Biochemistry, or Psychological Chemistry.

- Required: H.Ec. 504 or its equivalent and 505; Educ. 508.
- Additional courses suggested: H.Ec. 458, 500B, C, D.

Major in Marriage and Family Life

Students in this area, besides increasing their teaching proficiency, prepare to work with family agencies.

Students who elect a graduate major in Marriage and Family Life leading to the Master of Science degree must take a minimum of 20 semester hours in the Department of Home Economics. The 10 additional semester hours should be elected outside the major field.

Prerequisites to a major in this area include a total of 18 semester hours in the fields of Marriage and the Family, Child Development, Psychology, and Sociology.
Required: H.Ec. 504 or its equivalent and 505.
Additional courses suggested: H.Ec. 430, 434, 458, 480, 500C; Educ. 508; Psych. 465, 515; Soc. & A. 480, 686E.

Area Major in Marriage and Family Life
With Psychology or Sociology
Students in this area major prepare to work with family agencies or organizations relating to this specialization.

With the approval of the cooperating department students may register for an area major which includes:
Marriage and Family Life and Psychology,
Marriage and Family Life and Sociology.

Prerequisites to a major in this area include a total of 18 semester hours in the fields of Marriage and the Family, Child Development, Psychology, and Sociology.

Majors in these areas must elect a minimum of 17 semester hours in Home Economics. Approval of the adviser in the related department is required when an area program is planned.

Required: H.Ec. 504 or its equivalent and 505.
Additional courses suggested: H.Ec. 430, 434, 458, 480, 500C; Educ. 508; Psych. 465, 515; Soc. & A. 480, 686E.

Area Major in Child Development—
Nursery School Education and Education
Students in this area major prepare to teach in and operate a nursery school and to teach nursery school education at college level.

Prerequisites to this area major include a total of 18 semester hours in the fields of Child Development, Marriage and the Family, Psychology, Sociology, and Education.

Majors in these areas must elect a minimum of 16 semester hours in Home Economics. Approval of the adviser in the related department is required when the area program is planned.

Required: H.Ec. 504 or its equivalent and 505.
Recommended: H.Ec. 430, 434, 480, 500C, 512, 538.
Additional courses suggested in related areas: H.Ec. 458, 509, 552; Educ. 400, 500, 501, 508, 511, 560, 603; Psych. 465, 515.

Major in Home Economics Education
Students in this area increase their teaching proficiency. They also partially fulfill the requirements for supervision of student teachers.

Students who elect a graduate major in Home Economics Education must take a minimum of 20 semester hours in the Department of Home Economics. These students must elect at least 10 semester hours in graduate courses outside the Department.

Required: H.Ec. 504 or its equivalent and 505, 520, 521, 525.

Area Major in Child Development—
Nursery School Education and Psychology
Students in this area major prepare to teach in and operate a nursery school and to teach nursery school education at college level.
Prerequisites to this area major include a total of 18 semester hours in the fields of Child Development, Nursery School Education, Marriage and the Family, Psychology, and Education.

Majors in these areas must elect a minimum of 16 semester hours in Home Economics. Approval of the adviser in the related department is required when the area program is planned.

Required: H.Ec. 504 or its equivalent and 505.
Recommended: H.Ec. 430, 434, 480, 500C, 512, 538.
Additional courses suggested in related areas: H.Ec. 458, 509, 552; Educ. 508, 560; Psych. 465, 515.

MASTER OF SCIENCE IN EDUCATION

Major in Child Development—Nursery School Education
Students in this area prepare to teach in and operate a nursery school and to teach nursery school education at college level.

Students who elect a graduate major in Child Development—Nursery School Education leading to the Master of Science degree must take a minimum of 20 semester hours in the Department of Home Economics. The 10 additional semester hours should be elected outside the major field.

Prerequisites to a major in this area include a total of 18 semester hours in the fields of Child Development and Nursery School Education, Marriage and the Family, Psychology, and Sociology.

Required: H.Ec. 504 or its equivalent and 505.
Recommended: H.Ec. 430, 434, 480, 500C, 512, 538.
Additional courses suggested in related areas: H.Ec. 458, 509, 552; Educ. 508, 560; Psych. 465, 515.

Area Major in Home Economics Education and Education
Candidates for a Master of Science in Education degree with an area major in Home Economics Education and Education are expected to acquire a general knowledge of:

(1) The history and philosophies of education;
(2) Principles of:
    (a) Curriculum development,
    (b) Educational psychology,
    (c) Evaluation,
    (d) Teaching methods,
    (e) Guidance,
    (f) Research methods in education.

Application of this knowledge to the general field of Home Economics is the responsibility of the Department.

A major in these areas must elect a minimum of 17 semester hours in Home Economics. Approval of the adviser in the related department is required when an area program is planned.

Required: H.Ec. 504 or its equivalent and 505, 520, 521, 525.
Area Major in Food and Nutrition

This major increases the student’s knowledge and proficiency in the field of food and nutrition.

Candidates for a Master of Science in Education degree with an area major in Food and Nutrition and Education or related areas are required to elect 17 semester hours in the Department of Home Economics.

Approval of the adviser in the related department is required when the area program is planned.

Required: H.Ec. 504 or its equivalent and 505.


Course Offerings

407. Consumer Product Analysis (2)

Current trends in regard to consumption; consumer movement in the United States; laws and agencies protecting and serving the consumer; product testing of foods, fabrics, and home furnishings. Prerequisite: Course in Chemistry or consent of instructor.

428. Experimental Foods I (3)


429. Experimental Foods II (3)

Continuation of Experimental Foods I. Five periods a week. Prerequisite: H. Ec. 428.

430. Participation in the Nursery School (2-4)

Supervised teaching in the Nursery School; opportunities for planning and directing a total program. Concurrent registration in H. Ec. 434.

434. Nursery School Administration and Procedure (2)

Basic principles in the management of young children, both the individual child and the group. Planning for the total program, the administration and organization of nursery schools. Visits to and evaluation of pre-school centers. Work with parents. Prerequisite: H. Ec. 380 or consent of instructor.

441. Family Relationships (3)

Interpersonal relationships within the family group as influenced by basic human needs, family member roles, values and attitudes in a changing society. Problems unique to different stages of the family life cycle. Family crises. Prerequisite: Psych. 102.

450. Workshop in Home Economics (1-4)

Advanced techniques and study of various phases of home economics. Nature and length of workshop dependent upon needs of students. Number enrolled limited. Additional problem required for graduate credit.

458. Continuing Education in Home Economics (3)

Methods and materials for adult education; exploration of adult programs; observation and participation. Open only to majors and minors in Home Economics.

480. Infant in the Family (3)

A study of the infant in the context of the family. Opportunity to become familiar with major scientific findings concerning prenatal and postnatal development of the child from conception through the first two years of life. Integration of this information through observation, laboratory experience, and home visits. Prerequisite: H. Ec. 360 or consent of instructor.
500. Seminar (2)
Readings and reports in the areas of Home Economics:
A. Food and Nutrition,
B. Marriage and Family Life,
C. Child Development and Nursery School Education,
D. Home Economics Education,
E. Clothing & Textiles.

504. Research Methods (3)
Research methods and techniques; characteristics of research; reference materials; tools of research and the research report.

505. Individual Research Problems (1-3)
Independent study under supervision of an adviser. Work on qualifying paper. Prerequisite: Consent of instructor.

509. Marriage and Family Life (3)
An analysis of our Western Family System; its present crisis; some causes and effects. Theories underlying these changes occurring in the family system. Prerequisite: H. Ec. 441 or consent of instructor.

512. Child Development and Nursery School Education (3)
Literature in the field of Child Development covering the first five years of childhood. Prerequisite: H. Ec. 360 or 434 and consent of instructor.

520. Curriculum in Home Economics (3)
An analysis of a curriculum rationale; study of the development of the home economics curriculum; application of rationale to special field of study. Prerequisite: H. Ec. 344 or equivalent.

521. Evaluation in Home Economics (3)
Its functions, methods, and application. Prerequisite: H. Ec. 344 or equivalent.

525. Supervision of Student Teaching in Home Economics (3)
The responsibilities of the supervisor of the prospective teacher. Problems of orientation, guidance, and evaluation. Professional development and communication involved. Prerequisite: Consent of instructor.

538. Parent Education (3)
Through contacts—both personal and group—the student experiences ways of working with parents of children ranging in age from pre-school through adolescence. The group dynamics approach is used in planning and carrying out meetings, with opportunity to test a variety of types. The use of mass media to educate parents is demonstrated. Prerequisite: Consent of instructor.

547. Advanced Nutrition (3)
A comprehensive study of major nutrients with emphasis on their metabolisms, interrelationships, and biochemical importance. Recent research. Prerequisite: H. Ec. 410 or its equivalent.

552. Infant and Child Nutrition (2)
Nutrition problems in maternal and child feeding. Prerequisite: Consent of instructor.

560. Nutrition Education for Elementary and Secondary School Teachers (3)

601. Problems in Home Economics (1-3)
Independent study, individual problems, action or other research. Prerequisite: Consent of the Head of Department.
Department of Industry and Technology

The Department of Industry and Technology offers graduate programs leading to the degrees Master of Science in Education and Master of Science and to the Certificate of Advanced Study. The programs offer graduate instruction in the following areas:

1. Industrial Education
2. Industrial Arts
3. Industrial Training
4. Driver Education

A candidate for an advanced degree is expected to have at least an undergraduate minor or a major in a closely related field. New students enter as classified or unclassified depending upon their prior academic record.

The classified graduate student selects an adviser from the graduate staff, and together they plan a program of courses leading to a degree. For the Certificate of Advanced Study a committee of three graduate staff members from the Department is selected for the student.

An unclassified student may register for any of the courses which he is qualified to carry. His registration is processed in the Graduate School Office.

All candidates for master's degrees are to complete successfully a minimum of 32 semester hours of programmed graduate credit which includes writing a qualifying paper and passing a written examination. An oral examination may be given upon request of the Department.

MASTER OF SCIENCE IN EDUCATION

Industrial arts teachers, under advisement, may select courses to improve their teaching competencies and qualify for advancement.

A graduate major working toward the degree Master of Science in Education must satisfy the following course requirements:

1. The courses Introduction to Graduate Work (Ind.&T. 500) and History and Philosophy (Ind.&T. 541) and a qualifying paper (Ind.&T. 670).
2. Additional semester hours of graduate work in this department to make a total of 20-22 semester hours selected with the consent of the adviser.
3. A minimum of 10 semester hours of graduate work must be earned in courses outside his major field.

MASTER OF SCIENCE

Students may select the Master of Science degree if they wish increased depth within the work offered in this department. In addition, this program allows more opportunity for individual problems, workshops, and symposiums in technical fields. Students from business or industry may plan work to increase their job efficiency and thus qualify for advancement.

Students who elect a graduate major in this department toward the degree Master of Science must satisfy the following course requirements:

1. A course in Introduction to Graduate Work (Ind.&T. 500) and a qualifying paper (Ind.&T. 670) are required.
2. Additional semester hours of credit to make a total of 32, 12 of which may be outside the Department. The program will be planned in consultation with the candidate's adviser.

CERTIFICATE OF ADVANCED STUDY

Since the purpose of the sixth year program is to permit the student to attain greater mastery of a chosen field, the requirements are flexible. The student is expected to plan 30 semester hours of work in cooperation with a committee selected by the Head of the Department of Industry and Technology. The emphasis may be placed on areas of work within the Department such as Industrial Education, Industrial Arts, Industrial Training, or Driver Education. Other departments of the University may be drawn upon where deemed desirable.

Course Offerings

INDUSTRY AND TECHNOLOGY

413. Design in Industrial Arts (3)
   The principles of design and the application of such principles in designing industrial arts and other creative projects.

440. Facilities for Industrial Education (3)
   Experiences in planning facilities for industrial education classes. Problems relating to new buildings and equipment, as well as problems of redesign. Scale layouts are planned and drawn. Prerequisite: Ind.&T. 341 and 344.

444. Industrial Training and Evaluation (3)
   The history of employee training, kinds of training, training programs, and instructional methods and evaluation procedures.

447. Occupational Analysis (2)
   Techniques and procedures in analyzing occupations to ascertain their basic elements.

476. Supervision in Industry (2)
   Principles, methods, and techniques for supervision of people in their work. For supervisory personnel and those preparing for such positions.

477. Conference Leading for Industry (2)
   Purposes, advantages, and limitations of the conference method. Instruction in techniques of conference procedure. Experience in planning, leading, and evaluating conferences and in writing summaries.

484. Instructional Aids in Industrial Education (3)
   The design, preparation, use, and evaluation of teaching aids with emphasis on applications in industrial arts and other school classes. Intensive study of the various audio-visual devices.

490. Instrumentation (3)
   The theory, operation, and care of measuring and inspection instruments used in industry.

491. Industrial Production and Quality Control (3)
   Procedures in the forecasting, planning, and control of industrial production. Techniques of establishing and maintaining quality of product including statistical quality control applications.
500. Introduction to Graduate Work in Industrial Education (3)

The methods of research available for use by graduate students in industrial education; a review of current research studies in this field; and the application of the findings of these studies to the improvement of industrial arts, vocational-industrial, and technical education programs.

501. A-L Technical Problems

An opportunity for the individual student to undertake advanced study of technical problems in various technical areas.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>501A</td>
<td>General (1-3)</td>
<td></td>
</tr>
<tr>
<td>501B</td>
<td>Crafts (1-3)</td>
<td></td>
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<tr>
<td>501C</td>
<td>Drawing (1-3)</td>
<td></td>
</tr>
<tr>
<td>501D</td>
<td>Electricity and Electronics (1-3)</td>
<td></td>
</tr>
</tbody>
</table>

May be repeated. A limit of 6 semester hours may be earned in any one course. A limit of 6 semester hours in all courses may be applied toward advanced degrees. Prerequisite: Consent of instructor.

517. Diversified Occupations Program (2)

Problems and procedures in the operation of cooperative part-time programs.

541. History and Philosophy of Industrial Education (3)

The leaders, organizations, and movements that have contributed to the development of industrial education. Philosophies, issues, and problems, relating past to present.

542A. Industrial Arts Activities for Classroom Teachers (3)

Classroom teachers in grades K-6 observe children’s activities with tools and materials. Construction of sample projects, teaching aids, and resource units. Not recommended for Industrial Arts majors.

542B. Industrial Arts in Grades K-6 (3)

Organization and administration of industrial arts activities in grades K-6. Classroom observations followed by consideration of purpose, selection of activities, purchase of tools and equipment, and means of starting a program. For administrators and Industrial Arts majors.

544. Content and Methods of Industrial Education (3)

Interest and motivation of learning, skill development, teaching devices, methods and procedures, and shop management. Designed to improve the techniques of teaching industrial education subjects.

545. Curriculum Construction in Industrial Education (2)

The concepts underlying course construction in industrial education. Problems in the selection and organization of instructional materials and course content.

546. Evaluation in Industrial Education (3)

The principles and techniques of evaluation of instruction as applied to courses in industrial education.

566. Problems in Adult Education (3)

History of the adult education movement; learning abilities, educational interests, and needs of adults; problems and procedures in organizing and operating adult education programs; relation of adult education to public school education.

576. Administration and Supervision of Industrial Arts (3)

Administrative and supervisory problems pertaining specifically to industrial arts in the secondary school: curriculum construction and materials, evaluation, laboratory supervision; and administration of supplies, textbooks, and equipment.
584. Trends in Industrial Education (2)
The evaluation and significance of trends from the viewpoints of theory and practice.

645. Technology in Industrial Arts (3)
Modern industrial developments such as automation, use of new types of energy, and synthetic materials. Application to teaching industrial arts in high schools.

647. Occupational Surveys (3)
Problems, methods, and procedures involved in planning, organizing, and conducting occupational surveys in local communities and labor market areas.

658. Seminar in Industrial Education (2)
Individual and group problems related to the teaching of industrial education.

670. Individual Problems in Industrial Education (1-3)
Open to qualified students who wish to do individual research in industrial education. The qualifying paper or thesis should be written in this course. May be repeated. A limit of 6 semester hours may be earned toward advanced degrees. Prerequisite: Consent of instructor.

676. Programs and Organization of Industrial Education (3)
The philosophy, objectives, organization, administration, and significant literature for vocational-industrial all-day, part-time, and evening programs, including apprenticeship and vocational rehabilitation. Special attention given to legislation and standards for state and Federal aid to local vocational-industrial and technical programs.

690. Industrial Education for the In-Service Teacher (3)
Problems of in-service education that need to be considered in upgrading programs of industrial education. Special emphasis given to individual problems.

SAFETY AND DRIVER EDUCATION

Master of Science in Education
Area Major with Education
Together with the Department of Education, the Department of Industry and Technology offers an area major leading to the Master of Science in Education degree for teachers and administrators.

Course sequence is determined through joint advisement by the two departments. Course work is about equally distributed between these two areas.

Approval by the adviser in each department is required when an area-major program is planned.

1. Required courses: Ind.&T. 500, 588, and 670; Educ. 500 and 501.
2. Recommended courses: Ind.&T. 487, 585, 586, and 587; Educ. 534, 535, 541, and 543.

Master of Science
Students who elect a graduate major in the Department of Industry and Technology toward the degree Master of Science must satisfy the following course requirements:

1. A course in Introduction to Graduate Work (Ind.&T. 500) and a qualifying paper (Ind.&T. 670) are required.
2. Additional semester hours of credit to make a total of 32, 12 of which may be outside the Department. The program will be planned in consultation with the candidate’s adviser.

For all other major programs, including Industrial Education, these courses may be taken as elective hours outside the major department.
445. Mass-Teaching Methods for Driver Education (2)

Policies and practices with respect to use of educational television, driving simulators, and multiple-car driving ranges in driver education programs. Field trips, observation, and course development emphasized.

446. Safety Education Teaching Practices (3)

Principles, practices, and procedures for teaching safety in the elementary and secondary schools. Teaching aids and sources of material for safety activities and planning a safety unit.

478. Transportation Supervision (2)

Development of a control program. Theory of selection, orientation, and supervision of personnel; theory of selection, dispatching, and scheduling of equipment; accident investigation and analysis. Program evaluation. Prerequisite: Ind.&T. 286 or consent of instructor.

487. Industrial Accident Prevention (3)

Principles, responsibilities, and techniques for providing safety to industrial operations. Organization of a safety program; motivating and supporting safety work; locating and correcting hazards, new product safety.

489. Accident Records Management (3)

Theory and function of accident reporting systems. Accident report design, systems, record management and utilization. Areas include school, industry, and governmental agencies.

585. Research in Safety (1-3)

Open to qualified students who wish to do individual research in safety. The qualifying paper for Safety and Driver Education and Industrial Safety should be written in this course. May be repeated. A limit of 6 semester hours may be earned toward advanced degrees. Prerequisite: Consent of adviser and instructor.

586. Seminar in Safety (2)

Evaluation of current literatures in safety and accident prevention. The philosophy and practices in safety. The organization and methods used in safety programs. Presentation of reports based on reading and research emphasized.

587. Programs and Organization of Driver Education (2)

An advanced course in driver education. Administration problems, methods and materials, driver behavior, research, evaluation, and public relations. Prerequisite: Ind.&T. 385 or other approved driver education course.

588. School Safety Programs (3)

Organization of school safety programs. Planning, administering, and supervising safety programs in the schools.

589. Highway Traffic Administration (2)

Orientation in highway traffic control and accident prevention functions of agencies responsible for management of motor vehicle transportation with emphasis on records, laws, law enforcement, licensing, and traffic engineering.

590. Analysis of Accident Causation (2)

Analysis of accident research and statistics with emphasis on psychological, sociological, physical, and environmental factors. Prerequisite: Soc.&A. 315 or equivalent and Educ. 508 or equivalent or consent of instructor.

591. Behavioral Factors in Safety (3)

The Department of Music offers programs leading to the degree Master of Music and to the Certificate of Advanced Study. All programs are arranged in consultation with a departmental adviser and must have the approval of the adviser.

MASTER OF MUSIC

The Master of Music degree may be earned with a major in Music Education or in Performance and Pedagogy in Piano, Voice, or an Orchestral Stringed or Wind Instrument.

Only those persons whose undergraduate preparation has been at least equivalent to the comparable undergraduate music curriculum at Northern Illinois University will be admitted to a program leading to the Master of Music degree. Students whose previous work fails to meet these requirements may in some cases be permitted to begin graduate work in Music. They will be required, however, to make up any deficiencies, as determined by the Music Department, before being admitted to a Master of Music program. In the case of the Master of Music in Music Education, such deficiencies may be in the area of teacher certification as well as in the area of preparation in the major field.

The completion of the degree Bachelor of Music with a Performance major is the normal prerequisite for admission to a course of study leading to the Master of Music degree in Performance and Pedagogy. Students holding the B.S., B.A., or B.M.E. degree may be eligible, however, if, in the opinion of the Music faculty, they have reached the necessary level of proficiency in the major performance area. Candidates for a program in Performance and Pedagogy must pass an audition in the major performance area before admission to the program.

Requirements:

**With a major in Music Education**

<table>
<thead>
<tr>
<th>With a major in Music Education</th>
<th>Minimum hours required</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Music theory and composition</td>
<td>4</td>
</tr>
<tr>
<td>II. Music history and literature</td>
<td>4</td>
</tr>
<tr>
<td>III. Music performance</td>
<td>6</td>
</tr>
<tr>
<td>a) Major instrument or voice</td>
<td>4</td>
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<tr>
<td>b) Large ensemble</td>
<td>2</td>
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<tr>
<td>IV. Music education and research</td>
<td>8</td>
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<tr>
<td>a) Music 525 Foundations of Music Education</td>
<td>2</td>
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<tr>
<td>b) Music 524 Techniques of Research in Music</td>
<td>2</td>
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<tr>
<td>c) Music 518 Special Problems in Music</td>
<td>4</td>
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<tr>
<td>V. Electives</td>
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<tr>
<td>a) Music electives</td>
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</tr>
<tr>
<td>b) Non-music electives</td>
<td>4-6</td>
</tr>
<tr>
<td>Total</td>
<td>32</td>
</tr>
</tbody>
</table>
With a major in Performance and Pedagogy in Piano or Voice

I. Music history and literature 6
II. *Music performance, major area 10
III. Recital 4
IV. **Electives 12

Total 32

With a major in Performance and Pedagogy in an Orchestral Stringed or Wind Instrument

I. Music theory and composition 4
II. Music history and literature 6
III. Music performance
   a) Major instrument 10
   b) Large or small ensemble or both 2
IV. Recital 4
V. Electives 6

Total 32

CERTIFICATE OF ADVANCED STUDY

Students wishing to enroll in the sixth-year program leading to the Certificate of Advanced Study in Music should consult with the Head of the Department. Each program will be planned to meet the student’s individual needs. Admission to a program leading to the Certificate of Advanced Study in Music will be granted only to those candidates who have completed work equivalent to that required for the Master of Music degree at Northern Illinois University.

Course Offerings

MUSIC HISTORY AND LITERATURE

423. Contemporary Music Trends (2)
A survey of trends in European and American music from about 1910 to the present day. Particular emphasis on music since 1920. Works of Stravinsky, Schoenberg, Bartok, Hindemith, Copland, Piston, Schuman, and others will be performed in class.

437. Piano Literature (2)
A survey of clavier and piano literature to the mid-19th century. Two periods a week. For piano majors, or consent of instructor.

* Enrollment in the major performance area is required in each semester or summer session of residence; however, no more than 16 semester hours of credit for music performance in the major area may be applied toward the 32 semester hour total.
** Electives chosen from offerings outside the Music Department must embrace a single cognate area totaling at least 6 semester hours.
438. Piano Literature (2)
A survey of late Romantic and contemporary piano literature. Two periods a week. For piano majors, or consent of instructor.

445. History of American Music (2)
The development of music in the United States from the Colonial Period to the present. Particular emphasis on pre-Revolutionary War music and contemporary compositions. Nine weeks course, four periods a week.

521. The History and Development of Instrumental Forms and (2)
Styles During the 18th and 19th Centuries
Analytical techniques applied to the sonata, the suite, and related forms.

522. The History and Development of Vocal Forms and (2)
Styles During the 18th and 19th Centuries
Analytical techniques applied to the opera, the art song, and related forms.

603. The Renaissance (2)
An introduction to music in the Renaissance (ca. 1450-1600), with study of representative styles.

604. The Art Song Emphasizing the German Lied (2)
The monodic song, the early Italian cantata, the German Lied of the 17th and 18th centuries, Haydn, Mozart, Beethoven, Schubert, Schumann, Brahms, Wolf, Pfitzner, Mahler, R. Strauss, and others. The French, Spanish, Italian, and Russian song. Late English and American contributions. Live and recorded performance.

605. Oratorio Literature (3)
Survey of oratorio and cantata literature from the beginning to contemporary times. Listening to live and recorded music.

606. Survey of Operatic Literature (3)
The Florentine Camerata, the Roman opera, Monteverdi and the Venetians, English opera, the Neapolitans, Handel, opera buffa, French opera. Gluck’s opera reforms, Mozart’s dramatic works. The Romantic era, Weber, Wagner, Rossini, Bellini, Donizetti, Spontini, Verdi, Puccini. An outline of modern opera. Live and recorded music will illustrate the discussion.

607. Symphonic Literature (3)
A survey of orchestral music from its beginning. The Mannheim composers, the Viennese classics, the Romanticists, the National schools, the late European and American developments. Works will be analyzed and their historical, cultural, and philosophical background discussed.

608. Chamber Music Literature (3)
Survey of literature of chamber music in various instrumental combinations. The literature is presented through the analysis of formal structure, and aesthetic values are discussed. The core material will include chamber music of Haydn, Mozart, Beethoven, and Brahms.

622. Contemporary Music and the Arts (2)
The relation of music to the other arts in Western Europe and the Americas from 1890 to the present.

MUSIC THEORY AND COMPOSITION

407. Counterpoint I (2)
Counterpoint as encountered in instrumental and vocal music from 1600 to the present. Scores of such composers as Palestrina, Bach, and Beethoven examined. Prerequisite: Music 201-202.
408. Counterpoint II (2)

Contemporary "linear counterpoint" such as is employed by composers of the 20th century. Scores of composers such as Hindemith, Bartok, Sessions, and William Schuman will be studied. Counterpoint I need not be taken first. Prerequisite: Music 201-202.

418. Physics of Musical Instruments and Sound (2)

The science of musical sound and the physical principles involved in the production of music by the various instruments and the voice. Elements of architectural acoustics of music rooms and acoustical engineering of electronic recorders and reproducers. Open to non-majors by consent of instructor.

505. Advanced Orchestration (2)

The scoring of original and other works for various combinations of instruments as well as one complete score for full symphony orchestra.

507. Advanced Counterpoint (2)

Analysis and use of contrapuntal devices employed in the passacaglia, canon, and fugue.

547. Vocal Arranging (2)

The practical exposition of the principles of choral composing and arranging for various vocal combinations, as well as developing a style of writing for single voice with accompaniment.

552. Composition (2)

Composing in mediums and musical forms from solo through works for symphony orchestra and symphonic band and wind ensemble.

598. Band Arranging (2)

A practical exposition of the principles of arranging for various wind instrumental solos and ensembles with particular stress on the band and wind ensemble.

601. Evolution of Harmonic Theories (3)

Music theory from antiquity through the present.

MUSIC PERFORMANCE

Conducting

512. Advanced Choral Techniques and Conducting (2)

A practical exposition of all facets of choral directing, effective rehearsal procedures, score study, and organization of choral ensembles.

513. Advanced Instrumental Techniques and Conducting (2)

Advanced problems in baton techniques and score reading and the analysis of graded band and orchestra literature. Conducting of band and orchestra groups from the University or from the University Music for Youth summer camp.

Piano and Organ

430. Piano (½-1)

Development of the basic piano skills necessary for public school teaching. Students must meet required standards of proficiency. For non-piano majors only. May be repeated. Prerequisite: Consent of instructor.

431. Piano (½-1)

Continuation of Music 430. May be repeated. Prerequisite: Consent of instructor.
490. Organ (1)
Stresses performance with proficiency requirements. May be repeated. Open to graduate students by permission.

533. Private Piano (1-4)*
Individual study in the student's major medium of performance. May be repeated. Prerequisite: Consent of instructor.

535. Piano Pedagogy (2)
The methods and materials used in teaching piano either in the public schools or privately. Class piano methods, organizations, and materials. Observation of and participation in University piano classes.

593. Private Organ (1-2)
Individual study in the student's major medium of performance. May be repeated. Prerequisite: Consent of instructor.

Voice

440. Voice (1/2-1)
Development of the basic vocal skills necessary for public school teaching. Students must meet required standards of proficiency. For non-vocal majors only. May be repeated. Prerequisite: Consent of instructor.

446. Vocal Ensemble (1)
The study and performance of selected choral repertoire for men's, women's or mixed voices. May be repeated. Prerequisite: Consent of instructor.

447. Concert Choir (1)
The study and performance of choral masterworks from the 17th through the 20th century. May be repeated. Prerequisite: Consent of instructor.

485. Chorus (1)
Open to all graduate students proficient in singing and interested in choral activities. May be repeated.

543. Private Voice (1-4)*
Individual study in the student's major medium of performance. May be repeated. Prerequisite: Consent of instructor.

Band and Orchestra

450. Private Woodwinds (1/2-1)
Individual study of a woodwind instrument. For non-woodwind majors only. May be repeated. Prerequisite: Consent of instructor.

456. Instrumental Ensemble (1)
Brass, stringed, and woodwind ensembles. May be repeated. Prerequisite: Consent of instructor.

460. Private Strings (1/2-1)
Individual study of a stringed instrument. For non-string majors only. May be repeated. Prerequisite: Consent of instructor.

470. Private Brasses (1/2-1)
Individual study of a brass instrument. For non-brass majors only. May be repeated. Prerequisite: Consent of instructor.

*2 semester hours a semester (1 a summer) in the Music Education course of study. 4 semester hours a semester (2 a summer) in a Performance and Pedagogy course of study. No student may receive 4 semester hours a semester (2 a summer) until he has passed an audition for admission to a course of study in Performance and Pedagogy and has received permission to register for 4 semester hours a semester (2 a summer).
480. Symphony Orchestra (1)
   Open to all qualified graduate students. May be repeated. Prerequisite: Consent of instructor.

492. University Bands (1)
   Open to all qualified graduate students. May be repeated. Prerequisite: Consent of instructor.

553. Private Woodwinds (1-4)*
   Individual study in the student's major medium of performance. May be repeated. Prerequisite: Consent of instructor.

563. Private Strings (1-4)*
   Individual study in the student's major medium of performance. May be repeated. Prerequisite: Consent of instructor.

573. Private Brasses (1-4)*
   Individual study in the student's major medium of performance. May be repeated. Prerequisite: Consent of instructor.

MUSIC EDUCATION AND RESEARCH

509. Supervision and Administration of the Music Program (2)
   (Also listed as Educ. 509)
   Functions and techniques of supervision and administration of the music program. Emphasis on problems in curriculum, equipment and materials, budget, schedules, and programs. Techniques for in-service training in music for classroom teachers.

511. Workshop in General Music (1)
   A short concentrated course covering one or more aspects of General Music at one or more educational levels, with particular emphasis on recent developments and contemporary trends in the field. May be repeated to a maximum of 3 semester hours. Not more than 2 semester hours may be applied to the M.M. or the C.A.S.

518. Special Problems in Music (2 or 4)
   Required of all candidates for the M.M. degree or the C.A.S. in Music. Students majoring in Performance and Pedagogy will prepare and perform a full length public recital and submit an accompanying paper related to the recital material. Candidates for the M.M. degree with a major in Music Education also may present a formal public recital with accompanying paper, or they may elect to present a partial recital in combination with a qualifying paper or to write a thesis. The student's choice must be approved by the departmental graduate faculty. Candidates for the C.A.S. must submit a thesis. May be taken for two semesters for 2 semester hours or for one semester for 4 semester hours.

519. Measurement, Evaluation, and Guidance in Music (2)
   (Also listed as Educ. 519)
   Measurement includes standardized tests, classroom or studio marking, auditioning, and adjudication. Evaluation weighs such measures of aptitude in the light of professional and educational criteria. Guidance considers the use of these data in counseling programs in public schools and colleges.

* 2 semester hours a semester (1 a summer) in the Music Education course of study. 4 semester hours a semester (2 a summer) in a Performance and Pedagogy course of study. No student may receive 4 semester hours a semester (2 a summer) until he has passed an audition for admission to a course of study in Performance and Pedagogy and has received permission to register for 4 semester hours a semester (2 a summer).
524. Techniques of Research in Music (2)
   The nature of research and scientific method; application to problems in music and
   music education; problem definition; development of a research design; probability and
   sampling procedure; specialized techniques for the location, collection, quantification, and
   treatment of data. Required for the M.M. degree with a major in Music Education.

525. Foundations of Music Education (2)
   (Also listed as Educ. 525)
   The historical and philosophical bases of music education. The application of learning
   theories to problems of music teaching. Required for the M.M. degree with a major
   in Music Education.

545. Advanced Music Instructional Techniques and Materials—(1)
   Voice
   Techniques and procedures of teaching vocal production and interpretation in group
   lessons. Emphasis on current materials in the field.

551. Advanced Music Instructional Techniques and Materials—(1)
   Woodwinds
   Techniques of class and individual instruction in orchestral woodwind instruments,
   with particular emphasis upon intermediate and advanced levels. Review and evaluation
   of solo, ensemble, and other instructional literature for all levels.

561. Advanced Music Instructional Techniques and Materials—(1)
   Strings
   Techniques of class and individual instruction in orchestral stringed instruments, with
   particular emphasis upon intermediate and advanced levels. Review and evaluation
   of solo, ensemble, and other instructional literature for all levels.

571. Advanced Music Instructional Techniques and Materials—(1)
   Brasses
   Techniques of class and individual instruction in orchestral brass instruments, with
   particular emphasis upon intermediate and advanced levels. Review and evaluation
   of solo, ensemble, and other instructional literature for all levels.

582. Workshop for Instrumental Directors (1)
   A short concentrated course covering one or more aspects of the instrumental
   music program at one or more educational levels, with particular emphasis upon recent
   developments and contemporary trends in this field. May be repeated to a maximum of
   3 semester hours. Not more than 2 semester hours may be applied to the M.M. or
   C.A.S.

586. Workshop for Choral Directors (1)
   An intensive discussion and demonstration of practical choral techniques with a
   view to improving choral rehearsal procedures and performance abilities. May be re-
   peated to a maximum of 3 semester hours. Not more than 2 semester hours may be
   applied to the M.M. or C.A.S.

609. Projects and Problems in Music Education (3)
   Extensive study of a problem or project chosen by the student for investigation with
   solution related to practical use in a teaching situation. One or more group projects for
   study by the class or by committees within the class.

610. Psychology of Music (2)
   The functions of the musical mind and the factors involved in the development of
   musical skills and maturity.

614. College Music Teaching (3)
   Lectures on the theory of teaching, philosophic assumptions, aesthetic theories, ap-
   proaches to education, and the implications for teaching music education, music history
   and literature, and theory courses at the college level.
COLLEGE OF EDUCATION

DEPARTMENTS OF

Education

Outdoor Teacher Education

Physical Education for Men

Physical Education for Women

Special Education
COLLEGE OF EDUCATION

Robert F. Topp, Ph.D., Dean

Department of Education

The Department of Education offers opportunity for study toward the degree Master of Science in Education (fifth year), the Certificate of Advanced Study (sixth year), and the degree Doctor of Education.* The College of Education and the College of Business jointly offer an area major in School Business Management for the degree Master of Science in Education and the Certificate of Advanced Study.

Information relative to obtaining a teaching certificate for the junior college level in Illinois and in other states may be obtained from the Community College Service Center, College of Education. Programs of study designed for this level of certification will vary according to the present certification status of the individual, teaching goals, and the geographical area in which the individual desires to teach.

Students may major in the following areas listed under each degree or certificate.

Master of Science in Education

- Elementary Education
- Supervision and Curriculum
- Supervision of the Reading Program
- Guidance and Counseling
- Educational Administration
- School Business Management
- Secondary Education

Certificate of Advanced Study

- General Educational Administration
- School Business Management
- Elementary Education
- Supervision and Curriculum
- Secondary Education

Doctor of Education

- Administration
- Guidance
- Supervision and Curriculum
- Educational Psychology
- Elementary Teaching

* Procedures and other detailed information about this program are explained in "Graduate Study in Education." Copies are available in the office of the Department of Education.
MASTER OF SCIENCE IN EDUCATION

General Requirements

Education majors working toward the degree Master of Science in Education must satisfy the following general requirements:

1. Successfully complete Educ. 500, 501, 503A, 503B;
2. Develop certain proficiencies in one of the major areas listed above under this degree;
3. Earn 22 semester hours in the Department of Education and 10 semester hours outside the major field.

In addition, other required procedures for masters' programs as indicated on pages 52-54 are to be followed. Particular requirements are listed below under each specialized area.

Objectives for Each Area of Specialization

I. Elementary Education. Specialized study of Elementary Education is undertaken for the purpose of guiding the elementary teacher towards mastery of basic research in child development, elementary curriculum, and the guidance of school learning and for the purpose of expanding his knowledge of the various curricular areas and subject matter appropriate for the elementary school.

II. Supervision and Curriculum. The work of this major area is planned to provide the student with information and to develop competence in supervisory techniques, curriculum theory and practice, cooperative planning for improvement of instruction, and evaluation of programs of curriculum improvement. This area is especially appropriate for persons beginning a career in supervision.

III. Supervision of the Reading Program. This program of specialization prepares experienced teachers who intend to work as coordinators of reading instruction in either elementary or secondary schools. Training is provided in diagnosing reading problems and giving remedial treatment to individual pupils.

IV. Guidance and Counseling. This sequence is designed to provide preparation in the theory, techniques, and information needed by the professional school counselor or other interested educators at the elementary and secondary-school levels. The requirements as set forth by the Office of the Superintendent of Public Instruction in Illinois for recognition of guidance personnel are fully met. One academic year of practical experience in personnel work or teaching, or both, prior to graduation in this area is essential. A background of other work experience is recommended to enhance the student's grasp of vital issues in guidance.

V. Educational Administration. This program is intended for the beginning student of school administration and should be of particular interest to persons who are entering administrative work. The emphasis is on areas of administrative responsibility, leadership skills, and technical and theoretical resources. Only persons with teaching or administrative experience should apply for this program.

VI. School Business Management.* This area is designed to prepare persons who

* This area of specialization is also listed under Business Administration on page 212.
are initially entering the work of managing the business affairs of a school system. A student in this program can expect to devote about one-half of his course time in the study of education and business respectively. Only persons with teaching or administrative experience should apply for this program.

VII. **Secondary Education.** This area is intended for the college graduate who is generally interested in increasing his competencies in the field of professional education. Candidates may elect this sequence as a means of obtaining a general background in education. Persons electing this area are not limited to one specific professional goal; however, in order to meet the requirements of the Graduate School, the students must follow a program which insures satisfaction of the certification standards for teaching in the State of Illinois if certification has not already been obtained.

**Area Major.** The possibilities for area majors involving the study of Education and one other University subject are listed on page 38. Area major students may expect to spend approximately one-half of their course time in the two subjects respectively; and they shall have two advisers, one from each of their two major departments. Area majors working in Education must pass the appropriate examinations set forth by the Department of Education before receiving their degrees.

Field work under supervision is sometimes required in a given program of study especially when in the adviser's judgment such work is necessary to prepare the student in his chosen specialty.

Deficiency study is required in cases in which the student's background is limited with reference to his chosen specialty.

Students who wish further university preparation for teaching in the secondary school have several options. They may (1) major in a subject for teaching offered by one of several college departments, (2) major in Secondary Education as indicated above in VII, or (3) elect an area major involving Education.

**Certification at the Master's Level**

**Elementary Certification and a Master's Degree**

This program is designed to meet the needs of non-certified persons who desire to teach in the elementary school and who hold baccalaureate degrees in a field other than elementary education. The required courses are listed under (A), page 15, in "Graduate Study in Education," 1964-65. In consultation between the adviser and student, additional courses will be selected which are necessary for adequate preparation for elementary school teaching and certification. Suggested cognate courses as well as courses to fulfill deficiencies are listed on page 16 in "Graduate Study in Education," 1964-65. Copies of this bulletin are available in the Department of Education office.

**Secondary Certification Sequences**

Persons who hold baccalaureate degrees from accredited institutions without courses in professional education often wish to undertake further college work in order to qualify for secondary teacher certification in Illinois.

The qualified graduate student may seek certification by way of any one of three sequences open to him at Northern. First, he may seek admission to teacher education (see below) and meet minimal Illinois certification requirements in regard to professional education courses by completing the following require-
ments: Educ. 500 Social Foundations of Education; Educ. 501 Psychological Foundations of Education; Educ. 510 Methods of Evaluation; Educ. 521 Seminar in Adolescent Behavior; a special methods course (or Educ. 424 Methods of Secondary School Teaching); 7 semester hours in student teaching which must be taken for undergraduate credit.

Second, the student may seek fulfillment of his professional education certification requirements by including the necessary courses in his master’s degree program in Secondary Education. However, student teaching cannot be taken for graduate credit.

Third, under Secondary Education, the fifth-year secondary teaching internship offers the promising young man or woman an unusual opportunity. The internship program calls for (1) careful screening of candidates through inspection of credentials, testing, and interviews by University staff and hiring school administrators; (2) continuing supervision throughout the teaching internship by personnel from the hiring school and the University; and (3) a combination of internship teaching, seminars, course work, and individual study. The program consists of four phases. Phase I, which is taken during the first summer, is blocked with professional education courses. This concentration of professional course work qualifies the candidate for a provisional certificate which permits him to teach during the ensuing internship year under contract. Phase II consists of the two semesters during which the intern teaches a three-fifths load at three-fifths base pay on a full day schedule. During the first semester the intern attends an on-campus seminar in secondary education; during the second semester he will attend a seminar on adolescent behavior. In Phase III, the second full summer session, the candidate completes the professional education requirements and strengthens his teaching field through graduate level course work. Completion of this phase should result in full secondary certification in Illinois, permitting full employment as a regular teacher. Phase IV consists of finishing course work, completing the qualifying paper required for the Master of Science in Education degree at Northern, and meeting the required levels on the comprehensive examinations for the degree. Completing this final phase may permit the candidate to earn the Master of Science in Education in two full summer terms, two internship teaching semesters, and a third semester of part-time Evening College work. The internship program at Northern Illinois University has the approval and cooperation of the Certification Division of the Illinois State Department of Public Instruction and of the North Central Association.

All three of the above sequences are based on the assumption that the individual student enrolled has met certification requirements in general education and has completed a subject matter major and minor for which there are teaching assignments in the public schools.

**Application for Admission to Teacher Education by Graduate Students**

Each graduate student seeking certification must make formal application for admission to teacher education prior to completing his 7th semester hour of professional education on forms to be obtained and filed in the Office of the Graduate Dean. The criteria for admission to teacher education are listed on page 41. The decision as to a candidate admission or rejection shall rest with a committee composed of his adviser, the head of the major department involved, and the Director of Student Teaching. Appeals may be made to the
Dean of the College of Education or to a college appeal board. Following his admission to teacher education, a plan for a program of professional study will be drawn up. An admission card marked "Graduate, Special" will be issued to the candidate to permit further enrollment in professional education courses and in student teaching. For admission to student teaching, the student must possess a grade point average of 3 (or "B") for courses taken here as a graduate student. He must also have a major and a minor for which there are teaching assignments in public schools. No graduate of a college or university who has been rejected for admission to a teacher education program at the undergraduate level will be admitted to teacher education at the graduate level. Appeals may be made to the Dean of the College of Education after earlier deficiencies have been removed. No student will be recommended by the institution for certification who has not met the above admission requirements and those of an approved professional curriculum.

CERTIFICATE OF ADVANCED STUDY

General Requirements

A candidate for this certificate must:
1. Apply to the Dean of the Graduate School for admission to the Graduate School and the C.A.S. program.
2. File completed application forms with the Department of Education no later than registration day of the term marking formal admission to the program.
3. Work with his interim adviser planning work for the first semester.
4. Take screening tests during his first semester, or earlier.
5. Arrange an interview with the chairman of his advisory committee after receiving notification of acceptance by the Departmental Admissions Committee.
6. Confer with his advisory committee to plan a program of study. (Quadruplicate copies of the program shall be prepared.)

In addition, other required procedures for sixth-year programs as indicated on pages 54-57 are to be followed.

Specific Requirements for Each CAS Area of Specialization

I. General Educational Administration. This area is designed to prepare qualified graduate students for various administrative positions in school systems. It emphasizes the technical and specialized aspects of administration. In addition, it includes studies intended to refine the student's competency to deal with more general aspects of educational theory.

Candidates for this area must have a minimum of two years of teaching experience and two years of acceptable and successful administrative experience or satisfy the absence of the latter with internship experience. (See Educ. 695A.)

Candidates who do not have a master's degree in the area of educational administration must take Educ. 533, 534, and 551 (or approved equivalents).

Full-time study for one term or semester is required. This requirement may be satisfied by enrolling for an eleven-week summer term for 12 semester hours.

II. School Business Management.* This area is designed to afford addi-
tional and advanced technical study for persons who are serving as school business managers. The program offers both technical and general theoretical study related to work of school management in school systems of medium and large sizes.

Candidates are required to have had a minimum of two years of teaching or administrative experience, to have a master's degree in educational administration or business administration, to present evidence of two years of appropriate and successful supervisory experience or to satisfy this deficiency through internship (Educ. 695A), and satisfy the residence requirement by enrolling for at least 12 semester hours in one semester or in an eleven-week summer session.

III. *Elementary Education.* This area is designed for experienced elementary teachers and other educators who are interested in further study of elementary education. Emphasis is on research approaches to the improvement of elementary education.

Candidates must have a minimum of two years of successful teaching experience and a master's or bachelor's degree, or both, in this field. Candidates having both degrees in other areas must enroll in Educ. 514-515 prior to admission to candidacy in this area.

IV. *Supervision and Curriculum.* This area is designed for students who wish to continue study in supervision and curriculum with emphasis on their relationship to the behavioral sciences, school community relations, personnel management, and leadership skills pertaining to the curriculum. In addition, the student works on more advanced educational theory of a general nature.

V. *Secondary Education.* This area is designed for those students who are interested in increasing general competency in professional education. Its primary purpose is to serve the needs of persons desiring to increase their effectiveness as classroom teachers or those who plan to enter the field of teacher education.

A candidate must have a minimum of two years of successful teaching experience in secondary schools prior to admission to the sixth-year program. His program must include Educ. 602, 603A, and 523. Other courses are to be determined through conference with the appointed committee in terms of the candidate's background, interests, and needs. A candidate who has not had Educ. 500, 501, and 560 or their equivalents will be required to complete them in addition to the foregoing course requirements.

**DOCTOR OF EDUCATION**

*General Requirements*

The degree Doctor of Education, the highest professional degree offered by the Graduate School through the Department of Education, is awarded to those students who demonstrate superior qualities and attainment during their period of study and give clear evidence of exceptional promise in their field.

Applicants for the doctoral degree in Education are expected to have a broad base of general education in the Humanities, Sciences, and Social Sciences, represented by a minimum of 75 undergraduate and graduate hours and distributed equitably among the various fields. Where significant deficiencies are found by the candidate's advisory committee, additional hours above the 90 required for the doctor's degree may be prescribed.
This degree is a professional degree intended to prepare for two services: (1) Administrative and Educational Services for those who will serve as administrators or service personnel and (2) Education as a Field of Study for those who wish to continue advanced study for the purpose of becoming superior teachers or teacher educators. Within the first type of service, an area of emphasis may be selected from the following four: (a) Administration, (b) Guidance, (c) Supervision and Curriculum, or (d) Educational Psychology. Within the second type only one area of emphasis is offered at the present time: viz., Elementary Teaching as a Field of Study. Both (1) and (2) may serve to prepare individuals for teaching at the college level. Preparation for research responsibilities both as a producer and consumer is an integral part of the program.

A candidate for the doctorate in any of these areas is required to present evidence of a minimum of three years of acceptable professional experience.

The procedures of initial application, in general, are similar to those listed under the master's degree and the C.A.S. In addition, however, the candidate will have additional interviews and take aptitude tests including the Graduate Record Examinations as stated elsewhere in this catalog.

To complete the residence requirements, the candidate is expected to fulfill a minimum of one full academic year in residence. This is interpreted to mean two consecutive regular terms, exclusive of summer terms. Residence credit is credit earned on the campus at DeKalb and may not be satisfied by transfer or extension credit.

All general requirements and procedures referring to admission, residence credit, thesis, final examination, and graduation as set forth by the Graduate School are to be satisfied.

The Department of Education requires the equivalent of at least three years of full-time academic work which includes a minimum of 90 semester hours of graduate work beyond the bachelor's degree in addition to the dissertation. The 90 semester hours will be distributed as follows:

1. A 38 semester hour core of courses is required of all candidates.* This core includes courses in foundations of education, curriculum, educational psychology, educational administration, higher education, guidance, and research methodology.

2. A minimum of 15 semester hours outside the field of professional education.

3. A minimum of 12 semester hours in cognate fields or professional education or both.

4. A minimum of 12 semester hours in the area of emphasis.

The dissertation is to be based upon original scientific or scholarly work, or it may be related to a field project of highly creative quality. Students must participate in a research seminar before undertaking their thesis problems.

Preliminary Examinations. A written preliminary examination covering both the general core and the area of concentration will be scheduled and administered at least twice each year. A graduate student will be eligible to take this examination, with the permission of the chairman of his doctoral committee, if he has completed at least two-thirds of his studies including the Research Techniques core. Dates on which application for the examination can be made will be announced by the Department. This examination will encompass major areas of professional knowledge. Any student who fails may, with the recommenda-

* Students should consult the handbook "Graduate Study in Education," for further details. Copies are available in the office of the Department of Education.
tion of his committee, be granted the opportunity to take a second examination. The second examination, however, will be final.

Final Examinations. A final oral examination related to the dissertation is required and is conducted in accordance with the general requirements of the Graduate School.

Course Offerings

400. Early Childhood Education (3)

The school program for children ages three to seven. Planning the learning environment, developing learning activities, organizing the school day, interpreting children's growth to parents, exploring community resources. Special help for each student in planning for individual classroom situations. Prerequisite: Educ. 375 Elementary School Procedures and Curriculum or equivalent, or consent of instructor.

420. Introduction to Programmed Learning (3)

The historical development of auto-instruction; the application of learning theory to programmed instruction; the techniques of program construction; the evaluation of programs and teaching machines; the examination of research in the field; and methods of classroom utilization of programmed instruction.

424. Methods and Materials in the Secondary School (3)

Modern principles of teaching and learning in relation to the guidance of learning activities in the high school class. Prerequisite: Consent of Department Head.

430. Utilization of Audio-Visual Materials (3)

Selection, evaluation, and use of various audio-visual materials and techniques. Provides understanding of the operation and maintenance of equipment.

431. Workshop in Audio-Visual Education (2-4)

Content determined by experience and needs of enrollees. Emphasis may be on the utilization, construction, or selection of materials or equipment; administration of audio-visual programs and communications. Prerequisite: Consent of instructor.

432. New Educational Media, T.V. (2)

The effective utilization of educational television by classroom teachers. Lectures and discussions regarding history, research, and current trends of television in education. Demonstrations and practice in using instructional television in the classroom.

438. History of American Education (3)

Education in relation to the main currents of American history. A survey of educational issues and practices in the United States from early colonial days to the present time.

444. Workshop in Kindergarten Education (3)

Materials and procedures for kindergarten, including play materials, science experiences, music activities, art materials, literature, and games. Curriculum and program planning. Provision for individual differences within the program.

466. Diagnosis and treatment of Reading Difficulties (3)

Causes of reading difficulties, their diagnosis and correction. Current reading tests.

482. The Improvement of Reading in the Secondary School (3)

Nature and organization of the junior and senior high school reading program. Ways of increasing basic reading competencies. The teaching of reading in the various content fields as well as the improvement of interests and tastes.
500. Social Foundations of Education (3)
Social forces influencing American education; basic educational traditions as reflections of American culture; the school and cultural change; educational issues and the sources of conflict in American culture.

501. Psychological Foundations of Education (3)
The broad fields of psychology as they relate to and provide foundations for educational practice. A constructive analysis of the principal areas, theories, experimentation, and conclusions in psychology with attention focused on such topics as motivation, intelligence, learning, personality, and emotions.

502. The Teaching of Arithmetic in the Elementary School (3)
(Also listed as Math. 502)
Consideration of the implications of research for methods of teaching, and the selection and arrangement of concepts and materials. Prerequisite: Math. 402 or equivalent.

503A. Introduction to Educational Research (2)
A basic course in methods of research in education; the planning and conducting of a research study; the developing of skills in problem identification, data collection, analysis, interpretation, and preparation of research reports. Must be completed prior to approval of topic for master's qualifying paper.

503B. Master's Qualifying Paper (2)
Open only to the student engaged in writing a master's qualifying paper under the Master of Science in Education program. The student enrolls with the faculty member directing the paper. Prerequisite: Educ. 503A.

504. Philosophical Foundations of Education (3)
Philosophy of education through examination of some of its major traditional systems, e.g., instrumentalism, idealism, realism, Thomism, existentialism.

505. Historical Foundations of Education (3)
The history of education in Western civilization from the Classical Period to the present with emphasis on leading theories of education and descriptions of school and teacher performance in the light of major problems of given cultural era. Attention given to research skills in this field.

508. Educational Statistics (3)
Introductory course to provide students with the techniques necessary for understanding, analyzing, and interpreting data. Grouping of data, graphical representation, measures of central tendency, variability, and relationship, the normal distribution, standard score and percentile interpretation, regression equation, and reliability of statistical measures.

509. Supervision and Administration of the Music Program (2)
(Also listed as Music 509)
Functions and techniques of supervision and administration of the music program. Emphasis on problems in curriculum, equipment and materials, budget, schedules, and programs. Techniques for in-service training in music for classroom teachers.

510. Educational Measurement and Evaluation (3)
Modern concepts of evaluation; construction and validation of evaluative instruments; use of standardized tests and scales; and procedures of evaluating relatively intangible outcomes.

511. Understanding and Guiding the Elementary School Child (6)
Advanced child development and the role of the teacher in the daily guidance of children. The practical application of child development principles to specific classroom procedures and to the selection of appropriate curriculum experiences. Valuable for educational leaders as well as classroom teachers. Laboratory experiences and group work within the scheduled class period.
512. The Elementary School Curriculum (2)

Basic principles in the construction and administration of modern school curricula, the relation of the curriculum to society, and present practices in the schools.

513. Problems in Elementary Education (2)

A seminar requiring individual investigations of problems in elementary education culminating in a research project.

514. Seminar in Elementary Education (3)

The use of theory in the analysis and interpretation of teaching-learning situations, as observed or recorded from elementary classrooms, kindergarten through sixth grade. Particular attention to (1) the identification and use of goals in education and (2) the application of knowledge in the areas of learning, human growth, group behavior, and curriculum. Taken concurrently with Educ. 515. Prerequisite: Educ. 500, 501, 503A, 533.

515. The Teacher in the Elementary School (2)

A practicum in elementary education based on teaching-learning situations. The examination of these situations as they suggest means for the improvement of instruction. Taken concurrently with Educ. 514. Prerequisite: Educ. 500, 501, 503A, 533.

519. Measurement, Evaluation, and Guidance in Music (2)

(Also listed as Music 519)

Measurement includes standardized tests, classroom or studio marking, auditioning, and adjudication. Evaluation weighs such measures of aptitude in the light of professional and educational criteria. Guidance considers the use of these data in counseling programs in public schools and colleges.

520. Seminar in Research in Child Behavior (3)

An analysis of research dealing with the nature of child development and the implications of such for the classroom teacher. The areas of emotional, intellectual, and social development.

521. Seminar in Adolescent Behavior (3)

An analysis of research dealing with the nature of adolescence and the implications of such for the classroom teacher.

522. Junior High School Organization and Problems (3)

The development of the junior high school organization and its philosophy; forms of curricula; characteristics of junior high school students. Administrative problems such as program making, co-curricular activities, junior high school physical facilities, role of staff, and junior high school-community relations.

523. Seminar in Secondary Education (3)

A seminar concerned with professional and classroom problems of secondary school teachers. Prerequisite: Consent of instructor.

524. Introduction to Comparative Education (3)

The major features of education in such leading countries as France, West Germany, India, the Soviet Union, the United Kingdom, and the United States examined with reference to historical, sociological, and political points of view for the purposes of acquiring significant knowledge and understanding the tasks of the researcher in comparative education. Satisfies the State requirement for a course in American public education.

525. Foundations of Music Education (2)

(Also listed as Music 525)

The historical and philosophical bases of music education. The application of learning theories to problems of music teaching. Required for M.M. degree with a major in Music Education.
526. Junior High School Workshop (2)
A two-week workshop designed for teachers, counselors, and administrators to study contemporary issues and problems in the junior high school. The area of concentration will vary during successive summers in order to provide an opportunity for service to school districts on problems currently needing attention.

530. The Junior College (3)
The development of the junior college movement; its present status, purposes, functions, organization, and curriculum; and the characteristics of the emerging community college.

533. Curriculum Theory (3)
The assumptions underlying current curriculum proposals. Curriculum theory will be formulated in order to make decisions about such selected questions as what, how, and who shall be taught and how this teaching may be organized and evaluated.

534. Improvement of Instruction (3)
An investigation and analysis of common problems in teaching. The principles which apply at all levels of instruction.

535. Secondary School Curriculum (3)
For advanced students who wish to make a thorough study of basic principles in the construction and administration of secondary school curricula, the relation of the curriculum to society, and present practices in secondary schools.

541. The Improvement of Instructional Programs (3)
Analysis of supervisory functions, methods, and responsibilities of those who assume educational leadership. The process of planning and directing the functions of the educational staff, evaluating physical and human resources toward the improvement of instructional programs, and improvement of in-service programs. Prerequisite: Educ. 534.

542. Fundamentals of Curriculum Development (3)
Application of principles and procedures to the development of educational programs in elementary and secondary schools. The analysis of curriculum materials. Prerequisite: Educ. 533.

543. Problems in Curriculum Development (2)
Students are required to undertake a major curriculum construction project, to be utilized within a school system or published in pamphlet or article form. School systems are encouraged to send teams of students to develop new or revised curricula.

551. School Organization and Administration (3)
A basic course in organization and administration. Develops a philosophy for school administration and understanding of the following areas of school administration: curricula, pupil administration, supervision, public relations, finance, executive efficiency.

553. Problems in School Administration (3)
A seminar requiring individual investigation of fundamental problems in school administration and school business management culminating in a research paper. Problems based largely on past or anticipated experience of the students. Prerequisite: Educ. 551 and 651 or 652 or consent of instructor.

556. School Organization and Administration for Teachers (2)
The development of insight into the role of the teacher in organizational and administrative problems of the school.

559. Seminar—Nature and Theory of Administration (1-3)
Inquiry into the nature of the school administrative process. Discussion of administration in terms of principles. Research, study, and analysis of the latest thought in the areas of administration. Emphasis on the basic concepts rather than practices. May be repeated to a maximum of 6 semester hours. Prerequisite: Consent of instructor.
560. Personnel and Guidance (3)

Introduction to personnel work in elementary and secondary school. Recognition of needs for guidance, guidance principles, practices, and their application.

561. The Teacher's Role in Personnel Work (2)

The need for personnel work, including guidance, ways of meeting needs of elementary and high school pupils by the classroom or homeroom teacher, or specialized services to which teachers may refer individuals needing help.

562A. Counseling Techniques, Theory and Practice (3)

An introduction to counseling theory and practice with emphasis on interview techniques. Prerequisite: Educ. 560.

562B. Counseling Techniques, Theory and Practice (3)

A continuation of Educ. 562A. The practical aspects of the counseling situation. Cases, tapes, role playing, and analysis of the counseling movement and counselor responses. Prerequisite: Educ. 562A, 563, and consent of instructor.

563. Educational and Psychological Measurement (3)

An introductory course dealing with the essential principles of measurement and basic statistical concepts needed for the understanding and use of tests and other measures in educational personnel work. Statistics as applied to educational personnel work, achievement and special aptitude tests, interest and personality inventories, and other measures. Experience in administering, scoring, and interpreting tests.

564. Tools and Techniques in Pupil Personnel Work (3)

The use of various techniques such as anecdotes, autobiographies, sociograms, behavior description, voting scales, and case studies. The use of records in counseling. Emphasis on the counseling interview and on testing is found in other courses. Prerequisite: Educ. 560 (Educ. 563 recommended).

566. Clinical Problems in Teaching Reading (3)

A practicum providing clinical experience in applying remedial procedures with severely disabled readers. Prerequisite: Educ. 466 or equivalent.

567. Information in Guidance (3)

Methods of obtaining, evaluating, and organizing materials of occupational, educational, personal, and social information. The use of these informational materials in the counseling and group guidance processes. Prerequisite: Educ. 560 or equivalent.

568 Guidance in Elementary Education (3)

Principles and methods and practical problems pertinent to the elementary school. Recognition of early remedial problems in reading and behavior. The use and importance of anecdotal personal data records, parent and teacher interviews, and interpretation for referrals. Planning programs for individual pupils with teachers.

571. Organization and Administration of Guidance Services (3)

The functions, basic elements, and effective organization of guidance services within the pupil personnel framework. Problems in activating, organizing, and administering guidance services; selection and education of the staff; evaluating the services; utilizing community resources; and developing records. Prerequisite: Educ. 560.

572. School-Community Relations (3)

The responsibility of the school to offer leadership and interpret home-school-community relationships. The task of surveying and utilizing community resources, studying promising programs and practices, and evaluating educational criticism.

576. Clinical Diagnosis of Reading Difficulties (3)

A practicum emphasizing case study techniques in the diagnosis of reading problems. The administration of various formal and informal tests and the interpretation of the test results. Making case studies, followed by the preparation of case reports. Prerequisite: Educ. 466 or equivalent.
580. Seminar in Guidance and Counseling (3)
Selected problems in guidance and counseling with emphasis on current issues and individual problems. Prerequisite: Minimum of 12 graduate semester hours in guidance or consent of instructor, or both.

581. Improving the Teaching of Reading in the Elementary School (3)
The developmental reading program in the elementary grades. Criteria for a desirable reading program in the elementary school including the individualized reading program.

582. History of European Educational Thought (3)
Theories of European philosophers of education which have influenced Western civilization. An examination of original writings by Plato, Aristotle, Comenius, Locke, Rousseau, Pestalozzi, Froebel, Herbart.

583. Social Learnings in the Elementary School (1-3)
Principles and procedures in the development of social experiences. Child growth and development, democratic values and processes, actual life situations and common life problems.

584. The Teaching of Science in the Elementary School (1-3)
Techniques used in selecting and providing experiences in elementary school science. The study of equipment and materials suitable for elementary school students.

585. Teaching Language Arts in the Elementary School (1-3)
Trends, materials, principles, and methods in the teaching of language arts in the elementary school.

586. Related Arts in the Elementary School (1-3)
The functions of the arts in the total elementary school program; an analysis of contemporary trends in the teaching of art, industrial arts, home economics, music, dance, and literature.

587. Problems in Audio-Visual Education (3)
Individual projects and research in selection and utilization of audio-visual materials and equipment; unit costs, evaluation procedures, and setting up and administering an audio-visual program. Prerequisite: Educ. 430 or consent of instructor.

588. Corrective Reading in the Elementary School (3)
Experiences in applying corrective procedures in teaching the less severe reading disability cases among elementary school children. Supervised laboratory practice, as well as some classroom study. Prerequisite: Educ. 466 or 581 or equivalent.

589. Corrective Reading in High School (3)
To acquaint qualified students with corrective procedures appropriate for the less severe reading disability cases in secondary schools. An investigation of classroom corrective procedures and the application of these procedures in teaching secondary school students. The use of the more recently developed visual aids used in teaching reading. Prerequisite: Educ. 466 or 482 or equivalent.

590. Counseling and Guidance Training Institute (9)
A concentrated institute offered to improve the qualifications of (1) personnel engaged in counseling and guidance of students in secondary schools and (2) teachers in such schools preparing to engage in such counseling and guidance. Admission to this course is controlled by committee action growing out of prior application bearing the endorsement of the student’s immediate superior in his employment as a teacher.

591. Advanced Educational Statistics (3)
Concepts dealing with regression and prediction, significance of the mean, and significance of the difference between means, testing experimental hypotheses, analysis of variance, and further methods of correlation. Prerequisite: Educ. 508, or equivalent, with at least "B."
592. Philosophical Analysis of Educational Thought (3)

Procedures of formal and informal philosophical inquiry explored for the purpose of acquiring facility in using philosophical resources for the criticism, development, and refinement of educational theory. Prerequisite: Educ. 406 or 504 or consent of instructor.

593. Supervision of Student Teachers (3)

To provide cooperating teachers, administrators, and supervisors with a better understanding of the function of student teaching in the professional education of teachers. Discussion of the basic issues to bring out valuable techniques in supervising, directing, and evaluating the experience of the student teacher. Prerequisite: Consent of instructor.

595B. Internship (TBA)

For those actively engaged in supervisory work. Study under the guidance of the University instructor. Individual observation and conferences and a number of Saturday meetings to consider common problems. Anecdotal records and other materials analyzed and evaluated. Prerequisite: Educ. 543 and 593 and consent of the Student Teaching Office.

599. Reading Institute (2-3)

Basic reading problems in the elementary, junior high, and senior high school. Guest instructors and regular staff members. An intensive course for two or three weeks.

601. Advanced Educational Psychology (3)

Detailed analysis of modern learning theories and practices as they relate to education. Further development of major areas of human growth as they relate to the school. A detailed investigation of major research in educational psychology. Prerequisite: Educ. 501.

602. Methods and Techniques of Research (3)

The types, devices, and techniques of advanced educational research. Guidance in planning for a Certificate of Advanced Study thesis or a Doctor of Education dissertation. Prerequisite: Consent of instructor.

603A. Independent Research (1-3)

Independent research projects, including C.A.S. thesis work in Education, under faculty supervision. For thesis credit sixth-year students should enroll for 3 semester hours. May be repeated to a maximum of 9 semester hours. Prerequisite: Sixth-year status or consent of Area Chairman.

603B. Doctoral Research and Dissertation (3-12)

Prerequisite: Advancement to candidacy for the Ed.D. degree and consent of the chairman of the dissertation committee.

605. Experimental Research (3)

To develop an understanding of how to set up experimental research and to conduct an experimental research project. It is recommended that the project be conducted in the student's own teaching situation under the direction of the adviser with the approval of his own school administration. May be repeated to a maximum of 6 semester hours. Prerequisite: Sixth-year standing.

606. Seminar in Reading (3)

Designed for the advanced student who is interested in the study of research reports in education, psychology, linguistics, and other disciplines which have a bearing on the problems in teaching reading. Prerequisite: Consent of instructor.

611. Advanced Child Study (3)

The formulation of generalizations about trends and modifications in the research on child development produced during the 20th century. The acquisition of facility in the formulation of hypothetical research designs to advance knowledge in child development. Prerequisite: Sixth-year standing and Educ. 602. Co-requisite: Educ. 612.
612. Practicum in Child Study (3)

The examination and research in child development produced during the last decade. The formulation of hypotheses for research designs applicable to actual classroom procedures. Co-requisite: Educ. 611.

616. Elementary Teacher Education (3)

A survey of selected undergraduate programs of preparation which have been designed to educate teachers for the public elementary schools. Intensive analysis of the program at Northern Illinois University involving supervised laboratory experiences. Internship correlative with this course recommended. Prerequisite: Educ. 514, 515, or consent of instructor.

617. Curriculum Design in Elementary Education (3)

Interrelationships of various components of a curriculum design. Curriculum design as a basis for decision making in constructing an instructional program in elementary education. Prerequisite: Educ. 514, 515 or consent of instructor.

618. Professional Writing (1)

Guidance in the preparation of professional manuscripts. Presentation of methodology in treatment of material: analytical, descriptive, scientific, historical. Procedures for submitting for publication. Prerequisite: Educ. 514, 515 or consent of instructor.

619. Professional Leadership (3)

Educational leadership as the implementation of social policy. Selected problems of ethical nature which are common to teachers. Emphasis upon current issues. Prerequisite: Educ. 514, 515 or consent of instructor.

633. Seminar in American Educational Thought (3)

A critical examination of key ideas leading to the unique educational system in America. For advanced students. Intensive work with the educational ideas of some leaders in the intellectual history of the United States: Franklin, Jefferson, Mann, Emerson, Whitehead, Dewey, and others.

651. The Elementary School Principal (3)

The basic performance patterns of the elementary school principal in the organization and administration of the educational process. Prerequisite: Educ. 551 or administrative experience.

652. The Secondary School Principal (3)

For junior high and high school administrators. Program construction, staff utilization, pupil records, organizational structures, and plant utilization.

653. Practicum in School Administration (1-12)

Advanced library research in the conceptual, technical, and human aspects of school administration.

654. School Buildings (3)

School plant planning, the school plant survey, population and utilization studies, and evaluation of existing plant. Laboratory and field work. Prerequisite: Educ. 551 or consent of the instructor. This course is also open, with the consent of the instructor, to students who are members of building planning committees.

655. School Finance (3)

Basic course in educational finance. Theoretical and practical aspects of the various phases of financial administration; foundation programs, cost-quality relationship, taxation, state and Federal participation, and the more prevalent aspects of operational finance. Prerequisite: Educ. 551 or consent of instructor.

656. School Administration Field Studies (3)

Methods of administrative planning in the areas of community background, evaluation of buildings, transportation, scheduling, utilization of staff, and financial analysis.
657. School Law (3)

Basic course in legal theory and practice. Court cases, school codes, and legal practice of the several states as well as an examination of Illinois law and practice. Prerequisite: Educ. 551 or consent of instructor.

662. Practicum in Guidance (3-6)

For students majoring in guidance. Practical experience in guidance functions at elementary, secondary, or higher educational levels. Prerequisite: Educ. 562A, 562B, and consent of instructor.

664. Pupil Personnel Administration (3)

Attendance, health, guidance, psychological, and social work services. Organization patterns and problems of budget, staffing, supervision, and program evaluation. Prerequisite: A master's degree or its equivalent in guidance or a related area of personnel work.

666. Personnel Services in Higher Education (3)

A comprehensive study of the organizational structure and administrative relationships of personnel services in the collegiate setting. Student personnel services included are admission, testing, records, housing, scholarships and loans, health and counseling, student activities, discipline, student government and placement. Prerequisite: A master's degree or its equivalent in guidance or a related area of personnel work.

668. Group Procedure in Guidance and Counseling (3)

Theory and practice of working with groups for guidance and counseling purposes, with emphasis on small groups. Review of theories and research in group dynamics, communication, and role playing. Practice with selected techniques in sociodrama, psychodrama, small-group leadership, and multiple counseling. Prerequisite: A master's degree in guidance or a related area of personnel work.

671. Research Seminar in Educational Psychology (3-6)

Students will design at least two studies dealing with major problems in educational psychology and carry them through to completion. Background to each study will be a major area of discussion. Prerequisite: Master's degree.

673. Administration of Staff Personnel (3)

The problems and issues associated with administration and supervision of school personnel. Organization of staff, formal and informal structure, and the school as a social system.

675. Seminar in Higher Education (3)

Teaching problems in colleges and universities, including professional schools and community colleges. Course organization, methods, and class management. Educational problems confronting higher education in connection with the anticipated expansion in the number of students who will demand admission. Experiments and proposals looking toward increasing the 'productivity' and efficiency of college teachers.

695A. Internship (TBA)

Work individually or in small groups in a practical school situation under the guidance of a member of the school's administrative staff and the University supervisor. Internships in supervision and curriculum, guidance, school business management, elementary teaching, secondary teaching, and administration. Graduate students in school business management or in any one of the administrative sequences, engaged in full-time study and with no teaching or administrative experience, will be expected to complete the minimum requirements of internship.
Outdoor Teacher Education

The Department of Outdoor Teacher Education offers a graduate program leading to the degree Master of Science in Education with a major in Outdoor Teacher Education. The Departments of Outdoor Teacher Education and Education cooperate in offering course work required for the major in Outdoor Teacher Education.

MASTER OF SCIENCE IN EDUCATION

Students selecting a major in Outdoor Teacher Education will be required to have sufficient course work (or the equivalent) in science at the undergraduate level. This must include a minimum of 6 semester hours of laboratory science courses in Elementary Botany, Zoology, Geology, Earth Science, etc.

Students who elect a major in Outdoor Teacher Education leading to the Master of Science in Education must satisfy the following requirements.

1. A minimum of 18 semester hours in courses offered by the Department of Outdoor Teacher Education to include OTE 410 and 504. Students who wish to strengthen their science background should take OTE 415. Sufficient additional courses will be selected with the advice of the faculty adviser.
2. Educ. 503A and 503B.
3. Recommended cognate courses: Educ. 500 or 501.
4. Sufficient additional courses in other departments to bring the total credits to a minimum of 32 semester hours. These courses will be selected with the approval of the adviser. At least 10 semester hours must be taken outside the Department of Outdoor Teacher Education.
5. Admission to the program will be by consent of a faculty advisory committee. A candidate for this degree will write a master's qualifying paper (Educ. 503B) and will meet the academic requirements of a comprehensive written examination. An oral examination may be required at the option of the Advisory Committee.

Course Offerings

410. Introduction to Outdoor Teacher Education (3)
To acquaint teachers with the basic concepts of outdoor education. The meaning, scope, and value of outdoor education. Emphasis upon procedures and instructional materials especially suited for teaching out-of-doors. May be taken for either graduate or undergraduate credit and is prerequisite for all required courses in the Department of Outdoor Teacher Education.

415. Field Science (3)
Provides a basic fund of scientific knowledge which can be studied in the natural environment. The study of plants, soil, water, insects, weather, and geology. Special attention devoted to research techniques of scientific investigation.

504. Historical and Philosophical Development of Outdoor Education (3)
Detailed examination of the meaning and scope of outdoor education. The historical and philosophical foundations of outdoor education. Evolvement of this movement in American Public Education traced and recent significant trends and existing outdoor education programs examined. Prerequisite: OTE 410.
511. Advanced Field Experiences in Outdoor Teacher Education (3)
For experienced teachers who wish to supplement and enrich their classroom teaching by including outdoor learning experiences. Ways and means of relating various outdoor learning activities to the various subject matter areas of the school curriculum. Prerequisite: OTE 410.

514. Organization and Administration of Outdoor Programs (3)
The initiation and administration of outdoor education experiences of varying lengths. Problems involving the community, school administration, and the teaching staff. Prerequisite: OTE 410 and 504.

516. Development, Maintenance, and Management of Outdoor (3)
Education Facilities
The development of outdoor education facilities and resources of various types, including the immediate school area as well as resident facilities. Land acquisition, proper site development, and the health and safety aspects of management. Prerequisite: OTE 410 and 504.

520. Analysis and Development of Curriculum Materials in (3)
Outdoor Education
The selection, production, and utilization of audio-visual materials related to outdoor education. The student will learn how to operate and care properly for scientific equipment and materials. Techniques of producing and constructing teaching aids will be demonstrated. The educational materials available from educational and commercial sources will be surveyed. Prerequisite: OTE 410.

525. Independent Study in Outdoor Education (1-2)
Individual research projects in outdoor education under the supervision of graduate faculty members. Prerequisite: OTE 410 and 504. Consent of adviser and enrollment in Educ. 503A.
Department of Physical Education for Men

The Department of Physical Education for Men offers programs leading to the degree Master of Science in Education and the Certificate of Advanced Study.

MASTER OF SCIENCE IN EDUCATION

Students working toward the degree Master of Science in Education with a major in the Department of Physical Education for Men are expected to have completed an undergraduate major in Physical Education. This major should include Anatomy, Kinesiology, Administration of Physical Education, Tests and Measurements in Physical Education, Theory of Coaching in two sports, and a variety of technique courses in physical education activities.

Any undergraduate deficiencies, as appraised by the Department, must be removed before a student may become a candidate for the degree.

In addition to meeting requirements established for all candidates for the degree, students majoring in the Department of Physical Education for Men must successfully complete a minimum of 18 semester hours of graduate work in that Department and 10 semester hours of work outside that Department.

The semester hours in the Department must include PE-M 570 and 581. They must also include either PE-M 500 or 510 and either PE-M 520 or 613. Only students who have completed PE-M 570 and have been admitted to candidacy should register for PE-M 581.

CERTIFICATE OF ADVANCED STUDY

All students who wish to pursue a program leading to the Certificate of Advanced Study should have a baccalaureate degree or master's degree or its equivalent in Physical Education. For other requirements, consult with the Head of the Department.

Course Offerings

400. Materials and Problems in Health Education (2)
Health education programs in elementary and secondary schools. Materials and problems involved in teaching health.

442. Organization of Extracurricular Activities (3)
Organizing and conducting an effective program of extracurricular sports. The correlation between physical education class content and intramural and extramural sports. History, objectives, program financing, officiating, and other problems relating to an extracurricular sports program.

500. History and Philosophy of Physical Education (3)
Historical development of physical education from primitive to modern times. Philosophy of modern physical education with application to present day educational programs.

510. Scientific Foundations of Physical Education (3)
Background of physical education from the biological, anatomical, and physiological aspects, with stress on past and present procedures.
511. Psychology of Coaching (3)

The application of principles of psychology to learning situations involved in competitive sports. The general learning situations involved in the mastery of skills and the special situations involved with individual and group problems of motivation and response.

520. Mechanical Analysis of Motor Skills (3)

Investigations of physical principles operative in the performance of physical education activities with attempt to analyze for methods of greater effectiveness and improved performance. Prerequisite: A course in kinesiology.

521. Care, Treatment, and Prevention of Athletic Injuries (3)

Prevention and correction of accidents in athletic activities. The use of proper personal and field equipment, support methods, conditioning exercises, therapeutic aids, medical examinations, massage, and advanced first aid. Prerequisite: Anatomy and physiology, kinesiology, and first aid.

537. Public Relations for Physical Education (3)

Purposes, materials, and methods relevant to keeping the public informed and interested in the various aspects of the physical education program. A term project for a real or simulated situation will be produced.

538. Planning and Administration of Social Recreation (3)

A treatment of procedures for determining the needs, outlining the plans, and implementing the program of community and special recreation.

541. Organization and Administration of Inter-Scholastic Athletics (3)

Organization of high school athletics with special reference to national, state, and local control. Staff, program, budget, health and safety, and other phases of administration.

542. Advanced Techniques of Coaching (1-3)

A seminar concerned with current trends in the specific areas of inter-school athletic programs. A detailed study of sport techniques.

544. Workshop in Athletic Coaching (1)

An especially designed course for coaching of interscholastic athletics. New developments in the technique of coaching are studied through the use of lectures, discussion, demonstration, and films. Outstanding specialists in the field of athletics will present material on recent developments in equipment, practice, theory, and philosophy.

570. Seminar in Research Studies in Physical Education (3)

The methods and purposes of research in physical education. Each student will do the preliminary work for an independent research problem.

581. Master's Thesis (2-5)

Open only to students writing master's thesis. Student should have topic approved before enrolling in course. Prerequisite: PE-M 570 and admission to candidacy.

613. Advanced Tests and Measurements in Physical Education (3)

Principles of construction and administration of physical performance tests. Fundamental statistics leading to interpretation of results of testing. Prerequisite: PE-M 410 or equivalent.

631. Seminar in Physical Education Curriculum (3)

Recognition of and proposed solutions to controversial issues involving organizational setup, legal aspects, and administrative problems of correlating the physical education program with other aspects of the school program. Particular attention given to the practical problems of the individual members of the class.

632. Supervision of Physical Education (3)

Methods and policies of the school supervisor of physical education; critical studies of methods of instruction and procedures in supervision applicable to physical education; Planning and improving programs; in-service training, relationships with administration; types of conferences.
634. Planning and Use of Facilities for Physical Education (3)

Principles, terminology, and standards for planning, construction, use, and maintenance of facilities for the indicated programs. Standard authoritative references studied and critically evaluated.

635. Advanced Administration of Physical Education (3)

The organizational and administrative problems of physical education on the high school level. Aims and objectives and administrative policies.

671. Individual Research Problems (1-3)

Individual investigation of a problem in physical education, health, or recreation that will involve one of the techniques of research. Students will work under a designated member of the staff and must have their problems approved before registering. Prerequisite: PE-M 570.

681. C.A.S. Research and Thesis (3-6)

Open only to students writing thesis for the Certificate of Advanced Study. Topic should be approved before student enrolls in course. May be repeated to a maximum of 6 semester hours. Prerequisite: Demonstrated proficiency in the use of research tools and admission to candidacy for the C.A.S.
Department of Physical Education for Women

The Department of Physical Education for Women offers programs leading to the degree Master of Science in Education and to the Certificate of Advanced Study.

A candidate for an advanced degree in Physical Education is expected to have completed an undergraduate major in Physical Education. Deficiencies at the undergraduate level will be determined by the departmental graduate faculty and must be removed prior to admission to candidacy.

A graduate student must plan her program of study in consultation with an assigned departmental adviser. The program will be submitted for approval to the Graduate Advisory Committee of the Department prior to recommendation for candidacy. All changes in the approved program of courses require action by the Graduate Advisory Committee of the Department.

Non-resident students are strongly advised to arrange appointments with their advisers prior to coming to the campus to plan programs or enroll in graduate courses. Signatures, denoting approval of the adviser, must be secured prior to registration.

MASTER OF SCIENCE IN EDUCATION

Candidates for the degree Master of Science in Education with a major in the Department of Physical Education for Women must successfully complete a minimum of 20 semester hours of graduate work in that Department. Exceptions must be approved by the Graduate Advisory Committee of the Department. A minimum of 10 semester hours of graduate course work must be elected in courses outside the major field. A total of 32 semester hours of graduate credit is required for the degree.

Degree requirements include the following:
1. Removal of all deficiencies prior to admission to candidacy,
2. PE-W 570 and 573,
3. Approval of the research report by the candidate's Advisory Committee,
4. Satisfactory completion of the written comprehensive examination,
5. An oral examination at the option of the candidate's Advisory Committee.

CERTIFICATE OF ADVANCED STUDY

The sixth-year program leading to the Certificate of Advanced Study offers the opportunity to experienced teachers, supervisors, and administrators to develop further competence through advanced study and research.

An applicant for admission to the sixth-year program must have completed an undergraduate major in Physical Education and possess the master's degree or equivalent with a major in Physical Education. Exceptions to these provisions will be reviewed by the advisory committee. Deficiencies determined by the committee must be removed prior to admission to candidacy.

The program of courses must be planned with and approved by an advisory committee from the major department. Admission to candidacy is
dependent upon successful completion of 12 semester hours of work in courses approved for the candidate's program.

Students planning to apply for admission to the sixth-year program with a major in the Department of Physical Education for Women should consult with the Head of the Department.

Course Offerings

445. Elementary Tests and Measurements (2)
Construction, use, and administration of skill and knowledge tests in health and physical education. Evaluation of measurement tools.

446. Health Education Problems (2)
Problems, techniques, and materials related to programs of health education in elementary and secondary schools with specific reference to combined programs of health and physical education.

448. Organization and Supervision of Co-curricular Programs (3)
for Junior and Senior High Schools
Functions and contributions of intramural and extramural activities as part of junior and senior high school physical education programs. Organization of play days, tournaments, demonstrations, and State G.A.A. program.

451. Body Mechanics (3)
Principles and analysis of human motion in everyday life and physical education activities. Analysis and procedure in the control of atypical deviations. Additional laboratory work will be required. Prerequisite: PE-W 313 or equivalent.

452. Physiology of Activity (3)
The functioning of the systems of the body during activity; the physiological adaptations during work; and the lasting changes which result from different levels of performance. Practical experience in selected experimental procedures. Prerequisite: Human Anatomy and Physiology.

453. Adapted Physical Education (3)
Modification of physical education activities to meet the needs of the physically handicapped. Materials, methods, and the development of a program of adapted physical education activities. Prerequisite: Consent of instructor.

460. Folk, Square, and Social Dance in Education (3)
Identification and analysis of methods specific to the traditional dance forms. Opportunities for class organization, teaching, and evaluation.

465. History and Philosophy of Dance (3)
Survey of the historical development of dance from primitive man to the contemporary period. Philosophical concepts and significant trends relative to dance and associated areas.

467. Dance Notation (3)
Historical survey of movement notation method used throughout the world. Theory and practice in writing various methods, with concentration on Labanotation.

468. Seminar in Rhythmic Activities for Elementary and (3)
Junior High Schools
Basic rhythmic movement correlated with creative activities in the school program. Movement in relation to elementary music composition, choral reading, original chants, creative writing, graphic media, percussion, and other accompaniment. Experimentation with various media.
500. History and Philosophy of Physical Education (3)

Historical background of physical education in relation to the cultural patterns of civilization and educational movements. Development of philosophical concepts paralleling educational philosophy. Application of basic philosophy to the instructional program.

510. Applied Anatomy (Kinesiology) (3)

Analysis of joint and muscle action in the balance and movement of the human body in everyday and physical education activities. Prerequisite: Anatomy.

512. Fundamental Basis of Movement (3)

The various systems of the body and their application to body movement. Practical application to physical education activities. Designed primarily for the classroom teacher. Open to Physical Education majors on approval of instructor.

532. Principles of Supervision of Health and Physical Education (3)

Techniques and procedures of supervision in school health and physical education programs. Prerequisite: Teaching experience.

540. Seminar in Elementary School Physical Education (3)

Present day programs and problems related to elementary school physical education.

543. Administration of Health and Physical Education (3)

Methods and procedures of administration in school physical education programs. Prerequisite: Consent of instructor.

544. Problems in Curriculum and Program of Physical Education (3)

A seminar concerned with individual investigation of principles and procedure in developing the physical education program for elementary and secondary schools.

545. Curriculum in Health and Physical Education for Junior (3)

High Schools

Principles and procedures applicable to health and physical education programs at the junior high school level.

546. Evaluation in Health and Physical Education (3)

Uses and limitations of evaluating devices, construction and administration of tools for evaluations, and interpretation of results. Prerequisite: PE-W 445 or consent of instructor.

549. School and Community Recreation (3)

Administrative problems, personnel standards, finance, facilities, and programs. Analysis of organizational plans for cooperative development of school community programs.

550. Camp Administration (3)

Administrative problems, selection of personnel, organization of programs, selection, maintenance, and supervision of facilities.

555. Seminar in Teaching Skills (3)

Practical and theoretical study of methods of teaching physical activities. Scientific foundations of education. Prerequisite: Consent of instructor.

560. Seminar in Rhythms and Dance (3)

Rhythms and dance as a basic educational technique. Designed to assist in planning, teaching, and supervising the rhythmic program. Experiences in the group process. Prerequisite: Consent of instructor.

565. Seminar in Motor Development in Childhood (2-3)

Survey of research on acquisition of motor skills with emphasis on findings pertaining to growth patterns, modifiability, and specificity. Application to methods and principles of teaching physical education in pre-school and elementary school. Development of special study topic for third hour of credit. Prerequisite: PE-W 512 or equivalent.
566. Seminar in Movement Education (2-3)

The approach to movement education as the core of physical education. Designed for teachers of kindergarten through college, including classroom teachers and specialists in physical education. Development of an individual problem and special conferences. Prerequisite: PE-W 302 or 343 or equivalent.

569. Independent Study in Health, Physical Education, and (1-3)

Recreation

Open to qualified students who wish to do advanced study in the areas of health education, physical education, or recreation. Study planned in consultation with advisor. Special conferences and development of report. May be repeated to a maximum of 6 semester hours. Prerequisite: Consent of advisor, and following approval of proposed project.

570. Methods of Research in Physical Education (3)

Introduction to methods and techniques; research design and development; resources; and the research report. Required of departmental majors prior to registration in PE-W 573 or 673. Prerequisite: Consent of advisor.

571. Source Materials in Physical Education and Related Areas (2)

Opportunity for extensive reading in health, physical education, and related areas. Current instructional materials.

572. Current Trends in Physical Education (2)

Contemporary trends in the field of physical education and related areas.

573. Research Problems in Physical Education (1-3)

Opportunity to work individually under guidance. Must be taken by a student doing the research paper. Prerequisite: PE-W 570 or equivalent and approval of research problem by advisory committee.

575. Philosophical Bases of Physical Education and Recreation (3)

To develop a better understanding and appreciation of the purposes, values, nature, scope, and significance of physical education and recreation in America.

612. Physiological Aspects of Motor Activity (3)

The physiological effects of physical activity on the various systems of the human organism. Selected problems for experimentation and research. Prerequisite: Anatomy and physiology.

620. Teaching Physical Education at the College Level (3)

Discussion and evaluation of problems of instruction in physical education on the college level. Development of an individual problem. Prerequisite: Teaching experience and PE-W 396 or equivalent.

632. Advanced Supervision of Physical Education (3)

Principles and practices in supervision. Open only to supervisors of elementary and secondary school programs, cooperating teachers, and school administrators.

636. Program and Facilities for Physical Education (3)

The special facility requirements for physical education programs for girls and women. Principles, standards, functional lay-out, design and construction features for indoor and outdoor facilities. Maintenance, use, scheduling, and supervision of facilities in terms of functional needs. Individual projects. Prerequisite: PE-W 440 or 543 or equivalent.

643. Seminar in Administration of Physical Education, Health (3)

Education, and Recreation Programs

Analysis of problems specifically related to departmental organization in high schools, colleges, and universities. Consideration of individual problems. Prerequisite: Consent of instructor.

673. Advanced Research Problems (1-4)

Must be taken by a student doing the research for the thesis. Approval of the research study must be granted prior to registration. Prerequisite: PE-W 570 or equivalent and approval of research problem by advisory committee.
Department of Special Education

At the present time the Department of Special Education does not offer a graduate major in any of the fields of Special Education. Students working in other areas of Education, who desire to select Special Education as an area of emphasis, may enroll in the Special Education course offerings for graduate credit. Students interested in this area must plan the area of emphasis with their major adviser and in consultation with the Head of the Department of Special Education.

Course Offerings

401. Special Education for Educable Mentally Handicapped Children (3)
   For students who intend to qualify as special teachers of educable mentally handicapped children. Curricula, methods, materials of instruction, and evaluation. Prerequisite: Ed.Sp. 418.

402. Mental Retardation (3)
   An advanced course in mental retardation covering current problems, research, and habilitation procedures. Prerequisite: Consent of instructor.

418. Education of Exceptional Children (3)
   The special educative needs of exceptional children. Methods and programs designed to meet these special needs. Prerequisite: Consent of instructor.

430. Medical Aspects of Crippling Conditions (2)
   Etiology, care and treatment of crippling conditions, and other types of special health problems. Prerequisite: Consent of instructor.

431. Special Education for Physically Handicapped Children (3)
   For students who intend to qualify as special teachers of physically handicapped children. Curricula, methods, materials of instruction, and evaluation. Prerequisite: Ed.Sp. 418, 430.

440. Braille Reading and Writing (3)
   Techniques of braille reading and writing, preparation of braille materials, and braille instructional procedures.

441. Special Education for Blind Children (3)
   For students who intend to qualify as special teachers of blind children. Curricula, methods, materials of instruction, and evaluation. Prerequisite: Ed.Sp. 418.

442. Introduction to the Education of the Visually Limited Child (3)
   Introduction to educational programs, services, and resources for blind and partially seeing children; exploration of historical background, philosophy, sociological and psychological problems in providing service in this area.

443. Orientation and Mobility for Blind Children (3)
   An intensive course designed to provide teachers of blind and partially seeing children with basic techniques which help visually limited children gain skill in orientation and mobility.

444. Braille Teaching Procedures (3)
   Open only to teachers who have a working knowledge of braille. Prerequisite: Ed.Sp. 440 or proficiency in braille. Emphasis on the teaching of academic subjects through the use of grade two braille. Mastery of mathematics and music codes.
450. Special Education for Partially Sighted Children (3)
For students who intend to qualify as special teachers of partially sighted children. Curricula, methods, materials of instruction, and evaluation. Prerequisite: Ed.Sp. 418.

451. Anatomy, Physiology, and Hygiene of the Eye (2)
Medical lectures and laboratory demonstration by an ophthalmologist with educational implications presented by an educator. Demonstration and practice in vision screening. Prerequisite: Ed.Sp. 442.

460. Special Education for Deaf and Partially Deaf Children (3)
For students who intend to qualify as special teachers of deaf and partially deaf children. Curricula, methods, materials of instruction, and evaluation. Prerequisite: Ed.Sp. 418.

480. Psycho-educational Measurements of Exceptional Children (3)
To develop ability in the use and interpretation of educational and psychological tests. Practice is provided which emphasizes identification and problems of measurement of exceptional children. Prerequisite: Educ. 275.

481. Educational Diagnostics for Exceptional Children (3)
Diagnosis in the educational areas. Special attention is given to the basic tool subjects. Development of case studies which involve the identification of specific problems and recommendations for corrective techniques. Prerequisite: Ed.Sp. 418 and 480.

482. Guidance for the Exceptional Child (3)
The social and vocational guidance for exceptional children with local, state, and national resources. Emphasis is placed on the basic guidance techniques as they relate to a particular type of exceptionality. Special attention is directed to the problems of the educable mentally handicapped, physically handicapped, blind, partially sighted, deaf and partially deaf.

490. Special Education for Gifted Children (3)
Characteristics, problems, and techniques of instructing gifted children. Emphasis given to identification, growth and development, curriculum adjustments, creative activities and projects, motivation for leadership training, guidance and evaluation of gifted children. Prerequisite: Consent of the instructor.

499. Seminar in Special Education (3)
To review and analyze the research in Special Education in terms of the special interests of the students.
COLLEGE OF BUSINESS

DEPARTMENTS OF

Accountancy

Business Education

Finance

Management

Marketing
Department of Accountancy

The Departments of Accountancy, Finance, Management, and Marketing offer the following graduate programs in Business Administration:
- Master of Science in Business Administration
- Master of Science in Education in School Business Management*
- Certificate of Advanced Study in Business Administration
- Certificate of Advanced Study in School Business Management*

For specific requirements for these degrees, see Business Administration, p. 212.

Course Offerings

421. Consolidations—Theory and Practice (3)
Accounting principles applied to receiver accounts, statements of affairs, estates and trusts, and considerable emphasis on consolidated statements. Prerequisite: Accy. 321, 322, 330.

440. Auditing Theory (3)
The principles, practices, and procedures followed in the audit of corporate accounts, preparation of related working papers, and the final audit report. Prerequisite: Accy. 321, 322, or concurrent registration.

441A. Auditing Practice (2)
The student is required to prepare a complete set of auditing working papers, write a formal audit report, and prepare the income tax return. Prerequisite: Accy. 440.

441B. Auditing Practice (1)
Succeeding the internship, the student would write an extended research paper and work case problems. Prerequisite: Accy. 458 or concurrent registration.

453. Managerial Accounting and Controllership (2)
Training in managerial accounting and budgetary control where technical information is utilized for interpreting, coordinating, and formulating policies. The functions, principles, and techniques in meeting the objectives of the controller as a business administrator. Prerequisite: Accy. 222.

454. Accounting Systems (3)
The problems involved in the design and installation of accounting systems, including systemizing the clerical department of a business. Classification of accounts, account codes, ledgers, financial reports, flow charts, and function charts. Prerequisite: Accy. 321, 322, 330.

455. Individual and Business Taxation (3)
Federal taxes as they apply to the individual and to business. Considerable emphasis upon the individual return, including pay-as-you-go, social security, declarations, and payments.

* These two programs are offered jointly with the College of Education.
456. Advanced Federal Taxes (3)
Advanced phases of income taxation with particular attention to corporations, partnerships, estates, and research problems. Prerequisite: Accy. 455.

457. Governmental Accounting (2)
Budgets, general funds, bond funds, sinking funds, trusts and agency funds, working capital funds, and special assessment funds. Prerequisite: Accy. 222.

459. Introduction to Data Processing Systems (2-3)
(Also listed as Fin. 459.)
Characteristics of unit-record equipment and electronic data processing. A study of the theoretical and procedural applications to specific fields in business, industry, and education. Laboratory assignments in the use of data processing equipment, supplemented by field trips. Prerequisite: Consent of instructor.

470. Budgetary Control (2)
Budgeting as a principal tool of accounting and management control, covering techniques of general application to most business situations. A practice set provides the transition from the text material to practical applications. Prerequisite: Accy. 222 or equivalent.

471. Advanced Accounting (3)
Development of a framework of accounting concepts for treating partnership formation and dissolution, joint ventures, the specialized income-recognition problems of installment and consignment sales, accounting applications of actuarial science. Prerequisite: Accy. 321, 322.

475. CPA Problems (3-5)
The analysis and review of accounting principles and practices as developed and illustrated in complex selected problems. Discussions of selected problems and theory. Laboratory practice in the solution of typical problems encountered in the CPA examination. Prerequisite: Consent of instructor.

491. Workshop in Accounting Records for Small Business (2-3)
Development of adequate record systems to conform with tax laws and managerial decisions. Short cuts in cases where data processing is impractical. A research project in determining how other businesses in similar situations operate. Prerequisite: Open to business employees, managers, and owners, or by consent of Head of Department.

503. Introduction to Research (3)
To acquaint the student with research which has been completed in departmental area during recent years. The student will become familiar with the methods, techniques, and procedures of research. The prospectus for the qualifying paper may be developed in cooperation with the director of the paper. Prerequisite: At least 6 semester hours of graduate work, or consent of instructor.

504. Independent Research (1-3)
With the approval of the major adviser, a qualified student may select a topic for independent study and prepare an acceptable research report. Only 3 semester hours may be allocated to the qualifying paper. May be repeated to a maximum of 6 semester hours. Prerequisite: Accy. 503 or equivalent.

505. Accounting Theory and Practice for Non-Accounting Majors (3)
A comprehensive survey of accounting theory for non-accounting majors which touches on all areas of general and specialized accounting, such as financial accounting, cost accounting, fund accounting, tax accounting, budgeting, and auditing. Special emphasis is placed upon the contribution accounting makes to business management, planning, and control. Prerequisite: Two semesters of elementary accounting or equivalent or consent of instructor.
532. Cost Accounting Theory (3)

The history and development of cost accounting theory with emphasis upon the current theoretical developments with an examination of controversial issues. Prerequisite: Consent of instructor.

540. Financial Statement Analysis (2-3)

Analysis and interpretation of financial reports with particular reference to the construction of statements, the meaning of accounts, ratios, and other evaluating indices.

543. Advanced Theory of Auditing (3)

An examination of the theoretical framework of auditing with emphasis upon the development and analysis of the philosophy, methodology, and concepts of auditing. Prerequisite: Accy. 440.

561. Computer Theory and Programming (2-3)

(Also listed as Fin. 561.)

Flow charting, block diagramming, coding and programming techniques. Development of an electronic data processing system for business, industry, or schools. Implementation of computer tasks through laboratory exercises in programming and field trips. Prerequisite: Accy. or Fin. 459, or equivalent.

563. Advanced Managerial Accounting and Controllership (3)

Training in managerial accounting and budgetary control. The use of technical information in interpretation, coordination, and implementation of policy. Functions, principles, procedures, and techniques in meeting objectives of the controller. Prerequisite: Consent of instructor.

575. Income Theory (3)

Examination of income theories and their impact on accounting principles and techniques. Review of current literature and pronouncements of the two major accounting associations with considerable emphasis on controversial areas.

603. Seminar in Business Research (3)

A review and evaluation of current research in business giving consideration to the implication of findings for the improvement of business practices. Not for credit on the qualifying paper or thesis. Prerequisite: Accy. 503 or consent of instructor.

604. Independent Study in Business (1-3)

Open to students qualified to do individual study in business. Not for credit on qualifying paper or thesis. May be repeated to a maximum of 6 semester hours. Prerequisite: Consent of instructor.

605. Thesis for Certificate of Advanced Study (3)

Prerequisite: Accy. 503 or equivalent.

663. Seminar in Accounting (3)

The various theories, principles, practices, and procedures in all phases of accounting. Students will investigate independently, and as a group, problems of special interest in the field of accounting.

SCHOOL BUSINESS MANAGEMENT

461. School Office and Personnel Management (2)

Work simplification of office management; administration of non-certificated school personnel; legal and insurance problems of the school business office.

490. Management of Auxiliary Enterprises (2)

Budgeting, cost analysis, accounting, and other problems related to food service management, transportation, and school store operation. Prerequisite: Consent of instructor.
495. Maintenance and Operations in School Business Management (2)

Budgeting, scheduling, cost analysis, including a study of problems of maintaining buildings and grounds. Custodian relationships, scheduling, purchasing, record-keeping, supply administration. Prerequisite: Consent of instructor.

541. Accounting, Statement Analysis, and Budgeting (2-3)

Principles of accounting, including a study of budgeting, payroll administration, bonded indebtedness, accounting for receipts and expenditures. Special attention to accounting for extracurricular funds and analysis of statements. Accounting for auxiliary enterprises such as cafeteria, store, etc.

542. Purchasing and Supply Administration (2)

Principles and procedures of purchasing supplies, equipment, and services. Specifications, quality analysis, sources of information, testing materials and services, determination of standards, inventory control, store management, property accounting, etc.

545. School Business Management (2-3)

Management of auxiliary enterprises, including accounting and financial control. Maintenance of buildings and grounds, personnel and office management, transportation, insurance, investments, administration of supplies and equipment, and administrative relationships.

546. Workshop in School Business Management (1-6)

A concentrated program designed to provide maximum participation by each enrollee and directed by a faculty drawn from many sources, such as school administrators, business managers, boards of education, industry, professors, etc. All phases of business management will be considered, and time will be provided for field trips. Open to school business officials and other school personnel. May be audited for no credit.

602. Research in School Business Management (1-3)

Limited to specific problems in school business management; research to be directed by adviser. Prerequisite: Consent of adviser.

610. Seminar in School Business Management (2-3)

The problems involved in the business administration of schools. Concentrated study and research concerned with all phases of school business management, such as accounting and finance, cafeteria management, purchasing, transportation, building planning and construction.

641. Advanced School Fund Accounting and Budgeting (2-3)

Problems in designing systems and procedures in school fund accounting. The application of data processing systems to payroll, inventories, curriculum, personnel, registration procedures, budget, textbook accounting, and other business office functions. Prerequisite: Accy. 541.
Department of Business Education

The Department of Business Education offers the following graduate programs: a major in Business Education leading to the degree Master of Science in Education, a sixth-year program leading to the Certificate of Advanced Study in Business Education, and a doctoral program leading to the degree Doctor of Education.

MASTER OF SCIENCE IN EDUCATION

Major in Business Education
Students who elect a graduate major in Business Education toward the degree Master of Science in Education must satisfy the following course requirements in Business Education:
(a) 500 or 510, 501, 502.
(b) Plus additional semester hours to make a total of 22 to be selected from courses offered on the 400, 500, and 600 levels in Business Education or Business Administration areas or both.
(c) Earn 10 semester hours outside the Department of Business Education.

CERTIFICATE OF ADVANCED STUDY

Major in Business Education
The Certificate of Advanced Study has been established to provide educational programs beyond the master's degree suited to the needs, interests, abilities, and experiences of qualified candidates for advanced study.
Programs of study are offered leading to the Certificate of Advanced Study in Business Education in conformity with the general requirements of the Graduate School.

DOCTOR OF EDUCATION

Students desiring to arrange graduate programs at the doctoral level in Business Education are to be permitted considerable flexibility in the selection of graduate Business Education courses. The type of program arranged will depend upon the student's undergraduate preparation, his present position, and his plans for the future. The following general requirements for doctoral study apply to all applicants.
I. General Requirements
A. All doctoral candidates in Business Education must meet the undergraduate requirements of this university. If deficiencies exist in either the Business Education or Business Administration areas, such requirements must be fulfilled without graduate credit.
B. Full-time teaching experience for three years, or equivalent, is required for admission to candidacy for a doctor's degree.
C. For admission to the doctoral program, see Graduate School Policy on page 57. The master's degree must have been received prior to admission to candidacy for the doctoral program.
D. **Residence.** At least two consecutive semesters of residence on campus is required. The total program requires the equivalent of three academic years beyond the bachelor's degree. The minimum number of semester hours, including the dissertation, is 96. It is hoped that financial aid in the form of fellowships will be available for some candidates during their period of residence.

E. **Language Requirement.** Candidates are required to take two courses in statistics unless the candidate wishes to present a reading knowledge of one foreign language in lieu of one course in statistics.

F. **Thesis.** A project must be presented which is based on special investigation of a subject of importance to the candidate's professional work. The dissertation may be concerned with a significant phase of educational theory or practice, or it may be a scholarly interpretative study in some important area in the subject-matter field. An oral examination will be given on the thesis.

G. **Examinations.** All candidates will be required to take any psychological examinations prescribed by the University for doctoral candidates. In addition, Business Education candidates will be required to take the Cooperative English test published by the Educational Testing Service (or its equivalent) at the beginning of the first summer or semester on campus. For new students with a master's degree, an achievement test in Business Education will be administered by the Business Education Department.

A written comprehensive examination will be given and read by the student's committee after completion of at least 64 semester hours of graduate course work. This examination will cover the major and related fields which the candidate is presenting. A follow-up oral comprehensive examination will then be administered by the student's committee.

**II. Specific Requirements**

**DOCTOR OF EDUCATION** with a Major in Business Education (at least three years of teaching experience required)

The student's committee will be composed of three people from the Business Education Department, one from Business Administration, one from Education, and one person at large. The chairman of the committee will be a graduate faculty member from the Department of Business Education.

1. **AREA OF CONCENTRATION** .................................. 60 semester hours
   - Major in Business Education .......................... 20-40*
   - Ed.D. Dissertation .................................. 10-25
   - Business Administration (Accounting, General Business, Finance, Marketing, Management, School Business Management) .................. 12-36
   - Fin. 423 Statistics to be included

2. **EDUCATION** ........................................ 12-28 semester hours
   - Recommended Courses
     - Educ. 500 Social Foundations of Education 3
     - Educ. 501 Psychological Foundations of Education 3

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* Electives from Business Administration may be substituted for Business Education, as determined by the student's background and needs.
3. RELATED FIELDS ......................................................... 9-18 semester hours
Minimum Requirements .................. 96 semester hours

Course Offerings

401. Methods of Teaching Bookkeeping (2)
Methods of teaching bookkeeping-accounting on the secondary school and junior college level through an analysis of objectives, approaches, methods of presentation, testing, and materials. Four periods a week for nine weeks.

402. Methods of Teaching Basic Business Subjects (2)
Content, objectives, materials, and specific methods of presentation as they apply to such non-skill subjects as general business, business law, business economics, business organization, etc. Four periods a week for nine weeks.

403. Methods of Teaching Shorthand (2)
Methods of teaching Gregg Shorthand Simplified, guidance and selection of students, motivation, dictation skills, transcription, standards, testing and grading procedures. Four periods a week for nine weeks. Prerequisite: Bus.E. 313; Educ. 302 or equivalent.

404. Methods of Teaching Typewriting (2)
Principles of skill development, motivation, error analysis and remedial treatment, standards and grading, equipment, comparison of textbooks, grade placement. Required of all teaching majors. Four periods a week for nine weeks. Prerequisite: Bus.E. 203.

405. Methods of Teaching Distributive Subjects (2)
Development of distributive education, nature and purpose of instruction, curriculum and course planning, learning process, types of learning activities, sources and storing of instructional materials, measurement of learning, managing individual instruction.

406. Organization and Administration of Office and Distributive (3)
Education Cooperative Programs
Overview of office and distributive education programs, changing philosophy and environment of office and distributive education, planning and organizing a new cooperative program, role of the coordinator in the program, recruitment, selection of training stations and student placement, operation of the cooperative plan, coordination procedures, evaluative program techniques.

407. Directed Occupational Experience (1-4)
Provides office and distributive education teachers and coordinators practical on-the-job experience. Training sponsor development, job analysis, job descriptions, human relations problems, job study guides, job training techniques, occupational experience (reports), job problems, coordination case problems. (May be repeated to a maximum of 4 semester hours.)

408. Coordination Techniques in Cooperative Office and (2)
Distributive Education Programs
Background and development of effective coordination techniques, need for high school and post-high school programs, school and community relations, selection and placement of trainees, selection and development of training stations, occupational analysis, instructional materials and facilities, coordinating trainee career programs, advisory committees, reports and records, adult education, follow-up activities, potential opportunities for program growth.
409. Individual Instruction Techniques in Office and (2) Distributive Education

The nature of individual instruction, learning process, individual instruction methods, developing individual instruction study materials, programmed learning, evaluating, instructional techniques, building an individualized instruction program, sources of materials, special problems in training store and office workers.

415. Consumer Economics (3)

The economic concepts relative to the consumption of goods and the effective use of services, money, and property.

500. Principles and Problems of Business Education (3)

The characteristics of present-day business education in terms of its basic principles and typical practices, problems, and trends.

501. Introduction to Research in Business Education (3)

Research which has been completed in business education during recent years. The methods, techniques, and procedures of research that may be applied to business education.

502. Independent Research in Business Education (1-3)

With the approval of the major adviser, a student may select a project on which to work during the term, either in the field or in the library, meet regularly with the adviser for consultation and guidance, and prepare a research paper as a culmination of study. 2 semester hours must be allocated to the writing of the qualifying paper. May be repeated to a maximum of 6 semester hours.

510. Administration and Supervision of Business Education (3)

General managerial problems of business education in the secondary school, designed for in-service business teachers. Curriculum construction and material, student measurement and evaluation, classroom supervision and rating, physical layout, and administration of supplies, textbooks, and equipment.

515. Guidance in Business Education (2)

Principles and practices in guidance applied to secondary business education students. Educational and vocational counseling and occupational information pertaining to business.

516. Problems in Distributive Education (2-3)

Problems and research in technical subjects, facilities and equipment, selection and placement of students, organization and administration of high school programs, counseling for distributive occupations, coordination characteristics, evaluation of distributive education, coordination techniques, instructional techniques.

518. Improvement of Instruction in Distributive Education (3)

Improvement of techniques and materials of teaching distributive subjects in secondary and post secondary school. An evaluation of classroom materials, methods, research, and current trends through a mutual exchange of ideas and experience.

519. Problems in Business Communications (2)

Objectives, subject matter selection, presentation, achievement standards, and evaluation related to various business communication forms.

520. Improvement of Instruction in Stenography (3)

Teaching techniques and an evaluation of research in methodology for the purpose of improving the instruction in shorthand and transcription. Remedial practices, methods of motivation, and the use of classroom materials will be discussed through an exchange of ideas and experiences.

521. Improvement of Instruction in Typewriting (3)

Methods of improving the techniques of teaching typewriting through an examination of current research and the discussion of such problems as typewriting in the curriculum, objectives, testing and grading for beginning, advanced, and personal-use classes; remedial practices; motivation; and the use of materials and supplies.
522. Teaching Procedures in Bookkeeping and Accounting (3)

The problems and techniques in the teaching of bookkeeping. The place of bookkeeping in the curriculum, methods of motivation, the use of visual aids and practice sets, testing and grading, and problems of individual teachers.

523. Methods and Materials in Teaching Basic Business (3)

Improvement of the techniques of teaching the general and social-business subjects generally found in the secondary school business curriculum. An evaluation of classroom materials, methods, research, and current trends through a mutual exchange of ideas and experiences.

525. Evaluation and Measurement in Business Education (2)

The kinds and uses of tests in both skill subjects and general business subjects; evaluation of available tests in the various business education subjects; construction of tests in the various business subjects.

530. Seminar in Consumer Problems (3)

Personal budgeting; the cooperative movement; consumer standards and grade labels; governmental aids for consumers; the buying of shelter, insurance, and investments; the use of installment buying and other forms of credit.

535. Adult Education Programs in Business Education (2)

Problems in curriculum, selection and training of instructors, and the promotion of evening school courses for adults. Analysis of content of course work offered and the methods of developing a coordinated program.

540. Supervision of Student Teachers in Business Education (2)

For persons who plan to supervise student teachers. Principles and techniques for secondary and college teachers in supervising student teaching and other professional laboratory experiences with emphasis on special problem areas in the business subjects, in both the skill and nonskill courses. Prerequisite: 12 semester hours in Education and teaching experience.

550. Practicum in Office Machines (3)

Objectives, organization, equipment and layout, content, standards, and methods of teaching office practice. Operation of common office machines.

590. Workshop in Business Education: Principles and Problems (2-3)

Principles and problems in business education. Especially designed for experienced business educators and school administrators of secondary and collegiate institutions. Current practices, administration and supervision in business education. Lectures, individual projects, field trips, and laboratory sessions. May be repeated once.

591. Workshop in Methods of Teaching Business Subjects (2-3)

For experienced teachers of business subjects in secondary and collegiate institutions. New developments in the teaching of various business subjects are studied through discussion, demonstration, and practice supplemented by presentations from specialists in the field. May be repeated once.

592. Seminar in Distributive Education (2-3)

For experienced teachers in secondary schools and junior colleges. Current practices, administration, legislation, problems in program development, development of instructional materials, selected problems as determined by class enrollees. Prerequisite: Consent of instructor.

593. Seminar in Cooperative Office Education (2-3)

For experienced teachers in secondary schools and junior colleges. Current practices, administration, legislation, problems in program development, development of instructional materials, selected problems as determined by class enrollees.

594. Distributive Education in the Post Secondary School (2-3)

Organization, curriculum construction, certification requirements, state and federal regulations, mid-management, role in area vocational school, programs in operation in various states, problems of teaching, new concepts and developments.
600. Seminar in Business Education (3)

The principal theories, practices, and procedures of establishing and maintaining relationships between business education and the total school administrative program. Students are expected to investigate problems of special interest within the field of business education.

610. Curriculum Construction in Business Education (2)

Problems and methods in business education curriculum construction in secondary schools, together with underlying philosophies of curriculum making. Study and evaluation of existing city and state business education programs.

612. Preparation of Teachers in Business Education (3)

Issues and problems in business teaching education, curriculum, certification, professional standards, recruiting and selection, experimental programs and research.

631. Seminar in Personal and Family Finance (2)

A concentrated, intensive study in area of personal economic education. Financial planning, consumer buying, housing, taxes, insurance, social security, consumer credit, money and banking, and investments. Lectures by experts in each of these areas. Attention to both personal, and professional application.

640. Business Education in the Post-Secondary School (3)

Organizational plans, curriculum construction, and staffing problems of business colleges, junior colleges, 4-year colleges, and universities.

645. Research in Business Education (3)

Advanced methods and techniques of research involving statistical analysis and data processing employed in investigation of business education problems. Suggested for all doctoral candidates.

650. Independent Study in Business Education (1-4)

Opportunity to pursue individual study and analysis of problems in business education of particular interest and value to the student. For people who have completed the master's degree requirements.

699. Dissertation (10-25)
Department of Finance

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For specific requirements for these degrees, see Business Administration, p. 212.

Course Offerings

416. Life, Accident, and Sickness Insurance (3)
Growth and functions of life insurance; kinds of policies and their uses; surrender values and policy loans; accident and sickness coverages; assessment insurance; group insurance.

417. Property and Casualty Insurance (3)
Principles underlying the underwriting of property and casualty lines of insurance; functions of the various types of insurance; types of hazards and their significance; analysis of the standard fire policy.

418. Real Estate Principles (3)
Real estate ownership and interest, contracts, title transfer, deeds, mortgage instruments, and leases. Brokerage, real estate development, property management, and appraising.

420. Investment Principles (3)
Classification and analysis of the contractual features of securities; the mechanics of investment; tests to be applied in the selection of securities for personal and business portfolios; significant financial institutions; and the determination of the quality of securities based on an analysis of financial statements. Prerequisite: Accy. 222.

423. Business Statistics I (3)
Collection and presentation of data; introduction to frequency distribution, time series, index numbers and correlation, especially as they apply to business situations. Prerequisite: Math. 115 or equivalent.

424. Business Statistics II (3)
Linear regression, sampling theory, critical ratio, degrees of freedom, multiple correlation, and coefficient of determination. Prerequisite: Fin. 423 or comparable course in statistics.

450. Money and Banking (3)
A short historical survey of money and the evolution of banking. The organization and the operation of banks, monetary theory and markets, and the functions of the Federal Reserve System.

451. Commercial Bank Management (3)
An extension of Money and Banking, Fin. 450. Particular emphasis upon the problems of formulating appropriate lending and investment policies. Relationships of the composition and movement of bank deposits to investment and loan policies stressed. Commercial banking problems covered primarily from the standpoint of the management of an individual commercial bank. Prerequisite: Fin. 450 or consent of instructor.

* These two programs are offered jointly with the College of Education.
459. Introduction to Data Processing Systems (2-3)
(Also listed as Accy. 459.)
Characteristics of unit-record equipment and electronic data processing. A study of the theoretical and procedural applications to specific fields in business, industry, and education. Laboratory assignments in the use of data processing equipment, supplemented by field trips. Prerequisite: Consent of instructor.

462. Problems in Business Finance (3)
A critical study of selected problems dealing with promotion and organization, permanent capital, working capital, capital budgeting, dividend policies, and special financial problems. Prerequisite: Fin. 320 or consent of instructor.

480. Corporation Finance I (2)
The nature of corporation finance and its relation to economics, accounting, and law; financial analysis and interpretation; capitalization of earnings; corporate securities, corporate financing and refinancing. Prerequisite: Fin. 320 or consent of instructor.

481. Corporation Finance II (2)
Corporation finance dealing with expansion, consolidation, concentration, and intercorporate relations; the corporate institution and the problem of monopoly and competition; corporate failure and reorganization; and the problems of economic stability. Prerequisite: Fin. 480 or consent of instructor.

483. Cyclical Financial Problems (3)
Business fluctuations with special reference to financial problems, thereby giving the student a practical application of economic theory to financial problems. Prerequisite: Fin. 423 and 450, or consent of instructor.

484. Financial Institutions (3)
The whole structure of financial institutions in the American economy is reviewed. Financial institutions as recipients and as suppliers of funds in financial markets. The role and characteristics of many kinds of financial institutions and the administration of their loan and investment portfolios. Prerequisite: Fin. 320 or consent of instructor.

503. Introduction to Research (3)
To acquaint the student with research which has been completed in departmental area during recent years. The student will become familiar with the methods, techniques, and procedures of research. The prospectus for the qualifying paper may be developed in cooperation with the director of the paper. Prerequisite: At least 6 semester hours of graduate work, or consent of instructor.

504. Independent Research (1-3)
With the approval of the major adviser, a qualified student may select a topic for independent study and prepare an acceptable research report. Only 3 semester hours may be allocated to the qualifying paper. May be repeated to a maximum of 6 semester hours. Prerequisite: Fin. 503 or equivalent.

505. Financing the Business Enterprise (1-3)
For graduate students with little formal background in finance. Financial theory and activities connected with the organization and operation of a business enterprise. The relationship of these financial activities to other aspects of business administration. Financial planning and control, working capital considerations, capital budgeting, sources and uses of funds, valuation of enterprise, and the financial environment in which the firm operates. Prerequisite: Accy. 399 or consent of instructor.

561. Computer Theory and Programming (2-3)
(Also listed as Accy. 561.)
Flow charting, block diagramming, coding and programming techniques. Development of an electronic data processing system for business, industry, or schools. Implementation of computer tasks through laboratory exercises in programming and field trips. Prerequisite: Accy. or Fin. 459, or equivalent.
571. Business Forecasting (1-3)
An analysis of methods of business forecasting as applied to industrial growth patterns, business conditions, and sales. Prerequisite: Fin. 423 or equivalent.

581. Quantitative Analysis in Business Research (3)
The use of statistical measurements in business research and their applications in the design of surveys and experiments in business research. Prerequisite: Fin. 423, Math. 150 or equivalent.

582. Investment Management (3)
The theory of valuation of securities, portfolio management, and problems of security analysis. Prerequisite: Fin. 420 or equivalent.

585. International Business Finance (3)
The methods, practices, and institutions for financing international and foreign business firms including direct and indirect investments. Current developments relating to specific finance and monetary problems. Prerequisite: Fin. 320, or 450 or equivalent.

588. Mortgage Banking (3)
The nature of real estate credit, general and special methods of real estate finance, the mortgage market, principles of mortgage risk analysis, policies and practices of major lending institutions, and the operations of governmental lending and underwriting agencies. Prerequisite: Fin. 418 or consent of instructor.

589. Regional Financial Resources (1-3)
A regional study and analysis, through readings, research data, and sampling of the flow of income, savings, and investment funds. Special emphasis will be placed on financial institutions in the area such as banks, insurance companies, savings and loan associations, finance companies, credit unions, and agricultural credit associations to determine the sources as well as the uses of financial resources.

603. Seminar in Business Research (3)
A review and evaluation of current research in business giving consideration to the implication of findings for the improvement of business practices. Not for credit on the qualifying paper or thesis. Prerequisite: Fin. 503 or consent of instructor.

604. Independent Study in Business (1-3)
Open to students qualified to do individual study in business. Not for credit on qualifying paper or thesis. May be repeated to a maximum of 6 semester hours. Prerequisite: Consent of instructor.

605. Thesis for Certificate of Advanced Study (3)
Prerequisite: Fin. 503 or equivalent.

613. Readings in Finance (1-3)
Special readings useful to a student's individual program and objectives, but not available in regular course offerings. May be repeated to a maximum of 3 semester hours. Prerequisite: Consent of instructor.

662. Seminar in Business Finance (1-3)
A general seminar which includes financial problems peculiar to business finance, investment management, and bank management. The content depends on current developments in finance. In general, financial problems examined both from the viewpoint of business management and that of the economic system.

670. Seminar in Insurance Problems (3)
A graduate seminar for advanced students of insurance dealing with those problems concerned with client-agency and company-agency relations.
Department of Management

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- Master of Science in Education in School Business Management*
- Certificate of Advanced Study in Business Administration
- Certificate of Advanced Study in School Business Management*

For specific requirements for these degrees, see Business Administration, p. 212.

Course Offerings

428. Advanced Production Management (3)
   Issues and problems in production management at the corporation level; emphasis on specific cases and supporting investigations. Prerequisite: Mgt. 327 or consent of instructor.

429. Manufacturing Applications and Controls (3)
   Integration of the characteristics and requirements of process, product, and operation into a total production system. Prerequisite: Mgt. 327 or consent of instructor.

432. Office Management (3)
   Application of the principles of management to the planning, organization, actuating, and controlling of office work; problems of office services, methods, standards, and business forms. Prerequisite: Mgt. 333 or equivalent.

433. Personnel Management and Industrial Relations (3)
   Basic principles and procedures relating to personnel departments; job analysis and evaluation; incentives; employment, placement, and training; employee services. Prerequisite: Mgt. 333 or equivalent.

434. Industrial Management (3)
   An introductory and survey course in industrial management. Background of modern industrial management, industrial records, industrial administration, location and equipment, efficiency techniques, and production and stock control. Prerequisite: Mgt. 333 or consent of instructor.

435. Human Factors in Management (3)
   An analysis, through readings, case discussion, and research data, of the conceptual framework for understanding the human problems in business. Personal efficiency, problems involving human relations, and morale with respect to interpersonal, intergroup, and organizational relationships.

436. Wage and Salary Administration (3)
   Managerial problems in the determination of a wage structure that will enable the business firm to procure and maintain an efficient work force. Structure and operation of labor markets, determination of the wage level of the firm, job evaluation, wage surveys, and federal and state legislation affecting wages.

437. Small Business Management (3)
   The problems of small business relative to personnel, control, finance, marketing, management, and administration in manufacturing, distributive, and service firms.

* These two programs are offered jointly with the College of Education.
438. Labor Law (3)
Legal problems arising from activities of labor organization in industrial controversies. Jurisdiction over disputes, remedies available, regulatory labor legislation, management's responsibility under the law, and resulting changes in management's decision-making power.

439. Time and Motion Analysis (3)
Principles and methods of determination of costs by motion analysis and time studies. Principles of motion as affecting the design of product or service; the effective use of human effort as related to the tools and equipment used in industrial and commercial enterprise. Prerequisite: Mgt. 327 or consent of instructor.

497. Seminar for Executives (1)
The purpose of the seminar is to offer executives the opportunity to broaden their interest in general problems of management as well as to enrich the background of participants. Lectures and discussions on economics, literature, philosophy, art, music, science, history, and world affairs. May be repeated to a maximum of 3 semester hours.

533. Organization and Management Development (3)
Methods of strengthening an organization, development of management programs and management training, review of performance, determination of management reserves and replacements. Prerequisite: Mgt. 333 or equivalent.

534. Administrative Theory and Practice (3)
Analysis of cases dealing with administrative problems and simulation studies with a through review of the literature dealing with managerial problems. Prerequisite: Mgt. 533.

572. Business Policies (2)
An analysis of the problems of business and the functions of management in the determination of business policy in the areas of internal organization, financial policies, operating methods; and the nature, objectives, and elements of business policy determination.

603. Seminar in Business Research (3)
A review and evaluation of current research in business giving consideration to the implication of findings for the improvement of business practices. Not for credit on the qualifying paper or thesis. Prerequisite: Mgt. 503 or consent of instructor.

604. Independent Study in Business (1-3)
Open to students qualified to do individual study in business. Not for credit on qualifying paper or thesis. May be repeated to a maximum of 6 semester hours. Prerequisite: Consent of instructor.

611. Readings in Management (1-3)
Special readings useful to a student's individual program and objective, but not available in regular course offerings. May be repeated to a maximum of 3 semester hours. Prerequisite: Mgt. 533.

612. Readings in Industrial Relations (1-3)
Special readings useful to a student's individual program and objective, but not available in regular course offerings. May be repeated to a maximum of 3 semester hours. Prerequisite: Mgt. 433.

620. Seminar in Personnel Administration and Industrial Relations (3)
Management's problem, opportunities, and policy alternative in personnel management and labor relations. The ramifications that labor organizations have on management decision-making. Prerequisite: Mgt. 433.

650. Seminar in Current Business Problems (3)
Contemporary business conditions and problems facing businessmen in the United States. An analysis and evaluation of current literature pertaining to general business activity and the implications of changing business conditions. Prerequisite: Mgt. 533.
661. Seminar in Management (3-6)

Management problems at the various levels of business organization and the role of management in the determination of business policies and procedures. Prerequisite: Mgt. 533.

BUSINESS LAW

413. Business Law III (3)

A study and review of the basic legal concepts of primary concern to businessmen, administrators of small businesses, accountants, and other specialists. Special emphasis on Federal and Illinois regulatory laws. Prerequisite: Mgt. 311, 312.

511. Legal Aspects of Business (3)

A general seminar in legal problems affecting business in the areas of contracts, personnel, taxation, property, and government regulation of business.

COLLEGE QUALIFYING PAPER REQUIREMENTS

503. Introduction to Research (3)

To acquaint the student with research which has been completed in departmental area during recent years. The student will become familiar with the methods, techniques, and procedures of research. The prospectus for the qualifying paper may be developed in cooperation with the director of the paper. Prerequisite: At least 6 semester hours of graduate work, or consent of instructor.

504. Independent Research (1-3)

With the approval of the major adviser, a qualified student may select a topic for independent study and prepare an acceptable research report. Only 3 semester hours may be allocated to the qualifying paper. May be repeated to a maximum of 6 semester hours. Prerequisite: Mgt. 503 or equivalent.

605. Thesis for Certificate of Advanced Study (3)

Prerequisite: Mgt. 503 or equivalent.
Department of Marketing

The Departments of Accountancy, Finance, Management, and Marketing offer the following graduate programs in Business Administration.

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Certificate of Advanced Study in School Business Management*

For specific requirements for these degrees, see Business Administration p. 212.

Course Offerings

426. Purchasing (3)
Principles and methods used in purchasing materials, supplies, equipment. Purchasing procedures, buying policies, stock planning, market appraisals, and functions of the purchasing agent.

443. Marketing Research (3)
Research methods are applied to the field of marketing, including methods of gathering and interpreting data, presentation of results; market analyses, consumer surveys, and sales forecasting.

445. Retail Merchandising (3)
Techniques and problems of retail merchandising combined to offer an intensive study of mercantile mathematics, statistics, and control. Determination of prices, mark-ups, and pricing policies; analyses of basic profit elements; methods of inventory evaluation and stock control; sales planning; and expense budgeting.

446. Sales Management (2)
The application of principles of sales and marketing management to the solution of problem situations, and a study of the work of sales managers and their role in the marketing process.

447. Public Relations in Business (2)
Public relations as a marketing tool to supplement the advertising efforts of management; business-community relations, customer-company relations, and business-media relations as these are integrated with business management policies.

452. Credits and Collections (3)
The organization, management, and functions of consumer and mercantile credit; the administration and operation of the credit department, including methods of handling credit information and collection procedures.

463. Marketing Problems (3)
Practical marketing problems and cases covering such aspects of distribution as product promotion, channels of distribution, sales promotion, pricing, and the formulation of marketing policies.

467. International Marketing (3)
Principles and methods of international marketing as related to its promotional aspects, international marketing organization, and technical and financial features of marketing products abroad.

* These two programs are offered jointly with the College of Education.
498. International Marketing Problems (3)

Case study analysis is used with particular emphasis upon foreign supermarketing, advertising, product introduction, personnel and financial problems, and the organizational procedure of overseas business development. Prerequisite: Mrktg. 367, or consent of instructor.

503. Introduction to Research (3)

To acquaint the student with research which has been completed in departmental area during recent years. The student will become familiar with the methods, techniques, and procedures of research. The prospectus for the qualifying paper may be developed in cooperation with the director of the paper.

504. Independent Research (1-3)

With the approval of the major adviser, a qualified student may select a topic for independent study and prepare an acceptable research report. Only 3 semester hours may be allocated to the qualifying paper. May be repeated to a maximum of 6 semester hours. Prerequisite: Mrktg. 503 or equivalent.

552. Retail Management (3)

Retail distribution and the problems of retail management under current conditions. Problems involving decision-making in general retail policies, pricing, merchandise management, control, personnel, and store operation.

554. Marketing Management (3)

An analysis of the problems facing marketing managers in the formulation of marketing policies with particular reference to these areas of decision making in sales management, promotion, product development, and marketing channels.

556. Seminar in International Marketing (3)

Provides research training in the administrative relationships of international marketing operations. Particular emphasis given to research on supermarketing, advertising, product introduction, personnel and financial problems, organizational procedure and overseas business development. Prerequisite: Mrktg. 467 or consent of instructor.

558. Advertising Management (3)

The uses of advertising by business. Emphasis given to the patterns of marketing strategy and its various functions; problems in developing and evaluating advertising programs; and management’s relationship to advertising agencies.

603. Seminar in Business Research (3)

A review and evaluation of current research in business, giving consideration to the implication of findings for the improvement of business practices. Not for credit on the qualifying paper or thesis. Prerequisite: Mrktg. 503 or consent of instructor.

604. Independent Study in Business (1-3)

Open to students qualified to do individual study in business. Not for credit on qualifying paper or thesis. May be repeated to a maximum of 6 semester hours. Prerequisite: Consent of instructor.

605. Thesis for Certificate of Advanced Study (3)

Prerequisite: Mrktg. 503 or equivalent.

612. Readings in Marketing (1)

Special readings useful to a student’s individual program and objective, but not available in regular course offerings. May be repeated to a maximum of 3 semester hours. Prerequisite: Consent of instructor.

660. Seminar in Marketing (3-6)

The problems involved in the performance of the marketing functions at the various levels of distribution and the problems of policy determination by the manufacturer, the wholesaler, and the retailer.
BUSINESS ADMINISTRATION

The Departments of Accountancy, Finance, Management, and Marketing offer the following graduate programs in Business Administration:

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- Certificate of Advanced Study in School Business Management*

MASTER’S DEGREE PROGRAMS

Major in Business Administration

The purpose of the Master of Science with a major in Business Administration is to provide an opportunity for specialization in the areas of Accountancy, Finance, Management, and Marketing as well as to develop a comprehensive understanding at the graduate level of the functions and nature of business.

Students who major in Business Administration must select a total of 32 semester hours in the College of Business and related subject fields. A qualifying paper is required of all candidates for this degree. The course requirements will be determined by consultation with the candidate’s adviser.

Area Major in School Business Management

The recommended courses for School Business Management are:

Accountancy: 459, 461, 490, 495, 541, 542, 545, 546, 602, 610, 641
Management: 503, 504, 603, 604
Education: 500, 501, 551, 553, 572, 603, 654, 655, 656, 657, 695A

The course sequence will be determined through joint advisement in the College of Business and the College of Education, based on the previous preparation and experience of the student. A student in this program may expect to devote about one-half of his time to study in Business Administration and one-half in Education.

CERTIFICATE OF ADVANCED STUDY PROGRAMS

Major in Business Administration

Area Major in School Business Management**

The Certificate of Advanced Study has been established to provide educational programs beyond the master’s degree suited to the needs, interests, abilities, and experiences of qualified candidates for advanced study.

Programs of study are offered leading to the Certificate of Advanced Study in Business Administration and School Business Management, in conformity with the general requirements of the Graduate School.

The course sequences for each program of study will be determined through consultation with the candidate’s adviser.

* These two programs are offered jointly with the College of Education.
** For special requirements for the Certificate of Advanced Study, see Department of Education, pages 170-171.
TEACHING IN THE JUNIOR COLLEGES

The College of Business has programs leading to certification of teachers in the junior colleges. By following programs combining business education and business administration, graduate students are in a position to be certified by the State of Illinois to teach at the junior college level.

UNIVERSITY SEMINARS

401. Foreign Study Program (1-9)

A study tour of a selected area of the world. Each tour will be under the supervision of one or more faculty members of Northern Illinois University. The purpose of the tour is to provide students, through personal experience, opportunities to increase their knowledge of the educational, social, cultural, and physical environment of other peoples. Lectures and meetings are arranged with qualified people who will discuss these aspects of life. Visits of sufficient duration to observe important places of interest and activities of special interest will be made. Specific details regarding cost, dates, and countries to be visited will be published in a special announcement. Specific requirements for University credit will be announced for each seminar.

500. Interdisciplinary Seminar: The Human Enterprise (3)

For adults and professional people who wish to reinforce their backgrounds in the arts and sciences. Lectures, readings, discussions, and critiques, based on concepts and insights from the natural sciences, psychology, social sciences, philosophy, literature, art, and music, concerning the nature of man and the human enterprise. Various phases of the course conducted by specialists from the disciplines represented. Prerequisite: A college degree.
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NORTHERN ILLINOIS UNIVERSITY FOUNDATION

The Northern Illinois University Foundation is a non-profit corporation formed to assist in developing and increasing the facilities of the University and to encourage gifts of money, property, works of art, or other material having educational and historical value. It receives, holds, and administers such gifts with the primary object of serving purposes other than those for which the State of Illinois ordinarily makes sufficient appropriations. Managed by a board of directors consisting of the President of the University, the Chairman of the Teachers College Board, the Business Manager of the University, a member elected by the Alumni Association, and at least three others, it is empowered to transfer to the University any property assigned or conveyed to it.

One of the Foundation's major functions is the operation of a loan service for students. This service, which is located in the office of the secretary-treasurer, enables deserving students to borrow, at a low rate of interest, on personal notes.

Additional information may be secured from the Secretary-Treasurer, Z. H. Dorland.

SUGGESTED FORMS

The following are suggested as appropriate forms for bequests to the Northern Illinois University Foundation, Incorporated:

GENERAL

I give and bequeath to THE NORTHERN ILLINOIS UNIVERSITY FOUNDATION, INCORPORATED, a corporation existing under the laws of the State of Illinois, the sum of ___________ dollars to be used for general purposes to The University at the discretion of the Foundation.

SPECIFIC

I give and bequeath to THE NORTHERN ILLINOIS UNIVERSITY FOUNDATION, INCORPORATED, a corporation existing under the laws of the State of Illinois, the sum of ___________ dollars and direct that the income therefrom shall be used only for the following purpose or purposes:

(Here specify in detail the purpose or purposes.) _________________________
University Publications

The Undergraduate Catalog contains a detailed statement of faculty, equipment, courses, curricula, requirements, expenses, and objectives. It is a comprehensive guide to those who expect to enter Northern Illinois University.

The Graduate Catalog contains a detailed statement of equipment, courses, curricula, requirements, expenses, and objectives of the Graduate School. It contains information relative to requirements for the earning of the degrees Master of Arts, Master of Science, Master of Science in Education, Master of Music, Master of Fine Arts, Certificate of Advanced Study, Doctor of Education, and Doctor of Philosophy.

The Summer Session Catalog lists the members of the faculty, course offerings, expenses, and general regulations governing the summer session. It is published each spring.

The Evening College Bulletin lists the schedule of evening and Saturday classes and gives information concerning purposes, admission, credit, registration, and fees. It is published each semester.

The Extension Service Bulletin lists the schedule of extension classes and gives information concerning fees and registration. It is published for each semester and summer.

You and Northern Illinois University is an illustrated booklet that gives general information on admission, programs, fees and financial aids, housing, and student organizations.

Any of the above publications may be obtained by writing to Mrs. Eugenie Walker, Director of Admissions.

Northern Illinois News Items is published monthly and sent to parents of Northern's students and a selected list of others interested in the University. It contains general news items and pictures about the University.

COVER DESIGN—James Pearson, B.S.Ed., M.S.Ed., M.F.A.
Northern Illinois University

Educational Bulletin Service

The Educational Bulletin Service publishes and distributes, through the University Center Bookstore, at cost, bulletins designed to provide practical helps for classroom teachers in the elementary and secondary schools. A list of bulletin titles may be obtained in the Bookstore. Additional information may be secured from the Chairman, Educational Bulletin Service Committee, R. E. Schreiber.