

1987

Graduate Academic Catalog (1987-88)

University of Nebraska at Omaha

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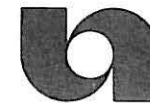
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University of Nebraska at Omaha Graduate Catalog 1987-88

This *Graduate Catalog* is provided by the Graduate Faculty of the University of Nebraska at Omaha in the hope that it will be a source of information to you on the graduate programs available through our University. We are proud of our University and of its programs. We encourage you to become acquainted with us and with the many resources available to the community through the University. We have tried to include as much information as possible, but obviously we could not include everything. If you have questions which are not answered here, please feel free to call on the Office of Graduate Studies (204 Eppley Administration Building) (402) 554-2341.

Margaret P. Gessaman

Margaret P. Gessaman, Ph.D.
Dean, Graduate Studies and Research

The Official Catalog of
The University of Nebraska at Omaha
Volume XLIII, Number 2
\$1.00

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BASIC INFORMATION AND SUMMARIES

GRADUATE DEGREES OFFERED

All graduate degrees are awarded by the University of Nebraska, with each campus having the responsibility of establishing and maintaining individual standards and requirements. All departmental requirements must be in accord with the policies of the Graduate College of the University of Nebraska.

Master of Arts or Master of Science (MA,MS)

A departmental or interdepartmental program for either the Master of Arts or Master of Science degree as approved by the Graduate Faculty will normally be arranged to conform to one of the following patterns:

- Option I. A 30 semester-hour thesis program (including at least six hours of thesis and a minimum of twenty-four hours of non-thesis course work) as determined by the cognizant Graduate Program Committee.
- Option II. A 36 semester-hour non-thesis program as determined by the cognizant Graduate Program Committee.

Master of Arts for Teachers of Mathematics (MAT)

This is a specialized graduate degree designed to provide secondary school mathematics teachers with more depth in mathematics combined with a core of relevant professional courses in education.

Master of Business Administration (MBA)

This is a professional graduate degree designed to provide a broad educational experience for students who wish to assume positions of responsibility in business.

Master of Music (MM)

This is a professional graduate degree designed to provide further professional development for the performer or additional study for the music educator.

Master of Professional Accounting

This is a professional graduate degree designed to provide an educational experience as a basis for a career in professional accounting.

Master of Public Administration

This is a professional graduate degree designed to provide broad educational experience for students who wish to assume positions of responsibility in government.

Master of Social Work (MSW)

This is a professional graduate degree designed to provide knowledge, values and skills enabling the practitioner to intervene in behalf of individuals, families, groups and societal systems.

Specialist in Education (EdS)

The Specialist in Education degree is an advanced graduate degree, involving a minimum of one year of study beyond the Master's degree. It is designed to offer additional study for professional educators.



Dean Gessman and the
UNO Graduate Council

DIRECTORY OF GRADUATE PROGRAMS

Departments or areas which have been authorized to offer graduate degrees and the degree(s) available in each are as follows:

Biology—MA, MS
 Business Administration—MBA
 Civil Engineering—MS*
 Communication—MA
 Counseling and Special Education
 Counseling and Guidance
 Agency Counseling—MA, MS
 College Student Personnel Services—MA, MS
 Gerontology—MA, MS
 School Counseling/Elementary Level—MA, MS
 School Counseling/Secondary Level—MA, MS
 Special Education
 Mental Retardation—MA
 Speech Pathology—MA, MS
 Resource Teaching and Learning Disabilities—MS
 Teaching the Emotionally Disturbed—MS
 Teaching the Hearing Impaired—MS
 Teaching the Mentally Retarded—MS
 Criminal Justice—MA, MS
 Dramatic Arts—MA
 Economics—MA, MS
 Educational Administration and Supervision
 Elementary Administration—MS
 Secondary Administration—MS
 Educational Administration—EdS
 English—MA
 Geography—MA
 Health, Physical Education and Recreation—MA, MS
 History—MA
 Mathematics—MA, MS, MAT
 Music—MM
 Political Science—MA, MS
 Professional Accounting—Master of Professional Accounting
 Psychology
 Educational Psychology—MS
 Industrial/Organizational Psychology—MS
 Psychology—MA
 School Psychology—EdS, Certificate
 Developmental Psychobiology—Ph.D.**
 Experimental Child Psychology—Ph.D.**
 Industrial/Organizational Psychology—Ph.D.**
 Public Administration
 Public Administration—Master of Public Administration
 Urban Studies—MS
 Social Work—MSW
 Sociology
 Applied Sociology—MS
 Sociology—MA
 Teacher Education
 Elementary Education—MA, MS
 Secondary Education—MA, MS
 Reading—MS
 Urban Education—MS

Additional departments or areas have been authorized to offer courses for graduate credit, a minor or a graduate certificate as follows:

Art—Minor
 Chemistry—Minor
 Engineering Mechanics—Minor*
 Foreign Languages
 French—Minor
 German—Minor
 Spanish—Minor
 Gerontology—Minor, Graduate Certificate
 Home Economics—Minor*
 Philosophy and Religion

Physics—Minor

* Application for admission to graduate studies in this program must be made through the Office of Graduate Studies at the University of Nebraska-Lincoln using the UN-L Application for Admission form.

** The Ph.D. with specialization in Industrial/Organizational Psychology or Developmental Psychobiology is offered in conjunction with the Department of Psychology at the University of Nebraska-Lincoln. The Ph.D. with a specialization in Experimental Child Psychology is offered in conjunction with the Department of Educational Psychology and Measurements at the University of Nebraska-Lincoln. Application for admission to any of these programs must be made through the Office of Graduate Studies on the UN-L campus using a UN-L Application for Admission form.

In addition to the formal programs listed above, the University offers graduate work leading to selected endorsements/certificates in professional education. Information can be obtained from the College of Education. Students may also pursue graduate work as Unclassified students simply for the purpose of personal or professional advancement if admitted to graduate studies by a department/area. The latter opportunity is limited, and the student should inquire before trying to enroll.

SUMMARIES OF POLICIES AND PROCEDURES IN GRADUATE STUDIES

The following summaries are presented in the hope that they will provide convenient checklists for students and for graduate student adviser. The summaries contain the critical information for students in all programs. Students should contact their advisers or the department/area Graduate Program Committee for specific information with regard to their programs. Details on all policies and procedures can be found in the text of this *Graduate Catalog*.

UNIVERSITY REGULATIONS

The student is advised to be familiar with the academic regulations of the University and of the Graduate College; the student is expected to assume full responsibility for knowing the relevant academic requirements. The student is also responsible for complying with all regulations of the University, the Graduate College and the departments of instruction as well as for meeting all degree requirements and deadlines.

NOTICE

Acceptance of registration by the University of Nebraska and admission to any educational program of the University does not constitute a contract or warranty that the University will continue indefinitely to offer the program in which a student is enrolled. The University expressly reserves the right to change, phase out, or discontinue any program.

The listing of courses contained in any University bulletin, catalog or schedule is by way of announcement only and shall not be regarded as an offer of contract. The University expressly reserves the right to (1) add or delete courses from its offerings, (2) change times or locations of courses or programs, (3) change academic calendars without notice, (4) cancel any course for insufficient registrations, or (5) revise or change rules, charges, fees, schedules, courses, requirements for degrees and any other policy or regulation affecting students, including, but not limited to, evaluation standards, whenever the same is considered to be in the best interests of the University.

Every reasonable effort will be made to enable students who maintain continuous enrollment in pursuing their degrees to follow the policies and requirements in effect at the time of their original admission. (To maintain continuous enrollment a student must do one of the following: (1) enroll in both semesters of every academic year with summer enrollment optional or (2) enroll only in the summer and in at least one summer session each year.) Students who have not maintained continuous enrollment and who have not been admitted to candidacy for the degree shall follow the regulations in the most recent *Graduate Catalog*. Students who have not maintained continuous enrollment and who have been admitted to candidacy for the degree shall follow the regulations in the *Graduate Catalog* in effect at the time at which they were admitted to candidacy. All students are responsible for being aware of all changes in regulations which affect their graduate work.

SUMMARY OF ADMISSION PROCEDURES

1. In order to receive graduate credit for courses taken at the University, a student must have been admitted to graduate studies at UNO. Exceptions can be made for students admitted to graduate studies on another campus of the University of Nebraska or for senior students nearing the completion of their undergraduate work; inquiries should be made in the Office of Graduate Studies.
2. In addition to the points listed below, international students must provide the Office of Admissions with letters of recommendation, statements of available financial support and evidence of ability to speak and write the English language (TOEFL).

3. Anyone wishing to apply for admission to graduate studies at UNO should:
 - Obtain an Application for Admission to graduate studies at UNO from the Office of Admissions; University of Nebraska at Omaha; 103 Eppley Administration Building; Omaha, Nebraska 68182.
 - Submit the completed application form with all required fees and documentation to the Office of Admissions, being careful to observe all deadlines.
 - Arrange to have an official transcript of all previously taken undergraduate or graduate coursework sent directly to the Office of Admissions.
 - Read this *Graduate Catalog* carefully to learn what the department/area may require for admission in addition to the admission application form and transcripts.
 - Arrange to have the official scores on all required aptitude or advanced knowledge tests (GRE, GMAT or MAT) sent to the Office of Graduate Studies; applicants for Unclassified admission are not required to submit these test scores.
4. When the file in the Office of Admissions is complete, the Office will forward the file to the appropriate department/area for review. The applicant will be notified by mail when this is done.
5. The recommendation by the department/area Graduate Program Committee on admission of the applicant will be sent to the Dean for Graduate Studies and Research. All recommendations on admission are subject to the approval of the Dean.
6. The Office of Graduate Studies will officially notify each applicant by mail of acceptance or denial of the application. This notification will include the classification of admission, identified deficiencies, assignment of adviser, reason for denial (if appropriate), etc.
7. All applicants admitted to UNO are sent an official Certificate of Admission to graduate studies when the admission process is complete. The Certificate of Admission is issued by the Office of Admissions and is the only recognized document confirming admission status at the University.

SUMMARY OF PROCEDURES FOR GRADUATE STUDENTS

1. **Graduate students should meet regularly with their assigned advisers** or with other departmentally approved advisers. At a minimum, before each registration period the students must meet with an adviser to arrange a class schedule for the upcoming semester; an adviser's signature or computer card is required for each registration.
2. In order to be eligible to receive a graduate degree, **students must be formally admitted to candidacy for the degree**; this is a process distinct from admission to graduate studies in the degree program. Students should file an application for admission to candidacy for the degree after successful completion of between six and the last eighteen graduate hours taken at the University of Nebraska. See the section entitled, "Admission to Candidacy for the Degree" for further information. **Official notification of admission to candidacy for the degree will be mailed to students by the Office of Graduate Studies.** If such notification is not received within a reasonable time, the students should call the Office of Graduate Studies.
3. If the approved plan of study includes a thesis, students should follow all instructions included in the section entitled, "Thesis Option".
4. Students should contact the Office of Graduate Studies at least once a semester to insure that their files are complete and in order.
5. **All students are required to pass final comprehensive examinations before receiving a degree.** The final comprehensive examinations are normally taken near the end of the degree program. Students should notify the department/area Graduate Program Committee at the beginning of the semester in which they plan to take the examinations.
6. **During what is expected to be the semester of graduation and prior to the posted deadline students should make application in the Office of the Registrar for the conferral of the degree.** If application is made in one semester, but requirements are not met in that semester, reapplication must be made in the next semester; no additional fee is required to reactivate the application.
7. Students must pay all fees and fines and satisfy all obligations to the University at least twelve working days before conferral of the degree.
8. Students wishing to participate in the Commencement ceremony must order a cap, gown and hood from the Bookstore.

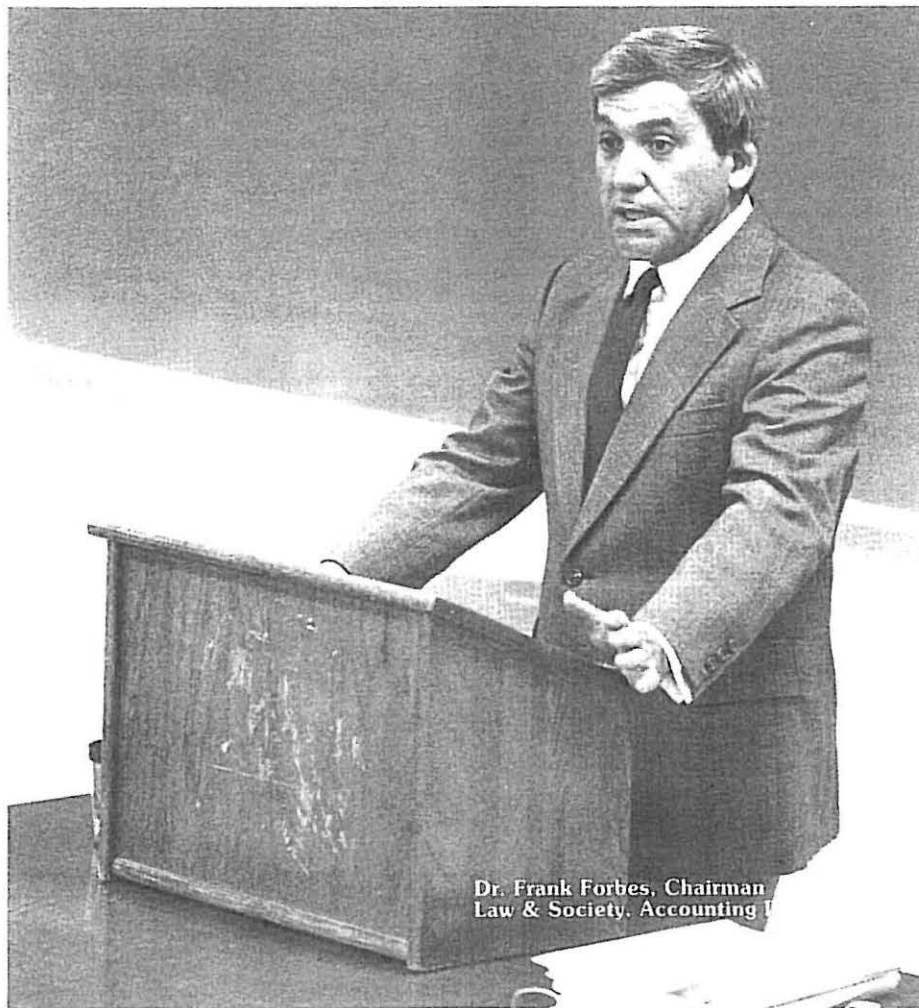
GRADUATION CHECKLIST

- Apply for graduation. See Academic calendar in this catalog or contact the Registrar's Office for deadline. If you apply for graduation and do not complete all of the requirements in time to graduate, notify the Graduate Studies Office as soon as possible so that your name can be removed from the graduation list. You must reapply for graduation the following term; no additional fee is charged to reactivate your application.
- Make arrangements to take final comprehensive examinations with your department.

- Incompletes from a previous term must be completed so that the grade will be in the Graduate Studies Office at least 12 working days before graduation.
- Pay all fees and fines and satisfy all obligations to the University at least 12 working days before graduation.
- Order a cap, gown, and hood from the Bookstore.

ADD THE FOLLOWING IF YOUR APPROVED PROGRAM INCLUDES A THESIS OR A FIELD PROJECT:

- Obtain a copy of "Instructions for the Preparation of Thesis" from the Graduate Studies Office.
- A "Supervisory Committee for a Thesis Program" form must be on file at the Graduate Studies Office.
- Make arrangements with your department for oral exams and defense of thesis or field project.
- Call the Graduate Studies Office before the defense and a copy of the Degree Completion Report will be sent to your department. This must be signed by the Supervisory Committee after approval of the thesis. Return form to Graduate Studies Office promptly.
- The approved thesis or field project must be deposited in the Graduate Studies Office together with the proper number of copies at least 12 working days before graduation. The thesis binding fee must be paid in the Registrar's Office prior to depositing the thesis/field project.



Dr. Frank Forbes, Chairman
Law & Society, Accounting I

ACADEMIC CALENDAR

First Semester, 1987-88

July 2	Last day for submitting credentials for admission to Graduate Studies for First Semester 1987-88.
July 3	Holiday. University closed.
Aug. 17-21	Registration
Aug. 24	First semester begins at 7:00 a.m. both day and evening classes.
Aug. 24-28	Change of class schedules.
Aug. 28	Last day until 4:00 p.m. to: Add a course to student's schedule; Add an "audit" course; Change to "CR/NC" grade in a course.
Sept. 7	Vacation; no classes. University closed.
Sept. 8	Vacation; no classes.
Oct. 2	Last day for filing applications for degrees to be conferred in December.
Nov. 6	Last day until 4:00 p.m. to: Drop a course with a grade of "W"; Change a course to "audit" credit; Change from "CR/NC" to grade registration in a course.
Nov. 25-29	Thanksgiving vacation; no classes.
Nov. 26-27	University closed.
Nov. 30	Classes resume at 7:00 a.m.
Dec. 4	Last day for submitting credentials for admission to Graduate Studies for Second Semester 1987-88.
Dec. 12	Last day of Classes.
Dec. 12-18	Finals.
Dec. 19	Commencement.
Dec. 24-Jan. 3	Holiday. University closed.

Inter-Session

Dec. 28-Jan. 9 Special course offerings.

Second Semester 1987-88

Jan. 1	Holiday. University closed.
Jan. 5-8	Registration.
Jan. 11	Second Semester begins at 7:00 a.m. both day and evening classes.
Jan. 11-15	Change of class schedule.
Jan. 15	Last day until 4:00 p.m. to: Add a course to student's schedule; Add an "audit" course; Change to "CR/NC" grade in a course.
March 4	Last day for filing applications for degrees to be conferred in May.
March 20-27	Spring Vacation; no classes.
March 28	Classes resume 7:00 A.M.
April 1	Last day until 4:00 p.m. to: Drop a course with a grade of "W"; Change a course to "audit" credit; Change from "CR/NC" to grade registration in a course.
April 7	Last day for submitting credentials for admission to Graduate Studies for the Evening Summer Session 1988.
April 10	Honors Day.
April 30	Last day of classes.
May 2-6	Finals.
May 7	Commencement.
May 9	Last day for filing credentials for admission to Graduate Studies for the First Summer Session, 1988.
May 30	Memorial Day; University closed.

Summer Session 1988

May 16-July 1	Evening Session "A"
June 8-9	Registration.
June 10	Last day for submitting credentials for admission to Graduate Studies for Second Summer Session, 1988.
June 13-July 15	First Summer Session.
June 13-15	Change of class schedule.
July 25-Aug. 12	Evening Session "C"
July 4	Holiday; University closed.
July 8	Last day for filing applications for degrees to be conferred August 20, 1988.
July 18-Aug. 19	Last day for submitting credentials for admission to Graduate Studies for the Fall Semester, 1988-89.
Aug. 20	Second Summer Session. Summer Commencement.

*The above dates are subject to change.

ADMINISTRATION
UNIVERSITY OF NEBRASKA
AT OMAHA

THE BOARD OF REGENTS

Donald C. Fricke, D.D.S. <i>Lincoln</i>	Robert Koeftoot, M.D. <i>Grand Island</i>	John Payne, <i>Kearney</i>
Jay Banzel, <i>UNMC Student Rep.</i>	Chris Scudder, <i>UNL Student Rep.</i>	Dr. Don Blanke, D.D.S., <i>McCook</i>
Kermit Hansen, <i>Omaha</i>	James H. Moylan, <i>Omaha (Vice Chairman)</i>	Margaret Robinson, <i>Norfolk (Chair)</i>
R. L. Kerrigan <i>UNO Student Rep.</i>	Nancy Hoch, <i>Nebraska City</i>	William Swanson, <i>Corporate Secretary</i>
	Ronald W. Roskens, Ph.D. <i>President</i> <i>The University of Nebraska</i>	

ADMINISTRATION

Del D. Weber, Ed.D. *Chancellor*

Otto F. Bauer, Ph.D. <i>Vice Chancellor</i> <i>for Academic Affairs</i>	Gary L. Camico, M.B.A. <i>Vice Chancellor for</i> <i>Business and Finance</i>
Richard E. Hoover, Ph.D. <i>Vice Chancellor for Educational</i> <i>and Student Services</i>	Robert E. Thompson, M.A. <i>Director,</i> <i>Intercollegiate Athletics</i>
Louis F. Cartier, Jr., M.A. <i>Director, University Relations</i>	Richard M. Snowden, M.P.A. <i>Director, Campus Computing</i>

COLLEGES

John M. Newton, Ph.D. <i>Dean</i> <i>College of Arts and Sciences</i>	David W. Hinton, Ph.D. <i>Dean</i> <i>College of Public Affairs</i> <i>and Community Service</i>
Stanley R. Liberty, Ph.D. <i>Dean</i> <i>College of Engineering</i> <i>and Technology</i>	Karen Craig, Ph.D. <i>Dean</i> <i>College of Home Economics</i>
Richard B. Flynn, Ed.D. <i>Dean</i> <i>College of Education</i>	David L. Shrader, D.M.A. <i>Dean</i> <i>College of Fine Arts</i>
Larry R. Trussell, Ph.D. <i>Dean</i> <i>College of Business Administration</i>	Margaret P. Gessaman, Ph.D. <i>Dean</i> <i>Graduate Studies and Research</i>
Alan S. Hackel, Ph.D. <i>Dean</i> <i>College of Continuing Studies</i>	Robert S. Runyon, M.L.S. <i>Director</i> <i>Library</i>

ADMINISTRATION OF GRADUATE STUDIES

The administrative Office of Graduate Studies on the UNO campus is located in Room 204 of the Eppley Administration Building. The office of the UNO Dean for Graduate Studies and Research, general information material and copies of all required forms can be found there. The office of the Dean of the Graduate College, University of Nebraska, is located in Room 227 of Varner Hall, Lincoln.

ORGANIZATION OF GRADUATE STUDIES

University of Nebraska

In 1971, at the direction of the Board of Regents, the Graduate College of the University of Nebraska (UN-L and UNMC) and the Graduate College of the University of Nebraska at Omaha were merged to form one University-wide Graduate College with one Graduate Faculty. The ultimate academic authority for all graduate programs within the University is vested in the approximately 1500 Members of the Graduate Faculty.

The Bylaws of the Board of Regents state that the Executive Vice President and Provost of the University of Nebraska shall serve as Dean of the University-wide Graduate College and as presiding officer of the Graduate Faculty and councils thereof. The legislative and academic authority of the Graduate Faculty is vested in the Executive Graduate Council, comprising thirty Members elected by the faculty of the Graduate College and five graduate student members. Specific responsibilities of the Dean and of the Executive Graduate Council can be found in the "University of Nebraska Graduate College Governance Document."

University of Nebraska at Omaha

On each campus of the University on which graduate programs are offered, there is a campus Dean for Graduate Studies, a campus Graduate Faculty and a campus Graduate Council. The UNO Dean for Graduate Studies and Research administers graduate programs and policies on that campus; serves as presiding officer of the UNO Graduate Faculty and the UNO Graduate Council; and forwards to the Dean of the Graduate College matters which are of University-wide concern. The UNO Graduate Faculty consists of those members of the University-wide Graduate Faculty administratively assigned to UNO. The UNO Graduate Council acts as an advisory body to the UNO Dean for Graduate Studies and Research, coordinates the graduate studies on the UNO campus and recommends to the Executive Graduate Council actions affecting students and programs on more than one campus. This Council consists of fifteen elected faculty members and three graduate student members. Specific responsibilities of the Dean of Graduate Studies and Research and of the UNO Graduate Council may be found in the "Organization of Graduate Studies: University of Nebraska at Omaha."

GRADUATE FACULTY

Graduate Faculty Members

Responsibilities: Graduate Faculty Members may teach graduate courses, supervise students enrolled in subdoctoral graduate programs, serve on the final examining committees for these students, and vote on any matters presented to the Graduate Faculty including the election of the Executive Graduate Council and the Graduate Council for their specific campus.

Criteria: The following requirements for the nomination of Graduate Faculty Members were adopted by the Graduate Faculty to establish consistent standards for faculty members eligible for appointment to carry out these assignments:

1. The nominee must hold the rank of Assistant Professor or above.
2. The nominee must hold the terminal degree normally accepted for academic employment in the discipline or its clear equivalent as determined by the Graduate Program Committee of the nominee's department or interdepartmental area.
3. The nominee will as part of his or her regular duties be actively involved in graduate student research and/or graduate teaching.
4. The nominee must have demonstrated clear evidence of scholarly activity and potential beyond teaching. This evidence must be provided by the nominator.

Graduate Faculty Fellows

Responsibilities: Graduate Faculty Fellows may teach graduate courses, supervise and serve on supervisory committees for students working toward post-baccalaureate degrees, vote on all matters presented to the Graduate Faculty and vote on nominations for Graduate Faculty Fellows.

Criteria: The following requirements for the nomination of Graduate Faculty Fellows were adopted by the Executive Graduate Council to establish reasonably consistent standards for faculty members eligible for appointment to supervise doctoral students:

1. The nominee must be a Graduate Faculty Member or meet all criteria for Graduate Faculty Membership.
2. The nominee must have published research and scholarly work of quality, or have demonstrated comparable creative achievement.
 - a. In disciplines where publication is the normal outlet for scholarly work or research, the nominator must provide evidence of the nominee's significant, refereed publications appearing under the imprint of recognized scholarly publishing houses or journals. Publication must have resulted from a judgment of quality by an editorial board.
 - b. Publication based on the nominee's terminal degree alone is not sufficient, although publication of the dissertation or parts of it is significant if the nominator indicates the manner in which the published version represents a substantial amount of scholarly work in addition to that required for the dissertation.
 - c. In disciplines such as art, architecture, theatre, or music where publication is not the normal or singular end product, the nominator must provide evidence of creative work accomplished by the nominee. This creative work must bear evidence of acceptance by peers within the discipline.
3. The nominator must indicate current involvement of the nominee in research and/or creative work.
4. The nominator may provide supporting evidence for the nominee such as published textbooks related to graduate education, published instructional materials, published professional reports, or evidence of funded research and development projects.
5. The nominator may provide evidence of the nominee's teaching effectiveness in working with graduate students. This evidence may consist of peer and student evaluations or reports of student achievement subsequent to the receipt of advanced degrees.

GRADUATE PROGRAM COMMITTEES

Each graduate department authorized to offer major work leading to the Master's or doctoral degree shall have established for it a Graduate Program Committee consisting of not less than three Graduate Faculty Members, one of whom is designated as chairperson. In the case of a graduate department offering a doctoral degree, the majority of the Committee and its chairperson must be Graduate Faculty Fellows. In all cases, at least two-thirds of the Committee must be Graduate Faculty Members. Membership of the Graduate Program Committee is recommended by the departmental chairperson or other appropriate administrator for appointment by the Dean of the Graduate College, who has delegated that responsibility to the UNO Dean for Graduate Studies and Research.

In its graduate department the Graduate Program Committee shall have the responsibility for the planning of the graduate program, the general supervision of candidates for graduate degrees and the evaluation of students by means of qualifying or final comprehensive examinations. The word "program" denotes all kinds of academic requirements which must be satisfied by the students admitted to the departmental graduate studies—including both major and minor requirements, together with quality of work standards, transfer credits and those electives which are not major or minor courses.

GRADUATE STUDENT ADVISERS

Upon admission to graduate studies in a graduate department, each student is assigned an adviser by the Graduate Program Committee. The adviser is responsible to the student and to the Graduate Program Committee for insuring that the student's work, including the plan of study, satisfies all requirements of the program and of the Graduate College. To assure accountability and maintenance of the standards, policies and procedures of the Graduate College, all graduate advisement must be provided by Members or Fellows of the Graduate Faculty (with exceptions possible only for persons with a primary advisement role under the direct supervision of a Member or Fellow). A change of adviser requires official action.

SUPERVISORY COMMITTEES

Some graduate programs require the establishment of a supervisory committee for each student. In particular, each student under Option I (page 5) must have a supervisory committee. Each committee is appointed by the Dean for Graduate Studies and Research based upon recommendation of the Graduate Program Committee. The committee shall consist of at least two voting Graduate Faculty Members from the student's graduate department and at least one voting Graduate Faculty Member from another department. In addition, other qualified persons may be appointed to *ex-officio* (non-voting) status if it is believed that they can provide needed expertise or that they could gain valuable experience by participating on the committee. If the student is under Option I, the chairperson of the committee shall be considered the student's thesis adviser.

GENERAL INFORMATION

UNIVERSITY OF NEBRASKA AT OMAHA

GRADUATE STUDIES AT UNO: HISTORY AND PURPOSE

For the more than seventy-five years since its founding in 1908, the University (first as the University of Omaha, then as the Municipal University of Omaha and the University of Nebraska at Omaha) has provided Omaha, the state of Nebraska and the nation with men and women of sound intellectual training and preparation for life. Its goal for its students, "To earn a living and live a cultured life not as two processes, but as one", has been its guide over the years.

The University of Omaha was founded in 1908 as a private, nonsectarian college. The University awarded its first Master's degrees in 1919 by special vote of the Board of Trustees. In 1931 the University of Omaha became the Municipal University of Omaha; in that same year the Master of Arts and the Master of Science degrees were authorized. In 1960 the Board of Regents of the University authorized the Specialist in Education degree, and in 1965 they authorized the Master of Business Administration degree.

In 1968 the Municipal University of Omaha was merged with the University of Nebraska and became the University of Nebraska at Omaha. In 1971 the Graduate College of the University of Nebraska was formed to govern graduate studies throughout the University of Nebraska. Since 1968 the University of Nebraska at Omaha has been authorized to offer five additional professional Master's degrees. In 1974 the cooperative program with UN-L leading to the Ph.D. in three areas of Psychology was approved.

Graduate studies are intended to provide more advanced education than the undergraduate work upon which all graduate programs are based. At UNO graduate students are provided with the following opportunities:

1. to work toward the various graduate degrees offered by the University;
2. to earn graduate credit for the issuance or renewal of certificates for teachers, administrators and educational psychologists;
3. to obtain personal or professional enhancement.

To enable the student to attain these objectives, the Graduate Faculty provide graduate courses, workshops, institutes, seminars, practica, research and special problems courses, and the supervision of theses or special projects. Thus they promote the spirit of free investigation in the various disciplines and, at the same time, serve to unite the various branches of the University in advancing human knowledge and providing intelligent, capable leadership for society.

ACCREDITED STANDING

The University of Nebraska at Omaha is fully accredited by the North Central Association of Colleges and Secondary Schools, and has programs which are accredited or approved by the National Council for Accreditation of Teacher Education, the Council on Social Work Education, the Engineers Council for Professional Development, the American Home Economics Association (for undergraduate programs), the American Dietetic Association, the American Assembly of Collegiate Schools of Business, the National Association of Schools of Music (for undergraduate programs), the Accrediting Council on Education in Journalism and Mass Communication (for undergraduate programs), the American Chemical Society and the National Association of Schools of Public Affairs and Administration. Its courses are accepted for purposes of teacher certification by the Nebraska State Department of Education.

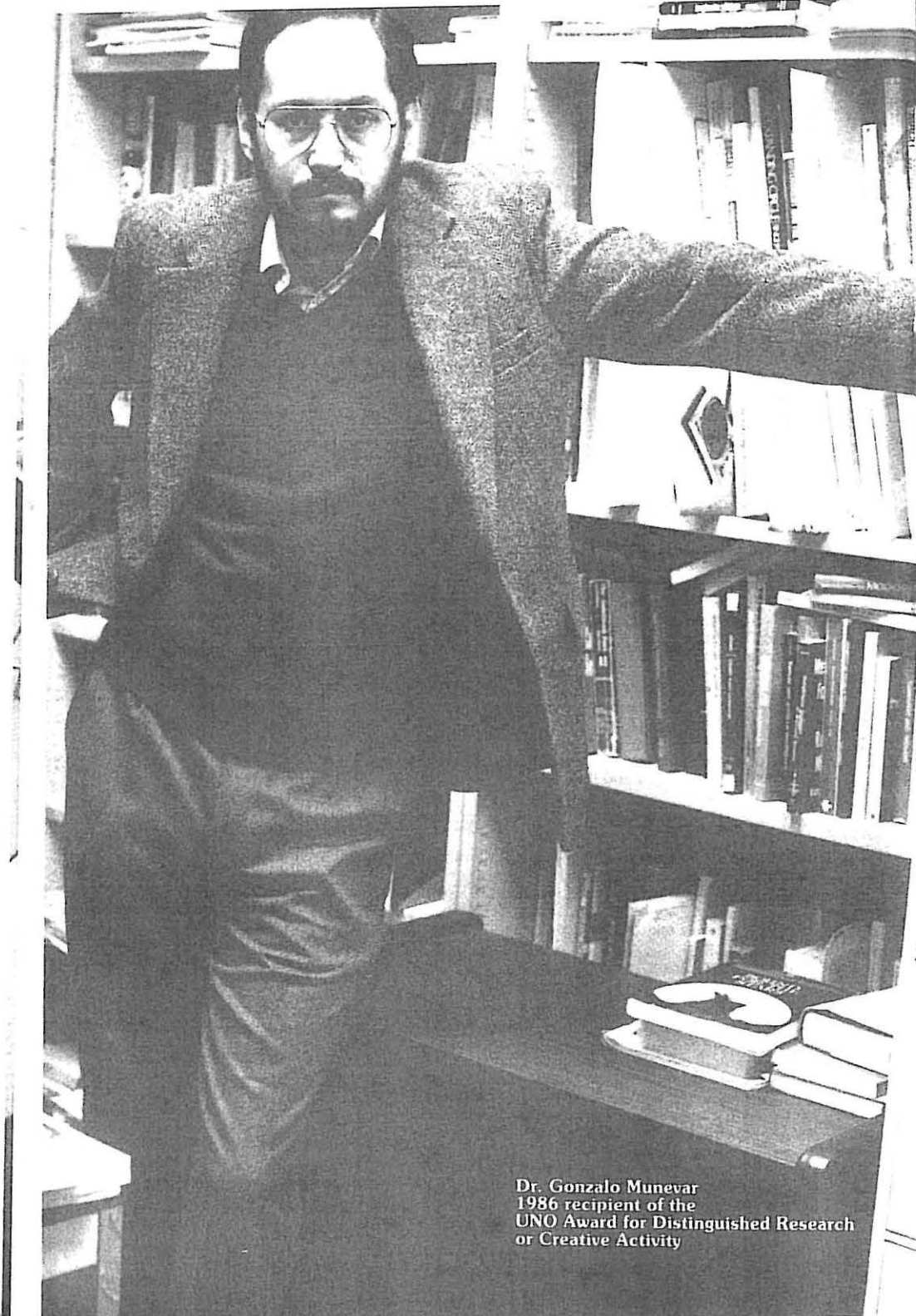
Course credits from the University of Nebraska at Omaha are accepted by other colleges and universities which are members of the North Central Association and by other regional accrediting agencies.

GENERAL POLICIES

Equal Opportunity/Affirmative Action

The Bylaws of the Board of Regents of the University of Nebraska state: "Admission to the University and the privileges of University students should not be denied to any person because of their age, sex, race, color, national origin or religious or political beliefs."

The University of Nebraska at Omaha declares and reaffirms a policy of administering all of its educational programs and related supporting services and benefits in a manner which does not discriminate because of a student's or prospective student's race, color, creed or religion, sex, national origin, age, handicap or other characteristic which cannot be taught.



Dr. Gonzalo Munevar
1986 recipient of the
UNO Award for Distinguished Research
or Creative Activity

University Campus Computing

The Office of Campus Computing is responsible for managing all facets of academic and administrative computing on the UNO Campus. The Campus Computing staff consists of fifteen full-time employees and thirty-four part-time student employees. Offices are located in 110 Eppley Administration Building, 554-2468.

The UNO Campus offers a full range of automated data processing services to students, faculty and staff. Continual upgrading of computing capabilities provides UNO with modern up-to-date equipment and techniques. Interactive computing, computer graphics and computer-assisted analysis/research are a part of everyday academic life. The computer as a tool is an integral part of virtually all fields of study, research and administration.

The academic computing capability centers around three major systems: two VAX 11/780 computers with 12 megabytes of memory each, and a PDP 11/44 with 1 megabyte of memory. Additionally, UNO contracts with the University of Nebraska Computing Services for time on their IBM 3081 computer located in Lincoln. Also available to students and faculty are two microcomputer labs — one equipped with Zenith microcomputers and one with Apple/MacIntosh micros. These labs are primarily for classroom work; however many students use them for independent research projects. There is a full array of software on our computers to satisfy the many and varied academic pursuits on campus. All of our academic computing capability is provided at no cost to the students and faculty.

There is a total of 273 open access computer terminals located in five user rooms in the UNO campus for use by students and faculty. These rooms are in the basement of the College of Business Administration, the basement of the Eppley Administration Building, the first floor of the Arts and Sciences Building, and the second floor of the Peter Kiewit Conference Center. Consultants are available in the college of Business Administration and Eppley Administration Building to assist students in applying the computer to their classroom needs.

Funding for Graduate Student Research

An essential part of every graduate program is learning to use the tools of research, both scholarly and applied. Graduate students seeking funding for a research project should first inquire whether their department or college has funds available for that purpose. Information on other sources such as the University Committee on Research and funding agencies exterior to the University can be obtained from the Office of Grants Development, 202 Eppley Administration Building.

Student Organizations

A wide variety of student organizations makes it possible for students to find activities to fit their own interests and attitudes. Among the many student organizations are departmental, honorary, professional, student government and service groups. Professional fraternities and honorary organizations not only provide social contacts with other students but also give their members practical understanding of their chosen fields. For further information about student organizations, students are advised to contact the Office of Graduate Studies, individual departments, and/or the Office of Student Activities.

TUITION, FEES, DEPOSITS AND REFUNDS

The University reserves the right to change the amount of tuition or fees at any time, and to assess charges for laboratory fees, breakage, lost property, fines, penalties, parking, books, supplies, food or special services not listed in this schedule.

Tuition and related fees are payable in full at the time of registration, or in accordance with delayed billing schedules. Students availing themselves of the delayed billing option must familiarize themselves with the due dates, as publicized. Note: Failure to receive the mailed billing notice will not excuse the student from payment responsibility, nor the late payment penalties. Students in need of financial aid must consult the Office of Financial Aid in 103 Eppley Administration Building. Application for financial aid should be made at the earliest possible time.

Courses which are added or registrations which occur after the completion of the fourth week of classes must be paid in full prior to processing by the Office of the Registrar. Students waiting until the final due date for payment of tuition and fees to register or add courses will be required to pay the late registration fee or change of program fee, whichever is applicable, and the late payment fee.

With the exception of the Bookstore, the University does not accept bankcards for payment of any financial obligation.

Registration is not complete until cleared by the Cashier. Failure to pay tuition or fees when due, or to meet payments on loans when due, may result in cancellation of registration, legal collection efforts, and withholding of grades and transcripts. Outstanding financial obligations from prior semesters must be paid prior to registration. Failure to do so may prohibit registration for the current and future semesters.

Graduate Admission Fee (Graduate College):

Tuition:

Per Semester Credit Hour

	Undergraduate	Graduate
Resident of Nebraska (see residency statute)	\$ 41.75	\$ 51.75
Non-Resident.....	\$113.25	\$123.25
Per Student Credit Hour through Off-Campus Program.....	\$ 52.00	\$ 62.00

Programs administered by the University of Nebraska-Lincoln (includes all courses offered at the University of Nebraska at Omaha by the College of Engineering and Technology and the College of Home Economics):

	Undergraduate	Graduate
Resident of Nebraska (see residency statute)	\$ 43.75	\$ 59.50
Non-Resident.....	\$119.00	\$141.75
Per Student Credit Hour through Off-Campus Program.....	\$ 54.50	\$ 71.25

Audit Fee:

The audit "not for credit" fee is set at one-half of the resident undergraduate or graduate tuition rate. For classes offered through the off-campus program, the audit "not for credit" fee is set at one-half of the off-campus undergraduate or graduate tuition rate. In addition, students registering for audit must pay the appropriate UPFF fee. Registration for audit requires the permission of the instructor and is subject to available class space after credit registration ends. Students who register to take a course for credit and who later change to audit registration will be required to pay the full resident or non-resident tuition rate. Audit fees are refundable in accordance with the Tuition Refund Schedule.

Laboratory/Special Instructional Fees:

Students enrolling in the following course sections are advised that laboratory/special instructional fees are charged for:

Art Laboratory Fee	
Biology 1020 Laboratory Fee	\$ 20.00
Biology Laboratory Fee	\$5.00
Ceramics Laboratory Fee	\$5.00
Chemistry Laboratory Fee	\$ 20.00
Communication 3110, Photography Laboratory Fee	\$6.00
Electronics Laboratory I 1040	\$ 15.00
English Department Reading Laboratory Fee	\$ 10.00
Foreign Languages: All 1000 and 2000-level courses	\$3.00
Foreign Languages: All 2050 Courses	\$6.25
Geography 1030, 1060, 1070 Laboratory Fee	\$ 25.00
Geography 1030 Field Trip	\$5.00
Geography 1170, 1184, 2754, 2764, 3104, 3450, 4310 Laboratory Fee	\$3.00
Geology 1170, 3100 Field Trip	\$5.00
Instructional Technology Core 2800	\$3.00
Math 131, 132	\$5.00
Microcomputer Laboratory Fee	\$ 15.00
Music:	\$5.00
Music Equipment and Maintenance Fee	
Applied Music: Mandatory for enrollment in voice and all instruments.	\$ 15.00
One semester credit hour	\$ 55.00
Two semester credit hours	\$ 95.00
Three semester credit hours	\$115.00
Listening Laboratory Fee	\$3.00
Physics 1030, 1050, 1150, 1160, 1754, 3500, 3520, 3540, 3560 Laboratory Fee	\$5.00
Preparation of Instructional Materials LS 4870/8876	\$5.00
Printmaking 3510, 4510, 4530, 4540 Laboratory Fee	\$ 20.00
Psychology 1024, 1024A	\$5.00
Psychology 3234	\$ 15.00
Sculpture Laboratory Fee	\$ 20.00
Special Education 4510, 4520-Basic Practicum	\$5.00
Textiles, Clothing and Design 3250	\$ 10.00
Vocational Business Education 1080, 1170, 1180, 2290	\$5.00

Other laboratory/special instructional fees may be charged as authorized by the University. Please refer to the semester class schedule to determine which of the above fees are related to specific courses. Conference, non-credit, and off-campus contract course fees are determined for each offering based upon the cost factors and peculiar circumstances involved.

University Program and Facilities Fee (UPFF)-Undergraduate or Graduate

All students, undergraduate or graduate, (full or part time) per semester.....\$ 49.00

The UPFF receipts are divided into two separate funds: Fund-A Student Fees and Fund-B Student Fees. Fund-A Student Fees are established and allocated by the elected Student Government subject to the approval of the Chancellor of the University of Nebraska at Omaha in accordance with Board of Regents policy. Fund-A Student Fees are refundable upon request in accordance with guidelines and procedures established and published by the Vice Chancellor for Educational and Student Services. Students requesting and receiving a Fund-A refund will no longer be entitled to the student activities supported by Fund-A Student Fees.

The Fund-B of the UPFF is designated for services, staff salaries, maintenance of facilities and related expense, and those additional items designated by the Chancellor. This portion is budgeted separately with emphasis upon continuing support. The Vice Chancellor for Educational and Student Services submits the projections to the Chancellor, who in turn submits the projections to the President and the Board of Regents for final approval.

Nebraska State Student Association (NSSA) Fee:

NSSA Fee (Full- or Part-time) per semester.....\$.50

The NSSA fee receipts are for membership of UNO students who belong to the Nebraska State Student Association. The continuation of the fee is reconsidered each year. This fee is assessed to every student and is refundable each Fall and Spring Semester.

Special Service Fees:

Transcripts of Academic Record—First copy.....\$ 3.00
 Additional copies—Same order.....\$ 1.00
 Thesis Binding—per copy.....\$ 7.50
 Change of Program Fee (per each class changed).....\$ 5.00
 Cap and Gown Rental (to be arranged through the Bookstore).....TBA
 Graduation Fee.....\$ 3.00
 Degree in Absentia (payable in addition to Graduation Fee).....\$ 2.00
 Returned Check—per check.....\$ 8.00

Dishonored checks given in payment for tuition and fees must be redeemed in cash prior to the date for late registration, otherwise the late registration fee will be assessed in addition to the returned check fee. If a check which was issued either for payment of the minimum registration deposit or payment of a past due account to release a "stop enrollment" is returned unpaid by the drawer bank and full restitution is not made within ten (10) days, check writing privileges shall be suspended, current semester tuition and fees shall become due in full, and the individual shall be recommended for immediate disenrollment.

Teacher Placement Fees:

Registration and Credential Fee
 New Registrants (first year).....\$38.00
 Fee covers establishment of permanent placement file, ten sets of credentials and the weekly Vacancy Bulletin may be obtained in the Office.

Alumni Re-Registrants (yearly fee).....\$45.00
 Fee covers update of placement credentials information, addition of new recommendations, ten sets of credentials and the Vacancy Bulletin if picked up in the Office.

Optional Services

Vacancy Bulletin Mailing Fee
 3rd class mailing.....\$16.00
 1st class mailing.....\$28.00
 Bulletin may be mailed to your home address. Bulletin is published bi-weekly from October through December; weekly from January through August.

Extra Credential Fee (over initial ten sets)
 Extra sets (each).....\$ 2.50

Late Fees and Penalties

Late Registration (day or evening classes).....\$10.00
 Late Payment of Tuition Billing.....\$20.00
 Reinstatement of Cancelled Registration.....\$10.00
 Replacement of ID/Activity Card.....\$ 5.00

Deposits:

Key (per key with authorization/refundable).....\$ 5.00
 ROTC Uniform Deposit Refundable.....\$15.00

Locker Deposit—Refundable.....\$ 7.50
 HPER Building locker, lock and towel services are available to students and Campus Recreation Activity Card holders (Faculty/Staff). To renew lockers for the next semester or retrieve deposit and personal articles, it is necessary to personally come by HPER 100 by the end of the semester or summer session. Required of students taking HPER service classes. Also required of Faculty, Staff and students using Field House facilities.
 Chemistry Laboratory Deposit—Refundable.....\$10.00

Testing Fees:

Credit by Examination, College-Level Examination Program (CLEP).....*\$30.00
 Credit by Examination, per course (departmental).....**\$25.00
 Correspondence Tests.....\$ 5.00
 Graduate Management Admission Test (GMAT).....\$28.00
 Graduate Record Examination (GRE).....\$29.00
 Law School Admission Test (LSAT).....**\$90.00
 Miller Analogies Test (MAT).....\$25.00
 Test of English as a Foreign Language (TOEFL).....\$27.00

*Plus 50 percent of resident tuition for earned credit.
 **Plus 50 percent of tuition for credit earned. The \$25.00 testing fee will be applied to the tuition cost.
 ***Additional fee for LSDAS

Refund Schedule (Tuition):

Refunds are computed from the date application is received by the Registrar, NOT from the date of withdrawal from classes.

Students paying tuition and fees on a deferred payment basis or under any other loan granted by the University, who withdraw before the account is paid in full are not relieved from payment of the balance due. Refunds will first be applied to unpaid balances, and any remaining balance must be paid. Failure to do so may prohibit registration for future academic semesters.

Refunds for withdrawals are figured from the official beginning of the semester as stated in the University's academic calendar, not from the beginning of students' individual class schedules. Refunds will be made by University Warrant.

Students who receive financial assistance and withdraw during the refund period may have to repay all, or a portion, of their financial aid received. A financial aid recipient should first contact the Office of Financial Aid prior to an official withdrawal from the institution.

Regular Semester

Period of Drop/Withdrawal	Percent Refunded	Percent Chargeable
Before first official day of semester	100%	0%
First week of classes	100%	0%
Second week of classes	75%	25%
Third week of classes	50%	50%
Fourth week of classes	25%	75%
Fifth week of classes	0%	100%

Summer Sessions (5 and 6 Week)

Before first official day of semester	100%	0%
First three days of classes	100%	0%
Remainder of first week	50%	50%
Second week of classes	25%	75%
Third week of classes	0%	100%

Summer Evening and Special Contract (7 and 8 Week)

Before first official day of semester	100%	0%
First three days of classes	100%	0%
Remainder of first week	75%	25%
Second week of classes	50%	50%
Third week of classes	25%	75%
Fourth week of classes	0%	100%

Non-Credit and Special Courses (10 Weeks or More)

Withdrawal before classes start	100%	0%
Withdrawal before first week elapsed	50%	50%
Withdrawal before 2 weeks elapsed	20%	80%
Withdrawal after 2 weeks elapsed	0%	100%

(Less than 10 Weeks in Length)

Withdrawal before classes start	100%	0%
Withdrawal before second class	50%	50%
Withdrawal after second class	0%	100%

TRAVELING SCHOLAR PROGRAM

As a member of the Mid-America State Universities Association, the University of Nebraska at Omaha participates in the MASUA Traveling Scholar Program. Universities cooperating include Iowa State University, University of Kansas, Kansas State University, University of Missouri, University of Nebraska, University of Oklahoma and Oklahoma State University. The MASUA Traveling Scholar Program is designed to provide breadth and depth in the opportunities for graduate study offered at MASUA universities by permitting advanced graduate students to study at another MASUA university where they may utilize unique facilities or specializations.

Graduate students at MASUA universities are eligible to participate in this program for up to two semesters or three quarters. The student's major adviser initiates the proposal for the student's participation by contacting the professor at another MASUA university where the student wishes to study. The Graduate Dean at each MASUA university involved must concur in the proposed participation. During the time of participation, the student registers for research or special topics credit for the appropriate number of hours and pays fees at the home university. Additional information concerning the MASUA Traveling Scholar Program is available in the Office of Graduate Studies.

INTERSTATE RECIPROCITY AGREEMENT FOR GRADUATE EDUCATION

Under an agreement between the Board of Regents of the University of Nebraska and the Board of Curators of the University of Missouri, graduate students meeting the regular in-state requirements of the University of Missouri shall be regarded as in-state students at the University of Nebraska, with respect to admission requirements, tuition and fees, scholarships, fellowships and assistantships and other benefits normally available to Nebraska residents.

FINANCIAL AID FOR GRADUATE STUDENTS**Presidential Graduate Fellowships**

Each year two Presidential Graduate Fellowships are awarded to graduate students who are in the final year of their programs. The Fellowships are designed to allow outstanding students to concentrate their efforts on the completion of their thesis or course work and do not require the performance of any duties. Information about criteria, nomination procedures and selection procedures are available at the Graduate Studies Office, Eppley Building, Room 204

Graduate Assistantships

Graduate Assistantships are available for qualified students who are enrolled in a graduate degree program. The Assistantships offer assignments in teaching, research or laboratory supervision designed to provide opportunities for supervised educational experiences at the graduate level. Interested students should make inquiries in their department/area about the availability of Assistantships and the procedures for applying. The application and supporting credentials should be on file in the department/area by March 1 for consideration.

A Graduate Assistantship entitles the holder to a waiver of tuition costs up to twelve hours of graduate credit per semester. Most Graduate Assistants are also eligible for tuition waivers during the summer sessions. Graduate Assistants may apply for a Graduate Assistant tuition waiver for undergraduate-level course work that is required to meet a deficiency identified in the evaluation of the Graduate Assistant's application for admission and is the basis for provisional admission to the graduate program in the Assistant's respective department/area. The application must be recommended in writing by the adviser and departmental/area Graduate Program Committee; approval must be given by the Dean for Graduate Studies and Research.

The following policy governing Graduate Assistantships at UNO was passed by the UNO Graduate Council:

Policy Governing Graduate Assistantships**I. Academic Standards**

The Graduate Assistantship is intended as an award to students who have demonstrated high

Assistants must be students in good standing in a degree program in the Graduate College. Dismissal from a graduate program for any reason shall result in simultaneous dismissal from any Graduate Assistantship position. The student will not be eligible for an Assistantship thereafter until fully reinstated in a graduate degree program.

II. Recruitment and Selection of Graduate Assistants

Each graduate department or other departmental/area unit as appropriate, which awards Graduate Assistantships, shall establish its own procedures for recruitment and selection in accordance with University policy on affirmative action/equal opportunity. Assistantships are not automatically renewable and are dependent upon assessment of work and classroom performance. The student is reminded that, whether or not outside work commitments are involved, graduate assistantships may not be renewed if either graduate classwork or assistantship duties are not carried out in a satisfactory manner.

III. Work Load

The work load for a Graduate Assistant should average twenty hours per week for the duration of the appointment and shall be construed to be the equivalent of .33 FTE. The department in which the Graduate Assistant is employed should make arrangements with its Assistants regarding vacation periods. The Graduate Faculty considers a student who is pursuing graduate study and holding a Graduate Assistantship to be carrying the equivalent of a full-time work load (see course load below) and, therefore, discourages the practice of holding additional jobs which may interfere with satisfactory performance of assigned duties.

IV. Course Load

Graduate Assistants are expected to carry a minimum of six graduate hours per semester. However, two five-week summer sessions shall be equivalent to one semester. Graduate Assistants may not register for more than twelve semester hours. The six hour minimum may be waived if the student is in the *last semester* of graduate work and needs less than six hours of graduate credit in order to complete requirements for graduation.

V. Duties

Duties assigned to Graduate Assistants should be directly related to and in support of graduate studies in their chosen field of study. The individual graduate program committees should be allowed to assign graduate assistants research and/or teaching activities that they feel are appropriate as long as the needs of the program and the Graduate Assistants are being met. Typical examples would be one or more of the following:

- (1) Teaching courses or discussion sections at the undergraduate level.
- (2) Instructing and supervising undergraduate level laboratories or tutorial sections.
- (3) Grading or otherwise evaluating academic performance of undergraduate students.
- (4) Collecting and/or processing research data for faculty members.
- (5) Preparing materials for laboratories or classroom presentations.
- (6) In general, other duties which involve a direct knowledge and application of knowledge related to the student's field of study would be acceptable. Graduate Assistants should not be utilized solely for clerical duties.

It shall be the responsibility of each Graduate Program Committee, in consultation with the cognizant department chairperson or program director, to draw up an agreement with each Graduate Assistant at the time of appointment which shall specify the stipend, duration and method of payment; the Assistant's duties; and the general conditions of employment. The agreement shall be reviewed by the Graduate Assistant before it is signed by him/her and the chairperson of the Graduate Program Committee. The Graduate Program Committee upon the recommendation of the Graduate Assistant's faculty supervisor and/or the department chairperson, shall have the responsibility to review the Assistant's performance and to terminate the appointment for failure to discharge satisfactorily the duties specified in the agreement.

VI. Length of Appointments

Assistantships may be awarded on an academic year basis, a calendar year basis, or semester by semester basis. No student may hold an Assistantship for more than four semesters (excluding summer sessions) unless recommended by the Graduate Program Committee of the department/area and approved by the Dean for Graduate Studies and Research. Assistantships are not automatically renewable and are dependent upon assessment of work and classroom performance. The student is reminded that, whether or not outside work commitments are involved, graduate assistantships may not be renewed if either graduate classwork or assistantship duties are not carried out in a satisfactory manner.

VII. Justification of New Assistantships

In order to obtain permission to create new Assistantships, whether funded by state appropriations or by outside grants, a brief statement of justification should be submitted for approval of the cognizant College Dean and the Dean for Graduate Studies and Research prior to being sent to the Vice Chancellor for Academic Affairs. This statement should contain: (1) qualifications necessary on the part of applicants; (2) expected duties; (3) relevance of the duties to the student's graduate training; and (4) justification for the Assistantship (as opposed to other job titles).

VIII. Deletion and Redistribution of Graduate Assistantships

Presently established Graduate Assistantships which are supported by state funds are allocated to the various departments within each College by the Dean of the College. These Assistantships may, therefore, only be recommended for deletion by the cognizant Dean. Such proposed recommendations must be submitted to the Dean for Graduate Studies and Research for review and

recommendation prior to being sent to the Vice Chancellor for Academic Affairs. Assistantships supported by outside funding will normally be terminated automatically when the funding ceases. No special approval is required in such cases. The Dean for Graduate Studies and Research should also be notified of any proposed redistribution of Graduate Assistant lines from one department to another.

Regents' Tuition Waivers

Regents' Tuition Waivers are available for a limited number of graduate students who have been admitted to a graduate degree program. Eligibility is based on academic qualifications and financial need. Awards are made on a competitive basis. Information and application forms are available from the Office of Graduate Studies, Room 204, Eppley Administration Building.

Scholarships

Phi Delta Gamma, a national sorority for women, annually offers three scholarships of \$250 each to women graduate students who have completed approximately one-half of their graduate work with an excellent record. The application deadline is March 31 and application forms are available in the Office of Graduate Studies.

The Gerontology Program offers scholarships of \$100 to \$500 each to graduate and undergraduate students specializing in Gerontology. Awards are based on financial need, scholarship and commitment to the field of aging. Further information and application forms may be obtained from the Gerontology Program office.

Other scholarships are available and information may be obtained from the Office of Financial Aid or the Office of Graduate Studies.

Loans

Graduate students are eligible to apply for National Direct Student Loan (NDSL), Guaranteed Student Loan (GSL) and ALAS Loan programs. NDSL and GSL awards are based on need. Eligibility for these programs are determined from information collected from the Financial Aid Form (FAF) which should be filed by the March 1 application priority deadline each year. The ALAS program is not based on need and may be used to supplement an aid package comprised of a GSL or other institutional aid. To apply for all loans listed above, as well as loans from other sources, contact the Office of Financial Aid.

Work Study

Graduate students may apply for College Work-Study positions. Eligibility for these positions is based upon information collected from the Financial Aid Form (FAF), which should be filed by the March 1 application priority deadline each year.

STUDENT DEVELOPMENT SERVICES

Career Placement Services

Career Placement Services assists students and alumni from all colleges of the University in their search for career employment.

Employment Counselors aid in assessing student career goals and related employment opportunities. Literature on local and national employers, career fields, job descriptions, salary surveys, employment trends and job-search techniques are also available.

All students who are completing degrees are encouraged to register with Career Placement Services by completing a placement file, including a resume and the Data Form. The College Placement Annual, available to registrants for a small fee, is a valuable directory of organizations who recruit college graduates.

Teacher credentials are prepared and permanently maintained for candidates completing requirements for certification. A complete listing of local and regional teacher vacancies is available to all teacher candidates.

Career Placement Services offers two basic programs:

Campus Recruiting: Each semester local and national employers seeking December, May and August graduates visit the campus to conduct interviews with candidates registered with the office. Interviewing facilities are provided.

Candidate Referral: Throughout the year, local and regional employers contact our office seeking potential employees. Career Placement refers qualified candidates directly to these employers

Career Placement Services sponsors programs covering numerous career employment topics. Programs include groups, seminars or individual sessions. Job-Readiness Workshops are offered each semester to help students develop interviewing skills and job-search materials, i.e., letters of application, resumes and other items.

An effort is made to obtain positions for all registered candidates; however, employment cannot be guaranteed.

Counseling Services

Counseling services are provided to assist UNO students in their educational, emotional-personal and social development. The goal of the Counseling Center is to use all available resources to assist students in making positive adjustments in their academic and personal lives. Students use the Counseling Center to talk about concerns with courses, educational-vocational planning, family and personal problems, friends and financial difficulties.

The Counseling Center is staffed with professionally trained and experienced counselors. Students may come to the center at their convenience during the day or early evening hours. Students are assured that their privacy will be respected. Conversations with a counselor are held in confidence.

Frequently students do not know where to seek assistance or are confused about kinds of assistance available. The Counseling Center acts as a referral agency for students, opening the availability of a large number of university and community professional resources for the student.

General counseling services are provided at no charge for students and other members of the university community. Appropriate fees are charged for services to people who are not students or within the university.

The Counseling Center provides a professionally qualified resource team in assisting students to make academic, personal and vocational decisions with the assistance of various assessment tools. While there is no single test or group of tests that will "magically" reveal the information a person is seeking, the Counseling Center is expertly able to assist students to a clearer understanding of themselves. Testing is provided by the UNO Testing Center after consultation with a counselor. Interpretations and explanations of the results of these tests are provided by counselors from the center. Further examination of educational, personal and career opportunities can be developed from the exploration of information gained from the test results and counseling sessions.

CAREER DEVELOPMENT. The Career Development process assists students, faculty, staff and alumni in exploring career alternatives and making career decisions.

By exploring the many career alternatives in terms of one's interests, values, needs, abilities and aspirations, individuals will be able to develop career goals consistent with their particular lifestyle. To explore and clarify that personal and unique potential, one may become involved in individual counseling, workshops, testing and test interpretations. A comprehensive Career Information Library is available to assist individuals and groups in exploring the world of work, with up-to-date information on employment trends, occupational responsibilities and working conditions, as well as required training and qualifications for hundreds of different career fields.

The Counseling Center is located in Room 115 of the Eppley Administration Building (62nd and Dodge) and is open during the day and early evening hours with the exception of weekends and announced university holidays. The telephone number is 554-2409.

Testing Center

A variety of testing services are available through the UNO Testing Center, located in Room 113, Eppley Administration Building. Among these are the Graduate Record Examination, Miller Analogies Test, Graduate Management Admission Test, Test of English as a Foreign Language and Law School Admission Test. Graduate students also may utilize the Testing Center's aptitude, interest and psychological testing services. These exams are administered on a daily basis upon the recommendation of UNO Counseling Center personnel.

No graduate credit may be earned by examination; however, students applying for entrance into graduate school should consider Credit by Examination for completion of undergraduate requirements where possible. These may be met through either of two types of Credit by Examination available at UNO: The College-Level Examination Program (CLEP) which offers tests for credit in many subject areas; and UNO's Special Examination Program which involves challenging for credit any undergraduate course taught at the University by taking a departmental examination.

Student Part-Time Employment Services

UNO students seeking part-time employment should visit Student Employment Services in 111 Eppley Administration Building. Employment counselors are available to assist students in obtaining employment, matching job with career interests where possible. Emphasis is placed on developing job-search skills and interviewing techniques with the Student Employment Service acting as a liaison between employer and student.

Students seeking part-time and full-time summer jobs may also utilize our services. Summer job listings are available and a Summer Jobs Fair is also sponsored each year. The Summer Jobs Fair

provides students with an opportunity to meet and interview with interested employers on campus and assists employers in locating students for various summer jobs.

Current listings of available jobs are posted on bulletin boards near the Student Government Office in the Milo Bail Student Center and in 111 Eppley Administration Building.

Students are referred directly to employers for job interviewing. All services are free.

Special Programs

The Office of Special Programs is the coordinating arm of several service units which assist UNO students with their special needs. The units include the Learning Center, Health Services, Handicapped Student Services, Minority Student Services and Women's Services. The Office of Special Programs is located in 117 Eppley Administration Building.

Handicapped Services: This service provides counseling to handicapped students as well as a forum to discuss and initiate needed services for the students. In compliance with the Rehabilitation Act of 1973 (Section 504) a handicapped student who is enrolled in a course located in a "non-accessible" room may request (1) to be transferred to another section of the course which is accessible or (2) to have the location of the course changed to an accessible room. Students may initiate requests for transfer of course sections or room assignment in the Office of the Registrar. Interpreter Services for the deaf are available to qualified applicants; for more information, contact the Office of Special Programs.

Learning Center: The Learning Center offers a variety of academic support skills designed to aid all students. Services offered at the Center include tutorials, study skills workshops and seminars, supplemental review sessions, and computer assisted instruction. Make certain to contact the Center to see when the activities you need to participate in are being held. The Center is located in 117 Eppley Administration Building.

Minority Student Services: Minority Student Services is a program unit which is a referral agent for persons seeking information and services at UNO. The office disseminates information necessary in the coordination of activities involved with the racial/ethnic student population as well as those special interest groups organized on campus to serve them. Minority student services is also instrumental in providing cultural and academic programming for minority students at UNO. The service is located in 117 Eppley Administration Building, 554-2248.

Health Services: UNO Health Services, located in 132 Milo Bail Student Center, is available to all students and provides free First Aid treatment for minor illnesses and emergency accidents with referral when necessary. Preventive health measures are a primary concern and include blood pressure checks, vision and hearing tests, throat cultures for possible strep infection, a tuberculin skin testing program, plus scheduled clinics and programs on selected topics of interest. Health services is open Monday through Thursday from 8 a.m. to 6 p.m. and Friday from 8 a.m. to 5 p.m. A physician's assistant is available to students for free consultation, diagnosis, treatment and follow-up care Monday through Friday from 9 a.m. to 5 p.m. Application must be made through Health Services for temporary or permanent handicapped parking permits.

Student Health Insurance: All UNO students carrying 6 or more hours have the option of contracting for accident and sickness insurance through a group plan made available by the University with a commercial insurance carrier at reduced premiums. If you are not protected for accident and sickness under a policy held by your parents, or one that you have purchased privately, you are encouraged to participate in this or some other health care plan. A brochure describing coverage and benefits is available from the Health Center. Coverage for injury and sickness not due to University negligence is the full responsibility of each student.

Women's Services: This program provides counseling services to women students at UNO as well as current information and referrals concerning women's issues and problems. The coordination of programs and services, which focus on the educational, social and professional needs of women, is a function of this special program.

SPECIAL INFORMATION FOR GRADUATE STUDENTS

ADMISSION TO GRADUATE STUDIES AT UNO

Every applicant for admission to graduate studies at UNO should understand that graduate work is not a simple extension of an undergraduate program but, rather, demands scholarship of a higher order, and emphasizes research, creativity and professional competence.

Admission Procedures and Regulations

A summary of the procedures for admission to graduate studies at UNO can be found on page 7. An Application for Admission must be filed not only by those students desiring to work for a degree, but also by students desiring graduate credit for a renewal of a teacher's certificate, for professional development or for graduate credit to be transferred to some other university. In order to receive graduate credit for any courses taken at UNO, the student must have received an official Certificate of Admission to graduate studies at UNO, must have been admitted to graduate studies at another campus of the University of Nebraska or must have received special permission as a senior.

All credentials received in connection with an application for admission to graduate studies at UNO become the property of UNO. Under no circumstances will they be duplicated, returned to the applicant or forwarded to any agency or other institution.

In order to be considered for admission in a given semester, all documents must have been submitted to the Office of Admissions no later than the following deadlines:

for Fall Semester	July 15	for First Summer Session.....	April 15
for Spring Semester.....	December 15	for Second Summer Session	June 15

The above deadlines are the minimum requirements for all programs. Some programs have earlier deadlines. For example,

Students in the MBA program are admitted only three times a year and applicants must have credentials on file by July 1 for the Fall semester and by December 1 for the Spring Semester and for the Summer Sessions.

Students in the Counseling and Guidance programs are admitted only twice each year and applicants must complete all requirements for admission by April 23 for either Summer Session and for the Fall Semester and by November 30 for the Spring Semester.

Special Procedures for International Students

In order to be considered for admission to graduate studies at UNO, an international student whose language of nurture is not English must submit evidence of a TOEFL score of 550 or more and at least one of the following:

1. A recommendation acceptable to the Office of Admissions from an English language program. The recommendation must adequately address the question of whether the student is prepared for graduate-level work with English as the language of instruction.
2. Attendance for at least two years and graduation from an accredited institution of higher education in which the language of instruction was English.

Students scoring below 600 on the TOEFL must take the Department of English ESL placement Exam before registering for classes. Students whose English language skill is deficient will be required to take undergraduate English courses as determined by the Department of English until the deficiency has been corrected.

International students must also contact the Admission Office concerning the filing of the required financial statements.

The above requirements are in addition to any requirements established by individual Graduate Program Committees.

Categories of Admission to Graduate Studies

- I. To a Degree Program
 - A. Unconditional Admission
Unconditional admission to graduate studies may be granted to an applicant who satisfies all the following conditions:

2. has earned at least a "B" average in the undergraduate work in the proposed graduate major and minor (if applicable);
3. has earned at least fifteen semester hours of undergraduate work that meet specific requirements of the departments in the proposed major and minor (if applicable);
4. has submitted appropriate scores on the required aptitude or advanced knowledge tests to the Office of Graduate Studies.

B. Provisional Admission

Provisional admission to graduate studies may be granted to an applicant who has less than a "B" average in the undergraduate work in the proposed graduate major and minor (but in no case less than a "C" average). This admission may be granted for reasons of maturity, experience or other circumstances under which the student may be deemed capable of high quality graduate study.

Provisional admission will not be removed until the student has earned at least the grade of "B" in each course involved in the first twelve hours of graduate study. A grade of "C" or below in any of these courses will result in automatic dismissal.

Provisional admission may occasionally be granted to an applicant who has graduated from an unaccredited institution. Unconditional status may be attained upon completion of twelve hours of graduate courses with a "B" average, providing all other requirements are met.

Provisional admission may occasionally be granted to seniors at this University needing not more than nine hours of undergraduate credit to complete their baccalaureate degree and wishing to register for graduate credit, subject to their receiving their baccalaureate degree within the twelve-month period immediately following such registration. They must, however, apply for admission to graduate studies and, if admitted, they should register as graduate students. Seniors are allowed to enroll only in courses designated 8-5 or 8-6. Graduate course work taken prior to receipt of the baccalaureate degree may not always be accepted for transfer to other institutions as graduate work or for completion of degree requirements at the University of Nebraska at Omaha.

Provisional admission may occasionally be granted to an applicant who has not submitted the required aptitude or advanced knowledge test score(s). The student must, however, submit the score prior to the second registration as a graduate student.

Provisional status will continue until changed by the recommendation of the Graduate Program Committee and approved by the Dean for Graduate Studies and Research. Provisional status is automatically changed to Unconditional status upon admission to candidacy for the degree.

II. To Unclassified (Non-Degree) Status

- Unclassified admission is available in some departments/areas for students who:
1. Are taking courses for professional growth or personal interest, but do not intend to pursue an advanced degree.
 2. Are enrolled in a graduate degree program at another institution and wish to transfer credits earned at UNO.
 3. Are working toward certification, additional endorsement, or renewal of certification in professional education.

Information on the availability of this option may be obtained from the department/area or from the Office of Graduate Studies. In particular, the MBA program does not admit students to Unclassified status.

PLEASE NOTE: Successful completion of graduate courses as an Unclassified student does not obligate a graduate department/area to accept those courses for credit toward the fulfillment of degree requirements. Students who have enrolled under the Unclassified designation and who subsequently decide that they wish to pursue a graduate degree must complete and file a Request for Change form with the Office of Graduate Studies. If admission to a degree program is sought and granted, and the applicant petitions for the inclusion of graduate credit earned while holding Unclassified status, such course credit(s) may be accepted toward a degree at the discretion of the cognizant Graduate Program Committee. An approved Request for Change must be accompanied by a departmental recommendation if any specified credit hours earned while in the Unclassified status are to be counted toward the degree.

Special Permission to Register for Graduate Credit

I. Seniors at an Accredited Institution

Seniors at an accredited institution (including UNO) who have obtained in advance the approval of the appropriate campus Dean for Graduate Studies may receive up to twelve hours of graduate credit for courses taken at any campus of the University of Nebraska in addition to the courses necessary to complete their undergraduate work, provided that such credits are earned within the twelve months prior to receipt of the baccalaureate degree. Seniors are allowed to enroll only in courses designated 8-5 or 8-6. Graduate course work taken prior to receipt of the baccalaureate degree may not always be accepted for transfer to other institutions as graduate work or for completion of degree requirements at the University of Nebraska at Omaha.

II. Temporary Admission

When unexpected circumstances preclude processing applications for Unconditional, Provisional or Unclassified admission, the Dean for Graduate Studies and Research may issue a Temporary Admission. A student enrolling with temporary admission must, within the first eight weeks of the semester, furnish the Office of Admissions with all materials required by the cognizant department/area (including transcripts of all graduate and undergraduate work, one of which must show an earned baccalaureate degree or the equivalent, or a statement from the graduate office of another institution indicating that the student is in good standing in a graduate-level degree program at the institution). Students who fail to furnish such materials will be disenrolled by the Dean for Graduate Studies and Research from all graduate courses at the end of the eight-week period, and will not be permitted to attend classes beyond that date. Students seeking admission to a degree program must realize that even if all admission materials are presented, the Graduate Program Committee evaluating these materials may deny admission to the program. If this occurs, a determination will be made as to whether the student may continue graduate studies in the Unclassified status or will be disenrolled from all graduate courses.

III. Graduate Students from Another Campus of the University of Nebraska

Students who have been admitted to graduate studies at another campus of the University of Nebraska may register for graduate courses at UNO by using an Intercampus Registration Form. Copies of the form and information on its use can be obtained from the Office of Graduate Studies at any campus.

REQUIRED APTITUDE OR ADVANCED KNOWLEDGE TESTS

The scores on nationally recognized aptitude or advanced knowledge tests are used by each Graduate Program Committee to provide evidence of an applicant's potential to perform at the graduate level and to provide guidance in the development of an appropriate plan of study for each student admitted to the degree program. The UNO Graduate Faculty recognize the following tests, subject to department/area selection, for this purpose: the Graduate Record Examination (GRE), the Graduate Management Admission Test (GMAT) and the Miller Analogies Test (MAT).

A student with Unclassified status is not required to submit scores on aptitude or advanced knowledge tests. Admission requirements for each degree program are determined by the cognizant Graduate Program Committee. Some departments/areas require that the scores on all designated tests be submitted prior to admission; the applicant should consult the appropriate degree description section in this Graduate Catalog and contact the department/area about such requirements. Even when the scores are not required for the admission process, the UNO Graduate Faculty require that every student admitted to a degree program submit the score(s) on the designated test(s) during the first semester of enrollment.

The GRE, GMAT and MAT are administered at many sites throughout the nation and the world. At UNO, the tests are given under the supervision of the Coordinator of the Testing Center, Eppley Administration Building. Information, registration forms and testing dates are available from the Testing Center or from the Office of Graduate Studies. A fee is charged and advanced registration may be required. Students should request the scores be sent to the Office of Graduate Studies; applicants for the Master of Business Administration or for the Master of Professional Accounting programs should also request that the scores be sent to the College of Business Administration or to the Accounting Program, respectively.

Graduate Record Examination

Unless otherwise specified, all students are required to submit scores on the general aptitude portions of the Graduate Record Examination. The advanced area test is also required in some departments/areas; students should contact their department/area for information.

Graduate Management Admission Test

Applicants for admission to the Master of Business Administration or to the Master of Professional Accounting programs are required to take the Graduate Management Admission Test, in lieu of the Graduate Record Examination, prior to admission. Some other departments/areas accept the GMAT in lieu of the general aptitude portions of the GRE.

Miller Analogies Test

With department/area approval, graduate students in a number of programs may take the Miller Analogies Test in lieu of the Graduate Record Examination general aptitude portions. Applicants for admission into graduate programs in Counseling and Special Education must take the MAT prior to admission.

Test of English as a Foreign Language

The test of English as a Foreign Language (TOEFL) international examination is administered at many sites throughout the world, including the UNO Testing Center. In addition, a local administration, the results of which can be used only at UNO, is available at the UNO Testing Center at frequent intervals.

READMISSION TO GRADUATE STUDIES

Anyone who has previously been enrolled as a graduate student at UNO, but who has not been in continuous enrollment, must be readmitted to graduate studies before again registering for classes. Such readmission is subject to approval first by the department/area and then by the Dean for Graduate Studies and Research. In order to be readmitted, the students must complete a new Application for Admission form indicating the department/area to which they were last admitted; changes of program and/or category of admission can be accomplished subsequent to readmission. Students are advised to complete the readmission process prior to registration.

REGISTRATION

All persons who attend classes at the University must have been admitted to the University; they are required to register and pay the established tuition and fees. The dates, times, locations and procedures for registration are listed each semester in the "Graduate Class Schedule" which is available at the Office of the Registrar.

ADMISSION TO CANDIDACY FOR THE DEGREE

Students are eligible to receive a graduate degree only if they have been formally admitted to candidacy for the degree and have satisfied all requirements. It is the students' responsibility to make application for admission to candidacy for the degree as soon as they are eligible to do so. Each application should provide evidence that the student is capable of graduate-level performance and should contain a coherent plan of study leading to the degree that conforms to all policies of the UNO Graduate Faculty and of the cognizant graduate department(s).

In order that a coherent plan of study be developed early in each graduate program, it is the policy of the UNO Graduate Faculty that the last 18 hours of the approved plan of study should be completed with courses taken at the University of Nebraska following admission to candidacy for the degree. In particular, no degree can be awarded in the same semester in which the student is admitted to candidacy for the degree.

Eligibility

Eligibility for admission to candidacy for the degree is established when all the following conditions are met:

1. An official transcript showing the receipt of an appropriate baccalaureate degree is on file in the Office of Graduate Studies.
2. The scores on all required aptitude or advanced knowledge tests are on file in the Office of Graduate Studies.
3. A minimum of six hours of graduate courses to be included in the plan of study have been completed within the University of Nebraska.
4. With no grade lower than a "C", a "B" average has been earned on all completed course work included in the plan of study.
5. Any "Incomplete" ("I") grade received in a course (excluding thesis or special research projects) included in the plan of study has been removed prior to filing the application. In unusual circumstances, the cognizant Graduate Program Committee may recommend, in writing, to the Dean for Graduate Studies and Research that an application be approved, even though it contains one "I" grade in the plan of study.
6. All additional requirements of the department/area have been met.

Procedures

An application form for admission to candidacy for the degree can be obtained from the adviser or from the Office of Graduate Studies. The form should be completed by the student, in consultation with the major (and minor) adviser. The program should be carefully and completely planned at this time. The application form should be signed by the adviser(s), who should then submit the form to the department/area Graduate Program Committee. When the application has been approved by the Committee and all required department/area signatures obtained, the application should be forwarded

Guidelines for Construction of a Plan of Study

Every plan of study should conform to all policies of the UNO Graduate Faculty and of the cognizant graduate department(s). The following general guidelines should aid students and advisers to construct a plan of study.

1. At least one-half the hours of non-thesis course work on a plan of study should be in courses which are restricted to graduate students only (8—0 or 9—).
2. A plan of study for an Option I Master of Arts or Master of Science degree should have at least six hours of thesis and a minimum of twenty-four semester hours of non-thesis course work.
3. Up to $\frac{1}{3}$ of the course work required for a graduate degree program may be accepted from an accredited institution other than a unit of the University of Nebraska when the transfer is supported by the student's adviser and the appropriate Graduate Program Committee. Final approval will be made by the UNO Dean of Graduate Studies and Research. All other policies regarding graduate programs will apply.
4. BSAD courses 8110, 8170 and 8180 may not be used on a plan of study.
5. See the section entitled, "Transfer of Graduate Credit".
6. Each plan should contain suitable alternatives in case certain courses cannot be included in the program.
7. If there are any irregularities (such as a late filing of the application, courses which were not taken within the time limit for degrees, etc.) in the plan of study or application, a memo explaining these irregularities and stating the recommendation of the Graduate Program Committee should be attached to the application.

Changes in the approved plan can be made after the admission to candidacy has been approved, as long as the changes have the appropriate approvals. Requests for such changes can be made on a form available from the Office of Graduate Studies.

THESIS OPTION

A thesis provides an opportunity for the student to obtain first-hand experience in research methods under competent direction. Students in many degree programs may elect a thesis option. In other programs all students are required to write a thesis. The thesis must be assigned a total of six hours of graduate credit on the approved plan of study. The field project must be assigned a total of three hours of graduate credit on the approved plan of study.

For each student pursuing a thesis option, the Dean for Graduate Studies and Research appoints a supervisory committee. For information on the appointment of such committees, see the supervisory committee section in this *Graduate Catalog*. The supervisory committee should be appointed as early in the student's program as possible. The committee shall supervise all aspects of the thesis project and approve the final form of the thesis.

The thesis should be initiated no later than eight months before the anticipated date of graduation in order to provide sufficient time for research, writing and examination. It is the responsibility of the student to follow all regulations contained in the pamphlet, "Instructions for the Preparation of Theses and Ed.S. Field Projects", a copy of which can be obtained in the Office of Graduate Studies.

The student must defend the thesis in an oral examination before the supervisory committee. The students should obtain a copy of the Graduate Degree Completion Report from the Office of Graduate Studies to take to the oral examination. When the final approved form of the thesis is complete, the supervisory committee must sign each copy of the form and each copy of the acceptance page for the thesis.

The student should then have the desired number of copies of the thesis made. Two copies, the original and one additional, are required for the Library. Students may wish to have additional copies for themselves, for the department and/or adviser, or for others. The cost of binding all copies is to be paid by the student before submitting the final copies of the thesis to the Office of Graduate Studies. The final copies with signatures of the supervisory committee members on the approval sheets of all copies must be submitted no later than twelve working days prior to the anticipated date of graduation.

Guidelines for Establishing Thesis Equivalent Projects

Theses-like projects should be of the same calibre of scholarly work as a thesis. The student will research, develop and analyze a topic approved by the Supervisory Committee. Departments desiring to use the thesis equivalent category must apply to the Graduate Council for approval. The following guidelines are to insure that these projects are, so far as possible, equivalent to theses in scope, evaluation and process.

1. The work on the project should commence at least eight months prior to the expected date of graduation.
2. The project should be assigned a total of six hours of graduate credit on the approved plan of study.
3. The process for development and approval of the project must include all of the following:
 - a. appointment of a supervisory committee;
 - b. a proposal to be approved by the supervisory committee;

- d. an oral examination over the completed written product conducted by the supervisory committee;
 - e. final approval by the supervisory committee.
4. The written product must satisfy the specifications to be found in the booklet, "Instruction for the Preparation of the Thesis and Ed.S. Field Project."
 5. The approved written product will be submitted to the Office of Graduate Studies before the advertised deadline for theses, bound at the student's expense and deposited in the Library.
 6. The final grade on the project will be either "Satisfactory." or "Unsatisfactory."

FINAL COMPREHENSIVE EXAMINATIONS

A final comprehensive examination is required of all candidates for the Master's degree. There are three exceptions to this rule where an alternative measure of mastery has been approved: The Master of Business Administration; Master of Professional Accounting; and the MA or MS with a major in Psychology, Educational Psychology or Industrial/Organizational Psychology.

The comprehensive examinations should be taken near the conclusion of the students' programs and should measure the students' knowledge and ability to synthesize that knowledge in the analysis of questions involving more than one concept. For those candidates not writing a thesis, the examination is a written one. For those candidates writing a thesis, the final comprehensive examination may be either written or oral at the option of the cognizant department/area. If the comprehensive is to be written, it will be arranged by the department/area Graduate Program Committee. If the comprehensive is to be oral, it should be arranged at the time of the oral examination over the thesis, at which time one-half of the examination may be devoted to the courses taken by the candidate and one-half to the thesis.

If the student has a defined minor, the minor adviser may require that the student take a comprehensive examination over the minor field. If such an examination is given, it should be given at a date arranged at the convenience of both the student and the minor adviser but falling within the limits established for all comprehensive examinations.

Most graduate departments require students to register for the comprehensive examinations at the time of their final enrollment; however, students should check with their advisers early in their programs to determine departmental policy concerning the administration of the final comprehensive examinations.

Results of comprehensive examinations must be submitted to the Office of Graduate Studies by the Graduate Program Committee no later than twelve working days before the anticipated date for the conferral of the degree.

CONFERRING OF DEGREES

Degrees are conferred at the regular commencement exercises in May, December and August. Only those students that have completed all procedures and requirements may participate in commencement exercises. Attendance at the commencement exercises when the degree is conferred is requested of all candidates. Appropriate academic costume must be worn.

The Graduate College will not approve any changes in the student's permanent record once the graduate degree is awarded.

QUALITY OF WORK STANDARDS

Graduate students are expected to do work of high caliber. Failure to do so will result in at least temporary dismissal from the degree program or from graduate standing. In particular, any one of the following will result in automatic dismissal from the degree program for those students with Unconditional or Provisional admission to a degree program:

1. failure to maintain a "B" average in all graduate work taken as part of the degree program;
2. receiving at least nine hours of graduate credit with the grade of "C" or "C+" in any courses taken in the students' major field of study or in any course included in the plan of study, regardless of the average;
3. receiving a grade of "D+", "D", or "F" in any course taken in the students' major field of study or in any course included in the plan of study.

For students with Unclassified admission, the above quality of work standards apply to all course work taken, just as if all such courses were included in a graduate plan of study. A student will be automatically dismissed from all graduate standing should any of the above conditions occur.

A student who has been dismissed for failure to meet the Quality of Work standards may petition the cognizant Graduate Program Committee for any of the following:

1. unconditional reinstatement to the degree program (if appropriate);
2. reinstatement with Unclassified status in order to retake specific courses, with possible readmission to the degree program;
3. reinstatement with Unclassified status.

The recommendation of the Graduate Program Committee will be forwarded to the Dean for Graduate Studies and Research; only the Dean can actually readmit the student. The student will be informed by the Office of Graduate Studies of the Dean's decision on the reinstatement petition.

TRANSFER OF GRADUATE CREDIT

Approval of transfer of graduate credit for course work taken at another accredited university (including extension credit but not including correspondence courses) is made at the time of admission to candidacy for the degree. Grades received in courses for transfer of credit must be the equivalent of "B" or higher. Transfer of graduate credits from a course taken with a pass/fail option must be recommended by the cognizant Graduate Program Committee, supported by a written evaluation from the instructor and approved by the Dean for Graduate Studies and Research. All work accepted for transfer of credit must have been taken within the prescribed time limits for graduate degrees and is subject to restriction if previously used to satisfy requirements for another graduate degree.

Transfer of Credits Taken Outside the University of Nebraska: Up to 1/3 of the course work required for a graduate degree program may be accepted from an accredited institution other than a unit of the University of Nebraska when the transfer is supported by the student's adviser and the appropriate Graduate Program Committee. Final approval will be made by the UNO Dean of Graduate Studies and Research. All other policies regarding graduate programs will apply.

Transfer of Credits Taken at the University of Nebraska: There are no *a priori* limits on the transfer and applicability of credits earned in one program of the University of Nebraska toward meeting degree requirements in another such program, except as they are used to earn distinct degrees. However, such credits must be individually evaluated and approved by the appropriate Graduate Program Committee and campus Dean for Graduate Studies before they can actually be transferred. UNO students who wish to take courses at the University of Nebraska-Lincoln or at the University of Nebraska Medical Center for transfer of credit should obtain an Intercampus Registration Form from the Office of Graduate Studies.

INCOMPLETES

Purpose

The grade "Incomplete" ("I") is to be used by an instructor at the end of a term to designate incomplete work in a course. It should be used when a student, due to extenuating circumstances such as illness, military service, hardship or death in the immediate family is unable to complete the requirements of the course in the term in which the student is registered for credit. "Incompletes" should be given only if the student has already substantially completed the major requirements of the course. Each instructor must judge each situation as to whether an "I" is appropriate. In most cases an incomplete must be removed after one semester;* check with the department or the Office of Graduate Studies for those courses excluded from the one semester requirement.

*Otherwise, it reverts to the grade of "F".

Removal

Instructors must indicate by a departmental record, with a copy to the students, the means and the deadline by which an "I" is to be removed; and if they are at the University at the time of the removal, they must supervise the make-up work and report the permanent grade. In the event that the instructor is not available at the time of the student's application for removal of an "I", the department chairperson shall supervise the removal of the Incomplete and turn in the permanent grade for the student. All grades of "I" on courses which are part of the degree requirements (except those taken in the final semester) must be removed at least twelve working days before conferral of the degree. Forms to remove grades of "I" should be submitted to the Office of Graduate Studies. Grades of "I" must be removed within one semester (excluding summer sessions) after they have been awarded or they will be turned into a grade of "F" by the Office of Graduate Studies. Any extensions to the one semester limit must be approved by the Dean for Graduate Studies and Research prior to the time that the "I" reverts to an "F". In a limited number of cases some departments will allow longer than one semester for the removal of an "I" in specified courses; contact the department or the Office of Graduate Studies for details. "Incomplete" grades in thesis or research courses must be removed within two years of the date the "I" was awarded unless approval is granted by the Dean for Graduate Studies and Research for an extension and the student reenrolls for the credit.

Accrual of Two or More Incompletes

Two or more "I" grades (excluding thesis or research courses) will result in a stop enrollment for any new courses; the stop enrollment will stay in effect until the record shows no more than one "I" grade.

TIME LIMIT FOR GRADUATE DEGREES

The degree program (as defined in the plan of study) for a Master's degree must be completed within six consecutive calendar years. The first day of class of the earliest course which appears in the last

thirty-six semester hours of the student's plan of study is the beginning of the student's graduate education. Coursework which would be taken between six and ten years prior to completion of the degree program defined in the plan of study can be submitted for validation on an individual basis. Coursework which would be over ten years old cannot be submitted for validation.

If students wish to use an outdated course in a plan of study, they have two options available: (1) retake the course; or (2) obtain written permission to update the course from the department involved, the cognizant Graduate Program Committee and the Dean for Graduate Studies and Research. Updating can usually be done by taking a special examination or the current semester's final examination in the course. The grade of the examination must be filed with the Office of Graduate Studies and must be a grade of "B" or higher; otherwise, the student shall be required to retake the course or to substitute another course in the plan of study. In some graduate programs some special exceptions are made with approval of the Graduate Council. Consult with the Graduate Program Committee.

OTHER POLICIES

Auditing Courses Offered for Graduate Credit

In order to audit courses for graduate credit, students must be admitted to graduate studies. Permission of the adviser and approval of the instructor of the course should be obtained prior to registration. It is the instructor's prerogative to determine privileges, including examinations connected with the course. Students registered for credit may change to audit registration during the first eleven weeks of a semester or during the first half of a class if it runs longer or shorter than a semester.

Change of Graduate Degree Program

Students who wish to change their graduate degree programs should obtain the appropriate form from the Office of Graduate Studies; procedures are explained on the form. The decision as to whether students requesting a change will be accepted shall be left to the Graduate Program Committee of the department/area in which they are seeking admission and to the Dean for Graduate Studies and Research. Students who have two or more grades of "Incomplete" on their records are not eligible to change degree programs.

Course Loads for Graduate Students

Full-time graduate students at the University of Nebraska shall be defined as students enrolled for at least nine credit hours during an academic semester or at least three hours during a five-week summer session, irrespective of whether or not the student holds a graduate assistantship.

Students enrolling for more than twelve hours must have the approval of the Dean for Graduate Studies and Research. In some programs special permission may be granted to take more than 12 hours as a regular load. Students should consult with department for provisions.

Courses Offered for Graduate Credit

Courses which are available for graduate credit are those which have been approved by the UNO Graduate Faculty or its designee. All syllabi for courses approved for graduate credit are on file in the Office of Graduate Studies. Students will not be allowed to upgrade or retake courses previously taken for undergraduate credit so that they can be used for any purpose where graduate credit is required.

A numbering system is used to indicate the availability and level of courses for graduate credit, as follows:

3—/8—5 (e.g., 3110/8115) or 4—/8—6

Courses with these numbers are open to both undergraduate and graduate students. Only 8—5 and 8—6 receive graduate credit; it is expected that students enrolled for graduate credit will do work at a higher level than that which is expected of undergraduate students in the same course. Some seniors, with special permission, may enroll for graduate credit in such courses; see "Admission to Graduate Studies at UNO - Special Permission to Register for Graduate Credit".

8—0 or 9—

Courses with these numbers are open to graduate students only.

Credit/No Credit Option for Courses Offered for Graduate Credit

The UNO Graduate Faculty does not, in general, allow the Credit/No Credit option for courses offered for graduate credit. However, each Graduate Program Committee shall have the right to designate

courses such as practica, independent studies or research courses on which this option could apply. Inquire in the Office of Graduate Studies about the availability of this option for specific courses.

The grade of "Credit" is interpreted to mean the equivalent of a grade of "B" or better and is not considered in the calculation of grade point averages.

Dropping Courses

Students can not drop courses after the date identified in the academic calendar for that semester. Exceptions may be made when there are extenuating circumstances. Students requesting an exception must obtain the instructor's certification that work in progress was at the "B" level or higher. Approval of the request must be obtained from the Dean for Graduate Studies and Research before the request to drop is submitted to the Office of the Registrar.

Residency Requirements

All credit hours included in a plan of study leading to a graduate degree must be taken in residency at the University of Nebraska at Omaha, except as provision is made for transfer of credit.

Withdrawal from All Courses

To officially withdraw from all classes and thereby from the University, and to receive any refund due (as well as appropriate posting of academic standing for the grading period in question, graduate students are required to obtain the signatures of the adviser and the UNO Dean for Graduate Studies and Research prior to submitting the withdrawal form to the Office of the Registrar. Any refund of fees will be posted in the Cashier's Office and published in the class schedule. Failure to withdraw according to this procedure may cause forfeiture of refunds and in appropriate posting of grades.

GENERAL APPEAL PROCEDURES FOR ACADEMIC MATTERS CONCERNING GRADUATE STUDENTS

Appeal of General Academic Matters Related to Student Programs

- A. Graduate students holding admission with unclassified status in the Graduate College, admission with a Master's objective or admission with a doctoral objective (but prior to the appointment of a doctoral supervisory committee) should appeal as follows:
 1. Initially, the appeal may be submitted to the student's adviser.
 2. If denied, the appeal may be submitted to the department/area Graduate Program Committee administratively responsible for the student's graduate program.
 3. If denied, an appeal may be made to the Graduate Council for the campus administratively responsible for the student's graduate program. Normally, this will be the final appeals body (for exceptions, see paragraph E).
- B. Graduate students holding admission with a doctoral objective in the Graduate College and for who a doctoral supervisory committee has been appointed should appeal as follows:
 1. Initially, the appeal should be submitted to the student's adviser.
 2. If denied, the appeal may be submitted to the student's supervisory committee.
 3. If denied, the appeal may be submitted to the department/area Graduate Program Committee administratively responsible for the student's graduate program.
 4. If denied, an appeal may be made to the Graduate Council for the campus administratively responsible for the student's graduate program. Normally, this will be the final appeals body (for exceptions, see paragraph E).
- C. When a student's graduate program consists of registrations essentially or entirely on one campus, the Graduate Council of the campus administratively responsible for the program will constitute the appeal board. When a student's graduate program includes substantial registrations on a campus other than the one administratively responsible for the program, three members of the Graduate Council for the other campus will be designated by the Dean for Graduate Studies on that campus to augment the Graduate Council on the campus administratively responsible for the program. In this case, the augmented Council will constitute the appeal board. Then decision concerning augmentation of a campus Graduate Council for a specific appeal involving registrations on a campus other than the one administratively responsible for the student's program will be made by the Deans for Graduate Studies on the campuses involved.
- D. In all cases, appeals should be made in writing to the appropriate adviser, committee, or council. In those cases where the appeal concerns graduate-level qualifying exams, comprehensive exams or final oral exams, the following deadlines must be observed:

to make reasonable efforts to ascertain the results of the examination within thirty days after its completion. The initiation of the appeal, in writing, by the student must be filed within thirty days following the student's receipt of notification of the evaluation.

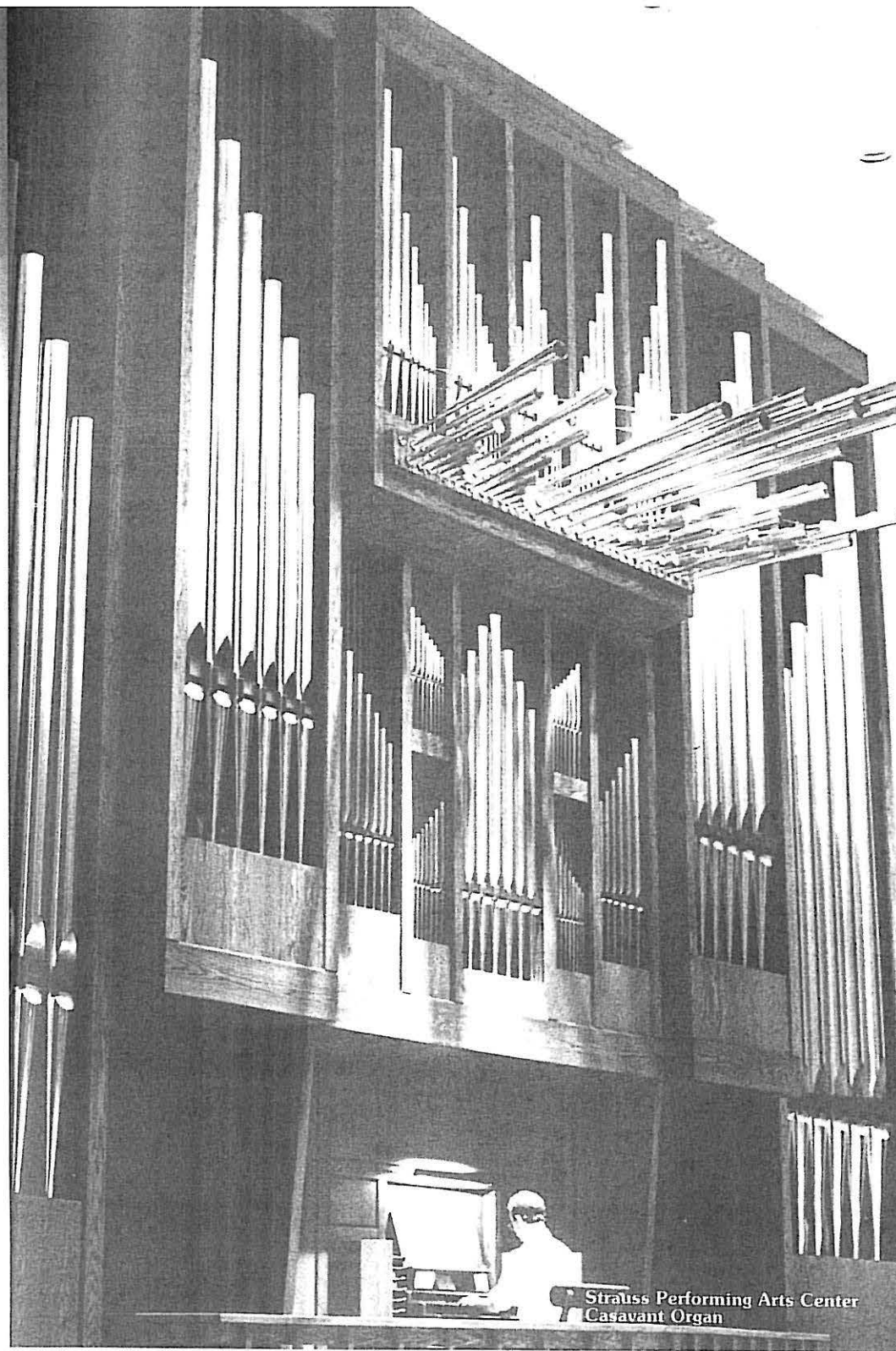
In those cases involving an appeal of termination of program, initiation of the appeal, in writing, by the student must be filed within thirty days following the student's receipt of the official written notification by the Office of Graduate Studies.

- E. 1. There is no absolute right of appeal to Committee III of the Executive Graduate Council. Committee III will accept appeals only in those cases where in the exercise of its sole discretion it shall first find that one or more of the following grounds for accepting the appeal exist:
- That the campus Graduate Council has violated some element of fair procedure (example: has failed to allow the parties concerned to present their cases fully to their campus Graduate Council);
 - That the campus Graduate Council has failed to examine or give adequate weight to important evidence relevant to one party's position;
 - That the campus Graduate Council has given undue weight to evidence not pertinent to the case; or
 - That some gross miscarriage of justice would be perpetrated if the decision of the campus Graduate Council is allowed to stand.
- A decision by Committee III not to accept jurisdiction of an appeal shall be final and is not subject to further appeal.
- Appeals to Committee III of the Executive Graduate Council must be made in writing and must specifically outline the grounds for appeal. Such appeal must be made within twenty working days of the day the decision of the campus council is received (working days shall not include those days the University is not in session).
 - Committee III of the Executive Graduate Council must make a decision to hear the appeal or not to hear the appeal within thirty working days after receipt of the appeal. Acceptance or denial of jurisdiction over the appeal will be made in writing.
 - The decision of the Committee on the merits of the case will be made and transmitted to the concerned parties within 40 working days after the decision to hear the appeal.
 - No person who was a member of the department or campus graduate council involved in the case will be eligible to participate in the decisions of Committee III of the Executive Graduate Council either to decide whether the case should be heard or to decide the merits of the case.

Appeal of Grades in Graduate-Level Courses

Appeal of grades in graduate-level courses shall be made through the graduate student grade appeal procedures for the campus through which the grade was awarded. Students who believe their evaluation in a course has been prejudiced or capricious must first attempt to resolve the matter with the course instructor and then the department through which the course was offered. If the matter is not resolved, the student may file an appeal in writing to the campus Dean for Graduate Studies, who shall inform the student of the grade appeal procedures approved by the Graduate Faculty or by their duly elected representative Graduate Council for that campus, and who shall forward the appeal to the student-faculty committee or council which is designated to hear graduate-level course grade appeals on that campus. Since awarding grades in courses occurs at the individual campus level, the decision of the campus committee or council designated to hear the case on behalf of the campus Graduate Faculty shall be final and is not subject to further appeal.

The initiation of the appeal in writing by the student must be filed within six weeks following receipt of the grade from the Office of the Registrar.



DEGREE/CERTIFICATE REQUIREMENTS AND COURSE DESCRIPTIONS

BIOLOGY

PROFESSORS: Bragg, deGraw, Egan, Lunt, Sutherland

ASSOCIATE PROFESSORS: Fawcett, French, Geluso, Hayhome, Ingham, Moshier, O'Dell, Sharpe, Stasiak, T. Weber

ASSISTANT PROFESSORS: Antlfinger, Engelmann, Nordahl

To enter a degree program with a major in biology, an applicant must normally present 24 semester hours of credit in the biological sciences including background in zoology, botany, and genetics plus evidence of adequate preparation in the supporting sciences of inorganic and organic chemistry, physics, and mathematics. Students with inadequate backgrounds may be admitted provisionally and will be required to make up deficiencies. The GRE (aptitude and advanced biology test) is required and the scores must be submitted before a student will be admitted to the program.

In addition to the application for admission, transcripts, and GRE scores, the Biology Department also requires submission of three letters of recommendation and a personal statement of goals. Recommendation forms will be sent from the Biology Department upon receipt of the application for admission and transcripts.

Master of Arts

To complete the Master of Arts degree with a major in biology the candidate must present 30 credit hours of graduate coursework in biology to include 6 cr. hrs. of Thesis (8990), 1 cr. hr. of Graduate Seminar (8010), and at least 23 cr. hrs. of appropriate courses to be determined by the student and the faculty advisory committee. At least 8 of these 23 cr. hrs. will be taken in 8000-level courses. Graduate students are expected to attend the Graduate Seminar (8010) even when not registered for it. The candidate must pass a final oral examination and present his/her thesis results at an open meeting of the faculty and students.

Master of Science

A student may become a candidate for this degree upon the recommendation of his/her advisory committee. The candidate for this degree must present 36 hours of graduate work in biology, including cr. hr. of Graduate Seminar (8010), 2-6 cr. hrs. in Independent Research in Biology (8020), and other appropriate courses to be determined by the student and his/her graduate advisory committee. At least 18 cr. hrs. of the total 36 cr. hrs. required for the degree will be taken at the 8000-level. Graduate students are expected to attend the Graduate Seminar (8010) even when not registered for it. The candidate must pass a final written comprehensive examination.

Master of Public Administration — Environmental Option

The Biology Department cooperates with the Department of Public Administration in offering this degree. The degree is administered through Public Administration and is described under that department.

3230/8235 Microtechnique (3) A course in the techniques of fixation, dehydration, staining, cleaning and mounting biological material in the manufacture of microscope slides. Prereq: Two years of biological sciences.

3530/8535 Flora of the Great Plains (3) The classification, identification, and recognition of common vascular plants, including weeds, ornamentals, and indigenous plants, found in the great plains Prereq: Biology 1450/1750.

3630/8635 Plant Anatomy (3) A study of cells, tissues, and organs of vascular plants with particular emphasis on internal structure of seed plants.

3730/8735 Fauna of The Great Plains (3) A survey of the common animal groups found in the great plains, including their evolution, ecology, distribution and specific adaptations to the environment of the temperate North American grasslands. Prereq: Biology 1750.

3740/8745 Histology (4) Analysis of the microscopic anatomy of tissues and organs, their adaptations and functional significance. Prereq: Biology 1750, and a course in vertebrate anatomy, or permission of the instructor.

4100/8106 Biogeography (3) This course is intended as an introduction to Biogeography, the

Dr. Virginia Egan
Chair, Graduate Program Committee
Professional Accounting

time. Prereq: Biology 1750 (Biology II) or Invertebrate Paleontology (Geography/Geology 3100 or Biology 3100); Grad standing.

4120/8126 Problems in Ecosystem Management (2) Directed study in the application and evaluation of methods used for managing native and reestablished ecosystems. Prereq: Graduate standing in Biology and permission of the instructor. Biology 3340/8345 recommended.

4130/8136 Experimental Genetics (3) Laboratory studies in genetics emphasizing experimental techniques and laboratory experience with a variety of organisms. Prereq: Biology 2140, or permission of instructor.

4140/8146 Cellular Biology (4) This course is a comprehensive study of the structure and function of plant and animal cells. Prereq: Biology 1450 and 1750, organic chemistry, or permission of the instructor.

4180/8186 Limnology (4) A study of the physical, chemical, and biotic relationships that serve to establish and maintain plant and animal communities in a freshwater environment. Prereq: Biology 1450, 1750, and organic chemistry.

4210/8216 Fire Ecology (3) Study of fire in ecosystems including characteristics of fire, effects on flora, fauna, and the abiotic environment, and use in maintaining native ecosystems. Includes two, one-day, weekend field exercises. Prereq: Biology 3340. Graduate standing in Biology or permission of instructor.

4220/8226 Population Biology (4) An examination of topics in population ecology and population genetics including selection on individuals and groups, mating systems, life history characteristics, growth and regulation of populations and population interactions. Outside research project required. Prereq: Biology 2140 and 3340 or permission of the instructor. Graduate standing.

4230/8236 Organic Evolution (3) A study of organic evolution in terms of evidences which support the theory and the mechanisms involved in the process. Prereq: Biology 2140. Lecture and discussion only.

4270/8250 Design and Analysis of Biological Research (3) This course examines the statistical aspects of the design of laboratory and field experiments in Biology. Basic statistical methods are reviewed and advanced methods presented, including multivariate analysis. Statistical computer packages are used. Randomized, block, Latin-square and split-plot designs are introduced. Prerequisite(s): Stat 300/800J or equivalent; permission of the instructor; graduate status.

4270/8276 Animal Behavior (3) Behavior of diverse animals for the understanding of the relationships between nervous integration and the behavior manifested by the organism, as well as the evolution and adaptive significance of behavior as a functional unit. Prereq: Biology 1750 and Psychology 1010 or permission of the instructor. Lecture only. (Same as Psychology 4270/8276.)

4280/8286 Animal Behavior Laboratory (1) Laboratory and field studies of animal behavior

ducted. Prereq: Biol/Psych 4270/8276 or concurrent enrollment.

4310/8316 Microcomputers in Biology (2) A lecture/demonstration survey of microcomputer applications in biology and biological education. Prereq: Three hours of a college level computer course or written permission of instructor; Grad. standing.

4320/8326 Microcomputers in Biology Laboratory (2) An individualized laboratory course in which the student will complete selected biocomputing projects. Prereq: Biology 4310/8316 or concurrent enrollment or written permission of instructor; Grad. standing.

4340/8346 Ichthyology (4) A study of the biology of fishes, including their evolution, anatomy, physiology, ecology, distribution, classification and identification with emphasis on North American freshwater fishes. Prereq: Biology 1750.

4350/8356 Lichenology (3) Taxonomy, morphology and ecology of lichenized fungi with laboratory emphasis on identification of the local species. Other topics for discussion will include symbiosis, air pollution and lichens, chemosystematics and modern herbarium techniques for lichens and other cryptogams. Prereq: Biology 1450/1750 and permission of instructor, graduate standing in biology.

4370/8376 Phycology (3) A survey of the algae dealing with their ecology, morphology, physiology, taxonomy and evolution. Prereq: Biology 1450/1750 or permission of instructor, graduate standing in biology.

4380/8386 Morphology of Non-Vascular Plants (4) Structural, reproductive, ecological and evolutionary features of the major non-vascular plant groups including prokaryotes, algae, fungi, lichens, and bryophytes. Prereq: Biology 1450/1750, Grad. Standing.

4390/8396 Vascular Plant Morphology (3) A survey of living and fossil vascular plants with emphasis on their comparative anatomy and morphology and their evolution. Prereq: Biol. 1450/1750 or equivalent, graduate standing in biology.

4430/8436 Mycology (3) A study of the fungi, including their morphology, taxonomy, growth, development and reproduction. Prereq: Biology 1450/1750, Grad. Standing.

4440/8446 Plant Physiology (4) A study of plant processes and functions with emphasis on photosynthesis, growth and development, metabolism and mineral nutrition. Prereq: Biology 1450/1750, organic chemistry, or permission of the instructor.

4640/8646 General Bacteriology (4) A study of bacteria and their viruses with emphasis on bacterial structure and function, metabolism, growth, genetics and properties of selected groups. Prereq: Biology 1450/1750 and organic chemistry, or permission of the instructor.

4720/8726 Experimental Endocrinology (2) Laboratory studies of the functions of the endocrine system emphasizing experimental techniques and laboratory experience. Prereq: A course in

4730/8736 Endocrinology (3) A survey of endocrine physiology stressing the regulative and integrative roles of hormones, the control of hormone secretion, and mechanisms of hormone action. Prereq: Organic chemistry, vertebrate anatomy and physiology or permission of the instructor.

4740/8746 Animal Physiology (4) A comprehensive study of animal function emphasizing mechanisms of regulation and control. Prereq: Biology 1750, vertebrate anatomy, organic chemistry and physics, or permission of instructor.

4780/8786 Vertebrate Zoology (4) A study of the general biology of the subphylum vertebrata including the morphology, anatomy, physiology and ecology of vertebrate representatives. Prereq: Biology 1750.

4790/8796 Mammalogy (4) The biology of mammals, including their evolution, functional morphology, physiology, ecology, zoogeography, behavior, classification and identification with emphasis on North American groups. Field trips. Prereq: Biology 4780 or 4950 or permission from instructor.

4840/8846 Herpetology (4) The biology of amphibians and reptiles, including their evolution, classification, anatomy, physiology, ecology, distribution and identification with emphasis on North American groups. Prereq: Biology 1750.

4850/8856 Developmental Biology (4) A study of the principles of development of multicellular organisms. Current concepts of interactions at the biochemical, cellular, and tissue levels will be included. Prereq: Biology 1450 and Biology 1750, or permission of instructor.

4880/8886 Invertebrate Zoology (4) A comprehensive study of the invertebrate animals. Prereq: Biology 1750.

4910/8916 Protozoology (4) The biology of phylum Protozoa, including their morphology, physiology, reproduction, genetics and ecology with emphasis on free-living groups. Prereq: Biology 1750.

4920/8926 Parasitology (4) Taxonomy, morphology, physiology, life history dissemination, and control of the parasitic protozoans, helminths, and arthropods. Prereq: Biology 1750.

4940/8946 Entomology (4) The study of insects, their classification, morphology, physiology, behavior, life histories, ecology, and evolution. Prereq: Biology 1750.

4950/8956 Vertebrate Embryology and Anatomy (4) Development and phylogeny of vertebrate organ systems. Dissection of major vertebrate types, and study of developmental stages from fertilized egg to adult condition. Prereq: Biology 1750.

4960/8966 Advanced Genetics (3) A survey of the current concepts in genetics with emphasis on new gene concepts, advances in cytogenetics and population genetics, and the application of genetics to other areas of biology. Lecture and discussion of selected readings. Prereq: Biology 2140 or permission of instructor, Graduate stand-

4980/8986 Ornithology (4) An introduction to the general biology of birds, including their anatomy, physiology, behavior, ecology, classification and identification with emphasis on North American groups. Prereq: Biology 1750.

8010 Seminar in Biology (1) A study of current research in any of the divisions of biology. Graduate students will complete this course once for credit. Prereq: Graduate standing.

8020 Independent Research in Biology (1-3) Research work under supervision of a graduate faculty member. May be taken more than once for credit; up to 4 credits for M.A. degree candidates, up to 6 credits for M.S. degree candidates. Prereq: Graduate standing and written permission of graduate faculty supervisor.

8060 Advanced Topics in Biology (1-3) Lecture and/or laboratory courses for graduate students designed to provide exposure to biological specialties not offered in the regular curriculum. Prereq: Graduate standing and permission.

8670 Advanced Readings in Biology (1-3) An in-depth study of the literature in a limited segment of the biological sciences under the supervision of a graduate faculty member. May be taken more than once for credit up to a total of six credits. Prereq: Graduate standing and written permission of graduate faculty member.

8180 Biosystematics (3) A study of principles and techniques in animal and plant biosystematics. The course will focus on the species problem and upon the experimental investigation of the problem. Readings, discussions, laboratory, and a written report. Prereq: Graduate standing in biology and permission of the instructor.

8190 Communities and Ecosystems (3) Advanced study of populations, communities, and ecosystems; may require overnight trips. Prereq: Biol. 3340/8345, permission of instructor, graduate standing in biology.

8200 Plant Ecology (4) Advanced study of plant communities and of individual plant species including relationships with the environment and vegetative dynamics. Emphases on methods of evaluation and analysis. May require overnight field trips. Offered fall semester. Prereq: Biol 3340/8345, permission of instructor, graduate standing in biology; Biol. 3530/8535 recommended.

8830 Environmental Physiology (3) A detailed study of selected dynamic environmental factors and mechanisms of physiologic adaptation by organisms of various taxa. Prereq: General physics, algebra, animal physiology, or permission of instructor. Graduate.

8900 Scanning Electron Microscopy (3) Theory and use of the scanning electron microscope with special emphasis on biological applications. Included will be all aspects of specimen preparation, microscope function, darkroom techniques and interpretation of micrographs. Laboratory will emphasize individual student projects. Prereq: Graduate standing and written permission of the instructor.

8990 Thesis (1-6) An original and independent research project written under the supervision of

BUSINESS ADMINISTRATION

PROFESSORS: Ambrose, Bean, Benecke, W. Brown, Buehlmann, Chapman, Conway, Forbes, Hayen, J. A. Hill, Hosek, Lee, Mathis, Minter, Nazem, Nielson, Prestwich, Rokes, Sindt, Stolen, Trussell, Zahn

ASSOCIATE PROFESSORS: Abdullah, Corcoran, Diamond, V. Johnson, Jones, Karels, McCuen, Ortman, Ottemann, Pol, Sosin, Specht, Turner

ASSISTANT PROFESSORS: O'Hara

The Master of Business Administration Degree

The MBA is a professional graduate degree designed to provide an intense educational experience for students who desire to assume positions of increasing responsibility in business.

Courses in the program give the students an understanding of the principles of management, marketing and finance and a proficiency in the use of accounting, computers, statistics, and quantitative methods as tools for analysis of business activities. Also, the student is made aware of the societal, economic, legal and political factors which influence business decisions and develops an appreciation of the social responsibilities of business. The primary emphasis of the program is placed on decision making and problem solving.

Admission Standards

The minimum admission standards for students in the MBA program are:
Junior-Senior GPA x 200 + GMAT = 1070

The GMAT score must not be below 450 in computing the above total. **There is no guarantee admission will be granted simply because the indicated points have been achieved.**

Students are admitted on a provisional status until all foundation courses have been completed. GMAT scores *must* be received prior to the student's admission to the MBA program.

Degree Requirements

Foundation courses: A student must have completed basic courses in the following areas either as an undergraduate student or in the early part of the graduate program:

Economics	BSAD 8180 or Macro- and Microeconomics at the undergraduate level
Accounting	BSAD 8110 or 1 year of Principles of Accounting at the undergraduate level
Computers in Business	DSCI 2310
Quantitative Methods and Statistics	BSAD 8170 or an equivalent course in each at the undergraduate level
Production/Operations Management	DSCI 3500
Business Law	LAWS 3230
Corporation Finance	BFIN 3250
Management Principles	MGMT 3490
Marketing	MKT 3310

English Composition is a required foundation course for all foreign students admitted to the MBA Program. Foundation courses cannot be used to meet the 36 semester hours required for the MBA degree.

Courses successfully completed (A, B, or C grades) in the student's undergraduate program are considered as sufficient preparation. Otherwise, the student must include the course deficiencies in the program of study.

Students who, through experience or self study, consider themselves proficient in any of these areas may complete a "Satisfaction by Examination" in lieu of coursework.

Students are advised to complete the foundation courses before enrolling in either core courses, option courses, or electives.

Graduate Courses: The degree requires a minimum of 36 semester hours for completion.

Core Courses	18
Option courses	12
Electives	6
	<hr/> 36

The six hours of electives must be in one or more areas different from the area of concentration and may be taken in an area outside the College of Business Administration, subject to *advance* approval by the Director of Graduate Studies.

Core Courses

BSAD 8000	Quantitative Analysis	3 hours
BSAD 8010	Business and Society	3 hours
BSAD 8100	Managerial Economics	3 hours
BSAD 8200	Managerial Accounting (either ACC 8210 or ACC 8230, if applicable)	3 hours
BSAD 8310	Human Behavior in Organizations	3 hours
BSAD 8800	Policy, Planning, and Strategy	3 hours

Option Courses

Option #1 — Business Administration

BSAD 8300	Environment of Management	3 hours
BSAD 8400	Marketing Policies	3 hours
BSAD 8500	Financial Management	3 hours
BSAD 8050	Business Conditions Analysis	3 hours

Option #2 — Marketing

BSAD 8400	Marketing Policies	3 hours
BSAD 8420	Business Demographics	3 hours
BSAD 8450	Seminar in Marketing	3 hours

One of the following courses:

BSAD 8020	Research Methods in Economics and Business	3 hours
BSAD 8050	Business Conditions Analysis	3 hours

Option #3 — Decision Sciences

BSAD 8020	Research Methods in Economics and Business	3 hours
BSAD 8030	Business Information Systems	3 hours
BSAD 8040	Applied Quantitative Analysis	3 hours

One of the following courses:

BSAD 8080	Business Forecasting	3 hours
ECON 8300	Econometrics	3 hours
BSAD 8900	Independent Research (In Decision Science)	3 hours

Option #4 — Management Information Systems

BSAD 8710	Structured Software Design	3 hours
BSAD 8720	Systems Analysis and Design	3 hours

Two of the following three courses:

BSAD 8730	Decision Support Systems	3 hours
BSAD 8740	Data Base Management	3 hours
BSAD 8770	Seminar in Management Information Systems	3 hours

Option #5 — Real Estate

BSAD 8600	Real Estate and Land Use Economics Theory	3 hours
BSAD 8610	Current Problems in Real Estate and Land Use Economics	3 hours
BSAD 8990	Thesis	6 hours

Option #6 — Economics

BSAD 8050	Business Conditions Analysis	3 hours
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Plus 9 hours from the following (no more than 6 hours of 6-level courses may be included in the MBA program):

ECON 8326	Natural Resource Economics	3 hours
ECON 8010	Theory of Public Finance	3 hours
ECON 8160	Seminar in Labor Economics	3 hours
ECON 8200	Seminar in Micro Theory	3 hours
ECON 8220	Seminar in Macro Theory	3 hours
ECON 8290	Research Methods	3 hours
ECON 8300	Econometrics	3 hours
ECON 8310	Business Forecasting	3 hours
ECON 8450	Seminar in Money and Banking	3 hours
ECON 8650	Seminar in International Economics	3 hours
ECON 8850	Seminar in Urban Economics	3 hours

Option #7 — Management:

BSAD 8300	The Environment of Management	3 hours
BSAD 8350	Seminar in Management	3 hours

BSAD 8050	Business Conditions Analysis	3 hours
BSAD 8400	Marketing Policies	3 hours
Option #8 — Banking and Finance:		
BSAD 8500	Financial Management	3 hours
<i>Plus 9 hours from the following:</i>		
BSAD 8510	Security Analysis	3 hours
BSAD 8520	Seminar in Investment Management	3 hours
BSAD 8550	Seminar in Finance	3 hours
BSAD 8530	Banking and Financial Markets: Structure, Function and Policy	3 hours
BSAD 8900	Independent Research (in Finance)	3 hours
Option #9 — Industrial Psychology:		
BSAD 8320	Personnel/Administration	3 hours
Psyc 9620	Industrial Training & Development	3 hours
Psyc 9610	Industrial Motivation & Morale	3 hours
<i>Plus one of the following four courses:</i>		
Psyc 9090	Theory of Measurement & Design	3 hours
Psyc 8140	Nonparametric Statistics	3 hours
Psyc 9100	Proseminar: Analysis of Variance	3 hours
Psyc 9110	Correlation and Regression	3 hours

Option #10 — Individually Designed Program:

A student under the guidance of the Director of Graduate Studies in Business and Economics with the approval of the Graduate Faculty of the College of Business Administration may develop an option of 12 hours of study.

A minimum of 21 semester hours must be completed in courses designated as business administration (BSAD). Also, at least 30 hours must be at the "0" level of graduate work.

Student Responsibilities

It is the responsibility of each student admitted to graduate studies to be familiar with the procedures and regulations of the Graduate Catalog.

Each student should also consult with the Director of the MBA program at least once each semester to assure continued progress toward the degree objective.

Students must maintain a 3.0 (B) average to fulfill the program and graduation requirements. A maximum of 2 C's in graduate courses is permitted.

In selecting electives the student must be guided by the restriction that a maximum of 6 hours of "6" level courses may be included in the graduate program of study.

8110 Survey of Accounting (3) The uses of accounting for purposes of control and decisions by managers, shareowners, creditors and others. This course cannot be used on a plan of study. Prereq: This course is for the graduate student who has not taken principles at the undergraduate level.

8170 Quantitative and Statistical Methods for Business Decisions (3) Elementary concepts in quantitative and statistical methodologies. Emphasis is placed on multiplicity of applications to a wide variety of methods. This course cannot be used on a plan of study. Prereq: Graduate standing and one year of college mathematics.

8180 Analytical Foundations of Economics (3) Fundamental principles of macro- and micro-economic theory for graduate students in business. The development of modern aggregate theory is examined along with an economic analysis of the business firm, its market structure, production possibilities, and cost factors. This course cannot be used on a plan of study. Prereq: Open to MBA candidates and other graduate students desiring this course. No credit is given to students having previously taken Economics 2010 and Economics 2020 or their equivalents.

8096 Financial Auditing (3) Provides an in-

depth study of financial auditing as performed by independent public accountants. Audit tools, audit program applications, and reporting obligations will be emphasized. Prereq: ACC 4080.

4420/8426 Business Demographics (3) The development of a demographic perspective to assist in understanding the business environment and business policy. How population change impacts upon consumer markets and all of the functions (for example, accounting, finance and management) that must exist for these markets to perform. Includes a history of population change and policy as well as a view toward international population considerations. Prereq: Graduate Standing

4560/8566 State and Local Finance (3) An inquiry into the facts, techniques, principles, theories, rules, and policies shaping, directing, influencing, and governing the spending, taxing, debt, and utilities of scarce resources for state and local governments. Prereq: Econ 2010 and 2020.

8000 Quantitative Analysis (3) The study of quantitative techniques and models and their application in business decision making. Prereq: DS 2130 or BA 8170.

8010 Business and Society (3) In this course, the student explores the diversity of societal forces

which produce continued transition in the system of American capitalism. Business philosophy and ethics will be examined within the framework of the general norms and values of the greater society. The student will study the dynamic character of the law and the resultant changing patterns of controls and restraints which are imposed upon the business enterprise, causing it to thrive or to languish. In examining this fluid environment, the student is aided to discern the modes of adaptation to change. Prereq: L&S 3230.

8020 Research Methods in Economics and Business (3) A study of current research techniques in business and economics. The student will become familiar with these techniques through text material, journal studies and actual application. Prereq: DS 2130.

8030 Business Information Systems (3) A study of how computer-based information systems are constructed and of the opportunities and problems associated with this activity. Prereq: BA 8000.

8040 Applied Quantitative Analysis (3) A survey of quantitatively-oriented models and techniques applied to a variety of business problems in a case study format. Prereq: BA 8000 and Graduate Standing.

8050 Business Conditions Analysis (3) This course is concerned with the statistical measurement and evaluation of general business conditions, and the adaption of business policies to changing business conditions. Emphasis is placed upon the practical application of the statistical techniques of analysis to the business situation, within the framework of the aggregate economy. Prereq: Econ 2020 or BA 8180.

8080 Business Forecasting (3) This course includes a comprehensive survey of forecasting methods and in-depth study of selected techniques most commonly used in business environments. Emphasis is given to application and therefore students will be required to develop forecasting models and test their performance as part of their course. Prereq: BA 8000 or ECON 8306 or permission of instructor.

8100 Managerial Economics (3) Economic analysis of the business firm and its environment, with emphasis on market structure, pricing, production possibilities and cost factors. Additional consideration is given the theory of the firm under conditions of uncertainty. Prereq: Econ 2010 and 2020 or BA 8180.

8200 Manager: Vial Accounting (3) A study of concepts, analysis, and procedures of accounting utilizing internal financial and non-financial data which provides management with information for planning and controlling routine operations, for non-routine decision, policy making and long-range planning; and for external reporting to stockholders, governments, and interested parties. Prereq: Accounting Principles. Students with the equivalent of Managerial Accounting at the undergraduate level should enroll in BA 8210, BA 8230, or BA 8250. DS 2130.

8300 The Environment of Management (3) A study of current administrative philosophy and processes and their historical foundations. The course examines both the intra-organizational

processes of managerial planning, decision making, organizing and controlling as well as the external environment's impact on these processes. A systems framework is used to examine the environment, which includes an examination of international factors on the practice of management.

8310 Human Behavior in Organization (3) An interdisciplinary study presenting the major trends represented by a variety of theories of organizational behavior as well as major concepts and ideas of organizational psychology. Prereq: MOB 3490 and written permission of the CBA Graduate Counselor.

8320 Personnel Administration (3) Extensive treatment of the relevant developing theories, and coverage of certain new methods, techniques, and procedures that relate to personnel administration and human resource management. Efforts are made to select and present material to illustrate the practical, applied aspects of resource management and personnel administration, as related to human problems in organizations. Prereq: BA 8310.

8350 Seminar in Management (3) A student participation course emphasizing current issues and problems in the areas of management theory and operation. Prereq: BA 8300 and BA 8310.

8400 Marketing Policies (3) A marketing management approach to the determination of policies employed in solving problems in marketing. Prereq: Graduate Standing and Marketing 3310.

8410 Promotional Policies (3) Analysis of the methods, research, and policies needed to develop and administer an effective promotional program. Prereq: Mkt 3310.

8450 Seminar in Marketing (3) Exploration, study and critical analysis of contemporary marketing problems, trends, methods and approaches for seminar discussion and written report. Prereq: BA 8400.

8500 Financial Management (3) Examines basic aspects of managing the financial operations of an enterprise with emphasis on analysis, alternative policies for both short and long-term planning, and application and evaluation of various techniques of financial management. Prereq: BFIN 3250.

8510 Security Analysis (3) Study of the efficient market, fundamental and technical analysis approaches for the valuation of marketable securities. Methods of analysis are considered for the economy, industry groups, and individual corporations. Prereq: BFIN 3250.

8520 Seminar in Investment Management (3) Modern Portfolio Theory of investment management and its application in formulation of policies for individuals and institutional investors. Qualitative and quantitative analysis of the risks and returns of portfolio management using efficient market, fundamental, and technical analysis approaches. Prereq: BFIN 3250.

8530 Banking and Financial Markets: Structure, Function, and Policy (3) A comprehensive study of the structure and functioning of financial firms and markets; recent policies affecting the financial system; proposals for structural

Prereq: BI 3450 Money and Banking or BI 4350 Financial Institutions or equivalent.

8550 Seminar in Finance (3) Selected topics from areas of business finance. Prereq: BA 8500.

8600 Real Estate and Land Use Economics Theory (3) This course brings together the best of the technical literature dealing with the development of advanced tools of analysis and concepts of Real Estate and Land Use Economics. The tools are presented and developed which assist real estate decision-makers in identifying and evaluating professionally the complex factors which determine real estate productivity, value, investment, and land-use patterns. Prereq: Econ 2010 and 2020 or BA 8180.

8610 Current Problems in Real Estate and Land Use Economics (3) A study of current problems in real estate markets affecting decision policies in the private and public sectors. Analysis of economics of land development and use and re-use of real property to provide a viable environment for all citizens. Prereq: RE 2410, LAWS 3460, RE 4400, and RE 4410 or equivalent experience.

8710 Structured Software Design (3) Concepts of software specification and design, with emphasis on current research and structured development methodologies. Techniques for analyzing and modeling distributed and concurrent software products. Integration of process design and data design through assigned cases and/or projects. Prereq: BA 8000 and DS 2310.

8720 Systems Analysis and Design (3) Techniques and methods currently used in structured systems analysis and design. Conversion of manual business systems to computerized business systems. Cases using functional problems in conducting system studies. Prereq: BA 8000 and BA 8710.

8730 Decision Support Systems (3) Current applications and practices in decision support systems applied to the solution of a variety of business problems. The course includes concepts and principles of management information systems, information requirements for decision making, administration of information systems, simulation modeling for decision support system application project. Prereq: BA 8000 and DS 2310.

8740 Data Base Management (3) A study of Data Base Management Systems. Emphasis on data base modeling, data administration, strategic

data planning and application development. Prereq: DS 2310 and BA 8000.

8770 Seminar in Management Information Systems (3) Current issues, trends, and problems in information processing are critically examined. This Seminar focuses on such topics as information management, database management, software technology, hardware technology and fourth generation languages. Prereq: BA 8000 and DS 2310.

8800 Policy, Planning and Strategy (3) A comprehensive study of business problems, prospects and opportunities at varying levels of organizations. The student is responsible for demonstrating interrelationships between the various disciplines of study. Only an A or B is considered an acceptable grade. Prereq: Taken within the last nine hours of MBA or Master of Professional Accounting Program.

8880 The Arts and the Executive (3) The course will provide the graduate student with an understanding of the organizational and managerial issues involved in an arts organization as the role of the arts in the business community. (Cross listed with FINA 8010) Prereq: Graduate admission and permission of the instructor

8900 Independent Research (3) Individual research in the field of accounting, finance, management, marketing, quantitative analysis or the environment of business. Maximum of nine hours of three different fields.

8910 Special Studies in Business (1-3; may be repeated upto 6) A series of special courses each designed to focus on current major issues and developments in a specific area of Business Administration, scheduled as a workshop or seminar according to purpose. Prereq: Graduate student in good standing and as indicated for specific workshop or seminar.

8990 Thesis (1-6) A research project, under the supervision of a faculty thesis adviser in the College of Business Administration, in which the student establishes his capacity to design, conduct, and complete an independent, scholarly investigation of a high order of originality. The research topic and the completed project must be approved by the student's faculty thesis adviser, and two other faculty members, one of which must be from outside the program area. Prereq: Permission of graduate adviser.

CIVIL ENGINEERING

PROFESSORS: Benak, Hossack, Tadros

ASSOCIATE PROFESSORS: Gilliland, LeMar

ASSISTANT PROFESSORS: Keefer, Tuan

Master of Science

This is a professional graduate degree designed to provide a broad educational background for students who wish to gain greater proficiency and assume positions of greater responsibility in the field of Civil Engineering.

Courses in the program give students a better understanding of the basic principles and methodology used in the design of civil engineering projects. Emphasis is placed on Systems Analysis, Decision Making, and Problem Solving.

The degree program is offered by the faculty of the merged departments of Civil Engineering at Omaha and Lincoln, and will be administered by the Graduate College, UN-L. Requirements for the Master's Degree will be as stated in the Graduate Studies Bulletin, University of Nebraska-Lincoln. Upon admission by the Graduate College, UN-L, student records will be maintained on the campus at which the major portion of the graduate courses will be taken. Normally the faculty advisor will also be on that campus.

Graduate Committee. The Civil Engineering Department has a Graduate Committee of six faculty, selected from the Omaha and Lincoln campuses, appointed by the Department Chairperson and approved by the Graduate Dean, UN-L. The Graduate Committee has general supervision over the work of the candidates for the Master's degree. The committee may prescribe such tests as it deems necessary in order to determine whether an applicant is adequately prepared for graduate study. After all application materials are received by the Graduate College, UN-L, the chairperson of the committee will be asked to make a recommendation, after consultation with the committee, on admission to the Graduate College.

Admission to Candidacy
Options for the Masters Degree
Examinations

Consult current
Graduate Studies Bulletin
University of Nebraska-Lincoln

Graduate Work. Graduate work in Civil Engineering is governed by the general requirements of the Graduate College. Selection of the option and program are subject to approval of the students' advisor and the departmental Graduate Committee.

A student applying for admission should designate the primary area in which he/she wishes to study. Major work for the Master of Science degree may be selected from the areas of structural, transportation, hydraulic, sanitary and water resources engineering. A minor area may be designated from any one of the related Civil Engineering areas, or from other related departments. Other supporting courses will be selected from advanced or graduate courses having some relation to the major group.

Course Descriptions. Consult current Graduate Studies Bulletin, University of Nebraska-Lincoln.

COMMUNICATION

PROFESSORS: Bauer, Carter, Cowdin, Francke, Reilly, Wanzenried

ASSOCIATE PROFESSORS: Carlson, Williamson

ASSISTANT PROFESSORS: Fus, Johansen, Prisbell, Sherer

Master of Arts

The Communication Master's Program has admission requirements and procedures in addition to those applicable to Graduate Studies as a whole, and prospective students are strongly encouraged to contact the Department regarding these admission requirements and procedures.

Unconditional admission may be granted to a student whose record includes at least the following: (1) Certification of a Bachelor's degree from a regionally accredited institution; (2) Documentation (official transcript) of having earned at least (a) a 3.25 (re 4.00) grade point average in the undergraduate work in his/her proposed graduate major and minor, and (b) either a 2.75 over-all undergraduate average or a 3.00 average in the last half of the undergraduate credit hours; (3) Inclusion of at least 15 undergraduate semester hours of appropriate courses in communication arts and sciences including sufficient advanced (upper division) preparation in the area of graduate concentration.

Provisional admission may occasionally be granted for reasons of experience, maturity, or other circumstances to a student who has less than the grade point averages stipulated above — but in no case less than the provisional admission standards of the Graduate College, UNO. Applicants who have more than 6 semester hours of deficiencies will be advised to remove them before reapplying for any type of admission.

In every case of provisional admission for any reason other than (1) lacking admission test (MAT) scores, and/or (2) six or fewer semester hours of deficiencies, provisional admission will be recommended to the UNO Graduate Dean only after approval by at least two-thirds of the graduate faculty members in the Communication Department. If granted provisional admission with this special approval, the student must complete Communication 8470 or 8570 or 8010 during the first enrollment period when one of these three courses is offered and pass it with a grade of B or higher.

Before deciding whether or not to recommend provisional admission, the Department's graduate faculty may require any one or any combination of the following:

- 1) Completion of prescribed course(s) — not for graduate credit — with a grade of B or higher.
- 2) Two written or documented-oral recommendations from persons who are in a position to evaluate the applicant's potential for graduate studies.
- 3) Pass such test(s) as these faculty members deem necessary in order to determine whether the applicant is adequately prepared for graduate study.

All students who major in Communication are required to complete the 12 semester hours of core courses prescribed by the Graduate Committee. These core courses provide a basic, intensive and broad coverage of communication as a field of advanced study, including foundations of both mass and transactional communication in conjunction with research and theory. The core courses are Communication 8010, 8470, 8570, and an elective theory course.

The student's plan of study must be approved by the student's committee and may include provisions for a minor or area studies. Every plan of study must be designed to meet the requirements of either the thesis option or the non-thesis option:

- Thesis option:** Successful completion of 24 semester hours of coursework, plus a thesis (6 credit hours) based on a proposal approved by the student's committee. No more than nine hours from outside the department may be counted toward requirements for the degree. The completed thesis is defended orally before the committee. The student also takes a written comprehensive examination covering his or her major emphasis and minor or area studies.
- Non-thesis option:** Successful completion of 36 semester hours of coursework, at least 18 hours of which must be in courses open only to graduate students. No more than 12 hours from outside the department may be counted toward requirements for the degree. In lieu of thesis, an independent research or creative project, based on a proposal approved by the student's committee, may be formulated in writing, video, or film; plus a written comprehensive examination covering the student's major emphasis and minor or area studies.

8016 History of Mass Communication (3)

The American mass media from 17th Century origins to present, with emphasis on mass communication aspects of literary, intellectual, social and political history, and their relationships to current media issues. Prereq: Graduate standing and major/minor in Communication or instructor's permission.

8116 Rhetorical Theory and Criticism (3) Rhetorical theory and criticism, emphasizing ways of evaluating oral communication. Prereq: Graduate standing; six hours of speech communication.

8176 Organizational Communication (3) Communication in relation to problematic transactions within and between various types of organizations. Theoretical and practicable methodologies and procedures for comprehending and then preventing, alleviating, or solving communication problems in organizational settings will be emphasized. Prereq: An undergraduate major in Communication or permission.

8226 Literary Aspects of Journalism (3) Survey of the journalistic works of pertinent American writers through readings, lectures, discussions, plus creative writing assignments.

8236 Public Relations (3) A study of the principles, problems and techniques of the public relations function through lectures, discussions and case histories.

8246 Public Relations Case Studies (3) Analysis, discussion and critique of actual public relations cases, involving problems relating to consumers, investors, employees, media and other publics. Prereq: JOUR 4230 or permission.

8316 Political Broadcasting (3) A study of the evolving role of the electronic media in shaping political activities in our contemporary democratic society. Prereq: Three hours of journalism or broadcasting or political science or permission of instructor.

8346 Broadcasting History and Regulation (3) A study of broadcasting in the United States through its regulatory history.

8356 Issues in Broadcasting (3) A study of current economic, legislative and sociological issues facing the American system of broadcasting.

8376 Communication Workshop (3) A workshop to explore communication theory and pro-

8386 Film Theory and Criticism (3) Study of major trends in film criticism and theory in Europe and America, with concentrated analysis of selected films. Prereq: BRCT 2310 or DART 1050 or permission of instructor.

8406 Mass Media and Society (3) The study of mass media as social institutions, particularly in their interaction with government and the public, with emphasis on ethical considerations.

8416 Communications Law (3) A discussion of laws, court decisions, constitutional issues and regulations that affect the mass media, with emphasis on libel, privacy, confidentiality of reporters' sources, prior restraint, obscenity regulation, free press/fair trial, commercial speech, broadcast regulation and intellectual property.

8426 Theories of the First Amendment: Speech and Press (3) An examination of freedom of communication in the United States with particular attention to freedom of the mass media and the many attempts at censorship. The course examines the philosophical and legal aspects of freedom of speech and press and the theories held by legal scholars. Prereq: JOUR 4410, 2.0 GPA, Engl 1160.

8506 Mass Communication and Public Opinion (3) A study of the philosophy, process and effects of mass communication in the U.S., the relationship between the mass media and public opinion, and the nature, function and measurement of public opinion.

8516 Persuasion (3) Basic principles and psychological processes underlying persuasive communication; a review of various source, message, channel, and receiver variables and their influence on communication effectiveness. Prereq: SPCH 1010 or 1110 and 3 hours of psychology or sociology, or permission of instructor.

8526 Psycholinguistics (3) A discussion of the literature concerned with how such psychological variables as perception, learning, memory, and development relate to the linguistic variables of sentence structure, meaning, and speech sounds. Prereq: Permission. (Same as Psyc 4520/8526)

8536 Seminar in Cross-Cultural Communication (3) This seminar will be directed towards understanding the components of cultural, sub-cultural, ethnic, and racial misinterpretation, with the purpose of bringing to awareness those factors

subcultural, ethnic, and racial situations. Prereq: Admission to Graduate College.

8546 Contemporary Systems of Communication Theory (3) An adaptation of General Systems Theory concepts to the study of human communication processes with emphasis on systems analysis of contemporary interpersonal communication perspectives. Prereq: Graduate standing and major in Communication, or permission.

8556 Nonverbal Communication (3) A study of nonverbal communication in face-to-face, small group, speaker-audience, and mass media settings. Reading, research and illustrations of nonverbal encoding and decoding.

8626 Directing Forensics (3) To provide students planning to teach speech in high school or college with a philosophy and detailed knowledge of how to direct a forensic program. Prereq: SPCH 1120 or permission.

8906/8916 Seminar in Mass Communication (3) A senior seminar applying historical and theoretical perspective to current issues and developments in mass communications.

8010 Introduction to Research in Communication (3) Philosophy of scientific investigation, including process and products, in comparison to other ways of knowing; research methods, designs, and procedures in communication studies, ranging from the highly qualitative to the highly quantitative; preparing a proposal; evaluating research reports; writing research reports. Prereq: An approved basic statistics course, such as Psychology 2130, Sociology 2130, or Statistics 3000/8005; products; research methods, designs, and procedures in communication; preparation of a proposal; writing research reports. Prereq: Basic statistics (Psy 2130 or equivalent).

8020 Communication Research Methods (1) A variable content course dealing with research methods in communication. Each offering will treat a single research method in depth — e.g., survey, experimental, content analysis, qualitative, legal, etc. Prereq: Comm 8010 or permission.

8180 Topics in Organizational Communication (3) A variable content course dealing with organizational communication. Each offering will treat a single aspect of organizational communication in depth — e.g., small group communication, health systems communication,

organizational communication consulting, human resource communication, etc. Prereq: Graduate Standing, SPCH 8176, or instructor permission.

8300 Topical Seminar in Mass Media (3) Substantive study of specialized areas and modes of broadcasting, film, and print communication. Content will vary. Course may be repeated. Prereq: Graduate standing and majoring in Communication or instructor's permission.

8470 Foundations Seminar: Transactional Communication (3) This seminar was designed for students preparing to take the major, a minor, or advanced seminars in Communication. Universals of human symbolizing processes (e.g., deleting, distorting, and generalizing) will be explored intensively and extensively. Principles underlying current issues in transactional (vs. Mass) communication will be emphasized by means of selections from recent developments and contemporary methodologies, including General Systems Theory, Modern Heuristic, and General Semantics. Prereq: Graduate standing and majoring in Communication or instructor's permission.

8500 Seminar in Communication Theory (3) Analysis of current approaches to the study of communication, with emphasis on theoretical models, and their application to various professional interests. Prereq: Communication 8470 or the instructor's permission.

8570 Foundations Seminar: Mass Communication (3) This seminar was designed for students preparing to take the major, a minor, or advanced seminars in Communication. The mass communication system in the United States will be examined in terms of its basic philosophical and legal assumptions and the current political, cultural, sociological and psychological theories relating to the process and effects of mass communication. Prereq: Graduate standing and majoring in Communication or instructor's permission.

8980 Independent Research or Creative Projects (1-6) Non-thesis projects for majors in Communication supplementing advanced graduate courses. Prereq: Admitted to candidacy (or application pending); written proposal of each project approved by the student's committee.

8990 Thesis (1-6 each) Independent research project written under the supervision of an advisor.

COUNSELING AND SPECIAL EDUCATION

PROFESSORS: Armfield, Blake, Butler, J. W. Hill, Oleson, Pilkington, J. M. Wood
ASSOCIATE PROFESSORS: Akers, Bertinetti, Callahan, Harington, Michael, Squires
ASSISTANT PROFESSORS: Christensen, Gilreath, Lorschach

Programs in Counseling and Special Education are offered by the Counseling and Special Education Department. Admissions examinations for programs in this department are identified in the General Information section of this catalog.

Counseling and Guidance Programs

contact the Department regarding these admissions requirements and procedures. One such exception from the general Graduate Studies procedures are different admission deadlines for Counseling and Guidance.

The last date for completing all requirements for admission to the Department of Counseling and Guidance is April 23 for either Summer Session and the Fall Semester, and November 30 for the Spring Semester. Students are admitted to the programs in Counseling and Guidance twice each year. If students wish to begin the program at a different time from those indicated, they may discuss this with faculty in the department.

Students are admitted and permitted to continue programs in Counseling and Guidance on the basis of their potential for successful training and professional practice.

Major points where students are evaluated with respect to their suitability for continuation in the program are 1) admission to candidacy and 2) prior to taking the Counseling Practicum or Internship courses. Successful completion of a Counseling Practicum or Internship is a requirement for graduation.

Students obtain a Master's degree in Counseling and Guidance with an area of specialization. Current speciality areas include Elementary School Counseling, Secondary School Counseling (both of which require current teaching certificates for endorsement as a Counselor in Nebraska or Iowa), Agency Counseling, College Student Personnel Services, and Counseling in Gerontology.

NOTE: Non-counseling degree students may obtain an elective option in Effective Humanization Processes. This consists of a 12 hour block of courses which must be authorized by the Graduate Program Committee and the student's advisor for this to be officially included as part of the student's degree program.

Undergraduate students interested in Non-School Counseling, (Agency, Gerontology and College Student Personnel) work are advised to examine the recommended pre-counseling program described in the Arts and Sciences section of the Undergraduate Catalog.

Master of Arts

Programs for the Master of Arts degree with a major in counseling and guidance will be determined upon request. The M.A. degree includes a thesis in lieu of a written comprehensive examination. Students who anticipate work on a doctorate are particularly encouraged to consider the M.A. degree.

Master of Science

Specialization in Agency Counseling

- | | | |
|---------------------------------|--|-----------|
| I. Foundation Course | | |
| TED 8010 | Introduction to Research | 3 hours |
| II. Required Counseling Courses | | |
| COUN 8020 | Principles of Guidance | 3 hours |
| COUN 8030 | Counseling Practices | 3 hours |
| COUN 8270 | Group Techniques | 1-3 hours |
| COUN 8200 | Counseling Theories | 1 hour |
| COUN 8300 | Counseling Techniques I | 1 hour |
| COUN 8310 | Counseling Techniques II | 1 hour |
| COUN 8420 | Vocational Counseling | 3 hours |
| COUN 8230 | Appraisal Techniques | 3 hours |
| COUN 8220 | Practicum | 3 hours |
| COUN 8250 | Advanced Practicum | 4 hours |
| COUN 8260 | Internship | 3 hours |
| COUN 8290 | Community Involvement for Urban Counselors | 3 hours |
| III. Electives | | 5-9 hours |
- The elective courses are selected in consultation with advisor and in accordance with the student's particular background and interests. Students may elect to work with special populations in special settings.

Usual Total Hours: 41-44 hours

Master of Science

Specialization in Secondary Counseling

- | | | |
|--------------------------------------|--|---------|
| I. Foundation Course (3) | | |
| TED 8010 | Introduction to Research | 3 hours |
| II. Required Counseling Courses (30) | | |
| COUN 8226 | Vocational Decision Making | 3 hours |
| COUN 8020 | Principles of Guidance | 3 hours |
| COUN 8200 | Counseling Theories | 3 hours |
| COUN 8300 | Counseling Techniques I | 1 hour |
| COUN 8310 | Counseling Techniques II | 1 hour |
| COUN 8210 | Organization & Administration of Guidance Services | 3 hours |
| COUN 8230 | Appraisal Techniques | 3 hours |
| COUN 8030 | Counseling Practices | 3 hours |
| COUN 8220 | Practicum | 3 hours |

- | | | |
|-----------|--------------------|-----------|
| COUN 8250 | Advanced Practicum | 4 hours |
| COUN 8270 | Group Techniques | 1-3 hours |

III. Electives (6)

The elective courses are selected in consultation with advisor and in accordance with the student's particular background and interest. Students may elect to work with special populations or in special school settings.

Total: 39 hours

Master of Science

Specialization in Elementary Counseling

- | | | |
|--------------------------------------|----------------------------|-----------|
| I. Foundation Course (3) | | |
| TED 8010 | Introduction to Research | 3 hours |
| II. Required Counseling Courses (25) | | |
| COUN 8020 | Principles of Guidance | 3 hours |
| COUN 8030 | Counseling Practices | 3 hours |
| COUN 8200 | Counseling Theories | 3 hours |
| COUN 8300 | Counseling Techniques I | 1 hour |
| COUN 8310 | Counseling Techniques II | 1 hour |
| COUN 8226 | Vocational Decision Making | 3 hours |
| COUN 8270 | Group Techniques | 1-3 hours |
| COUN 8220 | Practicum | 3 hours |
| COUN 8250 | Advanced Practicum | 4 hours |
| COUN 8230 | Appraisal Techniques | 3 hours |
| III. Electives (6) | | |

The elective courses are selected in consultation with advisor and in accordance with the student's particular background and interest. Students may elect to work with special populations or in special school settings.

Total: 39 hours

Master of Science

Specialization in College Student Personnel Work

- | | | |
|---|--|-----------|
| I. Foundation Course (3) | | |
| TED 8010 | Introduction to Research | 3 hours |
| II. Required Counseling Courses (25-27) | | |
| COUN 8150 | The Student & Personnel Work in Higher Education | 3 hours |
| COUN 8030 | Counseling Practices | 3 hours |
| COUN 8200 | Counseling Theories | 3 hours |
| COUN 8300 | Counseling Techniques I | 1 hour |
| COUN 8310 | Counseling Techniques II | 1 hour |
| COUN 8230 | Appraisal Techniques | 3 hours |
| COUN 8270 | Group Techniques | 1-3 hours |
| COUN 8450 | College Student Personnel Internship | 6 hours |
| III. Selected Cognate Courses (12-18) | | |

These courses are in accordance with the student's particular area of interest; i.e., admissions and registration, career counseling, placement and financial aid, student services (counseling, testing, students with special needs, etc.), housing, and student union activities.

Total: 38-44 hours

Master of Science

Counseling with Specialization in Gerontology

The Counseling Degree Program with Specialization in Gerontology is a cooperative effort of the Counseling and Special Education Department and the Gerontology Program. The UNO Gerontology Program offers courses leading to a Certificate in Gerontology. Students wishing to earn a degree in Counseling with Specialization in Gerontology must be admitted to the Gerontology Certificate Program as well as the Counseling Program. Certificates of Specialization in Gerontology are issued by the University to those completing the Certificate Program upon the recommendation of the Gerontology Program.

- | | | |
|----------------------|--------------------------|---------|
| I. Foundation Course | | |
| TED 8010 | Introduction to Research | 3 hours |

- II. Required Courses in Counseling
- | | | |
|-----------|--------------------------|---------|
| COUN 8020 | Principles of Guidance | 3 hours |
| COUN 8030 | Counseling Practices | 3 hours |
| COUN 8270 | Group Techniques | 3 hours |
| COUN 8200 | Counseling Theories | 3 hours |
| COUN 8300 | Counseling Techniques I | 1 hour |
| COUN 8310 | Counseling Techniques II | 1 hour |
- III. Additional Courses in Counseling selected with advisor on the basis of student's background and interests. 9 hours
- IV. Gerontology 9-15 hours
Fifteen graduate hours in gerontology are required except in some instances where a student has had undergraduate hours in gerontology. These courses are selected with the major advisor's assistance and in collaboration with the Gerontology Program.
- V. Practicum and Internship 6-9 hours
Practicum and Internship are arranged in cooperation with the Gerontology Program to meet both the Counseling Department and the Gerontology Program requirements for practical and field experience.

Usual total hours: 41-48 hours

Special Education Programs

Master of Arts: Speech Pathology

The Master of Arts degree with a major in speech pathology involves these requirements:

- Admission to the University of Nebraska at Omaha Graduate College. The Miller Analogies Test (MAT) must be taken and scores submitted to the Special Education Department for consideration before applications are evaluated and processed to the Graduate College. A raw score of 35 on the MAT is required for initial entrance into the program.
- Two letters of recommendation from people who know your undergraduate work well must be submitted to the department before the application shall be processed.
- Pass an examination to determine adequate personal voice and speech proficiencies and adequate hearing acuity for speech (Administered at the Speech and Hearing Clinic of the University).
- Have successfully completed a minimum of thirty-nine semester hours of work preparatory to admittance to the major. These hours are to include the following courses or their equivalents:

SPED 1400	Introduction to Communication Disorders
SPED 4330	Speech Reading and Auditory Training
SPED 4370	Hearing Disorders
SPED 4380	Speech Science I: Speech Mechanisms
SPED 4390	Hearing Science
SPED 4420	Language Development in Children
SPED 4430	Articulation Disorders
SPED 4440	Rhythm and Symbolization
SPED 4450	Speech Science II: Experimental and Applied Phonetics
SPED 4500	Communication Disorders in the Elementary and Secondary Schools
SPED 4510	Basic Clinical Practicum in Speech Pathology
SPED 4750	Language Disorders in Childhood
PSY 2130	Statistics
- For those students who wish to work toward special state certification in the schools, advisor consultation should be sought early since additional coursework is required (this does not apply to those already holding state certificates in elementary or secondary teaching or a special services certificate in another field.)
- Twenty-four semester hours of coursework and practicum. These hours may be taken from the following:
 - Required Courses:

TED 8010	Introduction to Research
SPED 8510	Advanced Clinical Practicum in Speech Pathology (schools)
SPED 8520	Advanced Clinical Practicum in Speech Pathology (externship)
SPED 8460	Diagnostic Methods in Communication Disorders
SPED 8480	Advanced Audiology
SPED 8530	Seminar in Speech Pathology
SPED 8990	Thesis (6 hrs.)
 - Elective Courses:
Students may choose any of the courses in the area numbered 8000 or above, contingent upon advisor approval.
- Thesis:
Students must present a thesis representing six semester hours of work and which is deemed satisfactory to the members of the committee, following oral examination, which will include questions of a comprehensive nature over the curriculum as well as the thesis.

Master of Science: Speech Pathology

The Master of Science degree with a major in speech pathology involves these requirements:

- Admission to the University of Nebraska at Omaha Graduate College. The Miller Analogies Test (MAT) must be taken and scores submitted to the Special Education Department for consideration before applications are evaluated and processed to the Graduate College. A raw score of 35 on the MAT is required for initial entrance into the program.
- Two letters of recommendation from people who know your undergraduate work well must be submitted to the department before the application shall be processed.
- Pass an examination to determine adequate personal voice and speech proficiencies and adequate hearing acuity for speech (Administered at the Speech and Hearing Clinic of the University).
- Have successfully completed a minimum of thirty-nine semester hours of work preparatory to admittance to the major. These hours are to include the following courses or their equivalents:

SPED 1400	Introduction to Communication Disorders
SPED 4330	Speech Reading and Auditory Training
SPED 4370	Hearing Disorders
SPED 4380	Speech Science I: Speech Mechanisms
SPED 4390	Hearing Science
SPED 4420	Language Development in Children
SPED 4430	Speech Pathology I: Childhood Language and Articulation
SPED 4440	Speech Pathology II: Rhythm and Symbolization
SPED 4450	Speech Science II: Experimental and Applied Phonetics
SPED 4500	Communication Disorders in the Elementary and Secondary Schools
SPED 4510	Basic Clinical Practicum in Speech Pathology
SPED 4750	Childhood Language Disorders
PSY 2130	Statistics
- For those students who wish to work toward special state certification in the schools, advisor consultation should be sought early since additional coursework is required (this does not apply to those already holding state certificates in elementary or secondary teaching or a special services certificate in another field.)
- Thirty-six semester hours of coursework and practicum. These hours may be taken from the following:
 - Required Courses:

TED 8010	Introduction to Research
SPED 8460	Diagnostic Methods in Communication Disorders
SPED 8480	Advanced Audiology
SPED 8510	Advanced Clinical Practicum in Speech Pathology (Schools)
SPED 8520	Advanced Clinical Practicum in Speech Pathology (Externship)
SPED 8530	Seminar in Speech Pathology.
 - Elective Courses in Communicative Disorders:
Students may choose any of the courses in the area numbered 8000 or above.
 - Elective Courses in Related Area:
Depending upon the student's preparatory work, courses may be taken in fields such as psychology, sociology, speech, English, Special Education and other related areas, subject to advisor approval.
- Pass a written comprehensive examination, administered under the direction of the Departmental Graduate Committee.

Master of Science: Teaching the Hearing Impaired Student

The Master of Science degree with a major in teaching the hearing impaired is based on the standards for the certification of teachers of the hearing impaired as developed by the Committee on Professional Preparation and Certification adopted by the Council on the Education of the Deaf. Students who plan to enter this program must show evidence of holding a valid certificate in one of the following areas: elementary education, secondary education, K-12 special content area.

A Nebraska pre-standard certificate and a CED provisional certification will be recommended upon satisfactory completion of the program.

- Admission to the University of Nebraska at Omaha Graduate College. The Miller Analogies Test (MAT) must be taken and scores submitted to the Special Education Department for consideration before applications are evaluated and processed to the Graduate College. The MAT is required for initial entrance into the program unless the student is hearing impaired or a non-native English speaker/user.

SPED 8206	History, Education and Guidance in Hearing Impairment	2 hrs.
SPED 8226	Teaching Speech to the Hearing Impaired	2 hrs.
SPED 8236	Language Development of Hearing Impaired Children	3 hrs.
SPED 8246	Teaching of Language to the Hearing Impaired	3 hrs.
SPED 8376	Basic Audiology	3 hrs.
SPED 8386	Speech Science I: Auditory and Speech Mechanisms	3 hrs.

SPED 8396	Hearing Science.....	3 hrs.
SPED 8000	Special Projects.....	1 hr.
TED 8010	Introduction to Research.....	3 hrs.
SPED 8700	Seminar in Special Education.....	3 hrs.
SPED 8720	Basic Student Teaching.....	3 hrs.
SPED 8730	Advanced Student Teaching.....	3 hrs.

Minimum of 38 hours required. Competency in simultaneous communication is required before the student teaching experience is initiated. Comprehensive examination or thesis option is required.

Master of Arts: Mental Retardation

The Master of Arts degree with a major in Mental Retardation is a program designed for a person wanting to focus his/her graduate study in the area of mental retardation with an emphasis on investigating a research project through the completion of a thesis. Any student seeking an endorsement must complete all certification requirements in addition to the six hour thesis. A written examination is not required of students in this program. Students will be required to answer questions about coursework completed in the master's degree program during their thesis defense.

Admittance and Retention Requirements

To be admitted and retained in the program, the student must:

1. be admitted to the University of Nebraska Graduate College,
2. take the Miller Analogies Test within the first nine hours of coursework,
3. demonstrate an interest in conducting research in mental retardation after an interview with the advisor, and
4. maintain at least a "B" in each course of the first twelve hours of coursework.

Course Requirements

Students shall complete the following coursework:

TED 8010	Introduction to Research	3 hours
SPED 8100	Psychology of Exceptional Children	3 hours
SPED 8600	Introduction to Mental Retardation	3 hours
SPED 8990	Thesis	6 hours

The remaining courses will be selected in consultation with the advisor. Students may take all of their coursework in mental retardation and related courses or may take 15 to 18 hours in mental retardation and 6 to 9 hours in a minor area of interest.

Master of Science: Teaching the Mentally Retarded

The Master of Science Degree with a major in Teaching the Mentally Retarded provides opportunities for students who wish to develop and expand their competencies in teaching mentally retarded children and youth. Upon successful completion of the Master of Science degree, the student will be recommended for the State of Nebraska certification in mildly/moderately handicapped or severely/multi-handicapped teaching. These certification programs are for kindergarten through high school and preschool through high school levels respectively. Students will sit for comprehensive examinations after completing coursework, excluding elective coursework and student teaching. The Master of Science degree in Mental Retardation is a minimum of 36 credit hours.

Admittance and Retention Requirements

To be admitted and retained in the program the student must:

1. be admitted to the University of Nebraska Graduate College,
2. take the Miller Analogies Test within the first nine hours of coursework,
3. maintain at least a "B" in each course of the first twelve hours of coursework, and
4. hold a Bachelor's degree with a valid teaching certificate or complete the necessary deficiencies to hold certification.

Course Requirements

TED 8010	Introduction to Research	3 hours
SPED 8106 or PSY 8596	Psychology of Exceptional Children	3 hours
SPED 8236	Normal Language Development and Disorders for Teachers	3 hours
or SPED 8246	Bilingual/Bimodal Language Development and Curriculum	3 hours
SPED 8606	Introduction to Mental Retardation	3 hours
SPED 8646	Methods and Materials in Special Education	3 hours
or SPED 8666	Developing Vocational Training Programs for the Seriously Handicapped	3 hours

or SPED 8666	Developing Vocational Training Programs for the Seriously Handicapped	3 hours
SPED 8716	Interactions Between Professionals and Parents of the Handicapped	3 hours
SPED 8806	Emotional Development of Children and Youth	3 hours
SPED 8816	Classroom Techniques for Behavior Control	3 hours
*SPED 8720	Basic Student Teaching	3 hours
SPED 8910	Theory of Assessment and Diagnosis of Learning Deficits	3 hours
or SPED 8110	Assessment and Curriculum in Cognitive Development for the Severely/Profoundly Handicapped	3 hours
SPED 8680	Sensory Disabilities and Physical Handling in the Multiply Handicapped Child (required only for severely/multihandicapped certification)	3 hours

*Student Teaching Notes: To meet K-12 certification, students with only elementary certification will be required to student teach at the secondary level. Students with only secondary certification will be required to teach at the elementary level. Those students with K-12 certification will select a site in consultation with their advisor. However, the student teaching requirement (SPED 8720) may not be fulfilled in the student's own classroom.

Master of Science: Teaching the Emotionally Disturbed

Students completing the Master of Science degree with a major in Teaching the Emotionally Disturbed will be prepared to design, implement, and evaluate educational programs for children and youth who have been identified as Behaviorally Impaired or Emotionally Disturbed and to consult with the teachers of such children and youth. Students completing this program will meet the State of Nebraska certification requirements for Behaviorally Impaired, and upon completion of the program, and two years of successful teaching will be recommended for endorsement to teach preschool through high school levels. Thirty-six (36) hours must be completed for the Master of Science degree in Teaching the Emotionally Disturbed. Students selecting the thesis option will take SPED 8990 thesis for 6 hours in place of comprehensive examinations after consultation with their advisor. A written comprehensive examination is not required of students choosing the thesis option. Thesis option students will be required to answer questions about coursework completed in the Master's program during their thesis defense.

Admittance and Retention Requirements

To be admitted and retained in the program the student must:

1. fulfill all entrance requirements of the Graduate College of the University of Nebraska,
2. take the Miller Analogies Test within the first nine hours of coursework,
3. hold a Bachelor's degree with teaching certification in one or more teaching areas or complete the necessary deficiencies to hold certification,
4. have completed courses in learning theory - 3 hours, curriculum development - 3 hours, Psychology of Exceptional Child - 3 hours, and student teaching - 3 hours, and
5. maintain at least a "B" in each course of the first twelve hours of coursework.

Course Requirements:

TED 8010	Introduction to Research	3 hours
SPED 8236	Language Development and Disorders for Teachers	3 hours
SPED 8656	Career Development for the Handicapped	3 hours
SPED 8716	Interactions Between Professionals and Parents of the Handicapped	3 hours
SPED 8806	Emotional Development of Children and Youth	3 hours
SPED 8816	Classroom Techniques for Behavior Control	3 hours
SPED 8820	Educational Strategies for Emotionally Disturbed Children and Adolescents	3 hours
SPED 8830	Practicum in Teaching the Emotionally Disturbed	3 hours
SPED 8840	Advanced Practicum in Teaching the Emotionally Disturbed	3 hours
SPED 8400A	Introduction to Learning Disabilities	3 hours
SPED 8910	Theory of Assessment and Diagnosis of Learning Deficits	3 hours
Elective		
SPED 8990	Thesis (thesis option only)	6 hours

Master of Science: Resource Teaching and Learning Disabilities

Resource teaching and learning disabilities is a specialized training program designed to prepare the graduate student to identify, diagnostically analyze and teach children who have specific learning deficits within a cross-categorical resource classroom setting. The student should enter the program with a

and techniques of teaching. Upon successful completion of the program and two years of successful teaching experience students will be recommended for the Resource Teaching and Learning Disabilities endorsements in grades preschool through high school offered by the State of Nebraska. The students in the non-thesis option will sit for comprehensive examinations after completing twenty-eight (28) hours of coursework, excluding selected elective coursework, advanced student teaching and the school practicum. A written comprehensive examination is not required of students choosing the thesis option. Thesis option students will be required to answer questions about coursework completed in the master's program during their thesis defense.

Thirty-seven (37) hours must be completed for the Master of Science degree. Students electing a resource teaching and learning disabilities thesis option will complete a forty (40) hour program by taking SPED 8990 - Thesis for 6 credits rather than equivalent electives.

Admittance and Retention Requirements

To be admitted and retained in the program the student must:

1. be admitted to the University of Nebraska Graduate College,
2. take the Miller Analogies Test within the first nine hours of coursework.
3. hold a bachelor's degree with a valid teaching certificate from a state education agency or complete the deficiencies necessary to meet certification,
4. meet with the advisor for an interview before the first semester of coursework.
5. show evidence of successful completion of courses which are related to child development - 3 hours, learning theory - 3 hours, curriculum development - 3 hours and student methods courses - 3 hours and student teaching (or equivalent) - 3 hours, and
6. maintain at least a "B" in each course of the first twelve hours of coursework.

Course Requirements

The course requirements are:

TED 8010	Introduction of Research	3 hours
SPED 8106 or		
PSY 8586	Psychology of Exceptional Children	3 hours
SPED 8656	Career Development for the Handicapped	3 hours
SPED 8806	Emotional Development of Children and Youth	3 hours
SPED 8816	Classroom Techniques for Behavior Control	3 hours
SPED 8400	Learning Disabilities	3 hours
*SPED 8730	Advanced Student Teaching Preschool-12	3 hours
SPED 8910	Theories of Assessment and Diagnosis of Learning Deficits	3 hours
*SPED 8930	School Practicum in Resource Teaching/ Learning Disabilities	3 hours
SPED 8960	Advanced Diagnosis of Learning Deficits (Prerequisite SPED 8910)	4 hours
SPED 8970	Clinical Teaching in Learning Disabilities	3 hours
**SPED 8990	Thesis (thesis option only)	6 hours
or		
Elective	(non-thesis option only)	3 hours

*Students must have practicum experience at a level other than their current certification. If a student teaches at the secondary level then the Advanced Student Teaching (Learning Disabilities Program, Meyer Children's Rehabilitation Institute, UNMC) practicum must be with preschool through sixth grade level children.

**The thesis will be completed for six hours of credit, making the program 40 hours.

Counseling and Guidance

4070/8076 Crisis Intervention and Suicidology (3) A course which combines the application of crisis intervention theory to the most extreme of all crises, suicide, along with an overview of the current community approaches directed toward resolution of such crises as situational, developmental/transitional, and natu-

4220/8226 Vocational Decision Making (3) This course is designed to acquaint students in the profession of teaching or school counseling with the specifics relevant to how people make vocational choices. Prereq: 4220 Jr. or Sr. Standing

8656 Career Development for the Handicapped (3) Curriculum oriented for teachers and related professionals to work with the career development of handicapped individuals. Includes

school levels. Cross listed with SPED 4650/8656. Prereq: COUN 8020 or permission.

4750/8756 Mid-life, Career Change, Preretirement Planning (3) This course is designed to involve students in the exploration of the developmental tasks of mid-life, myths and realities related to career change as well as the implication of preretirement planning. Factual information, as well as model examination and evaluation are presented to aid the student in becoming better equipped to understand some of the forces which affect the well-being of middle age persons as they prepare for the later years. Prereq: Junior standing/permission of the instructor.

4790/8796 Practical and Experiential Training in Counseling (1/2-6) An integrative course designed to acquaint students and practitioners with recent developments in the counseling profession. This course is repeatable up to a maximum of six hours of credit each time the conditions of this sequence are met. Prereq: Permission of instructor.

8806 (Same as TED 8806) Guidance Skills for Educators (3) Course designed to familiarize educators with guidance activities of schools, the educator's role in these activities, and to develop appropriate guidance and listening skills. No credit for guidance majors. Prereq: Senior or Graduate.

4980/8986 Counseling Skills in Gerontology (3) This course is intended to help develop basic counseling skills for application in gerontology.

8000 Special Studies in Counseling and Guidance (1-6) Intensive courses scheduled as regular seminars or workshops, according to purpose. Prereq: Permission of department.

8010 Teaching Models in Affective Education (3) A study of models of teaching in the affective areas of education; a variety of models will be explored with special emphasis on planning and implementing activities in classroom situations. Prereq: ELED 4360 or SED 4580 or permission of instructor.

8020 Principles of Guidance (3) The introductory course for students majoring in Counseling and Guidance. A study of the basic principles underlying Counseling and Guidance. Students will begin counseling skill development in this course. It will be taken concurrently with COUN 8030, Counseling Practices. Prereq: Admission to Graduate College and the Counseling and Special Education Department or by permission.

8030 Counseling Practices (3) This is a pre-practicum course for counseling majors. Course is designed to develop basic counseling skills. Prereq: Admission to counseling program or permission.

8100 Research Project in Counseling and Guidance (1-3) Individual or group study and analysis of specific problems/issues in the field. Prereq: TED 8010 and permission of the instructor.

8120 Counseling With Parents (3) A course emphasizing techniques used in working with fam-

8150 The Student and Student Personnel Work in Higher Education (3) An overview of the characteristics of college students and their interaction with campus environmental influences. The impact of student personnel work is considered as it affects personality growth, social development and career planning by college students. Prereq: FED 8010.

8190 Research Project in Counseling and Guidance (2-3) Research study on a problem in the area of guidance and counseling. Prereq: Permission of department.

8200 Counseling Theories and Techniques (3) Study of contemporary theories of counseling, the counseling process and methods, and the acquisition of skills related to specific counseling techniques. Prereq: COUN 8020 and concurrent enrollment in COUN 8300 and COUN 8310

8210 Organization and Administration of Guidance Service in Secondary Schools (3) Study of organizational patterns and administrative practices in guidance and counseling programs. Prereq: COUN 8020, Principles and Practices of Guidance and Counseling.

8220 Counseling Practicum (3) Supervised experiential training in counseling. Prereq: Twenty hours in counseling including COUN 8030 and COUN 8200.

8230 Appraisal Techniques in Counseling and Guidance (3) Appraisal Techniques in Counseling and Guidance discusses the history of individual appraisal, the major technical considerations governing assessments and a survey of measurement devices in the cognitive and affective domains. The course will include uses and implication of nonstandardized assessment devices. Additionally, this course will cover the responsible use and interpretation of ability, aptitude, interest, personality, and career development measures. Prereq: COUN 8900 or COUN 8150, and TED 8010.

8250 Advanced Counseling Practicum (3-4) Continuation of COUN 8220 Counseling Practicum. Prereq: COUN 8220.

8260 Internship (3-6) Field experience in an approved guidance program under the supervision of a qualified counselor and a guidance professor of the university. Prereq: COUN 8240 and permission of department.

8270 Group Techniques in Guidance (1 or 3) Lecture and formal presentation of issues involving the group process in counseling (1 hour); it may also involve laboratory component stressing the experiential and application of aspects of the group process (3 hours). Students with a departmentally approved group experience take the course for one hour credit. All other students must take the class for three hours credit. Prereq: Admission to graduate program in Counseling or permission of instructor.

8280 Counseling Older Adults and Their Families (2) A study of issues related to the counseling of older adults and their families. (Same as Gero 8280) Prereq: COUN 8240 or permission of instructor.

dealing with the ecology of the urban disadvantaged and its effects upon counseling. Prereq: Admission to Counseling and Guidance, Criminal Justice, or Home Economics, or Instructor's approval.

8300 Counseling Techniques I (1) Study of counseling process and techniques emphasizing the Adlerian Counselor approach; beginning skills development in the use of these techniques. Prereq: COUN 8200.

8310 Counseling Techniques II (1) Study of counseling process and techniques emphasizing Rational Emotive Therapy and other cognitive approaches. To begin skill development in the use of these techniques. Prereq: COUN 8200, Counseling Theories.

8330 Elementary School Counseling Practicum (4) Counseling in the elementary setting under the supervision of a counseling professor of the university. Prereq: Coun 8320 and permission of department.

8350 Elementary Counseling Internship (6) Field experience in an elementary counseling program under the supervision of a counseling professor and appropriate in-school personnel. Prereq: Coun 8320 and permission of department.

8370 Group Counseling Theory and Practice (3) A course designed primarily for counselors with a combination of theory and experiences necessary to the understanding of effective leadership skills involved in the group counseling process. Prereq: Coun 8020, 8200, 8270.

8400 Counseling Techniques III (1) This course is intended to assist students in developing more systematic integration of previously learned information and skills and the application of those to specific counseling situations. A prerequisite for Counseling Practicum. Prereq: COUN 8300 Counseling Techniques I, COUN 8310 Counseling Techniques II

8420 Vocational Counseling (3) This course is designed to provide agency counselors with both practical and professional skills in the area of vocational counseling and decision making. Prereq: Agency Counseling major or permission.

8450 College Student Personnel Internship (6) This course is designed to provide practical work experience under supervision in various areas within student personnel services. Prereq: Permission of instructor.

8470 Practicum in Group Counseling (4) Supervised experience co-facilitating group counseling at an approved practicum site. Required as the third course for the cognate area of Group Work in Counseling. Prereq: COUN 8030, 8200, 8270, 8370 or permission.

8510 Alcoholism Treatment Modalities (3) An examination of alcoholism treatment modalities. Special attention is given to comparison with regard to theoretical perspectives, techniques, and effectiveness. Prereq: Graduate standing in Coun Guid, Social Work or Psy. Graduate students in other disciplines with prior training or experience in counseling will be admitted with permission of

8600 Parent Education (3) A study of several existing Parent Education programs. The students develop parenting skills by becoming involved as study group members. Students learn how to conduct Parent Education programs by serving as Parent Education facilitators/leaders. It is an experiential-oriented course. The understanding of family dynamics and human behavior are important components of this course. Prereq: Graduate standing.

8610 Introduction to Marital and Family Therapy (3) This course is designed to acquaint students in the Human Services field with basic marriage and family counseling theory and techniques. Prereq: COUN 8200.

8960 Directed Readings in Counseling and Gerontology (1-3) A study of recent and current literature on counseling with older people. Prereq: Counseling Major and Coun-Gero 8986 or permission of the instructor.

8990 Thesis (1-6) Independent research project written under the supervision of an adviser. Prereq: Permission.

9200 Independent Study in Counseling Theories and Techniques (1-3) Guided study of counseling theory and techniques under supervision of faculty member. Prereq: COUN 8200 - Counseling Theories or permission of instructor.

Special Education

8026 Using Microcomputer Software in Special Education (3) This course is intended for educators working with special education students. Students will learn about and how to use software to assist them in providing services to special education students. They will be taught to evaluate software in the area of special education and will participate in evaluating software that they should be using. Students will learn about software that would assist them in assessment and remediation including information on report writing, prescription and record keeping.

4040/8046 Workshop in Special Education or Speech Pathology (1-6) The purpose of this course is to provide workshops or special seminars in the area of special education or speech pathology. Prereq: Determined by the instructor.

8106 Psychology of Exceptional Children (3) A study of exceptional children and adolescents with sensory or motor impairments, intellectual retardations or superiorities, talented or gifted abilities, language or speech discrepancies, emotional or behavioral maladjustments, social or cultural differences, or major specific learning disabilities. Cross listed with PSY 8596.

4110/8116 Assessment and Curriculum in Cognitive Development for the Severely/Profoundly Handicapped (3) This course will involve a combination of lectures, demonstrations and practicum experiences designed to prepare the student to be able to assess cognitive development in the severely handicapped student, and apply that information to the development of individual educational plans for severely handi-

presentations and practicum. Prereq: Graduate student, permission of instructor. Undergraduate student: Junior standing in special education, PSY 1010 or PSY 3510, CORE 2100, 2500, 2800 or equivalents, and permission of instructor.

4200/8206 The History, Psychology and Sociology of Deafness (3) This is an introductory course which surveys historical, sociological, psychological, and future directions in the education of hearing impaired children. Basic concepts, definitions, theories, and research are explored in a highly independent manner. An in-depth experience in an agency working with children or adults is expected. Basic understanding is developed which will assist the student as he/she progresses in a Hearing Impaired or related program. Prereq: Admittance to a Counseling and Special Education program or permission of the instructor.

4220/8226 Teaching Speech to Hearing-Impaired Students (2) An investigation of the speech of the hearing impaired child, preschool through high school, and exposure to the theory and methods used to assess and develop these skills in the classroom. Prereq: SPED 4450 and 8456.

4230/8236 Language Development and Disorders for Teachers (3) An investigation of the nature and structure of language, acquisition of language and childhood disorders. This course is designed for undergraduate/graduate students who are teachers or are preparing to be regular and/or special education teachers. Prereq: None.

4240/8246 Bilingual/Bimodal Language Development and Curriculum (3) The course will include an overview of monolingual, bilingual and bimodal language acquisition and signed language and/or system learning, curriculum, and assessment. Linguistic methodology will be applied to H.I. language situations. Commercial, teacher-made and H.I. language materials will be evaluated and historical methodology review. A "Deaf Awareness Event" will be organized by students in this class to teach students the skills involved in conducting an inservice. Prereq: Admittance to H.I. Program and Normal Language Development class.

4330/8336 Aural Rehabilitation (3) This course examines the research and methodology of speech reading and auditory training as they pertain to the hearing impaired child. Practice with and evaluation of popular tests and methods are experienced in a practicum setting. Types of aids and FM systems and techniques of troubleshooting these units are also presented. Prereq: SPED 8396 and 8376.

4350/8356 Teaching Content Subjects to the Hearing Impaired (3) Consideration of problems in education of the hearing impaired; approaches to school subjects considered in detail.

4370/8376 Basic Audiology (3) Study of the pathologies of the auditory system and assessment of auditory disorders. Emphasis will be on various practical aspects of audiology for the communication disorders specialist. Competency will be accrued in performance of basic hearing tests. Prereq: For 4370, SPED 4390 2.5 GPA; for 8376

4390/8396 Hearing Science (3) This course is designed for undergraduate majors in speech pathology and audiology and for graduate students in education of the deaf. The purpose of the course is to introduce basic concepts important for understanding the process of human audition. The course will include basic terminology, anatomy and physiology of the hearing mechanism, acoustics and physics of sound, the processes of human hearing, elements of basic hearing measurement, psychophysics. Prereq: 9386, Graduate major in Deaf Education. Not available to Speech Pathology majors as a graduate course.

4410/8416 Communication Disorders with Organic Etiologies (3) This is a graduate level course in applied basic science and clinical methods related to several of the most common communication disorders associated with organic etiologies. It is designed as an elective course in the masters degree programs in speech pathology and for post-masters education for practicing speech clinicians desiring a graduate level overview of these topics. Prereq: Undergraduate degree in speech pathology or instructor's permission.

4420/8426 Language Development in Children (3) This course is designed to familiarize the student with normal aspects of language development in children, including inter and intra personal forces in language, major subsystems of language, and nonverbal and pragmatic aspects of language development. Prereq: None.

4440/8446 Rhythm/Symbolization (3) Study of etiology and descriptive classifications of rhythm and language symbolization disorders; assessment procedures; with special emphasis on rehabilitation procedures and methods associated with stuttering, cluttering, organic dysprosody, and aphasia. Prereq: 2.5 GPA for undergraduate students.

4450/8456 Speech Science II: Experimental and Applied Phonetics (3) Analysis of phonetic and phonetic elements in major American English dialects; practice in transcription of standard and defective speech, use of the sound spectrograph, spirometer and other equipment. Prereq: For 4450, junior standing 2.5 GPA. (F,Su)

4590/8596 Disorders of Communication in Older Adults (3) This course is designed to familiarize the student with the identification and symptomology, basic assessment and intervention strategies associated with disorders of communication affecting older adults and geriatric patients. It is beneficial to students majoring in gerontology, or speech pathology, as an elective course or as a professional enrichment course for persons working in these or related fields. Students are assigned contacts with and written reports of contacts with an older adult who manifests a disorder of communication. Prereq: GERO 4550/8556 Health Aspects of Aging, or permission of instructor.

4600/8606 Introduction to Mental Retardation (3) This modular competency based course covers background information on mental retardation; the needs of and services available for

niques and methods; the problems caused because of mental retardation in a family and society; and the status of and trends in the field of mental retardation.

4640/8646 Methods and Materials in Special Education (3) Individualized instruction and selection of appropriate methods and materials to meet educational programming needs for the mildly/moderately handicapped. Prereq: For 4640, Junior standing, 2.5 GPA, SPED 3030. For 8646, graduate standing.

4650/8656 Career Development for the Handicapped (3) Curriculum oriented for teachers and related professionals to work with the career development of handicapped individuals. Includes information for elementary through adulthood with emphasis on intermediate and junior high school levels. Crosslisted with COUN 8656. Prereq: None.

4660/8666 Developing Vocational Training Programs for the Seriously Handicapped (3) Directed toward teachers of secondary, post-secondary and adult handicapped persons to utilize vocational evaluation information, to develop training programs for seriously handicapped youth and adults, and to compare various curriculum models for serving seriously handicapped youth and adults. Prereq: None.

4710/8716 Interactions Between Professionals and Parents of the Handicapped (3) This course includes interviewing parents of handicapped children, identifying both family and professional concerns, and a student project in one of four areas: (1) challenges of parenting the handicapped; (2) strategies for involving parents in planning, implementing, and evaluating handicapped child education plans; (3) curriculum/instruction/therapy modification for family use; and (4) professionals dealing with families of the handicapped. Undergraduate students will work with a family as the family goes through the process of obtaining appropriate services for their handicapped child. Prereq: SPED 3010, 3020, 3030 (for undergraduates).

4750/8756 Childhood Language Disorders (3) This course is designed to cover the various problems involved in language acquisition among exceptional children; and the various methodological techniques of teaching language to exceptional children. Prereq: Special Education 4420 and 2.5 GPA.

4800/8806 Emotional Development of Children and Youth (3) The study of psychological, biological, and environmental factors that affect social and emotional development of children and adolescents. Emphasis is placed on causative emotional handicaps, symptoms and subsequent implications for design of the learning environment. Crosslisted with Curriculum and Instruction. Prereq: For 4800, SPED 3010 and junior standing.

4810/8816 Classroom Techniques for Behavior Control (3) This course will introduce the student to a variety of techniques for managing behavior in the classroom. Three major areas will be presented and specific techniques within each

adjustments of techniques will be accomplished in class. The course is intended for undergraduate students who are currently enrolled in student teaching and for graduate students who are currently teaching in elementary, secondary, or special education programs. Prereq: For 4810, junior standing and student teaching; for 8816, graduate standing.

8830 Practicum In Teaching Emotionally Disturbed (3) A semester of participation in a classroom situation in the field of teaching Emotionally Disturbed children and adolescents. Prereq: SPED 8806, SPED 8816 and permission.

8840 Advanced Practicum In Teaching Emotionally Disturbed (3) A semester of participation in a clinical or hospital classroom situation in the field of Teaching Emotionally Disturbed children and adolescents. Prereq: SPED 8820 and permission.

8000 Special Projects (1-6) Seminars, workshops, or independent studies on specific topics.

8030 Teaching Handicapped Students in the Regular Classroom (3) This is a course designed to help regular classroom teachers work with mildly handicapped students placed in their regular classrooms. The emphasis will be on effective classroom strategies for working with students and techniques for communicating with special educators. Prereq: None.

8040 Communication Disorders for Classroom Teachers (3) This is a service course for the classroom teacher. It provides the following: identification of the children, referral within and outside the school setting, legal considerations, utilizing the speech-language specialist as a resource, management techniques for teachers, and teachers' roles on Student Assistance Teams (SAT), on Multidisciplinary Teams (MDT), and similar topics. Prereq: Graduate standing.

8100 Research Projects (3) Individual or group study and analysis of specific problems.

8130 Diagnostic and Remedial Instruction in Reading (3) A course for advanced students in reading which will provide the student with the essential information for the diagnosis and remediation of reading disabilities. (F,S,Su) Prereq: SPED 9110 or 9120.

8140 Measurement and Evaluation of Reading (3) A clinic oriented course for advanced graduate reading students which will provide them with supervision and training in handling referrals, diagnosing specific reading problems, writing professional level case reports and general practices that are necessary for running an effective diagnostic reading clinic. (F,S) Prereq: SPED 8130.

8150 Clinical Practice in Reading (3) A laboratory-oriented course for advanced students in reading which will provide them with practicum training in the use of proper remedial reading techniques in order that they might qualify as reading specialists. (F,S,Su) 4 Prereq: Permission and SPED 8140.

8400 Learning Disabilities (3) Study of specific learning disabilities among children; review prob-

lems for identification of the problem; therapy techniques for habilitation or rehabilitation of children with specific learning disabilities.

8420 Advanced Studies in the Disorders of Voice (3) Types and causes of voice disorders; rationale for case selection; cleft palate; special emphasis on rehabilitation procedures associated with individual involvements; practicum. (F)

8430 Advanced Studies in the Disorders of Rate and Rhythm (3) Types and causes of rate, rhythm and stress pattern disorder; rationale for case selection; survey of stuttering theories and therapies; special emphasis on rehabilitation procedures associated with individual involvement; practicum. (S)

8440 Advanced Studies in The Disorders of Aphasia and Related Problems (3) Types and causes of language symbolization disorders; rationale for case selection; childhood aphasia and autism; special emphasis on rehabilitation procedures associated with individual involvements; practicum. (S)

8450 Current Practices in Speech Pathology This course provides for study and experience in speech therapeutic programming utilizing behavioral modification techniques based on Skinnerian-behaviorist principles. It includes a review of current literature and emphasizes operant articulatory and language remedial procedures. (Su) Prereq: SPED 8506.

8460 Diagnostic Methods in Communicative Disorders (3) Tests and procedures for evaluating individuals with speech disorders; principles in differential diagnosis and report writing; observation during evaluation periods in speech and hearing centers. (F) Prereq: Graduate standing and 6 hours of speech pathology.

8470 Speech Science III: Neurophysiology of Speech and Language (3) Introduction to human neuroanatomy and neurophysiology. Emphasis is placed on gaining familiarity with the brain mechanisms and sensory and motor functions which underline human communication and its disorders; individual projects. (F,Su)

8480 Advanced Audiology (3) This course is intended for graduate students majoring in speech pathology. It is designed to present information pertinent to clinical certification of the speech pathologist. Course content includes specialized techniques applicable to the assessment and diagnosis of auditory dysfunction. Application of basic hearing techniques combined with special tests for assessment of site of lesion will be stressed. The use of case histories, otological considerations, identification audiometry, and equipment maintenance will be considered. Prereq: SPED 4370.

8500 Basic Clinical Practicum in Speech Pathology (3) This course in practicum follows the course 4510 which is the student's first experience in clinical practicum. It is designed to give graduate students who need more than one semester of closely supervised practicum an opportunity to get this experience before being placed in a setting away from the university. (F,S,Su) Prereq: Permission and SPED 4510 or equivalent.

8510 Advanced Clinical Practicum in Com-

course provides the student with an "externship" experience for clinical practicum in a school setting with a cooperating clinician serving children in a typical school program. A minimum of 130 clock hours of work is required for credit. Prereq: SPED 4510 and graduate standing.

8520 Advanced Clinical Practicum in Communication Disorders (Hospitals and Rehabilitation Centers) (3) The second semester of advanced clinical practicum. The student is placed in an "externship" setting with a cooperating clinician working in a hospital, rehabilitation center, or a unique school program serving a special population of children. A minimum of 130 clock hours of work is required for credit. Prereq: SPED 8510.

8530 Seminar in Speech Pathology (3) Student selects and investigates three different areas of current concern in speech pathology; initial survey, annotated bibliography, presentation of observation and conclusions, seminar discussion of findings. Instructor will base his lectures on topics chosen by students for study; clinical demonstrations of selected voice, speech and language problems. (S,Su) Prereq: Eighteen hours of graduate speech pathology.

8540 Cleft Palate (3) This course in speech pathology is designed for graduate students and public school speech clinicians. This course is designed to expose students to the problems of communication by which the child with a cleft of the palate is confronted. Developing competencies for remediation procedures and methods will be the primary aim of the course. (S)

8550 Alaryngeal Speech Rehabilitation (2) Problems of voice and speech rehabilitations for the individual without a functional larynx; social, emotional, and medical considerations as well as clinical procedures for esophageal, pharyngeal and buccal speech; implications for use of artificial larynx; current research pertinent to this area. (F) Prereq: Graduate standing and 6 hours speech pathology courses including voice problems.

8560 Speech Problems of Cerebral Palsied Children (3) Identification of types of cerebral palsy by a location of lesion, motor symptomatology, and additional handicaps; the role of the speech clinician on the team; types of speech therapy, with special emphasis on the bobath approach; current research and controversial issues will be discussed. (S) Prereq: SPED 8470.

8610 Teaching Severely/Profoundly Handicapped (6) This course/workshop is intended for special educators and educational/medicine support personnel (PT, OT, Speech Path) working with students with severe, profound or multiple handicaps in school settings. This course is designed to familiarize students with concepts, terminology, professional issues, resources and teaching strategies as a basis for professional communication and educational programming for this handicapped population. Particular emphasis will be placed upon developmental content in the areas of motor, cognitive and communication development for development ages birth to five years. Prereq: SPED 4600/8600.

where students study the terminology of curriculum, its goals and aims, objectives and taxonomies, curricular development, units and lesson plans, task analysis assessment and evaluation, and programming. Projects, small-group discussion, and a final test make up the evaluation techniques used in this class.

8670 Methods of Instruction for the Severely/Profoundly Handicapped (3) This course will involve a combination of lectures, demonstrations and practicum experiences designed to prepare the student to be able to concretize assessment principles into written behavioral objectives and written task analysis. Demonstration of competency in course objectives will be evidenced by collecting, measuring and graphing data on the written objectives and tasks. Prereq: SPED 8600, 8060 or permission of instructor.

8680 Sensory Disabilities and Physical Handling in the Multiply Handicapped Child (3) This course will include overviews of typical sensory development and physical handling, including the discussion and illustration of educational implications of sensory disabilities and motor problems in the child with multiple handicaps. Application of principles to educational intervention will be stressed. Prereq: SPED 8600 or equivalent or permission of instructor.

8700 Seminar in Special Education (3) Graduate course for professional workers who provide services for exceptional persons. Each seminar will be conducted around a theme concerned with current professional practice. Participants will each prepare a project which includes practical research, a written paper, and presentation to the class. Lecture by the instructor and guests will be related to the seminar theme. Prereq: Graduate Standing in a field of Social Science.

8720 Basic Student Teaching (3) Classroom experience with exceptional children for graduate students who have had other professional experiences. Students will participate in observation, participation, teaching, and a weekly seminar. (F,S,Su)

8730 Advanced Student Teaching (3) A second semester of classroom experience with exceptional children for graduate students who have had other professional experiences. Students will participate in observation, participation, teaching, and a weekly seminar. (F,S,Su) Prereq: SPED 8720.

8820 Educational Strategies for Emotionally Disturbed Children Adolescents (3) This course is designed for the professional teacher who is teaching or preparing to teach emotionally disturbed children and adolescents. The course will examine the causes and characteristics of a variety of maladaptive behaviors with a view toward identifying the child's needs and stressing the design of educationally therapeutic response systems. Prereq: SPED 8406, 8806, 8816.

8870 Diagnostic and Remediation Techniques in Early Childhood Education for The

Disabled (3) This course deals with the different disciplines used at the Medical Center presenting some of their techniques for assessing the developmentally disabled child and also presenting methods that can be utilized in intervention with the developmentally disabled child. (S) Prereq: TED 8060.

8900 Administration and Supervision of Special Education (3) Problems of organization, administration, and supervision of special education programs: finance, federal involvement, legislation, litigation, due process, intermediate educational units, accountability and physical facilities will also be presented. Prereq: Graduate Standing.

8910 Theories of Assessment and Diagnosis of Learning Deficits (3) This course introduces the graduate student to a model assessment and diagnosis that describes both the quantitative and qualitative relationship between learning ability and academic achievement. Prereq: None.

8930 School Practicum in Resource Teaching/Learning Disabilities (3) This course provides the graduate student with either inservice or placement in a school program for the learning disabled or in a resource room setting and at a level commensurate with the student's desired level of endorsement (pre-school-kindergarten, elementary, middle school, or secondary). Prereq: Step I and permission.

8960 Advanced Diagnosis of Learning Deficits (4) The purpose of this course is to provide the student with indepth practicum experiences in the administration and interpretation of normative referenced evaluative measures (non-psychological), criteria-referenced tests, and informal diagnostic teaching probes. Prereq: SPED 8910.

8970 Clinical Teaching in Learning Disabilities (3) Theoretical and limited practical knowledge of a particular kind of teaching which is to tailor learning experiences to the unique needs of children who have specific learning disabilities. The student learns of the flexibilities and continuous probing needed for individualized instruction. Prereq: None.

8990 Thesis (1-6) Required of all students taking master of arts degree, see major adviser for information. (F,S,Su)

8770 Basic Practicum in Special Education (3) This course provides participation in various clinical or classroom situations in the field of special education. The course is open to all students in all areas of special education. Assignments will be made according to the area of interest of the student. (F,S) Prereq: Master's degree and acceptance in the SPED program.

8780 Advanced Practicum in Special Education (3) A second semester of participation in various clinical or classroom situations in the field of special education. The course is open to all students in all areas of special education. Assignments will be made according to the area of interest of the student. (S.) Prereq: SPED 8720.

CRIMINAL JUSTICE

PROFESSORS: Siegel, Walker

ASSOCIATE PROFESSORS: Eskridge, Hoffman, Holbert, Horney, Marshall, Porter, Wakefield, Webb

Degree Programs

The Criminal Justice Department offers the student a choice of either a Master of Science or a Master of Arts Degree in Criminal Justice. Both degree programs emphasize criminal justice research, theory, planning and administration.

Admission Requirements for the Criminal Justice Graduate Program

All candidates must have a minimum of 18 semester hours of Criminal Justice or related courses which represent the core undergraduate curriculum. In addition, all candidates must have completed a basic statistics course, a research methods course, and a minimum of 15 hours in the Social Science area at the undergraduate level. Those students lacking these requirements will be required to make up these deficiencies during the first year of graduate work.

Master of Arts

The Master of Arts degree is a 30 credit-hour program designed to emphasize research activity and independent inquiry, while simultaneously providing fundamental coursework. This degree is especially recommended for those students seeking an interim degree prior to obtaining the Ph.D.

To earn the Master of Arts degree in Criminal Justice, the student must satisfactorily complete the following course requirements:

Required Core Courses*	9 hours
8000 Professions in Criminal Justice	
8010 The Nature of Crime	
8020 Seminar in Administration of Justice	
8030 Criminal Justice Research Theory and Methodology	
Elective Criminal Justice Courses (student selects five (5) courses with advisor approval)	15 hrs.
8040 Seminar in Police and Society	
8050 Seminar in Corrections	
8060 Seminar in the Criminal Court System	
8070 Seminar in Criminal Law and Procedure	
8080 Seminar in Juvenile Justice	
8090 Seminar in Theoretical Criminology	
8100 Criminal Justice Organization, Administration, and Management	
8110 Criminal Justice Planning and Change	
8120 Independent Study	
8200 Special Problems in Criminal Justice	
8316 Correctional Law	
8356 Community Based Corrections	
8990 Completion and Successful Defense of Thesis	6 hours

*All courses, except 8000, carry three hours credit.

Master of Science

The Master of Science degree is a 36 credit-hour non-thesis program. This degree program offers the student a choice of either the standard Master of Science curriculum or a Master of Science with an option in Public Administration or a Master of Science with an option in Counseling. The Public Administration Option is especially recommended for administrators or future administrators within the criminal justice system. The Counseling Option is designed for those who wish to work with juvenile and adult offenders in the criminal justice system.

To earn the Master of Science Degree in Criminal Justice, the student must satisfactorily complete the following course requirements:

Required Core Courses	9 hours
8000 Professions in Criminal Justice	
8010 The Nature of Crime	
8020 Seminar in Administration of Justice	
8030 Criminal Justice Research Theory and Methodology	

Elective Criminal Justice Courses
(student selects five (5) courses with advisor approval) 15 hours

8060	Seminar in the Criminal Court System	
8070	Seminar in Criminal Law and Procedure	
8080	Seminar in Juvenile Justice	
8090	Seminar in Theoretical Criminology	
8100	Criminal Justice Organization, Administration, and Management	
8110	Criminal Justice Planning and Change	
8190	Independent Study	
8200	Special Problems in Criminal Justice	
8316	Correctional Law	
8356	Community Based Corrections	12 hours

Elective Cognate Courses

In consultation with an advisor the student selects four (4) courses in a related field. Suggested fields include, but are not limited to: Business Administration, Psychology, Political Science, Social Work, and Sociology. Satisfactory completion of the comprehensive examination is also required.

**Master of Science
(Public Administration Option)**

To earn the Master of Science Degree in Criminal Justice, Public Administration Option, the student must satisfactorily complete the following course requirements:

Required Core Courses		9 hours
8000	Professions in Criminal Justice	
8010	The Nature of Crime	
8020	Seminar in Administration of Justice	
8030	Criminal Justice Research Theory and Methodology	

Required Public Administration Courses		12 hours
8050	Survey of Public Administration	
or		
8440	Seminar in Organizational Development in Public Agencies	
8406	Public Budgeting	
or		
8480	Seminar in Public Financial Administration	
8416	Public Personnel Management	
or		
8460	Public Personnel Administration (if credit has been earned in PA 4410)	
8420	Seminar: Introduction to Public Organization	

Elective Criminal Justice Courses		15 hours
(student selects five (5) courses with advisor approval)		
8040	Seminar in Police and Society	
8050	Seminar in Corrections	
8060	Seminar in the Criminal Court System	
8070	Seminar in Criminal Law and Procedure	
8080	Seminar in Juvenile Justice	
8090	Seminar in Theoretical Criminology	
8100	Criminal Justice Organization, Administration, and Management	
8110	Criminal Justice Planning and Change	
8190	Independent Study	
8200	Special Problems in Criminal Justice	
8316	Correctional Law	
8356	Community Based Corrections	

Satisfactory completion of the comprehensive examination is also required.

**Master of Science
(Counseling Option)**

To earn the Master of Science degree in Criminal Justice, Counseling Option, the student must satisfactorily complete the following course requirements:

Required Core Courses*		9 hours
8000	Professions in Criminal Justice	
8010	The Nature of Crime	
8020	Seminar in Administration of Justice	
8030	Criminal Justice Research Theory and Methodology	
Required Counseling Courses		6 hours
8030	Counseling Practices	
8020	Principles of Guidance	

Elective Counseling Courses

6 hours

In consultation with an advisor the student selects two (2) additional counseling courses. Suggested courses include, but are not limited to the following:

8270	Group Techniques in Guidance
8370	Group Counseling Theory and Practice
8076	Crisis Intervention/Suicidology
8200	Counseling Theories

Elective Criminal Justice Courses

15 hours

(student selects five (5) courses with advisor approval)

8040	Seminar in Police and Society
8050	Seminar in Corrections
8060	Seminar in the Criminal Court System
8070	Seminar in Criminal Law and Procedure
8080	Seminar in Juvenile Justice
8090	Seminar in Theoretical Criminology
8100	Criminal Justice Organization, Administration, and Management
8110	Criminal Justice Planning and Change
8190	Independent Study
8200	Special Problems in Criminal Justice
8316	Correctional Law
8356	Community Based Corrections

Satisfactory completion of the comprehensive exam is also required.

4310/8316 Correctional Law (3) The law of corrections as it pertains to the institutionalized and community-based offender will be considered. Legal issues relating to sentencing (including the death penalty), prisoner's "rights" in institutions and community-based corrections, procedural protections before the loss of offender "rights" and restoration of civil rights will be examined. Prereq: None.

4350/8356 Community Based Corrections (3) A course for advanced students with special interest in the correctional process as applied in a community setting. It is designed specifically to focus on probation, parole, and other current community based strategies for dealing with the offender. Prereq: None.

8000 Professions in Criminal Justice (0) A required non-credit course for graduate students in criminal justice. Intended to familiarize the beginning graduate student with the criminal justice profession including such topics as the historical development of the field of criminal justice, professional organizations, job opportunities, and the use of reference materials. Prereq: Admission to the graduate program in criminal justice.

8010 The Nature of Crime (3) This course provides an overview of the major dimensions of crime in the U.S. Content areas included are the epidemiology of crime, the costs of crime, and typologies of crime and criminals. Prereq: Graduate standing and permission of instructor.

8020 Seminar in Administration of Justice (3) This course is designed to provide students with a critical understanding of responses to crime. Particular emphasis is placed on the theory and research bearing upon the effectiveness of the policies and strategies of the principal institutions of the criminal justice system - the police, courts and corrections. Additionally, philosophical and practical matters pertaining to "justice" and "fairness" in the administration of the criminal law are explored.

8030 Criminal Justice Research Theory and Methodology (3) Research theory and methodology in the social sciences as applicable to criminal justice; preparation of research designs, conceptual models; sampling procedures; and development of individual research papers. Prereq: Graduate standing and permission.

8040 Seminar in Police and Society (3) This course is designed to explore the role of the police in American society. Attention is given to the origins of policing, the nature of police organizations and police work, and patterns of relations between the police and the public. The values of a democratic society as they affect the law enforcement role are discussed. Prereq: Graduate standing and permission of instructor.

8050 Seminar in Corrections (3) This course is designed to give an analytical perspective to the history, development, implementation, and future of critical issues in the field of corrections. Primary focus will be directed toward an exploration of the various theoretical approaches to corrections and the research intended to support or refute these perspectives. Prereq: Graduate standing and permission of instructor.

8060 Seminar in the Criminal Court System (3) This course is designed to provide a social science perspective on the role of the courts in the criminal justice system. The ideals of the system will be compared with actual functioning, and court reform programs and proposals will be critically examined. Prereq: Graduate standing and permission of instructor.

8070 Seminar in Criminal Law and Procedure (3) This course is designed to examine substantive criminal law as the basis of social control in our country. Contemporary issues such as the insanity defense, decriminalization of so-called victimless crimes, sexual assault and abortion, and current proposals to assist victims of crimes will be among the topics explored. In addition, current

be examined. Prereq: Graduate standing and permission of instructor.

8080 Seminar in Juvenile Justice (3) An inquiry in the social ramifications of the entire juvenile delinquency process including labeling, detention, incarceration and tolerance. Pre- and post-adjudicatory issues are dealt with as well as a realistic perspective given to delinquency prevention strategies. Prereq: Graduate Standing and Permission.

8090 Seminar in Theoretical Criminology (3) A study of the etiology of crime as a social phenomenon and an objective analysis of the historical influences and thought which molded its development into an accepted contemporary science. Prereq: CJ/Soc 3350, graduate standing and permission of instructor.

8100 Criminal Justice Organization, Administration, and Management (3) This course will deal with issues in the organization and administration of modern justice agencies. The students will be exposed to theories, concepts, and issues relating to the administration and organi-

zation of justice agencies. Prereq: Acceptance in the graduate college and permission of instructor.

8110 Criminal Justice Planning and Change (3) This course provides an introduction to the basic concepts, theories, and processes in criminal justice planning. Course content includes examination of planning data sources and application of fiscal planning, manpower planning, and strategic policy planning to criminal justice. Graduate standing and permission of instructor.

8190 Independent Study (1-3) Individual projects in research, literature review, or creative production which may or may not be an extension of course work. The work will be supervised and evaluated by departmental graduate faculty members. Prereq: Graduate hours in major department and permission of instructor.

8200 Special Problems in Criminal Justice (3) A course devoted to an exploration and analysis of contemporary special problems in the broad spectrum of law enforcement and corrections. Prereq: CJ graduate student and permission of instructor.

8990 Master's Thesis (1-6)

DRAMATIC ARTS

PROFESSORS: Curtis

ASSOCIATE PROFESSORS: Paterson

ASSISTANT PROFESSORS: Brooks

The Master of Arts program in Dramatic Arts offers concentrated study in theatre history, literature, theory, and production. The overall goal of the program is to enrich the student's understanding of theatre as a humanistic and liberalizing art, to broaden and deepen an appreciation of the drama and theatre history, to introduce the student to research in theatre and drama, and to strengthen skills and creativity in the arts of theatre production.

The program is broadly flexible and allows each student to design a plan of study that meets individual needs and goals. With four main stage productions and at least two graduate-directed productions each year, opportunities for applied work are considerable. The combination of practical production activity and stimulating coursework creates for the advanced student a wide variety of learning situations. As a part of an urban university, moreover, the UNO Dramatic Arts Department has close ties to the Omaha community and encourages work that takes advantage of these ties. For, although the department is committed to nurturing a greater understanding of American and world theatre, our natural constituency is the Omaha and Great Plains region, and it is these people we serve through our efforts in theatre scholarship, production, and outreach.

An applicant for graduate study in Dramatic Arts must present a minimum of 15 undergraduate semester hours with a B average in appropriate courses or experience equivalent to undergraduate training in theatre. Background in costume, makeup, stagecraft, design, lighting, acting and literature must be demonstrated by transcript, by further undergraduate coursework or by demonstrating proficiency. In order to begin a review of credentials, the student should contact the chairperson of the Graduate Program Committee. (Phone 402-554-2406 for further information.) Deficiencies will be determined by the Graduate Program Committee and ideally should be made up in the first year of study.

The department accepts the Miller Analogy Test (MAT) as well as the Graduate Record Examination (GRE) for admission. The graduate program in Dramatic Arts is designed to insure that students are familiar with the field as a whole and that they can demonstrate masters-level competence through a thesis or final project and a written comprehensive examination at the conclusion of their coursework.

The student is eligible for admission to candidacy for the Master of Arts program when a Plan of Study has been developed to satisfy all deficiencies, a three-hour research methods course and six hours of graduate courses completed, and either the MAT or GRE scores put on file. Upon eligibility for candidacy, the student will submit the Plan of Study to the Graduate Faculty via the chairperson of the Graduate Program Committee.

All candidates are required to take a course in research methods in their first twelve hours of program study and to complete one of the following plans of study:

Option I: Successful completion of at least 24 semester hours of coursework including at least 12 hours in 0-level courses; plus a thesis (6 credit hours) based on a proposal approved by the student's committee and defended orally.

Option II-A or -B: Successful completion of at least 30 (Option A) or 33 (Option B) semester hours of coursework including at least 12 hours in 0-level courses; plus a Final Project (6 or 3 hours, depending on Option A or B) consisting of major-responsibility in a production approved by the Dramatic Arts faculty and the Graduate Program Committee in Dramatic Arts or an equivalent major effort in, for example, playwriting or a project of sufficient challenge and depth which is approved by the Dramatic Arts Graduate Program Committee. A final prompt book, journal, portfolio, script, or equivalent documentation will be assembled upon completion of the project and presented to the student's committee. The student will make an oral defense of the project before the committee. Students are directed to obtain a copy of the MA Program Guidelines from the department office for more detailed information on the program process and requirements.

8016-8026 Advanced Projects in Dramatic Arts (1-3) Special projects in dramatic arts supplementing regular courses; individual research projects; combined study and practicum. Prereq: 9 hours of dramatic arts in the general area to be studied and permission of the instructor.

8066 Children's Theatre Production (3) Study of the methods of direction, design, acting and production of plays for children. Students plan a complete children's theatre production or become actively involved in an actual production. Prereq: Undergraduate major or minor in theatre or permission of the instructor.

8326 Acting: Historical Periods and Styles (Each 3) The fundamental theories and practices of major styles of acting from ancient Greece to the present, including interpretation of outstanding dramatic literature. Prereq: DA 2310-2320 or permission of the instructor.

4330/8336 Advanced Acting Studio III: Ensemble Play Production (3) In depth exploration of a play or playwright's work to connect acting class with performance. Special emphasis on creating a working process that allows the ensemble to emerge. The class will culminate in public performance. Prereq: Graduate standing with an undergraduate major or minor in theatre or permission of the instructor.

8446 Directing: Rehearsal and Performance (3) A practicum in play selection, analysis, casting, directing and performing. Prereq: DA 1010, 1630, 2060, 2310 or permission of the instructor.

8500/8516 Costume Design (Each 3) An introduction to the fundamentals of stage costume design, including line, silhouette, movement, color, texture and theatricality. Emphasis on the visual presentation of designs, including considerable work with life drawing and rendering technique. Prereq: DA 2060, 3510; Art 1100, 1210 or permission of the instructor.

8616 Scene Design (3) Principles of composition perspective and color for the stage; the designer's approach to the play, production of ground plans, elevations and sketches. Prereq: DA 1010, 2060, 1630, 2630 and junior standing. For 8616, graduate standing with an undergraduate major or minor in theatre or permission of the instructor.

8676 Stage and TV Lighting (3) Characteristics and control of light and color and their application to the theatre and television; elementary electricity; lens systems; reflectors; lamps; control systems. Prereq: DA 1010, 1630, 2060.

8716 History of the Theatre to 1642 (3) A

8726 History of the Theatre Since 1642 (3) A historical survey of theatre and its literature from 1642 to the present.

8736 Seminar in Theatre History (3) Selected subjects in theatre history from ancient to modern times. The subject of the course will change each year, according to the interest of the students and the instructor. Prereq: Permission of the instructor.

4750/8756 Contemporary People's Theatre (3) A course for graduate and advanced undergraduate students, this study concentrates on the people's theatre movement from 1960 to the present. Considerable emphasis will be given to research and study of companies currently operating, with encouragement given to graduate students to write for publication. Prereq: Graduate: Consent of Instructor. Undergraduate: Junior or Senior standing.

8836 Seminar in Dramatic Literature (3) A seminar for graduate and advanced undergraduate students which will explore selected subjects in dramatic literature in depth. Research papers and seminar reports will be required. The subject of the seminar will change from year to year. Prereq: Permission of the instructor.

8430 Seminar in Play Direction (3) An in-depth study of the principles of play direction. Prereq: Graduate standing and permission of instructor.

8650 Technical Theatre Problems (3) Research and dialogue in the aesthetics and physical results of the relationships between dramatic form, theatre architecture, and scenic design and lighting from historical and contemporary points of view. Prereq: DA 1010, 3660, 4610, 4710, 4720 or permission.

8900 Dramatic Arts Research Methods (3) This course is designed to introduce graduate students in dramatic arts to basic techniques of scholarly research: gathering material, defining the problem, and preparing the manuscript. Prereq: Admission to graduate program in Dramatic Arts.

8910 Dramatic Theory and Criticism (3) For advanced students of dramatic literature. Important dramatic theories and criticism from antiquity to the present. Prereq: DA 1010 or permission of instructor.

8920 Seminar in Contemporary Theatre Aesthetics (3) Research and dialogue in the aesthetic theories and movements in the contemporary theatre. Emphasis on the sources, background, and configuration of theatrical styles

8980 Final Project (1-3) Final project for Option II. Prereq: Admission to candidacy and the approval of the project proposal.

8990 Thesis (1-3) Independent research project written under the supervision of an advisor.

ECONOMICS

PROFESSORS: Lee, Nielson, Sindt, Zahn
ASSOCIATE PROFESSORS: Corcoran, Diamond, Karels, Sosin, Turner

The graduate program in Economics is designed to provide a solid background in theory, quantitative methods and application appropriate to the needs of economists involved in forecasting, simulation, financial analysis, policy analysis and related work.

Admission is based on GPA, undergraduate field of study and the GRE results.

Master of Science

The M.S. program consists of core requirements (15 hours), an elected specialization (6 to 12 hours), electives (9 to 15 hours, depending on the specialization elected), and a comprehensive examination in the area of specialization. No thesis is required for the M.S. degree. All courses are 3 credits. Total hours required: 36.

Each student must complete the core requirements.

Core (15 hours)

- ECON 8200, Microeconomic Theory
- ECON 8220, Macroeconomic Theory
- ECON 8306, Quantitative Applications in Economics and Business*
- ECON 8290, Research Methods
- ECON 8300, Econometrics

*Not required for students demonstrating satisfactory mathematical skills. In that case add 3 hours to electives.

Each student may elect a specialization from those suggested below. Other specializations may be approved by the Economics Program Graduate Advisor. Specializations consist of either 9 or 12 hours of interrelated graduate level coursework.

Suggested Specializations

- I. Economic Theory 9 hours
 - ECON 8160 Seminar in Labor Economics
 - ECON 8456 Monetary Theory and Policy
 - ECON 8650 Seminar in International Economics
 - Electives 12 hours
- II. Energy and Regulatory Economics 6 hours
 - ECON 8216 Industrial Organization
 - ECON 8326 Natural Resource Economics
 - Electives 15 hours
- III. Monetary and Financial Economics (select 4 courses) 12 hours
 - ECON 8010 Public Finance
 - ECON 8456 Monetary Theory and Policy
 - ECON 8450 Seminar in Money and Banking
 - BA 8530 Banking and Financial Markets
 - BA 8566 State and Local Finance
 - Electives 9 hours
- IV. International Economics (select 3 courses) 9 hours
 - ECON 8650 Seminar in International Economics
 - ECON 8616 International Trade
 - ECON 8626 International Monetary Economics
 - ECON 8666 International Economic Development
 - POLI SCI 8200 Seminar in International Politics
 - Electives 12 hours
- V. Urban/Regional Economics (select 4 courses - 12 hours, 6 of which must be in Economics)
 - ECON 8850 Seminar in Urban Economics
 - ECON 8870 Seminar in Regional Economics
 - ECON 8990 Research in Urban/Regional Economics
 - GEO 8126 Urban Geography
 - HIST 8436 American Urban History to 1870
 - HIST 8446 American Urban History since 1870
 - SOC 8146 Urban Sociology

VI. General (12 hours of graduate-level elective courses. Approval of Economics Program Graduate Advisor required.)

Master of Arts

The M.A. program consists of: core requirements (12 hours), an elected specialization (6 to 12 hours), electives as necessary (including 6 hours of thesis), a comprehensive exam in the area of specialization, and a defense of the thesis. Total hours required: 30.

Core (12 hours)

- ECON 8200, Microeconomic Theory
- ECON 8220, Macroeconomic Theory
- ECON 8306, Quantitative Applications in Economics and Business*
- ECON 8300, Econometrics

*Not required for students demonstrating satisfactory mathematical skills. In that case, add 3 hours to electives.

Suggested Specializations

- I. Real Estate and Land Use Economics 18 hours
 - BA 8600, Real Estate and Land Use Economic Theory
 - BA 8610, Current Problems in Real Estate
 - BA 8990, Thesis** 6 hours
 - Electives 6 hours
- II. All other specializations are the same as those described under the M.S. program.
 - Electives, include ECON 8990 Thesis 6 hours

**Must be written under the supervision of a member of the REALUE program.

4210/8216 Industrial Organization (3) An analysis of the structure and behavior of industries and their effect on economic performance. Involves detailed applications of micro-economic theories and concepts and provides a basis for public policy evaluations. Prereq: Econ 2010 and 2020 or permission of the instructor.

4300/8306 Quantitative Applications in Economics and Business (3) The study and application of modern quantitative techniques to problem solving in economics and business. Prereq: Econ 2010, 2020 and D.S. 2120 or permission of instructor.

4320/8326 Natural Resource Economics (3) Energy, minerals, fisheries, water, land, pollution and congestion are among the topics. The course covers the basic theoretical framework for understanding the optimal rate of resource use, identifies the factors which determine the actual rate of use, and considers and evaluates various public policy prescriptions. Prereq: Economics 2010 and 2020 or permission of instructor.

4450/8456 Monetary Theory and Policy (3) This course traces the development of monetary theory from the classical theory to current monetary theories. Beside the classical theory, the monetary theories of Keynes, the neo-Keynesians, and the neo-classical are examined and compared. The implications of each school for monetary policy are examined. Prereq: Econ 3220 or permission of the instructor.

4610/8616 International Trade (3) An analysis of the character of international economic relations. Subjects covered include the economic basis for international specialization and trade, the economic gains from trade, commercial policy, economic integration, and economic growth. Prereq: Econ 2010, 2020 or permission.

4620/8626 International Monetary Econom-

payments adjustment mechanism, alternative exchange rate systems, external effects of monetary and fiscal policy, foreign investments and international monetary reform. Prereq: Econ 2010 or 2020 or permission of the instructor.

4660/8666 International Economic Development (3) Problems relating to early stages of economic development; investment priorities, mobilizing savings and policies and programs are studied. Prereq: Econ 2010 and 2020 or permission of the instructor.

8010 Theory of Public Finance (3) This course is designed to develop the theoretical basis of modern tax and expenditure processes at the frontier of knowledge. Prereq: Econ 3200, Econ 3220 and Econ 8220 or permission of instructor.

8050 Economic Education (I) (3) A study and examination of economic principles and how they can be related to the teacher's classroom presentation. This course is designed to furnish the public school teacher (K-12) with sufficient background and understanding to aid in the recognition of economic issues and the teaching of economic concepts and principles. Prereq: No previous course work in economics. Not open to Economics majors.

8160 Seminar in Labor Economics (3) A study and investigation of current developments and issues involving labor institutions, labor relations, wage theories and employment policies. Prereq: Econ 3200, 3220 and three hours of credit in undergraduate labor economics or permission.

8200 Seminar in Micro Theory (3) This course deals with the current state of microeconomic theory. The major topics covered are the theory of consumer behavior, theory of production and cost, theory of the firm, distribution theory, and welfare theory. Prereq: Econ 3200, 3220 and 8306 or permission.

of business. Economic analysis of the business firm and its environments, with emphasis on market structure, production possibilities, and cost factors. Additional consideration is given to the theory of the firm under conditions of uncertainty. Prereq: Graduate standing in the college of business administration.

8220 Seminar in Macro Theory (3) This course traces the development of macroeconomic theory from the classical point of view to current schools of thought. Keynesian, neo-Keynesian, and neo-classical models are developed. Prereq: Econ 3200 and 3220 or permission.

8230 Business Conditions Analysis (Same As BA 8050) (3) This course is concerned with the statistical measurement and evaluation of general business conditions, and the adaptation of business policies to changing business conditions. Emphasis is placed upon the practical application of statistical techniques of analysis to the business situation, within the framework of the aggregate economy. Prereq: Econ 2020 or BA 8180.

8290 Research Methods in Economics and Business (3) A study of current quantitative research techniques in business and economics. The student will become familiar with these techniques through text materials, journal studies and actual application. Prereq: D.S. 2130 or its equivalent. Not open to students who have had BA 8020.

8300 Econometrics (3) The study of the underlying assumptions, techniques, and applications of single and multiple equation regression analysis in economics. Prereq: Econ 8306 or 8290 or permission.

8310 Business Forecasting (3) This course includes a comprehensive survey of forecasting methods and in-depth study of selected techniques most commonly used in business environments. Emphasis is given to applications and therefore students will be required to develop forecasting models and test their performance as part of the

course. Cross-listed with BA 8080. Prereq: BA 8000 or ECON 8300 or Permission of Instructor.

8450 Seminar in Money and Banking (3) Original research and writing of papers on basic problems in the area of money and banking. Prereq: Six hours in undergraduate monetary courses or permission of the instructor.

8650 Seminar in International Economics (3) An analysis of the theory of international trade and the working of the international monetary system. Prereq: Econ 3650 or 4660 or permission of instructor.

8850 Seminar in Urban Economics (3) An examination of the theoretical basis for the analysis of urban economic problems with emphasis upon the policy alternatives applicable toward their possible solution. (Also listed under geog. and sociology.) Prereq: At least 6 hours of upper division course work in economics or permission of the instructor.

8870 Seminar in Regional Economics (3) An examination of the current developments and issues involving regional economic development and planning. These courses provide the theoretical basis for understanding and analyzing economic problems of a regional nature. In addition, policy alternatives, decision making, and measurement techniques are examined. (Also listed under geography.) Prereq: At least 6 hours of upper division course work in economics or permission of the instructor.

8920-8930 Independent Study (Each 1-3) Guided independent study and research under tutorial supervision. Prereq: Graduate student in economics and permission of instructor.

8990 Thesis (1-6) An independent research project, written under the supervision of a graduate adviser in the department of economics. Approval of the topic and the completed project by the student's departmental committee is required. Prereq: Permission of graduate adviser.

EDUCATIONAL ADMINISTRATION AND SUPERVISION

PROFESSORS: Ashbaugh, Kellams, O'Reilly, Petrie, Roskens, D. Weber

ASSOCIATE PROFESSORS: Ward

ASSISTANT PROFESSORS: Kasten, Short

Master of Science

An applicant for admission to the program for the Master of Science degree in educational administration and supervision (with endorsement) must hold a Bachelor's degree from an accredited institution and be certificated at either or both the elementary or secondary teaching level. The degree program of at least 36 semester hours must include balanced coverage of the major areas of educational administration and supervision.

An applicant for admission to the program for the Master of Science degree in educational administration and supervision (without endorsement) must hold a Bachelor's degree from an accredited institution.

Prior to admission to candidacy, all students must successfully pass the designated qualifying examination.

All programs will be designed with the student's needs in mind and will be developed by the student with advice and counsel of a major advisor.

Specialist in Education

An application for admission to the Specialist in Education degree (with endorsement) in the Department of Educational Administration and Supervision must be certificated at either or both the elementary or secondary teaching level and hold a Master's degree from an accredited institution.

An application for admission to the Specialist in Education degree (without endorsement) in the Department of Educational Administration and Supervision must hold a master's degree from an accredited institution.

These programs of study are designed to best harmonize the student's needs and ambitions. Together with the master's degree, the total program must accumulate to not less than 66 graduate semester hours. The program is carried out under the direction of a graduate faculty supervisory committee. Prior to admission to candidacy, all students must successfully pass the designated qualifying examination.

Students seeking added endorsements must be pursuing a committee approved program. The assistance of a faculty advisor should be sought at the starting point.

Students in educational administration can earn degrees structured to include coursework leading to appropriate certificates. Also, coursework taken to satisfy requirements for the M.S. and Ed.S. degrees in educational administration normally can be articulated fully into the plan of study for an Ed.D. or Ph.D. in Administration. Curriculum and Instruction offered through the University of Nebraska-Lincoln. Additional information can be obtained from the Chairperson, Educational Administration and Supervision, UNO (554-2721).

8886 Administration of The Instructional Materials Center (3) A course designed for students who wish to prepare themselves for the administration of an educational media program within an elementary and/or secondary school. (Also LS 8886).

8000 Special Studies in Educational Administration and Supervision (3) A series of intensive courses especially designed for educational administrators and supervisors—scheduled as regular seminars or workshops, according to purpose.

8050 School-Community Relations (3) This program is designed to acquaint the student with all aspects of school-community relations. Primary attention will be given to study and research of effective principles and practices in school-community relations.

8060 Administering School Discipline (3) Course will be an opportunity for students to develop increased awareness of the circumstances in the schools and professional skills relating to school discipline and how discipline might be administered more successfully. Students will develop model rules, regulations, policies and procedures based on disciplinary strategies and general prevention programs. Prereq: Graduate Standing.

8100 Independent Study in Educational Administration (1-3) Individual or group study and analysis of specific problems in educational administration and supervision. Prereq: Admission to the Department.

8250 Data Processing in Educational Administration (3) A study of systems as planning bases for administration, and the role of electronic data processing in implementation.

8300 Seminar in Educational Administration (3) A study of educational problems with in-depth research analysis to show their relationship to and implication for educational administration. Prereq: Admission into EDAD Dept.

8350 Introduction to Educational Administration and Supervision (3) A study of the

relationship between the federal, state, and local responsibilities.

8400 Practicum in Educational Administration and Supervision (3) Designed to provide guides of study and practice in elementary, secondary and general administration and supervision as the interests and needs of the student requires. Prereq: Completion of 24 hours of graduate study and approval of written application.

8410 Practicum in Educational Administration and Supervision (3) Continuation of Education 8400. Continued study and practice under guidance in elementary, secondary or general administration and supervision as the needs of the student requires.

8460 Administration and Supervision in Elementary Schools (3) The nature, principles and functions of modern administrative and supervisory practices as they relate to the elementary school.

8470 Administration and Supervision in Secondary Schools (3) The nature, principles and functions of modern administrative and supervisory practices as they relate to the secondary school.

8490 Theory and Practice of Supervision (3) An in-depth inquiry into the nature and function of supervision in the modern school. This course will incorporate the salient psychological, sociological, business administration and educational administration concepts of personnel and organizational development as they apply to educational systems. Prereq: EDAD 8350, EDAD 8460, or EDAD 8470.

8550 School Business Management (3) An analysis of the functions of business management; budgetary procedures; financial accounting, auditing and reporting; management of funds, purchasing procedures and inventory; administration and protection of property; and administration of transportation.

8560 School Finance (3) A study of the sources

8966 Seminar: Linguistics (3) A seminar in a selected sub-field or problem area of linguistics such as sociolinguistics, generative semantics, applied linguistics, descriptive linguistics, teaching English as a foreign language, etc. Prereq: English 4580/8586 and permission of the instructor.

8976 The American Novel (3) A critical and historical study of the work of twelve or more significant American novelists of the nineteenth and twentieth centuries.

8986 The American Drama (3) A study of the American drama and its theatrical background from the beginning to the present day, with concentration on the drama of the twentieth century.

8010 Seminar: Introduction to Literary Research (3) A survey of literary research, history, and interpretation, with a primary emphasis on methods of scholarship currently useful to the study of English and American literature. Prereq: Graduate standing or permission of the chairman of the department of English.

8040 Seminar: Literary Criticism (3) Literary criticism from the beginnings to the present, with emphasis on the criticism of ancient Greece and Rome, nineteenth century England and twentieth century America. Prereq: Graduate standing or permission of the chairman of the department of English.

8060 Seminar: American Literature (3) Individual research and group discussion relating to a general topic in American literature. (The course may be repeated for additional credits under different topics.) Prereq: Graduate standing or permission of the chairman of the department of English.

8080 Seminar in The English Renaissance (3) A seminar in a few significant literary figures of the English renaissance. Prereq: Graduate standing or permission of the chairman of the department of English.

8090 Seminar: The Restoration and Eighteenth Century (3) A detailed study of selected English authors and works of the Restoration and

the Eighteenth Century (1660-1800) Prereq: Graduate standing.

8100 Seminar: Victorian Literature (3) An intensive study of selected Victorian authors and their works. Prereq: Graduate standing or permission by the chairman of the department of English.

8130 Topical Seminar in English (3) An intensive study of one or more authors, genres, literary movements or literary problems not covered by regular period or genre courses. (This course may be repeated for additional credits under different topics.) Prereq: Graduate standing or permission of the instructor.

8140 Seminar: John Milton (3) Intensive seminar in the major works of John Milton and investigation of specific critical and scholarly problems. Prereq: Graduate standing or permission of the instructor.

8200 Seminar in Middle English Literature (3) A study of selected writings in middle English. Prereq: Graduate standing and one course in middle English language or writings.

8250 Seminar in Chaucer (3) A study of selected works of Geoffrey Chaucer. Prereq: Graduate standing and one course in middle English language or writings.

8980 Independent Study (1, 2, or 3) Specially planned readings in a well-defined field of literature or language, carried out under the supervision of a member of the graduate faculty. Designed primarily for the student who has need of work not currently available in the departmental offerings and who has demonstrated capability of working independently. May be repeated for credit once. Prereq: Permission of the instructor, admission to candidacy, and no incompletes outstanding.

8990 Thesis (3-6) Independent research project written under the supervision of an adviser. Prereq: By permission of thesis director.

9120 Seminar: Shakespeare (3) Critical analysis of ten tragedies, ten histories, or ten comedies of Shakespeare. Prereq: Graduate standing.

GEOGRAPHY

PROFESSORS: Bariss, Gildersleeve, Retallick, Shroder, Vogel

ASSOCIATE PROFESSORS: Dimartino, Peake, J. S. Wood

ASSISTANT PROFESSORS: Engelmman, Maher, M. P. Peterson

Master of Arts

The Master of Arts Degree in geography offered by the Department of Geography-Geology requires a minimum of 24 semester hours of approved graduate work in geography or related disciplines, plus 6 semester hours of thesis for a total of 30 semester hours.

One course is required: History and Philosophy (8000). Students are expected to attend General Seminar. The remainder of the program consists of courses scheduled by the student with the advice of the Graduate Program Committee. At least one-half of all coursework must be in "O"-level courses. All students must pass a written examination prior to undertaking thesis work. Procedures for examinations and theses are outlined in the Geography Graduate Student Handbook.

Admission Requirements

In addition to the requirements of the Graduate College, an applicant for admission to the Master of Arts degree program in geography must present as a prerequisite

semester hours of geography including physical and human geography and cartography, plus at least three hours in spatial analysis, quantitative methods, or statistics. Applicants are furthermore advised to include computer science in their program of study. The applicant should have a GPA in geography of at least a 3.0 on a 4.0 scale and a combined GRE score of 1000.

4010/8016 Conservation of Natural Resources (3) A study of conservation techniques and problems with particular emphasis on the United States. Includes philosophical and economic aspects of resource management and a systematic survey of traditional conservation types including soils, forestry, water resources and energy. Prereq: Three hours of Geog.

4020/8026 Quantitative Methods in Geography (3) The understanding and appreciation of quantitative techniques in geography. Emphasis is placed on two-dimensional sampling theory and design, graph theory, and spatial statistics. Prereq: Math 1530 or permission.

4030/8036 Computer Mapping and Data Analysis (3) Computer techniques in mapping and analyzing area data. Emphasis is placed upon address systems as input to various mapping and statistical programs. Prereq: Geog. 3530 and a course in introductory statistics.

4050/8056 Geographic Information Systems (3) An introduction to data manipulation and data-base management of geographic information. Topics include geographical data input, storage, maintenance, analysis, retrieval and display. Current geographic information systems are examined. Particular attention is given to the combination of remote sensing imagery and cartographic data-base. Prereq: Geog. 3530 or Geog. 4630/8636 and an introductory computer science course (CS 1610 or equivalent).

4100/8106 Biogeography (3) This course is intended as an introduction to Biogeography, the study of the distribution of organisms in space and time. Crosslisted with Biology 4100/8106. Prereq: Biology 1750 (Biology II) or Invertebrate Paleontology (Geography/Geology 3100) or Biology 3100; Grad standing.

4120/8126 Urban Geography (3) A geography of the city from the viewpoint of history, site, and situation, external relations, internal relations, and the comparative study of cities. (Same as Soc 4120/8126)

4140/8146 Urban Sociology (3) Examines urban theoretical perspectives, urbanization processes, the diversity of metropolitan communities, urban stratification, metropolitan growth, urban neighborhoods, community power and urban policy and planning. (Same as Soc. 4140/8146). Prereq: Permission.

4160/8166 The American Urban Landscape (3) Investigation of the morphological and architectural character of the American city as a cultural form. Emphasis is placed on the evolution of urban form and land use patterns and on the development of structures that comprise the building fabric of the cityscape. Prereq: Graduate standing.

4230/8236 Great Plains and Nebraska (3) A study of the major physical and cultural attributes of the region. Emphasizes settlement history and

4250/8256 Landform Studies: Slope Geomorphology Primarily a lecture course with emphasis on slope formation including selected controlling factors. Topics are presented within the frame of the classic 20th century geomorphology. One field trip is required.

4260/8266 Landform Studies: Process Geomorphology (3) Primarily a lecture and laboratory course. Emphasis on methodology and modern process-oriented geomorphology. Prereq: Geog. 1070 or 1170.

4320/8326 Climatology (3) A study of climatic processes and their effect on shaping the cultural and physical landscape. Emphasis on physical and applied aspects of the field. Prereq: Geog 1060 or 3510.

4530/8536 Historical Geography of The United States (3) An analysis of historical circumstances behind contemporary patterns of American cultural geography. Prereq: Graduate standing and Hist. 1110 and 1120 or Geog 1020 or 3330.

4610/8616 Field Methods in Geography and Geology (3) A systematic investigation in lecture and field of techniques for studying and analyzing rock and terrain features, land-use characteristics, and the nature of their patterns as a part of the whole geographic and geologic environment. The course is organized to accommodate variable needs of students with different backgrounds and career choices. Prereq: Permission.

4630/8636 Environmental Remote Sensing (3) Analysis of various sensor systems ranging from conventional low-altitude aerial photography through imagery obtained from earth-orbital platforms such as "Landsat" with emphasis on practical application. Provides basic tools for environmental evaluation.

8000 History and Philosophy of Geography (3) Introduction to history of geography. Emphasis on significant ideas, concepts, methodologies, and philosophies in geography from classical Greeks to present. Prereq: Permission.

8040 Seminar in Educational Geography (3) A survey of methods, instruction aids and goals for teaching geography. Designed to aid the teacher in the improvement of geographic instruction in elementary and secondary schools as well as in higher education. Prereq: Permission.

8210 Seminar in Cultural Geography (3) The philosophy of cultural and historical geography with emphasis on describing and interpreting the cultural landscape. Prereq: Permission.

8310 Geography of Agriculture (3) A systematic study of the characteristics and patterns of world agriculture. Prereq: Permission.

8500 Special Topics in Geography (1-3) This course will provide for an in-depth study of a geo-

tions of Geog. 8500, but will be separate from one another. Students may repeat Geog 8500 as often as they like as long as no specific subject is duplicated. Course to be offered with approval of Graduate Program Committee and Dean for Graduate Studies. Prereq: Variable.

8510 Advanced Geomorphology (3) A seminar and lecture course on the current concepts and literature in the field of land form studies. Discussion will emphasize classic ideas as well as the modern concepts of climatic, dynamic, and quantitative geomorphology. Some study of quaternary chronology will be necessary. Several optional Saturday field trips. Prereq: Geog 8256 or 8266 and 1170 or 1070. Permission.

8580 Soils (3) An examination of the older geographical concepts of the distribution and morphology of soil and the new works concerned with soil forms on a regional, rather than zonal, basis. Prereq: Geog 1060 or 1070 and permission.

8600 Independent Research (1-3) Advanced study in the form of a major research project. Students are required to submit a written proposal and gain written approval of the supervising faculty member and Graduate Program Committee. In addition to a formal written report, the student is required to make an oral presentation of research results to General Seminar or a professional meeting. Prereq: 15 graduate hours in geography and permission.

8640 Remote Sensing: Advanced Concepts and Applications (3) Is designed for the graduate student desiring to do advanced work in remote sensing. The emphasis of the course is on non-photographic sensors and especially digital processing of multispectral satellite data. The applications are multi-disciplinary in nature. Prereq: Geog. 4630/8636.

8650 Land Use (3) A field course designed to understand, by actual field investigation, land use

patterns in urban areas through the comprehension of social, physical, and economic factors which tend to shape the land use of a given place. The major emphasis will be placed upon field investigations in the urban area, with the functional region receiving the major consideration. Prereq: Geog. 4120/8126.

8670 Cartographic Methods (3) Teaches effective map layout and the latest cartographic techniques, leading to a high level of competence in the design and interpretation of maps.

8800 Internship in Environmental/Regional Planning (1-6) (repeatable up to 6 hours). Internship with local planning agencies enabling students to gain knowledge and experience in comprehensive regional or environmental planning. Prereq: Permission and 12 hours graduate credit in geography.

8810 Seminar in Metropolitan Planning (3) An overview of metropolitan planning with special emphasis on the planning process and current problems encountered by planning officials. Prereq: Permission. (Same as Econ. 8810 and P.A. 8810.)

8830/8840 Interdisciplinary Seminar On The Urban Community (2-6) An interdisciplinary course on the metropolitan community in which various departmental and college offerings concerned with urban problems are put on broad interrelated focus. Prereq: Undergraduate major in one of the social sciences plus 6 hours of graduate work in one of the social sciences. (Also listed under economics, political science, and sociology)

8990 Thesis (1-6) Independent research project written under the supervision of an adviser.

9550 Topics in Regional Geomorphology of North America (3) A seminar on the landforms of North America from the perspective of a particular geomorphic process viewed on a regional basis rather than the general geomorphology of a specific region. Prereq: Permission.

each student practical one-on-one experience with the aged in a service program or agency delivering services to the elderly. Practicum students must register for GERO 8946-Practicum and participate in periodic seminars with the Practicum Supervisor of the Gerontology Program.

Example of a program of study

Each individual program of study; will be tailored to the needs and interests of each student. The following is an example of what one program of study might look like:

GERO 9110 — Applied Social Gerontology (3 semester hours) — required of all students at the graduate level.
 GERO 8106 — Educational Gerontology (3 semester hours)
 GERO 8466 — Aging and Human Behavior (3 semester hours)
 GERO 8676 — Programs and Services for the Aging (3 semester hours)
 GERO 8986 — Counseling Skills in Gerontology (3 semester hours)
 GERO 8946 — Practicum (6 semester hours)

4100/8106 Educational Gerontology (3) An introduction to the field of education for and about the aging. The institutions and processes of education will be analyzed to determine their relationships and value to persons who are now old and those who are aging.

9110 Applied Social Gerontology (3) An overview of social gerontology with an emphasis on the interplay between social, psychological, and physical elements in later life. Restricted to graduate students only; required of Gerontology students. (Same as Sociology 911). Prereq: Graduate Standing.

4350/8356 Issues in Aging (3) This course is intended for students in Gerontology and in other fields who are interested in a humanistic approach to understanding significant issues which affect the lives of older people. Prereq: Graduate standing.

4460/8466 Aging and Human Behavior (3) The course examines different kinds of behavior and the changes which may occur in older age. Applications of various personality theories concerning aging will be considered. Prereq: 3 hrs. gerontology or permission.

4480/8486 Comparative Gerontology (3) The study of aging around the world by a comparative method in a cross-cultural and cross-national framework. An explanation of some practical experiences and developments in Europe, Asia, and Africa will be examined. Prereq: Three hours gerontology or permission.

4500/8506 Legal Aspects of Aging (3) Consideration of the legal concerns which are likely to arise as people age. Includes introduction to American legal system, and emphasis on underlying legal concepts and issues of special importance to older persons. Prereq: Gerontology 4110/8110, Applied Social Gerontology.

4520/8526 Mental Health and Aging (3) An examination of mental health problems that are particular to older people. Prereq: Permission.

4550/8556 Health Aspects of Aging (3) The study of psychological, sociological and physiological factors that influence the health of the aging, with particular emphasis given to biological changes that have implications for disease and health disorders. (Same as HED 4550)

4670/8676 Programs and Services for the Elderly (3) This course is provided to give the

elderly; examine the national policy process as it relates to the older American; and review the principles and practices relative to the existing national programs for the aged. Prereq: 3 hrs. Gerontology.

4690/8696 Working With Minority Elderly (3) This course is an interdisciplinary one, designed to provide the student with knowledge of the differing status, attitudes and experiences of the elderly within four major minority groups and to examine various service systems and practice models in terms of their relevance and effectiveness in meeting needs of the minority elderly. (Same as Social Work 8696.) Prereq: Senior or graduate standing in Gerontology or Social Work or permission of the instructor.

4750/8756 Mid-Life, Career Change, and Pre-Retirement (3) An examination of mid-life as it applies to: the concept of second careers, existing resources, and the future of second careers; and the concept and practical implications of pre-retirement planning. (Same as Counseling 4750/8756.) Prereq: None.

4850/8856 Hospice and Other Services for the Dying Patient/Family (3) This course is designed to involve students in the recognition of fears, concerns, and needs of dying patients and their families by examining the hospice concept and other services available in our community. Factual information, readings, professional presentations, films, and experiential exercises are offered to aid the student in understanding that hospice is an alternative to the traditional medical model so that when the "cure" system is no longer functional, then the "care" system, hospice, can be offered. (Same as Social Work 4850/8856.) Prereq: 8730 or permission.

4920/8926 Special Studies in Gerontology (1-3) Special studies designed around the interests and needs of the individual student in such are as the psychology, sociology, economics, or politics of aging, as well as operation of various service systems. The studies may be either a literature review project or a field project in which experience is gained in the community identifying and analyzing needs and services related to older people. Prereq: Six hours Gerontology or permission.

4940/8946 Practicum (0-6) This course provides the opportunity to students to share field experiences; to obtain guidance concerning various relationships with agency staff.

GERONTOLOGY

PROFESSORS: Missinne, Thorson

ASSOCIATE PROFESSORS: Horacek, Waskel

Certificate in Gerontology

While UNO does not offer a graduate degree in Gerontology, a Specialization in Gerontology is available. The Board of Regents has established a Certificate in Gerontology that will be awarded upon completion of requirements for the Specialization. The Specialization may serve as an academic minor for students majoring in many of the social and behavioral sciences at the graduate level.

Requirements

1. Students wishing to work toward the Certificate in Gerontology must make application and be accepted into the Gerontology Program; application must also be made for admission to graduate studies. Those working toward a graduate (degree must also be accepted into the degree program of their major department).
2. Coursework requirements consist of a minimum of 15 semester hours in Gerontology. The only required course is GERO 9110 — Applied Social Gerontology (3 semester hours); the other 12 hours (usually four graduate level courses) in Gerontology are selected by the student in consultation with the Academic Coordinator of the Gerontology Program. In this manner, individualized programs of study are developed for each student to best meet his or her career goals and interests.
3. A one semester full-time practicum or its equivalent is also required. The goal of this is to give

field of aging. Prereq: Nine hours of Gerontology and permission.

4980/8986 Counseling Skills in Gerontology (3) This course is intended to help develop basic counseling skills for application in gerontology. Prereq: Permission of instructor.

8280 Counseling Older Adults and Their Families (2) A study of issues related to the counseling of older adults and their families. (Same as COUN 8280) Prereq: COUN 8240 or permission.

8730 Thanatology-Study of Death (3) An examination of theory and research relevant to interaction with the older, terminally ill person, focusing on communication with widows and other survivors as well as the dying patient. Prereq:

Graduate standing, 3 hours Gerontology, permission.

8960 Directed Readings in Counseling and Gerontology (1-3) A study of recent and current literature on counseling with older people. Prereq: Gero 8986 (or Couns 8986), Counseling major, or permission.

8970 Personal Values and Aging (1) Course designed to increase students' self-awareness of personal values and feelings related to aging and the aged.

9480 Geropsychology (3) To become familiar with the psychology of aging from a research perspective. The focus will be on psychological research in the middle years and in later years. (Same as Psychology 9480) Prereq: 12 hours of psychology and/or gerontology or permission.

HEALTH, PHYSICAL EDUCATION, AND RECREATION

PROFESSORS: K. Berg, Flynn, Kidd

ASSOCIATE PROFESSORS: Blanke, Buchanan, Corbin, Lundahl, Metal-Corbin, Stewart

ASSISTANT PROFESSORS: Burckes-Miller, Latin

The School of Health, Physical Education, and Recreation offers graduate courses in the areas of health education, physical education, exercise science, and recreation/leisure studies. It is possible to attain either a Master of Arts or the Master of Science degree with a major in one of the following areas: health, physical education, exercise science, and recreation/leisure studies.

The Master of Arts degree, which does not require a thesis, requires a minimum of 36 semester hours. Students desiring the Master of Science degree will complete a program of at least 30 semester hours, six hours of which will be devoted to a thesis.

Master of Arts

Core Courses 6 hours
 HPER 8030 Research in HPER
 HPER 8220 Problems and Issues in HPER

Specialization Courses 12-24 hours
 (Specific courses will be selected from the following according to area of emphasis and consultation with an advisor.)

HPER 8000 Special Studies
 HPER 8100 Research Project
 HPER 8300 Analysis of Research and Literature in HPER
 HED 8206 Health Promotion at the Worksite
 HED 8250 Human Sexuality
 HED 8330 Alcohol Education
 HED 8550 Health Aspects of Aging
 HED 8850 Health Aspects of Stress Management
 PE 8016 Laboratory Methods in Exercise Science
 PE 8506 Behavioral Aspects of Coaching Athletes
 PE 8936 Measurement and Evaluation in Physical Education
 PE 8966 Topics of Sports Medicine
 PE 8240 Sport in American Culture
 PE 8280 Curriculum in Physical Education
 PE 8370 Improvement of Instruction in Physical Education
 PE 8400 Motor Learning and Performance
 PE 8450 Kinesiological Analysis of Motor Skills
 PE 8950 Advanced Exercise Physiology
 RLS 8246 Organization & Administration of Recreation
 RLS 8306 Recreation Programming
 RLS 8516 Recreation for the MI & MR
 RLS 8526 Recreation for the Aging
 RLS 8536 Therapeutic Recreation: Activity Analysis

Elective Courses

Related courses from outside the School of HPER, approved by the advisor, may be taken as needed to bring the courses in the student's program to a minimum of 36 semester hours.

Master of Science

Core Courses 6 hours
 HPER 8030 Research in HPER
 HPER 8220 Problems and Issues in HPER

Specialization Courses 12-18 hours
 (Specific courses will be selected from the following according to the area of emphasis and consultation with an advisor.)

HPER 8000 Special Studies
 HPER 8100 Research Project
 HPER 8300 Analysis of Research and Literature in HPER
 HED 8206 Health Promotion at the Worksite
 HED 8250 Human Sexuality
 HED 8330 Alcohol Education
 HED 8556 Health Aspects of Aging
 HED 8850 Health Aspects of Stress Management
 PE 8016 Laboratory Methods in Exercise Science
 PE 8506 Behavioral Aspects of Coaching Athletes
 PE 8936 Measurement and Evaluation in Physical Education
 PE 8966 Topics of Sports Medicine
 PE 8240 Sport in American Culture
 PE 8280 Curriculum in Physical Education
 PE 8370 Improvement of Instruction in Physical Education
 PE 8400 Motor Learning and Performance
 PE 8450 Kinesiological Analysis of Motor Skills
 PE 8950 Advanced Exercise Physiology
 RLS 8246 Organization & Administration of Recreation
 RLS 8306 Recreation Programming
 RLS 8516 Recreation for the MI & MR
 RLS 8526 Recreation for the Aging
 RLS 8536 Therapeutic Recreation: Activity Analysis
 RLS 8546 Therapeutic Recreation: Delivery Models
 RLS 8410 Outdoor Recreation Resource Planning

Thesis Requirement 6 hours
 HPER 8990 Thesis

Elective Courses

Related courses from outside the School of HPER, approved by the advisor, may be taken as needed to bring the courses in the student's program to a minimum of thirty semester hours.

General HPER

8000 Special Studies (1-3) A series of intensive courses — scheduled as regular seminars, or workshops, according to purpose. Prereq: Permission of department.

8030 Research in Health, Physical Education and Recreation (3) The course deals with technical writing, research techniques, statistics, and research design. Considerable emphasis is placed on the development of research proposals and techniques of critiquing research in scholarly publications. Prereq: Graduate Student in HPER.

8100 Research Project (1-3) Individual or group study and analysis of specific problems in health, physical education or recreation. Prereq: Permission of instructor.

8220 Problems and Issues in HPER (3) An examination of current problems and issues in

8300 Analysis of Research and Literature in HPER (3) Survey of research and literature in HPER for the purpose of orienting the student to possible areas of research and developing an understanding of and appreciation for writings in HPER.

8990 Thesis (1-6) Independent research project written under the supervision of an adviser. Prereq: Permission.

Health Education

8080 Topics in Health Education (3) This course will explore important current issues in Health Education. Students will explore economic, political, ethical, and technological developments that affect the practice of Health Education. There is no limit to the number of times a student may

4200/8206 Health Promotion at the Worksite (3) A study of the practice of health promotion in the workplace. Principle's of sound program planning, implementation and management will be explored. The student will study worksite health promotion in relation to cost analysis, health behavior, program content, the insurance industry, and program evaluation.

4550/8556 Health Aspects of Aging (3) The study of psychological, sociological and physiological factors that influence the health of the aging; with particular emphasis given to biological changes that have implications for disease and health disorders. Prereq: Graduate standing.

8050 Alcohol Dependency Workshop for Educators (1) A concentrated look at problems which arise from teenage misuse of alcohol in today's society. Special emphasis will be given to: the identification of students with alcohol related problems; the effect of alcohol on both the individual and the family unit; and the role of the school in prevention, intervention, and referral. Designed primarily for public school educators, counselors, and administrators. Prereq: Admission to Graduate College.

8250 Human Sexuality (3) This graduate level course is aimed at providing an overview of the current scientific knowledge concerning human sexuality. The course is designed to be interdisciplinary in nature, providing the biological, behavioral and cultural aspects of human sexuality. Priority will be given to students from the helping professions. Qualified students from other related disciplines must have permission of the instructor.

8330 Alcohol Education (3) A study of the problems associated with alcohol use, misuse, and abuse. The patterns and trends of use, theories of dependence, pharmacological aspects and health consequences are explored. Emphasis is given to techniques for alcohol education and prevention of alcohol problems in various sites, i.e., schools, worksites, public and voluntary health agencies.

8850 Health Aspects of Stress Management (3) The health-related aspects of stress management and control will be the focus of this course. Selected techniques for self-regulating stress will be demonstrated, practiced, and analyzed. Students will be introduced to current scientific research in human stress. Prereq: Graduate status.

8980 Health Education Practicum (1-3) This course offers graduate students in health education an opportunity to gain practical, on-the-job training in health promotion/health education in local schools, businesses, hospitals/clinics, voluntary health agencies, or governmental health agencies. Prereq: 21 credit hours in health education (graduate or undergraduate)

Physical Education

8240 Sport in American Culture (3) The course is a study of sport and the ways in which it influences people in America.

8260 Supervision of Physical Education (3)

in the construction and supervision of programs in physical education.

8280 Curriculum in Physical Education (3) A study of the foundations for curriculum development and related educational problems. Special consideration is given to curriculum change, curriculum patterns, and programs in physical education.

8370 Improvement of Instruction in Physical Education (3) An examination and discussion of current programs, content, methods, and materials within physical education. Emphasized is the improvement of each individual's teaching in the physical education setting.

8400 Motor Learning and Performance (3) A study of conditions and factors which influence the learning and performance of motor skills with particular attention being given to those skills having relevance for the teacher of physical education.

8450 Kinesiological Analysis of Motor Skills (3) An investigation of the biomechanical basis of motor performance. Includes a descriptive analysis of sports skills and fundamental movement patterns and an examination of techniques for collecting biomechanical data.

8950 Advanced Exercise Physiology (3) This course is designed for students with an interest in exercise physiology. Major topics to be emphasized include: graded exercise testing and electrocardiography, kinetics of oxygen uptake, body-composition, neuromuscular function, and thermoregulation. Prereq: PE 4940 or equivalent.

8016 Laboratory Methods in Exercise Science (6) This laboratory will provide an opportunity to achieve competency in operating various pieces of equipment typically used in biomechanics and exercise physiology laboratories. In addition, the student will gain experience in interpreting the results of the tests administered, and writing exercise prescriptions based upon those results. Prereq: Permission of Instructor.

4500/8506 Behavioral Aspects of Coaching Athletes (3) This course is designed to provide the graduate physical education student with an overview of the behavioral aspects of coaching athletes. The course will cover coaching as it affects skills, abilities, and personality of the elementary school, junior high school, high school, college, and post college athletes. Such personal factors as bodybuild, intellectual attributes, emotions, competition, cooperation, morale, sportsmanship, and leadership will be discussed in relation to the athlete. Practice factors that influence the athlete will be studied from a coaching standpoint. Research in sport will be reviewed. Prereq: Graduate standing.

8600 Health Behavior (3) The purpose of this course is to study the theoretical foundations of health behavior. Students will develop an understanding of the determinants of health behavior, the models and theories that provide a framework for predicting health behavior, and the strategies employed to bring about behavioral changes for health and disease prevention in individuals and groups. Prereq: Graduate standing.

urement apparatus and testing procedures used in physical education. Includes a review of basic descriptive statistics. Practical experience in test administration is provided. Prereq: For 4930, junior standing and physical education 2430. (S,Su)

4940/8946 Physiology of Exercise (3) A study of the major physiological systems of the human body and their response to exercise and the exercise programs. Includes application of physiological concepts to physical training and conditioning. Prereq: HPER 2880 or equivalent, F, SU.

4960/8966 Topics in Sports Medicine (3) This course covers selected topics regarding the science and medicine of sports participation. Some areas to be covered include pharmacologic aspects, orthopedic aspects, prevention and rehabilitation, pediatric aspects, legal aspects and aging. Prereq: Basic course in human anatomy, physiology, kinesiology, exercise physiology, psychology and growth and development or special permission of the instructor.

Recreation/Leisure Studies

4240/8246 Organization and Administration of Recreation (3) Designed to provide a background of information on public, private, and commercial recreation with special attention to organization, promotion, development from the administrative aspect. Prereq: At least 9 hours of upper division courses in recreation or permission of the instructor.

4300/8306 Recreation Programming (3) An advanced study of recreational programming and planning through practical application of research techniques with emphasis on understanding participant leisure behavior, participant leisure needs, and the ways in which organizations create services to respond to these leisure needs. Prereq: For 4300, recreation major or permission of instructor. For 8306, undergraduate recreation major or minor/or permission of the instructor.

4510/8516 Recreation Programs for the Mentally Ill and The Mentally Retarded (3) Designed to explore recreative programs for the mentally ill and the mentally retarded (children, adolescents and adults) in institutions, residential schools and training centers and other agency settings. Consideration is given to developing an understanding of the relationship between recreative experiences and the ill or retarded person's potential for social independent living. Prereq: Introduction to therapeutic recreation, coursework and/or experience in working with the handicapped, or permission of the instructor.

4520/8526 Recreation for the Aging (3) The purpose of this course is to introduce the student to the field of recreation for the aging in nursing homes and community based recreation programs. The concentration focuses on the aging and their needs, and how proper recreation programming can help them meet some of their needs. A portion of the course involves students being placed in site leadership. Prereq: RED 3500 or Gerontology 2000, or permission of the instructor.

4530/8536 Therapeutic Recreation: Activity Analysis (3) This course will emphasize activity therapy programs and explore basic areas of activity in depth, describing their values and methods of selection and presentation and giving useful techniques for their modification. Prereq: RED 3500 or Permission of Instructor.

8546 Therapeutic Recreation: Delivery Models (3) This course investigates therapeutic recreation service delivery models for the ill and disabled in both institutional and community settings. It provides a rationale for the development of therapeutic recreation services for special populations and places particular emphasis on advanced leadership and therapeutic interactional skills and dynamics. Prereq: RED 3500 or Permission of Instructor.

8560 Clinical Internship in Therapeutic Recreation (6) This course is structured as a full-time (40 hrs/wk/15 wks) fieldwork experience in Therapeutic Recreation. The student works under the supervision of a certified Therapeutic Recreation Specialist in an agency/hospital/institution setting. The nature of the placement and make-up of the clients/patients seen will vary with each individual student's professional objectives. Prereq: At least three upper division undergraduate and/or three graduate courses in Therapeutic Recreation and permission of instructor.

8410 Outdoor Recreation Resource Planning (3) An in-depth view of outdoor recreation planning, policy formulation, administration, and significant current problems. Specific attention will be focused on statewide planning, recreation variables, cultural preferences, demand, financing, decision-making, and public policy. Prereq: Graduate standing, at least 6 hours undergraduate preparation courses, or permission of the instructor.

HISTORY

PROFESSORS: Carrigan, Dalstrom, Garver, Overfield, Petrowski, Pollak, Pratt, St John, Tate, Thompson

ASSOCIATE PROFESSORS: Gaeddert, Simmons

Master of Arts Admission to M.A. Program

- To be admitted unconditionally a student must present 21 (twenty-one) hours of undergraduate preparation in History with at least a 3.00 average in those hours; further, to be admitted

2. Students may be admitted provisionally who have less than 21 (twenty-one) hours of undergraduate preparation, or who have not achieved a 2.75 overall grade average. They shall be removed from provisional status when they become eligible for and have achieved candidacy.
3. An incoming student, not having Historical Research (Hist 3930) or its equivalent, normally, must take Hist 3930 on a non-graduate credit basis. Interpretation of this requirements rests with the Graduate Program Committee of the Department.
4. As stipulated by the Graduate College, students must take the general aptitude test of the Graduate Record Exam during the first semester of enrollment.

M.A. Program with Thesis (Option I)

The program for the Master of Arts degree (Option I) with a major in History will usually be arranged to conform to one of the following general patterns:

1. 24 semester hours of approved graduate courses in History, 9 of which must be in courses open only for graduate registration, i.e., seminars. The other 15 hours may be either lecture courses or courses numbered 8010 and no more than 6 hours of credit may be taken by a student under this number. A balance of 15 and 9 must be maintained between major and minor areas of study.
2. 15 semester hours of approved graduate courses in History including 9 hours of seminars, plus 9 approved hours of graduate coursework in a related field, such 9 hours constituting a graduate minor. The minor department must be consulted to determine the student's eligibility to do graduate work in that department.

In either program of study, a thesis, not to exceed 6 semester hours in independent study credit, is required under the direction of the major advisor.

M.A. Program without Thesis (Option II)

1. Under this plan the student may earn a Master of Arts degree by completing successfully thirty-six hours of coursework, at least half of which must be earned in courses open only to graduate students (0 series). No more than six (6) hours of credit may be taken by a student under courses numbered 8010.
2. In addition to showing broad competency in history, the candidate must give proof of research ability and proficiency in writing. This normally will be done in research seminars and independent research projects.
3. While there is no requirement for a minor in some field other than history, the student may elect to take a minor in some other field, such minor to consist of no less than six graduate hours and no more than nine graduate hours. Permission to take a six hour minor may be gained by the advisor's permission, and the approval of the Graduate Program Committee.
4. Whether or not the student elects a minor in an outside field, he/she shall maintain a reasonable balance between American and non-American fields in history.
5. When the student initially enrolls, he/she shall, in conference with the chairperson of the Graduate Program Committee of the Department of History, choose his/her advisor. The chairperson of the History Graduate Program Committee shall, after consultation with the student and advisor, recommend an advisory committee to the Dean for Graduate Studies and Research for official appointment. The advisory committee shall be composed of members of the Faculty appropriate to the student's program and academic interests. The chairperson of the advisory committee (and the representative of the minor field, if such field is selected) must be members of the Graduate Faculty.

PROCEDURE FOR COMPREHENSIVE EXAMINATION FOR NON-THESIS MASTER OF ARTS CANDIDATES IN HISTORY

1. Early in the semester the candidate expects to take the degree, he/she must make arrangements with his/her sponsor to take the comprehensive written examination. The examination will be given three times during the year: during the eleventh week of the fall semester, during the eleventh week of the spring semester, and during the second week of the first summer session.
2. The examination in history will consist of two parts, one devoted to the major area, and one to the minor area of study.
 - a. If the major area of study is European/English history, the examination will be comprehensive, taking into consideration the student's program of study. The non-European/English portion of the examination will be over the specific courses taken for the minor. The major area examination will be of six hours duration (two three-hour segments), and the minor area examination will be of three hours duration.
 - b. If the major area of study is American history, the examination will be comprehensive, divided into two three-hour segments, with the breaking point for the two segments

course. The minor portion of the examination will be over the specific minor courses taken, and will be of three hours duration.

- c. If the candidate offers an outside minor, the minor department and advisor will be responsible for the minor examination.
3. The reading committee will consist of the sponsor and one other graduate faculty member expert in the major area. The readers for the minor area will be the instructors of the courses offered in the minor. In the major area, the selection of the second reader shall be made by the sponsor and candidate. Both readers of the major and all readers of the minor area must agree that the candidate has passed the examinations for which they are responsible. In the event of disagreement, a third reader may be consulted as a mediator, and the result he/she supports will be the result of the examination.
4. The sponsor and the reading committee will select the items to appear on the examination, and determine the number of essays to be written. The candidate will have a choice of questions on each portion of the examination.
5. Once the examination has been administered and graded, the secretary has forms to be filled out by the sponsor, signed by the Graduate Program Committee chairperson, and sent to the Dean for Graduate Studies and Research, certifying the candidate for conferral of the degree.
6. In the event of failure of either all or a portion of the comprehensive examination at least four (4) months shall elapse before the examination in whole or in part may be retaken. Any reexamination must occur within twelve (12) months following the initial failure.
7. In no event shall a student be permitted to take all or a portion of the comprehensive examination more than twice.
8. In planning for a comprehensive examination (or reexamination), students should be cognizant of the six-year limit for completion of degrees as set forth by the College for Graduate Studies and Research.

3130/8135 American Colonial History (3) A study of the background settlement, and development of the English colonies. Prereq: For 3130, junior standing or permission of the instructor.

3160/8165 The American Frontier: 1800-1900 (3) The Trans-Mississippi West from the Rocky Mountain Fur Trade days to the disappearance of the frontier around 1900. Prereq: For 3160, junior standing or permission of the instructor.

3330/8335 American Diplomatic History (3) A history of the foreign relations of the United States. Prereq: For 3330, junior standing or permission of the instructor.

3410/8415 History of Nebraska (3) From the earliest known records to the present. Prereq: For 3410, junior standing or permission of the instructor.

3440/8445 History of The South (3) Economic, social, and political development of the south as a region. Prereq: For 3440, junior standing or permission of the instructor.

8535 Medieval Europe (3) An examination of medieval European history with emphasis upon social and economic developments. Prereq: None.

8645 History of The British Empire and Commonwealth (3) Britain in America, Africa, India and the Pacific. The development of a dependent empire and transformation into independent nations. Prereq: None.

3710/8715 Europe and America in the Two World Wars (3) A military, social and political history analyzing the causes, conduct and consequences of each war, the war time transformation of European and American society, and the emergence of the United States as a superpower.

3910/8915 Topics in History (3) A pro-seminar on selected topics based on a consideration of interpretive historical writings and/or source materials. Prereq: Permission of the instructor.

4060/8066 History of Women in the United States (3) This course discusses the history of women in nineteenth and twentieth century America from the Seneca Falls convention to the present. It includes the study of feminist theorists and activists, female educational/professional and employment opportunities, current status of women and the New Feminism of the 1970's.

4120/8126 American Social and Intellectual History Since 1865 (3) Primarily a non-political approach to American history, this course will examine significant topics in American thought and society. Prereq: For 4120, junior standing or permission of the instructor.

4130/8136 The Revolutionary Era, 1763-1789 (3) An analysis of the imperial and internal forces which led to the revolution and an examination of the economic, social, and political problems of the emerging nation. Prereq: For 4130, junior standing or permission of the instructor.

8166 The Federalist-Republican Period: 1789-1828 (3) An interpretive study of the middle period of American history. Prereq: None.

4180/8186 Civil War and Reconstruction (3) A period study from 1845 to 1877. The background of the Civil War, the war years, and the reshaping of the Union during reconstruction. Prereq: For 4180, junior standing or permission of the instructor.

4240/8246 The Emergence of Modern America: 1877-1901 (3) A study of a transitional period in American history; this course will examine the

as a significant world power. Prereq: For 4240, junior standing or permission of the instructor.

4270/8276 Twentieth Century America to 1932 (3) A study of the history of the United States from the end of the nineteenth century to the election of Franklin D. Roosevelt to the presidency in 1932. Prereq: For 4270, junior standing or permission of the instructor.

4280/8286 Twentieth Century America Since 1932 (3) A study of the history of the United States since the election of Franklin D. Roosevelt to the presidency in 1932. Prereq: For 4280, junior standing or permission of the instructor.

4330/8336 Constitutional History of The United States to 1860 (3) A history of constitutional theory and practice to 1860. Prereq: For 4330, junior standing or permission of the instructor.

4340/8346 Constitutional History of The United States Since 1860 (3) A history of constitutional theory and practice since 1860. Prereq: For 4340, junior standing or permission of the instructor.

4400/8406 History of North American Indians (3) A survey of traditional North American Indian cultures, their contact with transplanted European peoples, and the continuing problems faced today. Prereq: For 4400, junior standing or permission of the instructor.

4430/8436 American Urban History (3) Historical survey of urban development in the United States from the colonial period to the present, with attention to urbanization as a social process affecting the nation at large as well as cities in particular. Prereq: For 4430, junior standing or permission of the instructor.

4470/8476 History of American Medicine and Public Health (3) Analysis of the relationship and interaction of medical thought and practice, public health problems and institutional development, and the changes in American society and culture from the 17th to the 20th century. Prereq: For 4470, junior standing or permission of the instructor.

4510/8516 Intellectual History of Modern Europe From The Renaissance to The French Revolution (3) A study of enduring political, religious, economic, scientific and philosophical ideas in their historical setting. Prereq: None.

4520/8526 Intellectual History of Modern Europe from the French Revolution to the Present (3) A study of leading political, religious, economic, scientific and philosophical ideas in times of extraordinary social change. Prereq: None.

4530/8536 The Age of the Renaissance-Reformation (3) A study of the politics and econom-

ics of the fifteenth and the sixteenth centuries as well as the achievement of Renaissance culture and the emergence of the Protestant churches and the Trentine Catholicism. Prereq: For 4530, junior standing or permission of the instructor.

4550/8556 The Age of Enlightenment (3) A study of the politics and economics of the late-seventeenth century and of the eighteenth century as well as the emergence of modern secular thought and its impact upon traditional European society. Prereq: For 4550, junior standing or permission of the instructor.

4560/8566 The French Revolution and Napoleonic Era: 1789-1815 (3) A study of the French revolution and the Napoleonic era with particular attention to the development of democratic practice concurrently with the development of modern authoritarianism. Prereq: For 4560, junior standing or permission of the instructor.

4570/8576 Europe Betrays Its Promise (1815-1890) (3) A study of reform and reaction which resulted in the Balkanization of Europe.

4610/8616 Tudor and Stuart England (3) A study of England under the Tudors when the English people solidified the monarchy and experienced a golden age, and the Stuarts continued modernization and formulated the new institutions foreshadowing those of our world today. Prereq: None.

4620/8626 English History: From Empire to Welfare State (3) A study of the change and development in Great Britain from the late 18th century to 1918.

4770/8776 Europe in Crisis: 1890-1932 (3) A study of the conditions and forces immediately precedent to World War I, the war itself, the peace following the war and the rise of the modern dictatorships. Prereq: For 4770, junior standing or permission of the instructor.

4780/8786 Europe in The Global Age: 1932 to The Present (3) A study of the ever increasing tensions between the Fascist and Communist dictatorships and the western democracies, World War II, the resultant dislocation of power and the emergence of the balance of terror. Prereq: For 4780, junior standing or permission of the instructor.

8010 Advanced Research Project in History (1-5) Special problems in advanced research in history, arranged individually with graduate students. There is a 6-hour limit for both the thesis and non-thesis programs. Prereq: 15 graduate hours (including 2 seminars). Permission of the instructor.

9100 Seminar in History Readings and research in selected topics of history.

8990 Thesis (1-6) Thesis research project written under supervision of an advisor.

mathematics beyond Calculus, and to have an overall average of B or better during the last two undergraduate years. In some cases where the above criterion is not met, a provisional admission may be granted provided the applicant is willing to take some preliminary coursework that will not apply toward the degree.

Master of Science

To obtain the Master of Science degree, the student must:

- Earn a total of 36 acceptable credits, at least 24 of which must be in Mathematics.
- Choose Mathematics courses which carry a number of 8006 or above, with a last digit being a 0 or a 6, and at least 18 credit hours must have a last digit of 0. An exception is that 8020 and 8040 may not be used for the Master of Science degree in Mathematics.
- Maintain a "B" average in all of his or her work with no grade lower than a "C," and no more than two grades of "C."
- Pass a written comprehensive examination.
- If a student wishes, they may take up to 12 hours of graduate work in Physics or Computer Science. All non-mathematical courses that are taken as part of a degree program must be explicitly approved by the Graduate Program Committee.

Master of Arts

To obtain the Master of Arts degree, the student must:

- Earn a total of 30 credits in Mathematics.
- Complete a thesis not to exceed 6 semester hours, which may be applied toward the 30-hour total.
- Complete the requirements of b, c, and d above.

Master of Arts for Teachers of Mathematics (M.A.T.)

This is a specialized degree designed to provide secondary school mathematics teachers with more depth in mathematics combined with a core of relevant professional courses in education. It also provides a way for certified teachers to receive some graduate credits while fulfilling requirements for certification in mathematics as an additional field.

Admission Requirements for M.A.T. degree:

A student meeting the following conditions will be admitted to the M.A.T. program:

- Has state certification for teaching secondary school mathematics.
- Has maintained at least a B average in previous mathematics courses including two courses beyond elementary calculus.

The above conditions are considered normative and a student not meeting them may be admitted to the program only as a result of special action by the M.A.T. Program Committee. Students who have completed a bachelor's degree certifying them to teach in grades 7-12 and who want to add mathematics to their credentials will be admitted provisionally to the M.A.T. Program upon completion of Math 1950, Math 1960, Math 1970 and Math 2030 with a GPA of 3.00 or better.

Plans of study available with the M.A.T. degree:

Three different plans of study are available leading to the M.A.T. degree. All of them require 36 semester hours of graduate credit, with at least 24 of these in courses offered by the Department of Mathematics/Computer Science and at least 9 in courses offered by Secondary/Post-Secondary Teacher Education. The three plans are: Statistics, Computer Science and Mathematics. The following are basic requirements for each plan:

- Required Mathematics courses for all plans: CS 1610 or equivalent (no graduate credit), M8105, M8235, M8036, M8020, M8040.
- Required Education courses for all plans: Three courses for graduate students only, 9 semester hours credit, in Secondary/Post-Secondary Teacher Education. One course must be included on the use of microcomputers in the classroom, with the remaining two courses to be chosen with written approval of the advisor.
- Elective for all plans: One course for graduate students only in Mathematics or Education to be chosen with written approval of advisor.
- Remaining 9 semester hours to be chosen according to one of the following:
 - Statistics Option: Stat 8005, Stat 8015, M 8505 (Selected Topics Statistical Research for Math Teachers).
 - Mathematics Option: Student selects 3 courses in Mathematics 8006 level or above.

MATHEMATICS

PROFESSORS: Buchalter, Downey, Downing, Gessaman, Konvalina, Maloney, Stephens
ASSOCIATE PROFESSORS: Heidel, Wileman

Admission Requirements: Admission to a degree program is based on evidence of mathematical ability. An applicant is usually expected to have completed fifteen acceptable credits.

- (c) Computer Science Option: Student selects 3 courses in Computer Science at the 8000 level or above.

Other Requirements for M.A.T. degree: A student must maintain a B average in all coursework with no grade lower than a C, and no more than two grades of C. In addition, all students will be required to pass a comprehensive exam covering the courses in the program. Specific details for this exam may be obtained from the advisor.

Computer Science

- 3100/8105 Applied Combinatorics** (3) Basic Counting Methods, generating functions, recurrence relations, principle of inclusion-exclusion, Pólya's theorem. Elements of graph theory, trees, and searching, network algorithms. Same as Math 3100/8105. Prereq: Math/CS 2030.
- 3110/8115 Information Systems Analysis** (3) Decision-making processes, system life cycle, logical design of information systems. Prereq: CS 1810 or 1820.
- 3120/8125 System Design and Implementation** (3) Principles and techniques of the design and implementation of information systems. Hardware and software selection and evaluation. Prereq: CS3110.
- 3220/8225 Programming Methodology** (3) The study of software production and quality including correctness, efficiency, and psychological factors of programs and programming. Prereq: Math/CS 2030 (formerly 2350).
- 3300/8305 Numerical Methods** (3) Solving equations and systems of equations, interpolation, numerical differentiation and integration, numerical solutions to ordinary differential equations, numerical calculations of eigenvalues and eigenvectors, analysis of algorithms and errors, computational efficiency. Same as Math 8305. Prereq: Math 1960, Math/CS 2050. Math 3110 recommended.
- 3320/8325 Data Structures** (3) Methods of representing arrays, stacks, queues, lists, trees, graphs and files. Searching and sorting. Storage management. Prereq: CS 2300, Math/CS 2030 (formerly CS 2350) and CS 1620 or CS 1820.
- 3450/8455 Data Base Management Systems** (3) Basic concept of generalized database management systems (DBMS): the relational, hierarchical and network models and DBMS systems which use them; introduction to database design. Prereq: CS 3320.
- 4220/8226 Programming Languages** (3) Definition of programming languages. Global properties of algorithmic languages including scope of declaration, storage allocation, grouping of statements, binding time. Subroutines, coroutines and tasks. Comparison of several languages. Prereq: CS 2310 and 3320.
- 4300/8306 Linear Programming** (3) Theory of the simplex method, duality, and obtaining an initial basic feasible solution. The dual and revised simplex methods. Parametric Linear Problems, sensitivity analysis, modeling and implementing LP packages. Same as Math 4300. Prereq: Math/CS 2050 and one of CS 1620, 1800, or 1820.
- 4310/83816 Discrete Optimization** (3) The
- of discrete optimization problems including transportation problems, network problems and integer programming. Same as Math 4310/8316. Prereq: Math/CS 4300/8300.
- 4350/8356 Computer Architecture** (3) Basic digital circuits, Boolean algebra, combinatorial logic, data representation and digital arithmetic. Digital storage and accessing, control functions, input-output facilities, system organization and reliability. Description and simulation techniques. Features needed for multiprogramming, multiprocessing and realtime systems. Prereq: Math/CS 2030 (formerly CS 2350).
- 8456 Introduction to Artificial Intelligence** (3) An introduction to artificial intelligence. Machine problem solving, game playing, pattern recognition and perception problems, theorem proving, natural language processing, machine learning, expert systems, and robotics. Prereq: CS 442 and M/CS 203.
- 4500/8506 Operating Systems** (3) Operating System principles. The operating system as a resource manager; I/O programming, interrupt programming, and machine architecture as it relates to resource management; Memory management techniques for uni-multiprogrammed systems; Process description and implementation; processor management (scheduling); I/O device, controller, and channel management; file systems. Operating system implementation for large and small machines. Prereq: CS 2310 and CS 3320. CS 4350 is recommended.
- 4510/8516 Advanced Topics in Operating Systems** (3) Advanced Topics in Operating Systems. State of the art techniques for operating system structuring and implementation. Special purpose operating systems. Pragmatic aspects of operating system design, implementation, and use. Prereq: CS 4500.
- 4700/8706 Compiler Construction** (3) Assemblers, interpreters and compilers. Compilation of simple expressions and statements. Organization of a compiler, including compile-time and run-time symbol tables, lexical scan, syntax scan, object code generation and error diagnostics. Prereq: CS 3320 and 4220. CS 4500 is recommended.
- 4760/8766 Stochastic Modeling** (3) Examination and construction of various probabilistic models including Markov chains, Poisson Processes, renewal theory and queueing systems. Same as MATH 8766. Prereq: Math 3740/8745.
- 8490 Information Organization and Retrieval** (3) Introduction to language processing as related to the design and operation of automatic information systems, including techniques for organizing, storing, matching, and retrieving structured and unstructured information on digital computers. Prereq: CS 3320 (CS 2450, ...)

8670 Algorithmic Combinatorics (3) Classical combinatorial analysis, graph theory, trees, network flow, matching theory, extremal problems, block designs. Same as Math 8670. Prereq: Math/CS 2050 and Math/CS 2030 (previously CS 2350).

8810 Advanced Numerical Methods I (3) Review of basic concepts from Linear Algebra. Direct and indirect methods for solving systems of equations. Numerical methods for finding eigenvalues and eigenvectors. Computation of inverses and generalized inverse, Matrix norms and applications. Same as Math 8810. Prereq: Math/CS 3300.

8820 Advanced Numerical Methods II (3) Solutions to equations, approximation, numerical solutions to boundary value problems, numerical solutions to partial differential equations. Same as Math 8820. Prereq: Math 8810/CS 8810.

8910 Advanced Topics in Optimization (3) Topics selected from integer programming methods, optimization under uncertainty, constrained and unconstrained search procedures, advanced dynamic programming, variational methods and optimal control. May be repeated for credit with permission of Graduate Advisor. Same as Math 89103. Prereq: CS 4300, CS 4310.

8950 Data Base Design and Organization (3) Introduction to objectives of computer data bases, how these objectives can be met by various logical designs, and how these designs are physically represented. Prereq: CS 3320 (CS 3450 recommended)

8990 Independent Graduate Studies (1-3) Under this number a graduate student may pursue studies in an area that is not normally available in a formal course. The topics to be studied will be in a graduate area of computer science to be determined by the instructor, and then approved in writing by the Chairperson. Prereq: Permission of instructor and graduate classification.

Mathematics

3100/8105 Applied Combinatorics (3) Basic counting methods, generating functions, recurrence relations, principle of inclusion-exclusion, Pólya's theorem. Elements of graph theory, trees and searching, network algorithms. Prereq: Math/CS 2030.

3110/8115 Differential Equations (3) Methods of solving ordinary differential equations, with applications to geometry and physics. Linear differential equations are emphasized. Prereq: Math 1960. It is further recommended that the student has taken Math 1970 or takes it concurrently.

3230/8235 Introduction to Analysis (3) Provides a theoretical foundation for the concepts of elementary calculus. Topics include the real number system, topology of the real line, limits, functions of one variable, continuity, differentiation, integration. Prereq: Math 1970 and Math/CS 2030.

3250/8255 Calculus of Vector Functions (3) Vector functions, line and surface integrals, gradient, divergence, and Gauss's Theorem, Stokes's

theorem and implicit function theorems, and algebra of vector function operators with applications. Prereq: Math 1970 and Math/CS 2050.

3300/8305 Numerical Methods (3) Solving equations and systems of equations, interpolation, numerical differentiation and integration, numerical solutions to ordinary differential equations, numerical calculations of eigenvalues and eigenvectors, analysis of algorithms and errors, computational efficiency. Same as CS 8305. Prereq: Math 1960, Math/CS 2050. Math 3110 recommended.

3500/8505 Selected Topics in Mathematics (1-6) This is a variable content course with selected topics in the mathematical sciences which may be of interest to students in other disciplines such as mathematics education, psychology, and business. The course may be taken more than once for credit provided topics differ, with a maximum credit of 9 hours. Mathematics majors may apply no more than 3 hours of Math 3500 toward the minimum major requirements. Math 8505 does not apply to M.A. or M.S. in mathematics. Prereq: Permission of instructor.

3640/8645 Modern Geometry (3) Axiomatic systems, finite geometries, modern foundations of Euclidean geometry, hyperbolic and other non-Euclidean geometries, projective geometry. Prereq: Math 1960 and Math/CS 2030.

3740/8745 Introduction to Probability and Statistics I (3) A mathematical introduction to probability theory and statistical inference including probability distributions, random sampling, significance tests, point estimation, and confidence intervals. Prereq: Math/CS 2030, Math 1970.

4030/8036 Applied Modern Algebra (3) Review of sets, relations and functions; Semigroups, groups, rings and fields, lattices and boolean algebra. Applications include coding theory, linear machines and finite automata. Prereq: Math/CS 2030. Recommended Math/CS 2050 and Math/CS 3100/8105.

4110-4120/8116-8126 Abstract Algebra (Each 3) An advanced undergraduate (beginning graduate) course in abstract algebra to include: groups and the Sylow theorems, rings and ideals, fields and Galois theory. Prereq: Math 4030 or instructor's permission required. At least one proof-oriented math course. Math 4110/8116 is required for Math 4120/8126.

4230/8236 Mathematical Analysis I (3) Provides a theoretical foundation for the concepts of elementary calculus. Topics include functions of several variables, partial differentiation and multiple integration, limits and continuity in a metric space, infinite series, sequences and series of functions, power series, uniform convergence, improper integrals. Prereq: Math/CS 2050 and Math 3230/8235 or equivalent.

4240/8246 Mathematical Analysis II (3) Provides a theoretical foundation for the concepts of elementary calculus. Topics include functions of several variables, partial differentiation and multiple integration, limits and continuity in a metric space, infinite series, sequences and series of functions, power series, uniform convergence, im-

4270/8276 Complex Variables (3) Differentiation, integration and power series expansions of analytic functions, conformal mapping, residue calculus, and applications. Prereq: Math 3230 or advanced calculus.

4300/8306 Linear Programming (3) Theory of the simplex method, duality, and obtaining an initial basic feasible solution. The dual and revised simplex methods. Parametric Linear problems, Sensitivity analysis, modeling and implementing LP packages. Same as CS 4300/8306. Prereq: Math/CS 2050 and one of CS 1620, 1800, or 1820.

4310/8316 Discrete Optimization (3) The mathematical foundations and solution algorithms of discrete optimization problems including transportation problems, network problems, and integer programming. Same as CS 4310/8316. Prereq: Math/CS 4300/8306.

4330/8336 Fourier Series and Boundary Value Problems (3) Heat conduction, vibrating membranes, boundary value problem, Sturm-Liouville systems, Fourier series, Fourier integrals, Bessel functions, Legendre polynomials. Prereq: Math 3110.

4410/8416 Introduction to The Foundations of Mathematics (3) Logic, the axiomatic method, properties of axiom systems, set theory, cardinal and ordinal numbers, metamathematics, construction of the real number system, historical development of the foundations of mathematics, recent developments. Prereq: For 4410, senior standing.

4510/8516 Theory of Numbers (3) Divisibility and primes, congruences, quadratic reciprocity, Diophantine equations, and other selected topics. Prereq: At least one math course numbered 3000 or above.

4600/8606 Tensor Analysis (3) A review of vector analysis, study of bisors and space tensors, applications to geometry and mechanics. Prereq: Math 3110 or permission of the instructor.

4610/8616 Elementary Topology (3) Sets and functions, metric spaces, topological spaces, continuous functions and homeomorphisms, connectedness, compactness. Prereq: Math 3230.

4650/8656 Operational Mathematics (3) Laplace transformation, inverse integral, general integral transforms, Hankel transforms, and applications in partial differential equations, heat conduction and mechanical vibrations. Prereq: Math 3230/8235 and Math 3110/8115.

4750/8756 Introduction to Probability and Statistics II (3) Theory and methods of statistical inference including estimators, statistical hypotheses, multivariate estimation, chi-square tests, analysis of variance, and statistical software. Prereq: Math 3740/8745.

8766 Stochastic Modeling (3) Examination and construction of various probabilistic models including Markov chains, Poisson Processes, renewal theory and queueing systems. Same as CS 8766. Prereq: Math 3740.

8020 Topics in Geometry and Topology (3) Selections from the following topics: Straight-line

formations — complex numbers and stereographic projection, non-Euclidean geometries; graph theory; topology of the plane; two dimensional manifolds, theory of dimension. Prereq: Has secondary teacher certification or is working toward it, or permission of instructor.

8040 Topics in Computer Science (3) An introduction to digital computers and programming techniques. Brief history of the development of computing, a survey of the applications of computers, and the implications of the use of computers in education. Prereq: Has secondary teacher certification or is working toward it, or permission of instructor; CS 1610 or equivalent.

8250 Partial Differential Equations (3) Linear and nonlinear first order equations, self-adjoint elliptic equations, linear integral equations, eigenfunctions, and boundary value problems. Prereq: Math 4230 and 3110 or equivalent.

8450 Calculus of Variations (3) An introductory course devoted to the classical theory and problems, such as the brachistochrone problem and the problems in parametric form. Prereq: Math 4230-4240.

8500 Applied Complex Variables (3) Applications of complex variables to potential theory, to the Fourier and Laplace transforms, and to other fields such as ordinary differential equations, number theory, etc. Prereq: Math 4270/8246.

8650 Introduction to Probability Models (3) An introduction to probability modeling including Poisson processes, Markov chains, birth-death processes, queueing models, and renewal theory. Applications will be an important part of the course. Prereq: Math 3740 or Math/CS 4760 or Stat 3800.

8670 Algorithmic Combinatorics (3) Classical combinatorial analysis, graph theory, trees, network flow, matching theory, extremal problems, block designs. Same as CS 8670. Prereq: Math/CS 2030 and Math/CS 2050.

8810 Advanced Numerical Methods I (3) Review of basic concepts from Linear Algebra. Direct and indirect methods for solving systems of equations. Numerical methods for finding eigenvalues and eigenvectors. Computation of inverses and generalized inverse, Matrixnorms and applications. Same as CS 8810. Prereq: Math/CS 3300.

8820 Advanced Numerical Methods II (3) Solutions to equations and systems of equations, approximation, numerical solutions to boundary value problems, numerical solutions to partial differential equations. Same as CS 8820. Prereq: Math 8810/CS 8810.

8910 Advanced Topics in Optimization (3) Topics selected from integer programming methods, optimization under uncertainty, constrained and unconstrained search procedures, advanced dynamic programming, variational methods and optimal control. May be repeated for credit with permission of Graduate Advisor. Same as CS 8910. Prereq: CS 4300, CS 4310.

8970 Independent Graduate Studies (3) Under this number a graduate student may pursue studies in an area that is not normally available to

him in a formal course. The topics studies will be a graduate area in mathematics to be determined by the instructor. Prereq: Permission of instructor and graduate classification.

8980 Graduate Seminar (1-3) A graduate seminar in mathematics.

8990 Thesis (3-6)

9110 Advanced Topics in Applied Mathematics (3) Topics selected from applied algebra, applied linear algebra, coding theory, graph theory, differential equations, numerical analysis, etc. May be repeated for credit with permission of the graduate advisor. Prereq: Permission of the instructor.

MUSIC

PROFESSORS: Low, Peters, Prince, Ruetz, Shrader
ASSOCIATE PROFESSORS: Bales, Foltz, Mullen, Saker, P. Todd
ASSISTANT PROFESSORS: McCleary

Entrance Requirements for Admission to the Graduate Program in Music

Applicants must have earned a baccalaureate degree in Music from a recognized institution of higher education. The student must have a cumulative average of 3.0 or better GPA (on a 4.0 scale) in all music courses or a 3.0 or better GPA in all upper division music courses. If the applicant does not meet either of the 3.0 GPA requirements, s/he will not be admitted into the program. An applicant who meets only one of the 3.0 GPA requirements (overall or upper division) must take the Music Department Diagnostic Exam before s/he can be admitted and may need to complete undergraduate courses to satisfy any deficiencies that the diagnostic exam might indicate.

Master of Music

The Department of Music offers graduate courses in the areas of music education, performance, history and theory. The degree requires a total of 30 or 36 hours credit for completion, and may include a program in either performance or music education.

MUSIC PERFORMANCE PROGRAM OF STUDY	
Applied Music*	9 hours
Music Bibliography	3
Music History or Theory	3
Analytical Techniques	3
Recital	3
Special Topics or Electives**	9
Total Semester Hours	30 hours

*Conducting Practicum can be substituted here for Conducting-Performance degree programs.

**A portion or all of the elective hours may be in a related subject field.

MUSIC EDUCATION PROGRAM OF STUDY	
Research in Music Education	3 hours
Music Education	6
Music History	3
Music Theory	6
Electives in Music*	9
Option A: Thesis	3
Option B: Additional Hours**	9
Total Option A	30
Total Option B	36

*To be selected from the following areas: conducting, performance, pedagogy, literature.

**A portion or all of these hours may be elected in related subject fields outside of music.

A maximum of three credit hours of workshops and ensemble practicum can be used in the plan of study.

ber of credits for each specific offering will be announced during the prior semester. Prereq: Graduate standing and departmental permission.

8010 The Arts and the Executive (3) The course will provide the graduate student with an understanding of the organizational and managerial issues involved in an arts organization and the role of the arts in the business community. CROSSLISTED WITH BA 8880. Prereq: Graduate admission and permission of the instructor.

4400/8406 Advanced Composition (3) Designed to help students become more familiar with the craft of creating music. Emphasis on new trends including indeterminacy, electronic music, total organization, computer music, minimalism, antimusic, and biomusic. Prereq: Music 3400 or permission.

4440/8446 Twentieth Century Styles (3) This course will study 20th Century music through analysis and practical application of the various theories, techniques and individual stylistic qualities that contribute to identification of individual styles and "style schools." It is designed for those students who are unfamiliar with the music of the early part of the twentieth century. Prereq: Music 2420 or the permission of the instructor.

4450/8456 Advanced Orchestration (3) This course will present students to advanced orchestration techniques with regard to style. Advanced orchestration techniques will be approached by scoring of selected excerpts with special attention to scoring for a full orchestra using advanced devices for the orchestra. The study of scores, especially those from Impressionism to the present, will be done. This course is intended for any and all students who wish to arrange or compose for orchestra, band, chorus or any other large ensemble. Prereq: Music 2420 and 2440 or permission of the instructor, and graduate standing.

4530/8536 History of the Lyric Theater (3) This course will consist of significant music theater works in the western world from 1600 to the present. Prereq: Music 2570, 2420, 2440; junior standing in applied voice; or by permission of the instructor.

4540/8546 Renaissance Music Literature (3) This course is intended for music majors who wish to undertake a comprehensive survey of music literature c. 1350-1600. Prereq: Music History 2550, 2560, 2570, and graduate standing.

4550/8556 Baroque Music Literature (3) This course is intended for music majors who wish to undertake a comprehensive survey of music literature from c. 1600-1750. Prereq: Music History 2550, 2560, 2570, and graduate standing.

4560/8566 Classical Music Literature (3) This course is intended for music majors who wish to undertake a comprehensive survey of music literature from c. 1750-1815. Prereq: Music 2550, 2560, 2570, and graduate standing.

4570/8576 Romantic Music Literature (3) This course is intended for music majors who wish to undertake a comprehensive survey of Music literature from c. 1815-1912. Prereq: Music History 2550, 2560 and graduate standing.

4580/8586 Music in the Twentieth Century

wish to undertake a comprehensive survey of music literature from the post-romantic period to the present day. The objective will be to provide the student with a broad overview with special attention given to composers and individual works which typify a style or form. Listening assignments will be an integral part of the course, and attendance at live, film and/or television performances will supplement the lectures, discussions and readings. Prereq: Music 2560.

4600/8606 Piano Pedagogy (3) This course is designed for piano majors and private music teachers in "how to teach piano," from the beginning stages through elementary and advanced levels. Procedures of instruction, basic principles of technique and materials used in teaching piano are covered. Prereq: Permission of instructor.

4610/8616 Voice Pedagogy (3) This course is a study of the physiological and acoustical properties of the vocal mechanism and of the various techniques used in developing the "singing" voice. Also, it will apply knowledge acquired about the voice through studio teaching and observations of other voice teachers. Prereq: Junior-level voice standing or permission of instructor for undergraduate level. Graduate voice standing or permission of instructor for graduate level.

4670/8676 Piano Pedagogy II (3) This course is designed for piano majors and private music teachers in "how to teach piano" from the beginning steps through elementary and advanced levels. Procedures of instruction, basic principles of technique and materials used in teaching piano are covered. Prereq: Music 4600/8606.

4710/8716 Acting for Music Theater (2) This course is a study of theoretical and practical approaches essential to developing the "singer/actor." Prereq: Music or drama major. Permission of instructor.

4720/8726 Choral Literature (3) A survey course in the study of significant choral genre of the various periods of musical composition from plain song to contemporary music. This course is intended for senior level students in the kindergarten through twelfth grade music education track and for students working on a masters degree in music education with emphasis in choral music. Prereq: Music 2570, 3640, and graduate standing.

4730/8736 Keyboard Literature (3) Survey and study of major piano repertoire from the Baroque keyboard composers to the 20th-century composers. Included are keyboard concertos with orchestra. Prereq: Permission of instructor.

4740/8746 Voice Literature (3) This course is a study of the development of art song in Europe and America. Emphasis will be given to German and French song literature and their influences on English and American song. Prereq: Junior-level voice standing or permission of instructor for undergraduate level. Graduate voice standing or permission of instructor for graduate level.

8200-8390 Applied Music (1 or 3) Elective level for graduate students in the music education track for one credit hour. May be repeated. Required for graduate students in the performance track for three credits.

8200 Guitar (1-3)

8210 Piano (1-3)

8220 Voice (1-3)

8230 Violin (1-3)

8240 Viola (1-3)

8250 Violoncello (1-3)

8260 Bass Viol (1-3)

8270 Flute (1-3)

8280 Oboe (1-3)

8290 Clarinet (1-3)

8300 Bassoon (1-3)

8310 Saxophone (1-3)

8320 Trumpet (1-3)

8330 French Horn (1-3)

8340 Baritone Horn (1-3)

8350 Trombone (1-3)

8360 Tuba (1-3)

8370 Pipe Organ (1-3)

8380 Percussion (1-3)

8390 Harp (1-3)

8460 Analytical Techniques (3) This course will study the major theoretical techniques developed by such important figures as Schenker, Hindemith, Reti and Forte. Music of all styles will be subject for analysis, but emphasis will be on tonal early-twentieth century music. Prereq: Students must be admitted for graduate study and have passed Music 3400 and Music 4440 or their respective equivalents.

8470 Advanced Counterpoint (3) Advanced counterpoint will deal with topics that are frequently neglected in undergraduate counterpoint classes because of lack of time or student background. Emphasis on masterpieces of the art of counterpoint will be made through study and analysis. Music from a wide variety of media will be presented and students will become familiar with major contrapuntal works in all style periods. Prereq: Students will have graduate standing and should have taken Music 3420 or its equivalent before enrolling in the course.

8510 Performance Practice (3) This course includes a study of published materials, master classes and workshops with visiting artists and intensive performance by the students themselves. Graduate students will not only be expected to join in an intensive study of a particular genre and period, but also to complete a lecture-recital on a specific approved topic. Prereq: Admission to the Graduate College and permission.

8520 Music Bibliography (3) This course includes a study of music reference and research materials. Basic procedures and tools of investigative studies are treated, culminating in a research project. Prereq: Graduate level standing and permission.

8620 Seminar-Workshops in Music Education (1-3) Seminars and workshops in music and

8630 Research in Music Education (3) A study of research techniques and literature in music and music education toward the objectives of reading and evaluating music education research and doing independent work in the area. Prereq: Graduate Standing and Permission.

8640 Philosophical and Sociological Aspects of Music Education (3) A study of philosophical and social backgrounds of music education through attention to philosophies of art and to current sociological trends. Prereq: Graduate standing.

8650 Psychological and Historical Aspects of Music Education (3) A study of psychological and historical aspects of music education through attention to relevant topics in the psychology of music and learning theory and through relevant reading in the history of music education. Prereq: Graduate Standing.

8660 Pedagogy of Theory (3) Designed to introduce teachers to the techniques and problems of teaching music theory in elementary and secondary schools and colleges. This will be accomplished through a variety of methods to include a review of texts, teaching, and research. Prereq: It is expected that students are enrolled in the graduate college and have permission of the instructor.

8700 Conducting Practicum (3) Private instruction in conducting and an intense study of the various disciplines in music and their relationship and application to the art of conducting. This course may be repeated for credit. Prereq: Students with a choral emphasis: Music 3640 and 8760. Students with an instrumental emphasis: Music 3630 and 8630.

8750 Advanced Instrumental Conducting (3) Study of advanced conducting problems in band and orchestral literature and techniques for their solution. Prereq: Music 2600 and 3630 or 3640 or equivalent.

8760 Advanced Choral Conducting (3) Advanced Choral Conducting is an indepth study of the problems in and the techniques required for conducting the following: (a.) Choral music of the plainsong era to the present; (b.) Music for choruses and instrumentalists. Prereq: The prerequisites for this course are the successful completion of Fundamentals of Conducting (Music 2600), and Choral Conducting and Literature (Music 3640) or the equivalent.

8980 Recital (3) This course involves the selection, preparation and public performance of a full recital in the student's major applied area. The recital should demonstrate the student's competency in a variety of styles and make advanced technical and interpretative demands. The course also includes a written project on the music performed at the recital. A full public recital and related written project as approved by the appropriate departmental committee is a graduation requirement for masters level students in the performance track. Method of grading will be a designation of satisfactory or unsatisfactory. Prereq: A written proposal for the recital and related written project must be approved by the ap-

8990 Thesis (3) The purpose of this course is to allow graduate students in Music Education (Option I) to develop a substantive thesis which employs and mirrors research or original thought of a quality and quantity appropriate to advanced work in music education. This course will be han-

dled on an individual study basis with aid and consultation from a faculty thesis advisor and thesis committee. Method of grading will be a designation of satisfactory or unsatisfactory. Prereq: Permission of Graduate Committee and twenty-four (24) hours of graduate course work completed.

POLITICAL SCIENCE

PROFESSORS: Camp, Kirwan, Menard

ASSOCIATE PROFESSORS: Bacon, Chung, Farr, J. Johnson, B. Kolasa

Admission Requirements: An applicant for admission to the Master of Arts or Master of Science program must present, as a prerequisite, a minimum of fifteen semester hours of undergraduate coursework in Political Science or their equivalent as determined by the departmental Graduate Admissions Committee. For unconditional admission the applicant must have at least a 3.0 grade point average in undergraduate political science coursework and must satisfy the Graduate College GRE requirements. In addition, the department requires two letters of recommendation from persons who are in a position to evaluate the applicant's potential for graduate studies before an applicant can be considered for unconditional admission.

Master of Arts

Degree Requirements: The program is intended for those who expect to pursue a doctoral degree. The student must satisfactorily complete thirty semester hours, twenty-four of coursework and six of thesis supervision. Students must maintain a B (3.0) average in their coursework, receiving no more than one C. The thesis is expected to be a mature piece of scholarship. From the four subfields of Political Theory, American Politics, Comparative Politics and International Politics, the student will select an emphasis in two. Twelve hours of coursework will be taken in one area of emphasis and six hours in the other. The remaining coursework is elective and may include cognate courses in related disciplines. Of the twenty-four hours of coursework twelve hours must be at the "O" level, including 8000 (Research Methods). There will be written comprehensive examinations in the two emphasized fields and an oral defense of the thesis.

Master of Science

Degree Requirements: This advanced non-thesis program is specifically designed to enhance career goals in the public service, education and business fields. Thirty-six hours of coursework are required with a minimum of eighteen hours at the O level, including 8000 (Research Methods). The student will select courses from the Political Science curriculum but may include up to nine hours of cognate courses in related disciplines. Students must maintain a B (3.0) average in their coursework, receiving no more than one C. Degree candidates must pass written comprehensive examinations covering their areas of study. The aim is to tailor each student's program to fit his or her personal or career interests.

4030/8036 The Presidency (3) The rise of the institution from Washington to the present, to the position and prestige it holds and how the president uses this power and prestige to influence Congress, the courts, and the public. Prereq: For 4030, Political Science 1100 and junior standing.

4040/8046 The Legislative Process (3) A comprehensive study of the legislative process of the Congress and state legislatures. The major emphasis is on legislative institutions, processes and behavior. Prereq: For 4040, Political Science 1100 and junior standing.

4050/8056 The Judicial Process (3) This is a course in the administration of justice. It examines the federal and state courts with respect to their powers, judicial selection, the bar, and their form movements in the most basic of all of man's objectives, the pursuit of justice. Prereq: for 4050, Political Science 1100 and junior standing.

4120/8126 Public Opinion and Political Re-

between public opinion and democratic processes, and the effects of public opinion on the operation of the political system. Prereq: For 8126, junior standing.

4170/8176 Constitutional Law: Foundations (3) Examination of the principles, design and intended operation of the American constitutional system. Analysis of Declaration of Independence, Articles of Confederation, Constitutional Convention, ratification debates. Stress laid on Federalist Papers and on reform criticism of Constitution.

4180/8186 Constitutional Law: The Federal System (3) Analytical examination of American constitutional law regarding the relations of nation and state (Federalism) and the powers of the national government (Judicial, Congressional and Executive).

4190/8196 Constitutional Law: Civil Liberties (3) Analytical examination of American con-

4200/8206 International Politics of Asia (3) Analysis of contemporary relations among the Asian nations as well as their interactions with the great powers; emphasis on the forces and issues which influence the international system of Asia. Prereq: For 4200, junior standing.

4210/8216 Foreign Policy of The U.S.S.R. (3) A study of the foreign policy of the U.S.S.R., with emphasis on developments since 1945. Internal and external influences on Soviet foreign policy, the processes of foreign policy making, and the relations among members of the communist camp also will be considered. Prereq: For 4210, junior standing.

4280/8286 Inter-American Politics (3) Analysis of the role of Latin American states in the international political arena. Emphasis upon developing, applying and testing an explanatory theory of international politics through the study of the inter-American system: The regional institutional and ideological environment, power relations, policies, and contemporary problems. Prereq: For 4280, junior standing.

4310/8316 Political Philosophy I (3) Textual analysis of leading works of classical political philosophy: Plato and Aristotle. Prereq: For 4310, junior standing.

4320/8326 Political Philosophy II (3) Textual analysis of leading works of early modern philosophy: Machiavelli, Hobbes, Rousseau. Prereq: For 4320, junior standing.

4330/8336 Political Philosophy III (3) Textual analysis of leading works of later modern political philosophy: Burke, Mill, Marx. Prereq: For 4330, junior standing.

4350/8356 Democracy (3) A basic study of theory, practice and practitioners of political democracy, its roots, development, present application and problems and future. Prereq: For 4350, junior standing.

4360/8366 Dictatorship (3) A basic study of theory, practice and practitioners of political dictatorship, its roots, development, major 20th century application and bestiality, and threats to man. Prereq: For 4360, junior standing.

4370/8376 Communism (3) The Marxian message, its use as an impulse to political power, its world-wide extension, and the threat it poses for the world in the hands of the Soviet Union and others. Prereq: For 4370, junior standing.

4500/8506 Government and Politics of Great Britain (3) A comprehensive study of British politics and government. Emphasis will be focused on the formal institutions and informal customs and practices of the British political system. Prereq: For 4500, junior standing.

8526 Politics in France (3) An examination of the French political heritage, contemporary political institutions and problems, and political and policy responses to these problems. Prereq: Graduate student.

4920/8926 Topics in Political Science (3) A pro-seminar on selected topics based upon analysis of the literature of political science and/or

8000 Seminar in The Research Methods of Political Science and Public Administration (3) A critical investigation of the methods of data collection and analysis for political science and public administration research. Prereq: Permission of the graduate advisor. (Also listed under public administration)

8040 Seminar in American Government and Politics (3) A thorough analysis of selected aspects of the structure and function of the American political system with emphasis on individual research by the student. Prereq: Permission of graduate advisor.

8150 Seminar in Public Law (3) Practical methods of research as applied to specifically selected problems in the areas of administrative, constitutional, and/or international law. Problems studied will correspond to those encountered by government employees, officials, and planners at the national, state, and local level. Emphasis will be varied from semester to semester in accordance with the background and objectives of the students enrolled. Prereq: Three semester hours in public law or permission of graduate advisor.

8200 Seminar in International Politics (3) An examination of the theoretical frameworks advanced for the systematic study of international relations, with application to particular problems in international relations. Prereq: Permission of graduate advisor.

8300 Seminar in Political Theory (3) Analysis of selected topics in normative, empirical and ideological political theory and their impact upon practitioners of politics. Prereq: Six hours of political theory or permission of graduate advisor.

8500 Seminar in Comparative Politics (3) An examination of the purpose, theories and literature of the field of comparative politics, with evaluation of the theories by application to contemporary political systems. Prereq: Permission of graduate advisor.

8800 Independent Study in Topics of Urbanism (1-2) Graduate student research on an individual basis under faculty supervision in topics pertaining to urbanism. Prereq: Undergraduate major in one of the social sciences. (Also listed under economics, geography, and sociology.)

8830-8840 Interdisciplinary Seminar On The Urban Community (3-6) An interdisciplinary course on the metropolitan community in which various departmental and college offerings concerned with urban problems are put in broad interrelated focus. Prereq: Undergraduate major in one of the social sciences plus 6 hours of graduate work in one of the social sciences. (Also listed under economics, geography, and sociology.)

8900 Readings in Political Science (3) Specially planned readings in political science for the graduate student who encounters scheduling problems in the completion of his degree program, or who has special preparatory needs and who is adjudged by the political science department to be capable of pursuing a highly independent course of study. Prereq: Permission of graduate advisor.

8990 Thesis (3-6) A research project, written under the supervision of a graduate advisor in the Department of Political Science, in which the student establishes his capacity to design, conduct,

and complete an independent, scholarly investigation of a high order of originality. The research topic and the completed project must be approved by the student's departmental committee. Prereq: Permission of graduate advisor.

PROFESSIONAL ACCOUNTING

PROFESSORS: Bean, Buehlmann, Trussell
ASSOCIATE PROFESSORS: Ortman

Objectives of the MPA Program

The primary objective of the Master of Professional Accounting degree program is to provide a graduate level educational experience as a basis for a career in professional accounting. Students with or without undergraduate degrees in accounting may be admitted to this program. The program provides a broad-based preparation for individuals seeking careers in public, private, or not-for-profit organizations. By choosing specific elective courses, however, individuals desiring a particular career path may pursue some specialization.

The MPA program is designed for dedicated students with career aspirations demanding a high level of accounting expertise. As such, the program involves both intensive and extensive professional preparation. It requires an intensive analysis of the accounting discipline while providing an extensive base in the supporting areas of economics, finance, and quantitative methods. The program provides the foundation for a career in a profession subject to rapid changes as it adjusts to meet the needs of an increasingly complex business environment. Upon completion of the program, the student will have the educational background required for the following professional examinations: Certified Public Accountant (CPA), Certificate in Management Accounting (CMA), and Certified Internal Auditor (CIA).

Program of Study

The first year of the MPA program focuses on the Common Body of Knowledge as defined by the AACSB and sufficient undergraduate accounting preparation to pursue graduate education. These courses may be waived upon satisfactory evidence of prior preparation. In the second year, students complete a core of required courses in accounting and the supporting disciplines. In consultation with an advisor, electives may be selected to meet a student's specific career goals. The program does not require a thesis or comprehensive examination, but a thesis may be elected.

Admission Requirements

All applicants must meet the requirements of the Graduate School as stated in the **Graduate Catalog**. Applicants must submit a completed application, official copies of all transcripts and results of the Graduate Management Admission Test (GMAT) prior to admission to the program. Although other factors are considered, the general admission formula is:

$$\text{GMAT (minimum 450)} + (200 \times \text{Upper Division GPA}) = 1070$$

Foreign students must provide letters of recommendation, statements of financial independence, and evidence of ability to speak and write the English language. The baccalaureate degree must have been received from an institution accredited by the proper accrediting agencies.

Foundation Courses* (39 total semester hours)

Course	Course
Acc 8110 Survey of Accounting	BA 8140 Business Law Survey
Acc 3020 Tax Accounting	BA 8150 Survey of Mgmt. Thought
Acc 3030 Intermediate I	BA 8170 Quantitative Survey
Acc 3040 Intermediate II	BA 8180 Foundations of Economics
Acc 3050 Cost Accounting	FBI 3250 Corporation Finance
Acc 3080 Accounting Information Systems	MKT 3310 Marketing
Acc 4080 Principles of Auditing	

Note: Some courses...

Master of Professional Accounting* (36 total semester hours) Required Accounting Courses (9 hrs.)

Acc 8210	Accounting Theory
Acc 8230	Controllership
**Acc 8250	Seminar in Accounting

Accounting Electives (9 hrs.)

Acc 8016	Advanced Accounting	Acc 8220	Federal Estate & Gift Taxation
Acc 8046	Federal Taxation of Corporations & Partnerships	**Acc 8250	Seminar in Accounting
Acc 8076	Accounting for Not-For-Profit Organizations	Acc 8260	Tax Research & Planning
Acc 8096	Financial Auditing	Acc 8900	Independent Research
		BA 8030	Business Information Systems

Required Tool Courses (12 hrs.)

BA 8000	Quantitative Analysis	BA 8500	Financial Management
BA 8100	Managerial Economics	BA 8800	Policy, Planning & Strategy

Other Electives (6 hrs.)

In consultation with the MPA director, six (6) hours of additional graduate work must be selected.

Other Requirements

1. A maximum of 6 hours of "6" level courses may be included in the graduate program of study.
2. All Foundation courses should be completed with a minimum grade of "C" before registering for graduate courses. Exceptions should be approved by the MPA Director.
3. Students are also subject to all policies and procedures of the Graduate College as stated in the Graduate Catalog.
4. Students must earn a minimum grade of "B" in BA 8800 to successfully complete the course as a graduation requirement.

*All courses are three semester hours.

**The content of this course will change with each offering so that it may be repeated up to 9 hours.

401/8016 Advanced Accounting (3) MA study of accounting theory, external reporting, consolidated statements, and partnerships, and the accounting for installment sales, branches, and foreign operations. Prereq: ACC 3040, Intermediate Accounting II.

4040/8046 Federal Taxation of Corporations and Partnerships (3) Analysis of the fundamental areas involved in the federal income taxation of corporations; corporate shareholders; and partnerships. Prereq: ACC 3020 or equivalent.

4030/8036 Tax Issues for Decision-Making (3) An introduction to the basic taxation principles for the non-accountant. This course is designed to elevate the tax awareness of and to provide tax knowledge for future decision makers. Credit will not be given for this course if the student has completed Accounting 302 or is pursuing the Master of Professional Accounting degree. Prereq: Accounting 202 or equivalent or BSAD 8110.

4070/8076 Accounting for Not-for-Profit Organizations (3) A study of the budgeting process, accounting techniques, reporting requirements, and the financial operating characteristics of not-for-profit organizations. Prereq: ACC 2020.

4090/8096 Financial Auditing (3) Professional

reporting obligations are emphasized. Prereq: ACC 4080.

8210 Financial Accounting Theory (3) The development of accounting, current accounting theory and present controversies and suggested theory and practice. Prereq: Accounting 3040, Intermediate Accounting II.

8220 Federal Estate and Gift Taxation (3) Analysis of the federal income taxation of estates, trusts, and their beneficiaries; wealth transfer taxes, basic concepts of international taxation and other business related taxes. Prereq: ACC 3020 or equivalent.

8230 Controllership (3) An analysis of the concepts and techniques of the Controllership function with emphasis on tactical and strategic planning and control. Prereq: ACC 3050 and DS 2130.

8250 Seminar in Accounting (3) A study of a specific area within the accounting discipline. Possible areas includes: auditing, financial, managerial, systems and tax. May be repeated up to a maximum of nine (9) hours. Prereq: Admission to the Masters of Professional Accounting Program and Permission.

8260 Tax Research and Planning (3) This course is designed to supply students with a working knowledge of the methodology applied in solving

application. Prereq: Acct 3020 or its equivalent and graduate standing.

8900 Independent Research (3) Individual research supplementing graduate study in a specific area within the Accounting discipline. May be repeated to a maximum of six hours. Prereq: Ad-

mission to Masters of Professional Accounting program and approval of written proposal.

8910 Special Topics in Accounting (3) A variable content course with accounting topics selected in accordance with student and faculty interest. May be repeated to a maximum of six (6) hours. Prereq: Permission of Instructor.

PSYCHOLOGY

PROFESSORS: Becker, E. Brown, Deffenbacher, Hamm, Hendricks, LaVoie, Millimet, Newton, Pedrini, Wikoff, R. Woody

ASSOCIATE PROFESSORS: Finkler, French, Hansen, Harrison, G. Simpson, Thomas

ASSISTANT PROFESSORS: Cellar

ADJUNCT FACULTY: Daly, Dossett, Greenberg, Jesteadt, Kessler, Rosenberg

COURTESY FACULTY: Angle, Bery, Fix, Gard, Horney, Leibowitz, Madison, McKinney, Robinson, Rodriguez-Sierra, Strider, W. Wood

Admission Requirements: A minimum of 15 undergraduate semester hours of psychology courses including basic statistics and an upper level laboratory course emphasizing the experimental method, data collection, statistical analysis, and report writing; **Graduate Record Examination scores on the Verbal, Quantitative, and Analytical sections are required for admission. An admission decision will not be made without these scores.** The Advanced GRE score in Psychology is highly recommended, although this test score is not required for admission to the Master's program. The Advanced GRE in Psychology is required of students who are applying for a graduate assistantship and/or the Ph.D. program. A score of 600 on the Advanced GRE is required for passing the comprehensive examination and may be achieved at any time (either before or after admission).

The evaluation of admission for all students applying to the Master's program is based primarily on a numerical composite score obtained by combining the last two years of the overall undergraduate GPA (and any graduate coursework completed since graduation) with the average of the three subtests composing the Aptitude portion of the GRE divided by 100. A student is admitted if his or her composite score is 8.0 or greater. A student whose composite score falls below 8.0 is not likely to be admitted and should be discouraged from applying.

Letters of recommendation are not required. However, applicants who believe that such letters would provide information that is important and not clearly communicated in other documents are encouraged to have one or more letters submitted in their behalf. Three letters of recommendation are required of those applicants who are seeking a departmental graduate assistantship or are applying to a post-masters program. Exceptions to these admission requirements can be made on an individual basis.

COMPREHENSIVE EXAMINATION — MASTER'S DEGREE PROGRAM: The comprehensive examination must be completed before a student can enroll for thesis credit or form a thesis committee. The examination for the Master of Arts and Master of Science degrees consists of two parts: (1) The advanced GRE subject test in Psychology on which the student must score at least 600. This test is administered several times each year, and the test booklets are available at the Office of Graduate Studies. Students are expected to complete this exam requirement as soon as possible after their admission to the M.A. or M.S. program. (2) Completion of the required four proseminars (one from each proseminar group) with a grade of B or higher in each proseminar.

Master of Arts

To complete the M.A. degree with a major in psychology, the student must present 30 hours of graduate coursework in psychology, or 21 hours in psychology plus 9 hours in a related minor field. Six hours of thesis credit are to be included in this total.

The student must choose one course from each of the following four groups. These courses must be completed within the first 16 hours of graduate work.

- I. A. Psychology 9040 (Proseminar in Learning)
B. Psychology 9560 (Proseminar in Development)
- II. A. Psychology 9210 (Proseminar in Perception)
B. Psychology 9230 (Proseminar in Physiological Psychology)
- III. A. Psychology 9100 (Proseminar in Analysis of Variance)
B. Psychology 9110 (Proseminar in Regression and Correlation)
- IV. A. Psychology 9430 (Proseminar in Personality)
B. Psychology 9440 (Proseminar in Social Psychology)

The student must earn a grade of at least B in the following courses:

proseminars become a matter of record at any point in time (even if the initial C or has been improved upon subsequently) the student will be dismissed from the program. This rule applies to the proseminar series only. However, the accumulation of any three C's or a D or an F in any graduate course on the student's plan of study will also result in dismissal. A dismissed student may appeal to the Graduate Program Committee for consideration of readmission.

The remainder of the student's coursework is elective, but must be planned in conference with the academic advisor, in order to meet the individual needs and interests. Psychology 8000 is a non-credit course intended to familiarize the beginning graduate student with the profession of psychology and is required of all graduate students in psychology. The student may emphasize one of the following areas: quantitative, physiological, general experimental, social, personality, developmental, educational, and industrial/organizational psychology. Final determination of a student's plan of study always resides with the advisor and the department. To meet the graduate college requirements, a student must take at least half of the work in courses which are open only to graduate students.

Master of Science

To complete the M.S. with a major in industrial/organizational psychology or the M.S. with a major in educational psychology, the student must present 36 hours of graduate coursework in psychology. The M.S. degree has the same proseminar requirement as the M.A., and all rules concerning proseminar courses are the same in both degree programs, as well as the requirement of Psychology 8000.

Required courses additional to the proseminars may be designated by the department. This will ordinarily include up to 3 hours of practicum credit. Final determination of a student's plan of study always resides with the advisor and the department. To meet the graduate studies requirements a student must take at least half of the work in courses which are open only to graduate students.

Specialist in Education

The Ed.S. degree requires completion of 66 graduate hours including those taken for the Master's degree. The requirements for this degree are the same as for those leading to certification as a School Psychologist with one addition. The degree candidate must write and defend a thesis which deals with research or supervised experience in the area of school psychology.

Doctor of Philosophy

Through a cooperative program with the University of Nebraska-Lincoln, programs are offered in Omaha leading to the Ph.D.s in industrial/organizational, experimental child, and in developmental psychobiology. Students may be considered for admission to a doctoral program if they have completed or are doing excellent work toward their Masters degree which includes a demonstration of research skills, preferably in the form of a defended thesis. There is no generally specified language or research skill requirement, but each student is expected to demonstrate proficiency in languages, research skills, or knowledge in collateral research areas appropriate for the student's research interests as determined by the Supervisory Committee.

Industrial/Organizational Psychology

Doctoral students in this program are required to complete the entire proseminar series of eight courses as outlined above or their equivalent if the student has completed graduate coursework at another school. In addition, the following courses are required: Theory of Measurement and Design, Multivariate Statistical Analysis, Industrial Motivation and Morale, Industrial Training and Development, Criterion Development and Performance Appraisal, Personnel Section, Practicum in Organizational Behavior, and Dissertation. The remaining hours of coursework are determined by the student and the supervisory committee.

Experimental Child Psychology

Doctoral students in this program are required to complete the entire proseminar series of eight courses as outlined above or their equivalent if the student has completed graduate coursework at another school. In addition, the following courses are required: Memory and Learning, Social and Personality Development, Cognitive Development, Language Development, Practicum in Developmental Psychology, and Dissertation. The remaining hours of coursework are determined by the student and the supervisory committee.

Developmental Psychobiology

Doctoral students in this program are required to complete the entire proseminar series of eight courses as outlined above or their equivalent if the student has completed graduate coursework at another school. In addition, the following courses are required: Animal Behavior, Neuroanatomy, Seminar in Developmental Psychobiology, 9 hours of biological science, and Dissertation. The remaining hours of coursework are determined by the student and the supervisory committee.

Procedure for the Doctor of Philosophy Degree

1. Admission to the UNL Graduate College by the evaluation of official transcripts presented in person or by mail prior to registration.
2. Registration after consultation with advisors in major and minor departments.
3. Appointment by the UNL Graduate Office of a supervisory committee on the recommendation of the departmental or area Graduate Committee.
4. Submission to the UNL Graduate Office of a program approved by the supervisory committee setting forth the complete plan of study for the degree prior to completion of more than half of the minimum requirements.
5. Satisfactory completion of foreign language or research tool requirements set forth in the approved program and passing of comprehensive examinations in major and minor or related fields when the student's program of courses is substantially completed.
6. Submission to the UNL Graduate Office of a report from the supervisory committee on the specific research for the dissertation and progress to date.
7. Admission to candidacy for the Ph.D. degree by filing a report in the Graduate Office of the passing of the comprehensive examinations and the completion of language and research tool requirements (at least seven months before the final oral examination). The term of candidacy is limited to three years.
8. Filing of an application for the degree at the Registration and Records Office, Information Window, 208 Administration Building at UNL. This application is effective during the current term only. It must be renewed at the appropriate time if requirements for graduation are not completed until during a later term.
9. Presentation of the dissertation and the abstract to the members of the reading committee in sufficient time for review and approval, which must be obtained at least three weeks prior to the final examination.
10. Presentation to the Graduate Office of two copies of the approved dissertation, three copies of the approved abstract, and the application for the final oral examination at least three weeks prior to the date of that examination.
11. Passing of any required final oral examination.
12. Deposition of two copies of the dissertation in proper form, one copy of the abstract, and a signed agreement for microfilming the dissertation and publication of the abstract, with the UNL Director of University Libraries. Delivery of the certificate of deposit, signed by members of the supervisory committee, the UNL Director of University Libraries, and UNL Comptroller, to the Graduate Office. In addition, one bound copy of the dissertation is to be deposited with the student's major department.

Professional Programs in the Area of School Psychology

Application

Application for admission to the programs in school psychology must be filed with the School Psychology Committee of the Psychology Department. The application should include official transcripts of all previous college work, scores for the Graduate Record Examination Aptitude Test, a vita, and three letters of recommendation. Students who have not been admitted to Graduate Studies previously must apply to the Director of Admissions, also. Applications must be completed by Feb. 28 for the following Fall semester. Before a final decision is made concerning admission the applicant must be interviewed by at least two members of the School Psychology Committee.

Certification

Students may take work leading to a recommendation for certification as a school psychologist. A minimum of thirty semester hours of work beyond the Masters degree is required for the recommendation. Filing of an acceptable plan of study with the Graduate Office will be required on admission to the program. Students will arrange their programs according to the subject matter areas below. In addition to the courses required for the 30 hours beyond the Masters degree the student must complete requirements for the Master of Science or Master of Arts in Educational Psychology or its equivalent. Since individual students may have widely variant backgrounds, considerable flexibility is allowed in choice of electives. However, the final decision on the appropriateness of a program rests with the Psychology Department. Admission to the program signifies that the student's program has been approved. Students must contact the School Psychology Committee when starting their studies in order to facilitate individual program planning. The student's advisor should be a member of the School Psychology Committee.

The Ed.S. degree in school psychology requires completion of 66 graduate hours including those taken for the Masters degree. The requirements for this degree are the same as for those leading to certification as a school psychologist with one addition. The degree candidate must write and defend a field project which deals with research or supervised experience in the area of school psychology. The student must consult with the School Psychology Committee.

1. Required Courses in Psychological Methods

- Psychology 8316 (or 4310) Psychological and Educational Testing
 - Psychology 8000 The Profession of Psychology
 - Psychology 8500 Introduction to School Psychology
 - Psychology 8530 Individual Tests I
 - Psychology 8540 Individual Tests II
 - Psychology 8510 Advanced Educational Psychology
 - Psychology 9580 Personality Assessment
 - Psychology 9790 Topical Seminar in School Psychology
- One of the following three courses:
- Psychology 8550 Introduction to Therapeutic Techniques with Children
 - Psychology 8570 Behavior Modification
 - Psychology 9570 Applied Behavior Analysis
- One of the following two courses:
- Psychology 8596 (or 4590) Psychology of Exceptional Children
 - SPED 8606 (or 4600) Introduction to Mental Retardation

2. Required Professional Education Courses

- COUN 8030 Counseling Practices
- EDAD 8350 Introduction to Educational Administration and Supervision
- TED 8430 Emerging School Curriculum

3. Required Supporting Work

One or two courses in basic psychology (outside the student's area of specialization) and/or one or two courses in Special Education, Counseling and Guidance, or other professional education fields other than those specified as requirements. The student must also have had coursework in both learning and developmental psychology.

4. Practicum in School Psychology (Psychology 9970)

The student's program must include from 4 to 6 credit hours of practicum. The general rule is that 50 clock hours are required for each hour of credit. The usual practice is for a 3-hour practicum emphasizing assessment and a 3-hour practicum emphasizing behavioral intervention. At least half of the credits must be earned in a school setting. Each practicum is developed to meet the individual student's needs and must be approved by the School Psychology Committee before the student is allowed to enroll.

5. Internship in School Psychology (Psychology 9980)

An internship totaling at least 1000 clock hours must be completed before the student will be recommended for endorsement as a school psychologist. This will normally be taken after the student has completed all other requirements, including both practicum experiences. The intern must have an endorsement as a psychological assistant. The internship is usually completed in one of the Omaha-area schools but other sites are possible. The exact details of the internship are worked out by negotiations involving the student, the advisor, and are representative of the school system involved. Results of these negotiations must be approved by the School Psychology Committee. The student may sign up for 3 credit hours for each semester of internship completed. Students who enroll in either the Practicum course or Internship in School Psychology will be expected to attend a monthly seminar at which time case studies, issues and other relevant topics in School Psychology will be discussed.

Psychological Assistant

Students who are pursuing work toward certification in Nebraska as Psychological Assistants must simultaneously complete requirements for the M.A. or M.S. Those seeking such endorsement are encouraged to apply to the Psychology Department at the same time they make application for degree candidacy in order to ensure that required courses are included in the plan of study for the degree. In any event, students must have been accepted in this program before enrolling in Psychology 8530 or 8540. Application should be made to the Psychology Department and three letters of recommendation are required. Required courses in this program are: Psychology 8316 (4310), 8000, 8530, 8540, 8500, and 9970, and one of the following: Psychology 8596 (4590), or SPED 8606 (4600). The student must also have had coursework in both learning and developmental psychology.

Recommendation for Certification

Upon completion of the approved program of studies the student requests review for the School Psychology Committee's recommendation for certification as a school psychologist or psychological assistant. The student is expected to have completed the program satisfactorily (B or better) and maintained the professional standards of school psychology. The student in training is expected to behave in accordance with the ethical guidelines of the American Psychological Association and the National Association of School Psychologists.

4010/8016 History of Psychology (3) A study

4060/8066 Environmental Psychology (3) A study of effects of natural and artificial environ-

tions with social distance, territoriality, privacy and such. Prereq: Basic Statistics or Experimental Psychology with laboratory or permission.

4070/8076 Cognitive Processes (3) An exploration of historical and contemporary research and theory concerned with higher cognitive processes including concept formation, problem solving, creativity, memory, and symbolic behavior. Prereq: Psychology 3010 or 9040 or permission.

4250/8256 Limits of Consciousness (3) A survey of theories, practices and research on altered states of consciousness. Emphasis on experiential as well as intellectual proficiency. Prereq: None.

4270/8276 Animal Behavior (3) Behavior of diverse animals for the understanding of the relationships between nervous integration and the behavior manifested by the organism, as well as the evolution and adaptive significance of behavior as a functional unit. Prereq: Psychology 1010 and Biology 1750 or permission. (Same as Biology 4270 and 8276)

4280/8286 Animal Behavior Laboratory (2) Laboratory and field studies of animal behavior with an ethological emphasis. Classical laboratory experiences and independent studies will be conducted. (Same as Biology 4280/8286) Prereq: Biology/Psychology 4270/8276 or concurrent enrollment.

4310/8316 Psychological and Educational Testing (3) The use of standardized tests in psychology and education is considered with special regard to their construction, reliability, and validity. Prereq: Psychology 1020 or 3510.

4430/8436 Psychoanalytic Psychology (3) The study of Sigmund Freud, psychoanalytic theories, and current theories of sleep and dreams. Readings are emphasized. Prereq: None.

4440/8446 Abnormal Psychology (3) A course designed to examine the aberrant behavior of individuals. Symptoms, dynamics, therapy, and prognosis of syndromes are considered. Prereq: Psychology 1010.

4450/8456 Personality Theories (3) A comparative approach to the understanding and appreciation of personality theories considering history, assertions, applications, validations, and prospects. Prereq: None.

4470/8476 Jungian Psychology (3) The study of C. G. Jung's analytical psychology, and related philosophy, theology, and literature. Readings are emphasized. Prereq: None.

4480/8486 Eastern Psychology (3) Theories and techniques of Buddhist psychology with special emphasis on Zen practice. Emphasis on experiential as well as intellectual proficiency. Prereq: Graduate standing.

4520/8526 Psycholinguistics (3) A discussion of the literature concerned with how such psychological variables as perception, learning, memory, and development relate to the linguistic variables of sentence structure, meaning, and speech sounds. Prereq: Permission of instructor.

4550/8556 Retardation (3) This course consid-

ered with impairment in adaptive behavior. Research is emphasized. Prereq: Psychology 4310/8316; or Psychology 2130 or equivalent and Psychology 3430 or 4450/8456.

4570/8576 Introduction to Behavior Modification (3) Introduction to the experimental methodology, rationale and research literature of changing behavior through behavior modification techniques. Particular attention will be paid to methodological concerns regarding single subject design, ethical considerations, and ramifications of behavior intervention with children and youth. Prereq: Psychology 1010, Psychology 3010, and Permission of Instructor.

4590/8596 Psychology of Exceptional Children (3) A study of exceptional children and adolescents with sensory or motor impairments, intellectual retardations or superiorities, talented or gifted abilities, language or speech discrepancies, emotional or behavioral maladjustments, social or cultural differences, or major specific learning disabilities. Cross listed with SPED 8106. Prereq: None.

4800/8806 Social Work, Psychology, and the Law (3) An examination of some of the legal aspects of selected social welfare policy issues such as abortion, illegitimacy, alcoholism and drug addiction, creditor and debtor's rights, landlord and tenant relationships, housing law, right to treatment, status of the convicted individual, mental health commitment procedures. Prereq: SW 3110 or its equivalent, at the graduate level SW 8050 or permission.

8000 The Profession of Psychology (0) A required non-credit course for graduate students in psychology. Intended to familiarize the beginning graduate student with the profession of psychology including such topics as ethics, professional organizations, job and educational opportunities, the use of reference materials, licensing and certification, and other relevant material.

8060 Computer Concepts in Psychology and the Behavioral Sciences (3) An introductory course emphasizing the applications of computers in the areas of psychology, sociology, and education. Includes a functional description of computers and a discussion of programming languages as well as specific uses. Prereq: Psychology 2130 or equivalent.

8140 Nonparametric Statistics (3) A study of distribution-free statistics with particular emphasis on application of distribution-free tests to research problems in social behavioral sciences. Prereq: Psy 2130 or equivalent.

8500 Introduction to School Psychology (3) This course is intended for the introductory graduate student in either the psychological assistant or school psychologist programs. It will constitute one of the student's first exposures to the professional field of school psychology involving standards of practice. The consultation model of school psychological services will be utilized and generalizations regarding practice will be offered. Prereq: Admission to the graduate program and

8510 Advanced Educational Psychology (3) A study of the principles of learning and testing and their applications to problems of contemporary education, particularly to those problems existing in the classroom. Prereq: Psychology 3510.

8520 Clinical Assessment I: Foundations (3) This is an introductory or survey course on the clinical and subjective aspects of human assessment. It is intended to serve as the foundation for more advanced study of assessment according to disciplinary specialization. Clinical considerations are applied to professional judgment, diagnostic interviewing, observational analysis, rating scales, standardized intellectual and personality tests, objective personality methods, and critical social issues (relevant to assessment). Prereq: Admission to graduate study in psychology, social work, sociology, or education; Psych 8316 or equivalent recommended as a prerequisite.

8530 Individual Tests I (3) Administration, scoring, standardization, and interpretation of individually administered tests with special emphasis upon intelligence testing. Prereq: 16 graduate hours of psychology including completion of all required courses for the master's degree and Psychology 4310/8316 or 9090 and admission to either psychological assistant or school psychologist program.

8540 Individual Tests II (3) Administration, scoring, standardization, and interpretation of individually administered tests with special emphasis upon intelligence testing. Prereq: 16 graduate hours of psychology including completion of all required courses for the master's degree and Psychology 4310/8316 or 9090 and admission to either psychological assistant or school psychologist program.

8550 Introduction to Therapeutic Techniques With Children (3) The purpose of this course is to become familiar with play therapy, a technique for enhancing the adjustment and maturity of children. The history and methods of and the research with play therapy are considered. Prereq: Permission of instructor.

8560 Learning in Children (3) A course dealing with learning in infants, children and, for comparison purposes, adults. Research relevant to developmental differences in learning ability will be emphasized. Content areas included will be learning methodology with infants and children, learning in infancy, probability learning, transposition and reversal shift learning, imprinting, habituation and imitation learning.

8900 Problems in Psychology (1-6) A faculty supervised research project, involving empirical or library work and oral or written reports. Prereq: Written permission of the department.

8950 Practicum in Industrial Psychology (1-6) Faculty supervised experience in industry or business designed to bridge the gap between the classroom and a job, emphasizing use of previously acquired knowledge in dealing with practical problems. Prereq: Written permission of your practicum committee.

9070 Practicum in Educational Psychology

with practical problems faced by psychologists who work in an educational setting. Prereq: Written permission of your practicum committee.

8980 Practicum in Developmental Psychology (1-6) Faculty supervised experience in a setting designed to provide a practical understanding of theoretical concepts of human development. Emphasizes direct observation and/or personal interaction as a means of training, and can be directed toward various populations within the developmental life span (e.g., infants, preschoolers, middle childhood, adolescents, adults, aged persons). Prereq: Psychology 9560 and permission of the Developmental Psychology Area Committee.

8990 Thesis (1-6) Independent research project written under supervision of a faculty committee. May be repeated up to a total of 6 hours. Prereq: Written permission of your thesis committee.

9030 Seminar: Topics in Industrial/Organizational Psychology (3-9) A topic area within the field of Industrial/Organizational Psychology will be explored in depth. Prereq: Graduate standing and instructor's permission.

9040 Proseminar: Learning (3) A comprehensive and intensive coverage of the experimental literature on learning in humans and animals. Prereq: Permission of instructor.

9090 Theory of Measurement and Design (3) Study of the theoretical and practical problems related to the development and use of psychological measures and research designs covering such topics as scaling, test development, reliability, validity, interpretation of results, and generalizability. Prereq: Psychology 2130 or equivalent.

9100 Proseminar: Analysis of Variance (3) A course providing a theoretical and practical understanding of inferential statistics emphasizing the analysis of variance model. Prereq: Permission of instructor.

9110 Proseminar: Regression and Correlation (3) This course is intended for graduate students in psychology as a part of a core requirement for four proseminars. It is appropriate for persons in other disciplines interested in a correlational approach to the study of relationships among variables, also. Prereq: Permission of Instructor.

9120 Multivariate Statistical Analysis (3) An examination of statistical techniques for describing and analyzing multivariate data commonly collected in behavioral research. Analytic techniques derived from the general linear model will be considered, focusing on proper interpretation and use. The course is intended for doctoral students in psychology and (selectively) for advanced masters students in the behavioral sciences. Prereq: Psychology 9090, 9100, and 9110 or permission of instructor.

9210 Proseminar: Perception (3) A comprehensive and intensive coverage of the experimental literature on perception in humans and animals. Prereq: Permission of instructor.

9230 Proseminar: Physiological Psychology (3) A study of the biological substrates of behavior with emphasis upon neuroanatomy, neurophysi-

9290 Seminar in Developmental Psychology (3-9) An in-depth analysis of a specific topic in psychobiology. Prereq: Permission of instructor.

9320 Seminar in Program Evaluation (3) This course is intended to help advanced graduate students in the applied social sciences understand the literature and conduct evaluation research. The history of program evaluation and philosophies manifest in evaluation research are reviewed, alternative evaluation models are discussed, and relevant methodological and practical issues such as quasi-experimental design and utilization are explored. Prereq: Students should have prior graduate level course work or experience in research design and statistics in the applied social sciences.

9430 Proseminar: Personality (3) A course considering the effects of personality variables on behavior. A historical, theoretical, psychometric, and experimental approach will be emphasized. Prereq: Permission of instructor.

9440 Proseminar: Social Psychology (3) Examination of theories, research findings and controversies in social psychology. Topics will include socialization; person perception; interpersonal attraction, leadership and group effectiveness; attitudes, attitude measurement, and attitude change; intergroup relations, power and social influence. New topics will be added as they become part of the research interests of social psychologists. Prereq: Permission of the instructor.

9470 Psychopathology of Youth (3) To consider basic psychological theories, principles, models, and research as they apply to youth, especially focusing on the psychology of abnormality. Prereq: None.

9480 Geropsychology (3) To become familiar with the psychology of aging from a research perspective. The focus will be on psychological research in the middle years and in later years. (Same as Gerontology 9480). Prereq: 12 hours of psychology and/or gerontology or permission.

9520 Linguistic Development (3) Theory and research concerning the acquisition of language are discussed. Attention is paid to long-standing controversies in developmental psycholinguistics, as well as to the most recent observational and experimental data regarding phonological, syntactic, and semantic development. Prereq: Psy 9560, Proseminar in Developmental Psychology.

9530 Cognitive Development (3) This course covers contemporary issues in theory and research concerning the development of processes by which environmental information is perceived, attended to, stored, transformed, and used. Both Piagetian and information processing orientations will be emphasized. Prereq: Psy 9560, Proseminar in Developmental Psychology.

9550 Social and Personality Development (3) A seminar focusing on research methods, theory, and the empirical literature as they apply to social and personality development across the life span. All students will be expected to design and conduct a mini-observational/experimental study in some specific area of social and personality development.

9560 Proseminar: Developmental Psychology (3) An overview of issues and major theories of human development across the life span, with a focus on the experimental literature relating to genetics, language, perception, cognition, and social development. Research methods are an integral part of the course. Prereq: Permission of instructor.

9570 Applied Behavior Analysis (3) A comprehensive introduction to experimental methodology in applied behavior analysis. Topics covered include observational recording systems, reliability indices, procedural implementation of behavioral techniques, single-subject research designs, and a broad review of the research literature. Prereq: A minimum of one course in learning theory (Psy 8560, 8570, 9040, or equivalent) and permission.

9574 Laboratory in Applied Behavior Analysis (3-6 hrs) Laboratory work coordinated with Psychology 9570 (Applied Behavior Analysis) consisting of the systematic application of behavioral technology within the context of single-subject experimental designs. Emphasis will be on the modification of behavior of children with cognitive, social, or behavioral problems. Prereq: Psy 9570 or permission.

9580 Personality Assessment (3) A course dealing with projective and objective methods for personality assessment and intended for advanced graduate students in psychology preparing to be clinical practitioners in schools and mental health facilities. Prereq: Foundation courses in tests and measurements, abnormal psychology, and personality theories; two courses in individual intelligence testing; and permission of the instructor.

9590 Seminar in Developmental Psychology (3-9) Faculty and student presentations organized around one of the following three major subdivisions of child psychology: (1) Social and personality development, (2) Developmental changes in memory and learning, (3) Cognitive growth and functioning. The course may be repeated each time a different topic is covered, up to a maximum total of nine credit hours. Prereq: Completion of the proseminar sequence and permission of the instructor.

9610 Industrial Motivation & Morale (3) A course focusing on theory and research in the areas of work motivation, work behavior, and job satisfaction. Emphasis is placed on such topics as expectancy theory, job redesign, leadership, absenteeism, turnover, goal setting and behavior modification. Prereq: Admission into industrial psychology graduate program.

9620 Industrial Training and Development (3) An analysis of the theoretical and practical problems of conducting training programs in industry including diagnosis, design, implementation, and evaluation. Emphasis is placed on practice in designing and implementing training programs in response to actual industrial situations. Prereq: Admission into industrial psychology graduate program.

9650 Industrial Psychology Research Meth-

the various research data collection and statistical techniques that are applicable to industrial psychology research. Prereq: Admission into industrial psychology graduate program.

9660 Criterion Development and Performance Appraisal (3) An in-depth examination of the fundamentals of personnel psychology including job analysis, criterion development, and performance measurement and appraisal in organizations. Practical experience in the application of techniques and procedures is emphasized through group and individual projects in organizational settings. Prereq: Psy 9090 (may be taken concurrently).

9670 Personnel Selection (3) An exploration of current theory and practice in personnel selection. Problem solving strategies are emphasized through the design, analysis, and interpretation of selection research and the implementation of selection programs consistent with Equal Opportunity Guidelines and federal law. Prereq: Psy 9660.

9790 Seminar in School Psychology (3) This course is designed to give the advanced student in the School Psychology Program an overview of significant professional topics in the field. Ordinarily such topics such as state licensing laws, state of Nebraska certification requirements, public and state laws, special education department guidelines, roles and functions, and ethics will be included in the course. Every attempt will be made to take the principles from the classroom and develop the principles of practice which constitute the field of school psychology. Prereq: Completion

of a Master's degree, and admission into the School Psychology Program.

9910 Topical Seminar in Psychology (1-3) A discussion of specific advanced topics which will be announced whenever the course is offered. Prereq: Permission of the instructor.

9950 Practicum in Organizational Behavior (1-6) Faculty supervised experience in industry or business designed to bridge the gap between the classroom and a job, emphasizing use of previously acquired knowledge in dealing with practical problems. Prereq: Permission of department and admission to doctoral program.

9960 Research Other Than Thesis (1-12) Research work under supervision of a faculty member. May be repeated up to a total of 12 credit hours. Prereq: Enrollment in a graduate program beyond the master's level and permission of the department.

9970 Practicum in School Psychology (1-6) Faculty-supervised experience in an educational agency designed to acquaint the student with the practical problems faced by school psychologists. Prereq: Admission to school psychology program and written permission of department.

9980 Internship in School Psychology (3-6) A systematic exposure to the practice of psychology in the schools. School consultation in a variety of educational settings will be undertaken. The student's responsibilities will be documented in a contractual agreement between the intern student and the local and university supervisors. Prereq: Completion of 4 hours of Psy 9970 and written permission of the School Psychology Committee.

PUBLIC ADMINISTRATION

PROFESSORS: Paulsen, Reynolds, Suzuki
ASSOCIATE PROFESSORS: Hinton, Reed, Swain

Master of Public Administration

The Master of Public Administration (MPA) is a professional graduate degree designed: (1) to prepare students for careers in the public service — national, state, local or nonprofit agencies and (2) to provide professional development opportunities for those already in the public service. Professionals with general administration skills are needed in all areas of government. The MPA Program stresses the development of management and administrative abilities, important to both staff specialists and administrators.

Students in the MPA Program will likely come from widely differing backgrounds. Some may come from current public employment and professions such as law, health administration and business administration while others may enter with degrees in the social sciences, engineering, business, human services, or the humanities.

The MPA courses are regularly offered at night to meet the needs of full-time employees. The Department of Public Administration is a member of the National Association of Schools of Public Affairs and Administration (NASPAA). In 1985, the MPA Program was once again placed on the National Roster of Programs found to be in conformity with NASPAA Standards for Professional Masters Degree Programs in Public Affairs and Administration.

Degree Requirements

Thirty-nine graduate credit hours are required for the MPA degree, including 36 hours of coursework and a three-hour internship. The course work shall include 18 hours of core courses, required of all MPA students. The elective courses, chosen by the student with the assistance of a departmental advisor, may include one of the 12-hour options listed below or may, on occasion, include a separate 12-hour plan of study designed to meet a particular set of career development needs. For completed courses in accounting, statistics or Introduction to Public Administration, these courses may be substituted for the core courses.

The internship requires the equivalent of 15 weeks work at 20 hours per week in a staff position with a public or quasi-public agency. The internship requirement may be waived for prior professional or administrative service in a public or nonprofit agency. Where the internship is waived, an additional three-hour elective will be substituted.

In addition, a comprehensive written final examination is required of all MPA students.

Admission

The general prerequisite for admission to the MPA Program is a Bachelor of Arts or Bachelor of Science degree or equivalent.

To be admitted **unconditionally**, the student must have achieved a grade average of 3.00 on a 4.00 system for either the full undergraduate program, for the undergraduate major of Public Administration, or for the junior-senior years and must have completed all other admission requirements for Graduate Studies. This includes completion of one of the following: the Graduate Record Examination (GRE), the Miller Analogies Test (MAT), the Graduate Management Admissions Test (GMAT), or the Law School Admissions Test (LSAT).

Provisional admission may be granted where the applicant has achieved a grade average of 2.70 or above or has not completed one of the four examinations (GRE, MAT, GMAT, LSAT). Exceptions to the 2.70 grade point average may be made by the Graduate Program Committee in conjunction with the Graduate Dean where the applicant:

has a demonstrated record of public sector administration; or

has demonstrated through recent coursework an ability to successfully complete graduate work; or

in rare instances, a student whose grade point is below 2.7 **may** be admitted provisionally should their public service record be exceptional or should some other significant indicator of ability to do graduate level work be established.

Students who wish to take courses for professional growth or personal interest but who do not intend to pursue an advanced degree may be granted unclassified admission.

To apply for admission to the MPA program, a student has to submit an application for admission, a **work history or resume**, and transcripts from all undergraduate institutions to the UNO Admission Office.

Non-native Students

Students who plan to attend the MPA Program from foreign countries where English is clearly a second language may be granted provisional or unclassified admission subject to the following conditions:

They must complete the TOEFL exam with a score of 550 or better.

They must take the English Diagnostic test administered by the Department of English and demonstrate through this test the ability to communicate orally and in writing in a manner sufficient to compete effectively at the graduate level with English-speaking native-born Americans.

- Should the student be unable to pass the TOEFL exam or meet the requirements as described in the English Diagnostic Test, they will be required to enroll in "English as a Second Language" courses offered by the English Department at UNO and demonstrate to the satisfaction of their instructor and the ILUNO staff that their English competency is adequate for graduate level work. When such competency has been determined, the student will be allowed to enroll in MPA courses.

Application for Candidacy

In accordance with Graduate College guidelines, students must apply for candidacy for the degree when: (1) a minimum of six hours of graduate credit necessary to the degree program have been completed; (2) a grade average of "B" with no grade lower than "C" has been earned; (3) the appropriate graduate examination scores (GRE, MAT, GMAT, or LSAT) have been placed on file with the Graduate Office; and (4) the student is not currently carrying in completes within their area of study.

As a rule, no degree can be awarded in the same semester as candidacy for the degree is approved.

Application forms should be filled out by the student — in consultation with a faculty advisor — as soon as the student can qualify for admission to candidacy.

Transfer of Credit

Students may transfer up to 1/3 of the coursework required for the MPA degree requirements. This requires approval of the Graduate Program Committee. Students should discuss this with a faculty advisor. The request for a transfer of credit should be made as soon as possible but in no case later than when filing for candidacy. The request to transfer credits requires a letter of explanation from the student.

Core and Required Courses

The Department of Public Administration has six core courses, required for all MPA students.

- PA 8406 Public Budgeting

- PA 8440 Seminar in Organization Development in Public Agencies
- PA 8450 Seminar in Advanced Management Analysis
- PA 8480 Seminar in Public Financial Administration

The following courses may be required, depending upon a student's academic and professional background.

- PAV 8000 Seminar in Research Methods
(Required if student's undergraduate education does not include adequate training in research methods and statistics as determined by the Graduate Committee. Elective for others.)
- PA 8050 Survey of Public Administration
(Required if student's undergraduate education does not include an introduction to public administration course. Elective for others.)
- PA 8100 Seminar in Public Administration
(Required if student's undergraduate education does not include adequate training in accounting as determined by the Graduate Committee. Elective for others.)
- PA 8030 Internship
(Required if student's professional background does not demonstrate managerial/administrative experience as determined by the Graduate Committee.)

Optional Areas

General Public Administration (12 hours from the following selected list in consultation with advisor. It is possible under exceptional circumstances to substitute other courses with approval of advisor.)

- PS 8046 The Legislative Process
- PS 8056 The Judicial Process
- PA 8436 Municipal Administration
- PA 8100 Seminar in Public Administration
- Econ 8566 State and Local Finance
- PS 8150 Seminar in Public Law
- PA 8300 Seminar in Public Policy
- PA 8460 Seminar in Public Personnel Management
- PA 8496 Public Sector Labor Relations
- PA 8500 Issues in Public-Private Sector Cooperation
- PA 8550 Issues in the Administration of Non-Profit Organizations
- PA 8600 Seminar in Administrative Law
- PA 8700 Seminar in Grants and Contracts
- PA 8810 Urban Seminar in Metropolitan Planning and Development
- Econ 8870 Seminar in Regional Economics
- PA 8920 Readings in Public Administration
- PA 8940 Research in Public Administration

Gerontology Option (12 hours to include courses from the following selected list or others in consultation with advisor to fit the student's particular needs.)

- GERO 8116 Applied Social Gerontology
- GERO 8460 Aging and Human Behavior
- GERO 8500 Administrative and Legal Concerns of the Elderly
- GERO 8520 Aging and Mental Health
- GERO 8730 Thanatology
- GERO 8800 Hospice
- GERO 8940 Counseling Skills in Gerontology

Local Government Option (12 hours from the following selected list in consultation with advisor. It is possible under exceptional circumstances to substitute other courses with approval of advisor.)

- Geog 8126 Urban Geography
- PA 8436 Municipal Administration
- Econ 8566 State and Local Finance
- PA 8100 Seminar in Public Administration
- PA 8300 Seminar in Public Policy
- PA 8496 Public Sector Labor Relations
- PA 8500 Issues in Public-Private Sector Cooperation
- PA 8550 Issues in the Administration of Non-Profit Organizations
- PA 8600 Seminar in Administrative Law
- PA 8810 Urban Seminar in Metropolitan Planning and Development
- Econ 8850 Seminar in Urban Economics
- PA 8920 Readings in Public Administration
- PA 8940 Research in Public Administration
- CRP 8110 Urbanism and Planning in the U.S.

The Planning Option (12 hours to include coursework from the following list selected in consultation with advisor.)

The option stresses the planning process and related skills and techniques. Students selecting this option should take the following courses at the Lincoln campus in order to complete the

CRP 8110	Urbanism and Planning in the U.S.
CRP 8130	Planning Process and Theory
CRP 4150/8150	Housing Renewal and Development
CRP 8220	Research Methods for Planning
CRP 8280	Planning Administration and Implementation
CRP 8970	Selected Topics in Planning
CRP 8980	Special Problems in Planning
CRP 9130	Planning and the Natural Environment
CRP 9150	Planning within the Intergovernmental Context
CRP 9170	Planning with Minority and Low Income Groups
CRP 9240	Human Resource Planning
US 8066	Introduction to Urban Planning
PA 8810	Urban Seminar in Metropolitan Planning and Development

Public Works-Civil Engineering Option (12 hours from the following selected list in consultation with advisor.)

Transportation

CE 3600/8600	Transportation Engineering II
CE 4610/8610	Urban Transportation Planning
CE 4620/8620	Airport Planning and Design
CE 4630/8630	Transportation Geometrics
CE 4640/8640	Traffic Engineering

Waste Resources and Environment:

CE 4260/8260	Environmental Pollution Control
CE 4280/8280	Application of Chemistry to Sanitary Engineering
CE 4290/8290	Biological Wastewater Treatment

Water Resources

CE 8520	Water Resources Development
CE 9140	Water Resources Planning
CE 9160	Case Studies in Water Resources

Social Work or Social Welfare Option (12 hours from the following selected list in consultation with advisor.)

Students taking this option should have a broad social science background.

Foundation Courses:

SW 8000	Human Behavior and the Social Environment
SW 8050	Social Welfare Policy, Services and Analysis

Macro Practice Courses:

SW 8500	Social Development
SW 8520	Social Work Administration
SW 8540	Social Welfare Planning
SW 8560	Supervision in Social Work
SW 8580	Social Work, Social Action, Change and Political Advocacy

Social Problem/Condition Courses:

SW 8600	Social Work in Mental Health
SW 8660	Social Work in Child Welfare
SW 8806	Social Work and the Law

Special Studies and Social Welfare:

SW 8940	Evaluation of Social Programs
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The Environmental Option (12 hours to include at least one of the courses listed below, the remaining part of the program to be custom designed for the student at the discretion of the Graduate Program Committee of the Biology Department.) Students selecting this option must be approved for entrance into the graduate program by both the Department of Public Administration and the Department of Biology.

BIO 8190	Communities and Ecosystems
BIO 8830	Environmental Physiology
BIO 8200	Plant Ecology

The Criminal Justice Option (Students choosing this option should have background in criminal justice).

Required courses:

CJ 8010	The Nature of Crime
CJ 8020	Seminar in Administration of Justice
CJ 8100	Criminal Justice Organization, Administration, and Management

or
CJ 8110 Criminal Justice Planning and Change

Recommended courses:

URBAN STUDIES

Master of Science With a Major in Urban Studies

This is a professional graduate degree which is designed: (1) to prepare students for human service careers in an urban setting; (2) for research or teaching in this field; (3) for those already involved in urban programs and are seeking additional professional training.

Qualified urbanists are being sought by a wide range of employers. Private corporations as well as public agencies are seeking employees who have a broad range of technical skills and an understanding of the problems of contemporary urban society.

The general prerequisite for admission to the Urban Studies Graduate Program is a Bachelor of Arts or Bachelor of Science degree.

Admission

The general prerequisite for admission to the Urban Studies Program is a Bachelor of Arts or Bachelor of Science degree or equivalent.

To be admitted **unconditionally**, the student must have achieved a grade average of 3.00 on a 4.00 system for either the full undergraduate program, for the undergraduate major of Public Administration, or for the junior-senior years and must have completed all other admission requirements for Graduate Studies. This includes completion of one of the following: The Graduate Record Examination (GRE), the Miller Analogies Test (MAT), the Graduate Management Admissions Test (GMAT), or the Law School Admissions Test (LSAT).

Provisional admission may be granted where the applicant has achieved a grade average of 2.70 or above or has not completed one of the four examinations (GRE, MAT, GMAT, LSAT). Exceptions to the 2.70 grade point average may be made by the Graduate Program Committee in conjunction with the Graduate Dean where the applicant:

has a demonstrated record of work experience directly related to Urban Studies

has a graduation date at least four years previous to application; or

has demonstrated through recent coursework an ability to successfully complete graduate work.

Students who wish to take courses for professional growth or personal interest but who do not intend to pursue an advanced degree may be granted **unclassified** admission.

Application for Candidacy

In accordance with Graduate College guidelines, students must apply for candidacy for the degree when: (1) a minimum of six hours of graduate credit necessary to the degree program have been completed; (2) a grade average of "B" with no grade lower than "C" has been earned; (3) the appropriate graduate examination scores (GRE, MAT, GMAT, or LSAT) have been placed on file with the Graduate Office; and (4) the student is not currently carrying incompletes within their area of study.

As a rule, no degree can be awarded in the same semester as candidacy for the degree is approved. Application forms should be filled out by the student — in consultation with a faculty advisor — as soon as the student can qualify for admission to candidacy. A detailed resume must be included with the application.

Transfer of Credit

Students **may** transfer up to $\frac{1}{3}$ of the coursework required for the Urban Studies degree requirements. This requires approval of the Graduate Program Committee. Students should discuss this with a faculty advisor. The request for a transfer of credit should be made as soon as possible but in no case later than when filing for candidacy. The request to transfer credits requires a letter of explanation from the student.

Degree Requirements

Thirty-six semester hours of coursework are required. A core of six required courses will be completed, and nine credit hours must be taken from one of three areas of concentration. The required courses include Urban Studies 8010, 8020, 8826, 8830, 8840; and a graduate course in research methods. Courses applicable to the area of concentration may include but are not necessarily restricted to: Community and Regional Planning 8116, 8136, 8156, 9240; Public Administration 8050, 8436, 8810; Sociology 8106, 8146, 8756; Gerontology 8106, 8356, 8486; Counseling and Guidance 8000, 8296, 8796; Geography 8126, 8800, 8810. A maximum of nine hours of optional credit may be selected from Economics 8316, 8326, 8336, 8850; History 8436, 8446, 8476; Geography 8016, 8136, 8216; or any of the courses listed above, subject to approval. Eighteen hours of the coursework must be at the 8000 level. (A Master's thesis is not required.)

The GRE must be taken during the first semester of enrollment.

A comprehensive final examination is required, but a thesis is not required.

the environment of public administration, introducing the student to public organization theory and practice and functions and problems of the public administration process. Prereq: Course in American government or permission.

8066 Introduction to Urban Planning (3) This course will serve as an introduction to the development of urban planning as it has shaped and reacted to major trends in U.S. history. It will provide students with major themes and traditions in the field of planning and will include planning practice, planning procedures and methods and contemporary issues in the field. Prereq: none other than graduate status.

8306 Seminar in Public Policy (3) A study of the economic, social and political determinants of public policy in terms of administration and decision making and of measuring and evaluating policy impact. The course includes both study of general policy processes and, to a lesser extent, particular policy topics. Prereq: Permission of advisor.

4430/8436 Municipal Administration (3) The administrative structure and administrative practices of American cities covering such areas as finance, personnel, public works, public safety, health, utilities, and planning. Prereq: PA 2170 or PA 8050 or Permission of Graduate Advisor.

8496 Public Sector Labor Relations (3) This course deals with the origin, characteristics, and implications of public sector employee unions and how they relate to public sector personnel practices. Prereq: Permission of advisor.

8606 Administrative Law (3) A review of the principal elements of the role and character of legal processes in government administration, including delegation of powers, legal forms of administrative action, liability of government units and officers and judicial review of administrative action. Prereq: Permission of graduate advisor.

8906 Special Topics (1-3) A variable content course with Public Administration and Urban Studies topics selected in accordance with student and faculty interest. Possible topics include urban homesteading, administrative federalism, and economic development and the public sector. Prereq: Permission of advisor.

8000 Seminar in The Research Methods of Political Science and Public Administration (3) A critical investigation of the methods of data collection and analysis for political science and public administration research. (Also listed under political science.) Prereq: 2170, permission of graduate advisor.

8100 Seminar in Public Administration (3) An in-depth study of the relationships existing between the art and science of public administration, on the one hand, and the processes of government on the other. The emphasis is principally on broad categories of political and administrative issues as they condition each other. Prereq: Permission of graduate advisor.

8400 Public Budgeting (3) A study of public sector budgeting, including revenues, history, process, approaches, techniques, politics and reform. Prereq: PA 2170 or PA 8050.

8410 Public Personnel Management (3) A study of the personnel process in American governmental administration. The processes and problems of recruiting, structuring, and operating public bureaucracies are examined as well as problems in personnel leadership, neutrality, accountability and performance. Prereq: PA 2170 or PA 8050.

8420 Introduction to Public Organizations (3) A study of the various approaches to understanding public organizations and the relationship of these approaches to the design and functioning of public agencies. Prereq: PA 2170 or PA 8050 or permission of advisor.

8440 Seminar in Organization Development in Public Agencies (3) A study of the theory and practice of organizational development in public agencies. Development of interpersonal skills idealizing with organizational problems is stressed. Prereq: PA 2170 or PA 8050 or Permission of Advisor.

8450 Seminar in Advanced Management Analysis in Public Agencies (3) A study of theory and method related to analysis of problems of organization and workflow in public agencies. The course includes problem analysis, field study methods, design of improved methods, selecting alternatives and developing decision packages. Prereq: PA 2170 or PA 8050 or approval of advisor.

8470 Administrative Ethics (3) This course is designed to make students of public management aware of and sensitive to the ethical components of public sector administration. Ethical concerns permeate much of what public administrators do, and this course focuses on identifying common ethical concerns along with their implications and consequences. Prereq: PA 2170 Introduction to Public Administration or permission of the instructor.

8480 Seminar in Public Financial Administration (3) Financial organization, intergovernmental financial relations, and the administrative and political aspects of budgetary planning and control. Prereq: Permission of graduate advisor.

8500 Issues in Public-Private Sector Cooperation (3) This course introduces students to the organization and processes, as well as the tools and techniques, of public-private sector cooperation. The objective of such a course is to familiarize students with the concepts and skills needed to develop and administer joint activities between the public and private sectors. Such cooperative activities have become an important aspect of public administration in recent years. Prereq: Permission of Advisor.

8550 Issues in the Administration of Non-Profit Organizations (3) This course focuses on the administration and management of non-profit organizations and the relationships between non-profits and government. Prereq: Permission of Advisor.

8700 Seminar in Grants and Contracts (3) A seminar in the development, acquisition and administration of grants and contracts. The course will include legal considerations, planning and

program/problem analysis for proposals and the like. Prereq: Graduate standing with P.A. major, or permission of the Instructor.

8810 Seminar in Metropolitan Planning (3) An overview of the present status of planning in metropolitan areas with special emphasis on structure of planning departments, comprehensive plans, and problems of annexation. Prereq: Geo. 4120 or recommendation from pol sci, soc, or econ departments. (Also listed under geo)

8920 Readings in Public Administration (1-3) Specially planned readings in public administration for the graduate student who encounters scheduling problems in the completion of his degree program, or who has special preparatory needs and who is adjudged by the department to be capable of pursuing a highly independent course of study. Prereq: 15 hours of graduate work in public administration and permission of graduate advisor.

8940 Research in Public Administration (1-3) The course is intended for advanced graduate students in public administration. It is especially suited for those in-career students who have had their internships waived and who might profit more by in-depth research on a problem of public administration rather than additional classroom courses. Prereq: 15 hours graduate work in public administration and permission of faculty adviser.

8030-8040 Internship (3 per sem.) Maximum of 6 hours to be granted upon completion of writ-

ten report on internship. Internship in some government: national, state, local, or non-profit agency and in some instances public oriented private agencies. Students will take the course as Credit/No Credit. Prereq: All coursework for the M.P.A. completed.

Urban Studies

8826 Comparative Urban Studies (3) Comparative urban studies: Emphasis will be upon contrasting the cities of the developed and developing areas of the world. (Also listed under geography.)

8010 The Metropolis As A Public Economy (3) The integration of politics and economics in the metropolitan system as they affect metropolitan problems such as poverty, transportation, housing, crime, education, and the environment will be analyzed.

8020 Race, Ethnicity, and American Urban Culture (3) This course explores two central themes, race and ethnicity, which have played a dominant role in the shaping of American society and American culture.

8830-8840 Interdisciplinary Seminar On The Urban Community (3-6) An interdisciplinary course on the metropolitan community in which urban problems are put in a broad inter-related focus. (Also listed under economics, geography, political science, and sociology).

SOCIAL WORK

PROFESSORS: Andrews, H. Burch, Ozaki, J. Woody

ASSOCIATE PROFESSORS: Coyne, Dendinger, Grandbois, B. Hagen, McGrath, Zelinsky

COURTESY FACULTY: G. Weber-Burch

The Profession of Social Work

Social work is one of the "helping professions" concerned with the quality of human life. Specifically, the social worker is concerned with people's ability to function meaningfully and effectively in transaction with the environment (i.e., family, friends, associates, and the community at large). Social workers bring systematized knowledge to bear on their dealings with people individually, in families, in other groups and collective associations, with communities, societies, and organizations with a view to helping in the resolution of problems which cause stress in social transaction.

In these endeavors, social workers are employed in public and private counseling agencies and services, medical settings, schools, residential and community agencies providing care for the mentally ill and retarded, court and correctional agencies, community planning, and development agencies and programs. Their endeavors and interventions are designed to promote more effective functioning of society as it struggles to "provide for the general welfare" as well as to help people, families, groups, and institutions within the society toward self fulfillment.

The School of Social Work is accredited by the Council on Social Work Education (CSWE).

Requirements for the Degree of Master of Social Work

1. A minimum of one year in residence.
2. There are two programs leading to the Master of Social Work Degree. The Advanced Program, for students with a Bachelor's degree in social work from a CSWE accredited program, requires 42 credit hours of graduate study in social work, which may be completed in a minimum of two semesters and a full summer. The Two Year Program for students with a Bachelor's degree not in social work, or in social work from a non-CSWE accredited program requires up to 20 graduate hours of social work foundation courses in addition to the same 42 credit hours as mentioned above. Specific foundation course requirements are determined on the basis of each student's previous coursework and/or tested knowledge as determined by waiver examination.

4. The GRE or MAT (Miller Analogies Test) should be completed during the first semester of enrollment.
5. A final written comprehensive examination is required.
6. See the School of Social Work Student Handbook for other requirements.
7. The Director of the School of Social Work may approve loads to fifteen hours for Social Work majors.

The type and credit value of each of the courses is indicated in the course descriptions below. Courses offered by the School are subject to change.

NOTE: Social Work students may transfer up to 1/3 of the coursework required for the 42-credit MSW program. Courses must be approved by the Dean of Graduate Studies and Research as being appropriate substitutes for a requirement or elective.

Foundation Courses

8000 Human Behavior and the Social Environment (4) A foundation course providing basic knowledge of the contributions of the biological, behavioral and social sciences to understanding of human functioning in transaction with social structure. Prereq: Graduate Social Work student or permission of School.

8050 Social Welfare Policy, Services & Analysis (4) An examination of social policy development and the functioning of specific delivery systems together with beginning policy analysis embodying socio-economic, political, legal, and psychological contexts. Prereq: Graduate Social Work student or permission of School.

8100 Social Work Practice I (Generic) (2) This course is designed to serve as an introduction to the common core of concepts, skills, tasks and activities which are essential to the practice of social work and which serve as a foundation for further professional growth. Prereq: SW 8000 prior to or concurrent with.

8120 Social Work Practice II (Micro) (2) An introductory course providing an overview of three basic theories of social work practice with individuals, families, and small groups. The emphasis is on assessment of social situations leading to a choice of intervention appropriate to working with individuals, small groups, or families. Prereq: SW 8000, SW 8100.

8140 Social Work Practice III (Macro) (2) This is an introductory course for graduate social work students which surveys basic theories and principles of social work practice with organizations, institutions, and communities, and includes study of social action, community development and community organization. Prereq: Concurrent with or subsequent to SW 8000, 8050, and 8100 or permission of School.

8160 Generic Social Work Practicum I (3) This course will provide supervised individualized learning experiences in selected social welfare agencies, introducing a variety of social work practice roles; emphasizing developing relationships with client systems, the problem solving process, and differential use of interventive modalities to effect change. Prereq: Concurrent with or subsequent to SW 8100.

8170 Generic Social Work Practicum II (3) This course is designed to provide supervised individual learning experiences in selected social

work settings to beginning micro and macro social work practice. Prereq: SW 8160, concurrent with or subsequent to SW 8120, 8140.

Micro Practice Courses

8200 Micro Intervention I (3) An advanced course providing an in depth study of the theory and techniques of several major therapeutic modalities used with individuals and consideration of their use with families and groups. Prereq: SW 8170 or BSW.

8210 Micro Intervention II (3) To provide the student with knowledge of theories and practice in techniques in various modalities used in working with individuals, families and small groups with emphasis on particular settings such as rural mental health clinics, schools, and family service agencies. Prereq: SW 8200 or permission of School.

8250 Family Analysis and Treatment (3) The family is considered as a system of social work intervention. Several theories of family interaction are considered; alternative modalities of family treatment are assessed; interventive skills are developed. Prereq: SW 8200 or permission of School.

8260 Gestalt-Transactional Analysis (3) An intensive didactic and experiential course designed to give students in-depth knowledge and practice skills in the combined use of transaction analysis (TA) and Gestalt therapy. Prereq: SW 8200 or permission of School.

8270 Analysis and Treatment of Sexual Problems (3) The course provides an intensive review of current theory and research in human sexuality. It emphasizes development of understanding and skills necessary for providing sex education for various client groups and counseling for sex-related problems. Prereq: SW 8200 or permission of School.

8280 Social Work Practice in Marriage, Divorce and Remarriage Adjustment (3) This is an advanced practice course designed to prepare students to work with couples and families experiencing problems in marital, divorce, or remarriage adjustment. Prereq: For social work students, Social Work 8200; for others, professional practice course equivalent to SW 820, to be determined by course instructor.

8290 Clinical Seminar in Mental Health (3) The course utilizes a seminar format to explore

on theoretical foundations of assessment and treatment, application of mental health practice skills to the clinical setting, and relationship of theory to specific skills. Prereq: Bachelors degree and experience in clinical settings; SW 8200 or permission.

8910 Independent Studies in Marriage and Family Therapy (1-3) This course offers the opportunity for deepening the student's knowledge and skills in selected areas of marriage and family therapy. May be repeated for up to six hours. Prereq: Graduate standing and permission of the School of Social Work.

Practicum Courses

8400 Advanced Social Work Practicum I (3-4) To provide individualized professional experience in micro or macro social work practice. Prereq: SW 8170 or BSW, SW 8200 prior to or concurrent with micro placement, or one of the following: SW 8500, SW 8520, 8540, SW 8580 prior to or concurrent with macro placement and permission of School.

8410 Advanced Social Work Practicum II (3-4) To provide individualized professional experience in micro or macro social work practice, building upon opportunities provided and competence achieved in Advanced Practicum I. Prereq: SW 8400 plus one advanced micro practice course prior to or concurrent with SW 8410 (SW 8210, SW 8250, SW 8260, SW 8270, SW 8280, SW 8290) for micro placement. For macro placement, SW 8400 and a second one of the following: SW 8500, SW 8520, SW 8540, SW 8580 prior to or concurrent with macro placement.

8420 Advanced Social Work Practicum III (1-4) To provide a third advanced practice opportunity in a selected social welfare agency or practice setting for refinement/addition of micro or macro social work practice skills. Prereq: SW 8410 and permission of School.

Macro Practice Courses

8500 Social Development (3) An analysis of the social development model for effecting social and societal change. The concept of social development was introduced by the United Nations, has been adopted by many developing nations and is gaining increased utilization in developed nations including the United States. The course is offered for students working towards a Masters Degree in Social Work with an emphasis on macro social work practice. Prereq: SW 8140 and SW 8170 or BSW, or permission of School.

8520 Social Work Administration (3) A study of the role of the social work administrator in the creation and administration of social service agencies of varying sizes. Prereq: SW 8140, SW 8170, or BSW, or permission of School.

8540 Social Welfare Planning (3) An advanced course in social planning, including administrative planning for social services

grams, and planning for social change. Prereq: SW 8140, SW 8170 or BSW, or permission of School.

8560 Supervision in Social Work (3) To provide the student with knowledge of theories and practice in techniques used in supervising paid or volunteer staff in social agencies, with emphasis on the leadership and helping functions of the supervisor in both educational and administrative roles. Prereq: SW 8170 or BSW, or permission of School.

8580 Social Work, A Social Action, Change & Political Advocacy (3) An advanced policy course in intervening and influencing social welfare policy at various points in the political system. Prereq: SW 8140, SW 8170, or BSW, or permission of School.

Social Problem/Condition Courses

4180/8186 Permanence for Children (3) The course is designed for the student to acquire an understanding of the issues involved in providing services to those persons who have been affected by dependency, child abuse and neglect and to acquire skills in working with children, biological parents, foster parents, adoptive parents, and other systems involved in the welfare of children. Fulfills either social problem/condition or graduate micro practice elective requirements. Prereq: SW 8100, SW 8666, or permission of School.

4600/8606 Social Work in Mental Health (3) This course is an elective for the advanced student who is seeking substantial specialized knowledge of current social work practice in mental health and mental retardation. Prereq: SW 8000 or BSW, or permission of School.

4620/8626 Social Welfare and Institutional Racism (3) An examination of racism in social institutions, including social welfare, with particular attention to the implications for social work practice and the social work practitioner. To increase the student's awareness of the impact of racism on the behavior of both racial minorities and whites. Prereq: BSW or SW 8000, concurrent with or subsequent to SW 8050, or permission of School.

4630/8636 Social Work in Health Care Programs (3) A critical review of social work practice in health care programs; as it was, its current status, emerging roles, plans for an ideal situation. The design of the course provides for learning in both micro and macro aspects of health care delivery. The students will have an opportunity to examine and experience several aspects of health care delivery and the social worker's role in it. Students will also be exposed to the various resources involved in the provision of health care and some of the administrative mechanisms that are currently utilized by these systems. Prereq: SW 8100 or BSW, or permission of School.

4660/8666 Social Work in Child Welfare (3) The course is designed for the student to acquire an understanding of the primary child welfare programs and services designed to strengthen family

services covered are: (1) supportive services; (2) supplemental services; and (3) substitutive services. Prereq: SW 8100 or BSW.

8670 The Human Ecology of Child Abuse and Neglect: An Analysis of Research and Intervention (3) This course will provide a review of existing literature on the meaning, origins and consequences of child abuse and neglect. It will emphasize research issues in child abuse and neglect, and the student will design a research project. This serves as a research course or requirement. Prereq: SW 8920.

8686 Social Work with Developmentally Delayed Children and Their Families (3) The course content will include theory, practice and social policy issues relevant to the social work practitioner with an interest in child welfare. The student will gain an understanding of normal child development and the way in which a special need such as a physical handicap, mental retardation or emotional disturbance affects normal child development needs. Special emphasis will be placed on gaining social work skills relevant to families with exceptional children. For social work students, the course meets the social problem/condition requirement. Prereq: SW 8000, or BSW, or permission of School.

4690/8696 Working With Minority Elderly (3) This course is an interdisciplinary one, designed to provide the student with knowledge of the differing status, attitudes and experiences of the elderly within four major minority groups and to examine various service systems and practice models in terms of their relevance and effectiveness in meeting needs or the minority elderly (Same as Gerontology 8696). Prereq: Senior or graduate standing in Gerontology or Social Work or permission of School.

8700 Alcohol Abuse: Comprehensive Treatment Programs (3) An examination of problems and processes related to alcoholism which are common in a social work setting. Special emphasis is given to detection, intervention, referral, etiology, and treatment alternatives and resources.

4720/8726 Rural Social Work (3) This course offers the student theories and practice techniques in the area of rural social work, including methods for working with individuals, families, and groups as well as communities and rural agencies. There will also be an emphasis on rural mental health service delivery. Prereq: 2SW 8100 or permission of School.

4800/8806 Social Work, Psychology, and the Law (3) An examination of some of the legal aspects of selected social welfare policy issues such as abortion, illegitimacy, alcoholism and drug addiction, creditor and debtor's rights, landlord and tenant relationships, housing law, right to treatment, status of the convicted individual, mental health commitment procedures. Prereq: SW 8050 or permission of School.

4850/8856 Hospice and Other Services for the Dying Patient/Family (3) This course is designed to involve students in the recognition of fears, concerns, and needs of dying patients and their families by examining the hospice concept and other services available in our community.

entations, films, and experiential exercises are offered to aid the student in understanding that hospice is an alternative to the traditional medical model so that when the "cure" system is no longer functional, then the "care" system, hospice, can be offered. (Same as GERO 4850/8856). Prereq: Senior or graduate standing in Gerontology or Social Work, GERO 8730, or permission of School.

8866 Women's Issues and Sexism: A Social Work Perspective (3) This course will focus on the issues of feminism and sexism in social work practice and their implication for social service delivery systems, social policy and practice modalities. Prereq: SW 8100 or permission of the instructor.

4870/8876 Social Work with Minorities (3) The course will provide the student with information on cultural, social, and economic factors applicable to specific minority groups and general insight into working with such groups. Attention will be given to special practice techniques applicable to minority groups and variations from traditional practice. In alternate semesters the course will deal with one of three different minority groups: 1-Social Work with American Indians (Prereq: SW 8100 or BSW, or permission of School). 2-Social Work with Black Youth (Prereq: BSW, or concurrent with or subsequent to SW 8000 and SW 8050, or permission of School). 3-Social Work with Hispanics. (Prereq: BSW, or concurrent with or subsequent to SW 8000 and SW 8050, or permission of School). The course may be repeated when it deals with a different minority group. Prereq: Refer to description.

8886 Topical Seminar in Social Work (2-4) Advanced topics and experiences in social work theory and practice. Specifics will be announced when the course is offered. The topics selected will be consistent with faculty expertise and student needs. This course may be repeated for up to nine hours credit. Prereq: Graduate Standing.

Special Studies and Social Welfare Research Courses

8900 Special Studies in Social Welfare (1-3) Special studies in a selected area of social welfare for deepening the student's knowledge in that particular area. Prereq: Permission.

8920 Seminar in Utilization of Research in Social Work (3) Emphasis is placed on the use of research in social work practice. Social and behavioral science research methods will be reviewed. Research reports exemplifying the methods will be evaluated; theories, major concepts, principles, and findings will be identified, and their use in social work practice will be explored. Research on racism, minorities, social status, disabilities and Third World peoples will be reviewed. Statistics used in the studies will be reviewed. Prereq: Introductory research methods course, and introductory statistics course.

8940 Evaluation of Social Programs (3) A study of the various issues and methodology of social program evaluation. Evaluation of agency organizational structure, program design and ef-

Prereq: SW 8920, and concurrent with or subsequent to SW 8520, or permission of School.

8960 Research Other Than Thesis (3) Students prepare a research proposal, carry out the proposed study and prepare a detailed report of

the purpose, design, outcome and meaning of the study. Prereq: SW 8920 and permission of School.

8990 Master's Thesis (6) Under the supervision of the thesis instructor and the thesis committee, the student will complete a thesis research. Prereq: SW 8920 and permission of School.

SOCIOLOGY

PROFESSORS: Barger, Littrell, Wheeler
ASSOCIATE PROFESSORS: Clute, Lamanna, Rousseau
ASSISTANT PROFESSORS: Hess, Lacy, R. Simpson, Skreija
COURTESY FACULTY: Suzuki

Applicants for admission to the graduate program in sociology should present a minimum of 15 undergraduate semester hours in sociology including courses in statistics and research methods. Students without these courses may be admitted provisionally but must remove the deficiency within the first year of graduate study. Students must also present scores from the general part only of the Graduate Record Examination.

Examinations: Both the M.A. and M.S. (see below) degree programs with majors in sociology require the incoming student to complete an examination covering basic concepts and theorists of the field. The examination is used in counseling the student in his/her degree program. In addition the student must demonstrate proficiency in sociology through successful completion of comprehensive examinations.

The M.A. degree should be sought by students preparing for college-level teaching and continued academic work; the M.S. degree as preparation for field or action application of sociology.

Master of Arts

Students must complete two graduate only level method courses and two graduate only level theory courses with grades of B or better, and must pass a comprehensive examination in a special area. The special area comprehensive examination must be selected by students after consultation with their advisors. Examinations are given twice annually. Students are also required to complete at least 6 hours of thesis and a minimum of 12 additional graduate semester hours of coursework. Detailed explanations of graduate requirements should be secured through the Sociology Office.

Master of Science with a Major in Applied Sociology

Although similar to the M.A. degree, the M.S. degree diverges to emphasize applied work. Students must complete two graduate only level method courses and two graduate only level theory courses with grades of B or better, and must pass a comprehensive examination in a special area. Students must also complete a minimum of 18 additional graduate semester hours. Courses in applied work are recommended. Students must satisfactorily complete 6 semester-hour equivalents of a supervised work practicum (approximately 200 hours), and write an acceptable report about the experience. Detailed requirements for the M.S. degree with a major in applied Sociology should be secured through consultation with the Sociology Office.

Anthropology

4200/8206 Urban Anthropology (3) The course is intended to examine the city from an anthropological point of view. Included will be an overview of its history and the processes by which cities are formed and grow as well as the internal structure and processes within the city. The course is intended to be comparative geographically and temporally. Topics covered will include urbanization and cities in both the so-called "third-world countries" as well as in the developed, industrialized ones. Graduate students will be required to do a substantive term paper on a topic mutually acceptable to both the instructor and the student. In addition to the written work, the student will also be required to make an oral presentation in class of the research done and the major findings.

4210/8216 Cultural Anthropology (3) Arts, economics, family, kinship, politics, religion, subsistence, technology, war and worldview approached as parts of an integrated whole, a way of life inhuman society. Illustrations will be drawn from a number of societies, anthropological theories and methods of study. Prereq: Permission of the instructor.

4220/8226 North American Archaeology (3) American Indian culture history in North America, with emphasis on the peopling of the new world, origin and development of new world agriculture, development of middle American civilizations and their impact on core areas of village-farming in the continental United States; introduction to archaeological investigation techniques, dating methods, and taxonomic concepts. Prereq: For 4220, Anthropology 1050 or 4210. For 8226, permission of the instructor.

4520/8526 Psycholinguistics (3) A discussion of the literature concerned with how such psychological variables as perception, learning, memory, and development relate to the linguistic variables of sentence structure, meaning, and speech sounds. (Same as Psychology 8526 and Communication 8526.) Prereq: Senior or graduate standing or permission of the instructor. Recommended: Anthr. 1050. (Same as Psychology 4520 and Comm. 4520)

4920/8926 Seminar in Anthropological Problems (3) The seminar will cover a specific topic which will be announced each time the course is offered. The students will work with the instructor on projects designed to increase the student's depth of knowledge in specific areas. Prereq: Permission of the instructor.

Sociology

4010/8016 Social Control of Behavior (3) The social processes by which the person's behavior is adapted to the group. External restraints, roles, self control. Analysis and measurement of behavior in the context of socially defined fields. Prereq: For 4010, 9 hours of sociology, including Sociology 101. For 8016, permission of the instructor.

4020/8026 Collective Behavior (3) Group and individual processes of ephemeral social action and institution formation are studied. The development of transitory groups and ideologies in new movements and organizations through opinion formation; case and comparative investigations of the origins and growth of collective movements are made and relevant social theories are applied. Prereq: For 4020, 9 hours of sociology, including Sociology 1010. For 8026, permission of the instructor.

8030 Research Methods I (3) This course is one of two in research methodology required of departmental graduate students. It gives a broad intermediate level coverage to social science research methodology, with an emphasis on the logic of research procedures. Topics covered include the relationship of theory and research, causal analysis, sampling, experimental design, methods of data production and introduction to computer usage. Prereq: Graduate standing, a course in Statistics and Methods and permission of instructor.

8040 Research Methods II (3) The second of two courses required of departmental majors in graduate work, and covers topics in intermediate statistics applied to behavioral research. Topics include a review of basic statistics, simple and multiple regression, analysis of variance, path analysis, and more advanced topics as time permits. Appropriate computer packaged programs are utilized. Prereq: Soc 8020 or its equivalent; and permission of instructor.

4100/8106 The Community (3) A basic course in community sociology. Sociological theory and the techniques of empirical research are applied to published studies of communities in the United States and elsewhere. The comparative social

derived from community investigation. Prereq: For 4100, 9 hours of sociology including Sociology 1010. For 8106, permission of the instructor.

9110 Applied Social Gerontology (3) An overview of social gerontology with an emphasis on the interplay between social, psychological, and physical elements in later life. Restricted to graduate students only; required of Gerontology students. (Same as Gerontology 911). Prereq: Graduate standing.

4130/8136 Sociology of Deviant Behavior (3) A theoretical analysis of the relation of deviant group behavior and subcultures to community standards of conventional behavior as expressed in law and norms. Prereq: For 4130, 9 hours of sociology, including Sociology 1010. For 8136, permission of the instructor.

4140/8146 Urban Sociology (3) Examines urban theoretical perspectives, urbanization processes, the diversity of metropolitan communities, urban stratification, metropolitan growth, urban neighborhoods, community power and urban policy and planning. Prereq: For 4140, 9 hours of sociology, including Sociology 1010 or permission of the instructor. For 814M, permission of the instructor. (Same as Geography 4140/8146.)

4150/8156 American Family Problems (3) (1) A theoretical treatment of the family as a social institution outlining the essential functions it provides for its members and the society. (2) An analysis of failures of function and attendant problems in a variety of American families: Parent youth tensions, problems of sexual adjustment, role conflict, multiproblem families, desertion, divorce, others. Prereq: For 4150, 3 hours of sociology; for 8156, permission of the instructor.

4410/8416 Advanced Qualitative Methods (3) This course familiarizes students with contemporary qualitative methodologies and techniques by which the social sciences explore social and cultural relations in natural settings. Students will conduct individual and/or group field projects. Prereq: Permission of the instructor.

9110 Applied Social Gerontology (3) An overview of social gerontology with an emphasis on the interplay between social, psychological, and physical elements in later life. Restricted to graduate students only; required of Gerontology students. (Same as Gerontology 911). Prereq: Graduate standing.

4530/8536 Seminar in Cross-Cultural Communication (3) This seminar will be directed towards understanding the components of cultural and subcultural misinterpretations, with the purpose of bringing to awareness those factors which disturb communication in cross-cultural situations. Prereq: For 453, junior standing and permission of the instructor. For 8536, permission of the instructor. (Same as Comm. 4530/8536).

4620/8626 Sociology of Formal Organizations (3) Examines organizational theory and research. Analyzes organizational problems such as goals and effectiveness; authority, leadership and control; professionals in organizations; communications; clients; organizational change; and orga-

business, industry, schools, prisons, and hospitals with special attention given to human-service organizations. Prereq: Permission of the instructor.

4750/8756 Social Change (3) A discussion of theories and the basic models of change. Case and comparative examples from contemporary and historical change. Emphasis is placed on understanding causes and effects and larger trends current in American society and institutions. Prereq: For 4750, Sociology 1010 and junior standing or higher for 8756 permission of instructor.

8836 Sociology of Mental Illness (3) The sociological perspective on mental illness is contrasted with other perspectives. The course covers the conceptualization of mental illness, epidemiology and etiology, the role of the family "careers" of mental illness, the mental hospital, the patient-therapist relationship; mental health professionals, community health, and legal issues. Prereq: Permission of the instructor.

4850/8856 Sociology of Religion (3) Analysis of religious behaviors from a sociological and social-psychological perspective, and utilizing both theoretical and empirical materials. The class is designed as an introductory approach to the sociology of religion, and the first in a two-step sequence, undergraduate and graduate. Prereq: For 4850, Sociology 1010 or permission of the instructor. For 8856, permission of the instructor.

4990/8996 Independent Study (1-3) Guided reading in special topics under the supervision of a faculty member. Prereq: For 4990, senior standing and permission of the instructor. For 8996, permission of the instructor.

8010 Sociological Theory I (3) First of two theory courses required of all masters degree candidates in sociology. The course emphasizes the theoretical issues associated with sociological processes of modern societies: urbanization, industrialization, bureaucratization, and the emerging world order. Student writing skills as well as the conceptual and historical setting of major theorists who deal with these processes are emphasized. Prereq: Graduate standing; permission of the instructor if outside the department of sociology/anthropology.

8020 Sociological Theory II (3) The second of two theory courses required of all masters degree candidates in sociology. The course emphasizes central theoretical and conceptual issues within sociological theory. Student writing skills as well as the conceptual materials will be emphasized. Prereq: Graduate standing; permission of the instructor if outside the department of sociology/anthropology.

8050 Seminar in Social Psychology (3-6) Assigned reading, discussion, specialized individual work leading to the writing and presentation of a paper applicable to a general topic in social psychology selected by the instructor. As seminar topics change, this course may be repeated in a student's Program without implying duplication. Prereq: Permission of the instructor.

8100 Seminar in Applications of Sociology (3-6) Sociological theory and method applied to

bers may be repeated in a student's program without implying duplication. Prereq: Permission.

8110 Social Problems of The Disadvantaged (3) A survey of the social problems existing in disadvantaged communities. The effects upon individuals of such settings. The subculture of poverty. Prereq: Graduate standing and permission of instructor.

8120 Seminar in Social Gerontology (3) A topical seminar focusing on the sociology of aging. Students are encouraged to develop proposals for research, programs, or social policy. Focus is upon generational differences and age changes throughout the adult life. Prereq: Permission of instructor.

8500 Seminar in Research Methods (3-6) A complete research project carried out under the supervision of an instructor particularly qualified in the area of concern. Students participate in the background work, question formulation, selection of (or construction of) test instruments, data gathering by methods such as interviewing and participant observation, and analysis. As seminar topics change, this course may be repeated in a student's program without implying duplication. Prereq: Permission.

8550 Seminar in The Sociology of Religion (3-6) A seminar dealing with religion as a social and cultural phenomenon. The study theme will vary from time to time in keeping with the special interests of the instructor. As seminar topics vary, this course may be repeated in a student's program without implying duplication. Prereq: Permission.

8600 Seminar in Social Organization (3-6) Assigned reading, discussion, specialized individual work leading to the writing and presentation of a paper applicable to a general topic in social organization selected by the instructor. As seminar topics change, this course may be repeated in a student's program without implying duplication. Prereq: Permission.

8650 Seminar in Occupations & Professions (3) Assigned reading, discussion, specialized individual work leading to the writing and presentation of a paper applicable to the sociology of occupations and professions. Questions relating to theory, research, and practical application are considered. Prereq: Graduate and permission of instructor.

8700 Seminar in Sociological Theory (3-6) Assigned reading, discussion, specialized individual work leading to the writing and presentation of a paper applicable to a general topic in sociological theory selected by the instructor. As seminar topics change, this course may be repeated in a student's program without implying duplication. Prereq: Permission.

8800 Independent Study in Topics On Urbanism (1-3) Graduate student research on an individual basis under faculty supervision in topics pertaining to urbanism. Prereq: Undergraduate major in one of the social sciences plus 6 hours of graduate work on one of the social sciences. (Also listed under economics and geography.)

8830-8840 Interdisciplinary Seminar On The Urban Community (3-6) An interdisciplinary

concerned with urban problems are put on broad interrelated focus. Prereq: Undergraduate major in one of the social sciences plus 6 hours of graduate work in one of the social sciences. (Also listed under economics, geography, political science, and urban studies.)

8850 Seminar in Urban Economics (3-6) An examination of the theoretical basis for the analysis of urban economic problems with emphasis upon the policy alternatives applicable toward their pos-

sible solution. Prereq: Undergraduate major in one of the social sciences plus 6 hours of graduate work in one of the social sciences. (Also listed under economics, political science and urban studies.)

8950-8960 Practicum in Applied Sociology (Each 3) A practical work experience under supervision which provides opportunity for applying principles from the student's academic area of concentration. Prereq: Graduate sociology major for the M.S. Degree.

8990 Thesis (1-6)

TEACHER EDUCATION

PROFESSORS: Ackerson, R. Berg, Bunsen, Cushenbery, Freund, Glidden, Grandgenett, Haselwood, Howell, Jarmin, Lickteig, Sadler, Selee, Ziebarth

ASSOCIATE PROFESSORS: Albertson, Bressler, Dick, Holmquist, Katz, P. Kolasa, Langan, Norwood, Parnell, VanEvery

ASSISTANT PROFESSORS: K. Smith, Tixier y Vigil

The Department of Teacher Education offers graduate degrees in Elementary Education, Reading, Secondary Education and Urban Education. In addition, graduate concentrations are available leading to certification or endorsement in Educational Media, Gifted Education, Vocational Education and Special Vocational Needs.

Admission Requirements

The requirements for unconditional admission into a graduate degree program are as follows:

1. A valid teaching certificate except for Urban Education
2. An undergraduate major GPA of 3.0 or above
3. Completion of undergraduate deficiencies
4. An acceptable score on one of the following (must be completed before a second enrollment in classes):
 - a. Graduate Record Examination — minimum score of 840 on the Verbal and Quantitative sections
 - b. Graduate Record Examination — minimum score of 1260 on the Verbal, Quantitative and Advanced Test in Education
 - c. Miller Analogies Test — minimum raw score of 35

Comprehensive Examination

Students who seek the Master of Science degree must take a written Comprehensive Examination. This examination is taken at or near the completion of all coursework required in the approved Plan of Study.

Non-Degree-Seeking Students

Students who are not planning to pursue a program leading to a Master's degree are allowed to take courses for which they meet the prerequisites. Their graduate advisor will confer with them in planning for such courses. Students not pursuing a graduate degree will be admitted as unclassified graduate students. Normally, no more than six hours taken as an unclassified student may be transferred into a graduate degree program.

Elementary Education

Master of Arts

The Master of Arts Degree in Elementary Education requires 30 hours of coursework. This program allows for individualization and provides an opportunity for in depth scholarly study in an area of interest. A master's thesis is required and is included within the 30 hours. Programs for the Master of Arts degree in Elementary Education will be determined in consultation with the major advisor.

Master of Science

Degree Program

- I. Required Courses.....21 hours
 - TED 8010 Introduction to Research

- TED 8030 Seminar in Education: Elementary
- TED 8060 Current Issues and Trends in Education
- TED 8360 Diagnostic and Corrective Instruction
- TED 8430 School Curriculum Planning
- EDAD 8460 Administration and Supervision in Elementary Schools.....9-12 hours

- II. Area of Concentration.....
 - Each student will include in his/her Plan of Study, an area of concentration in a special field which will provide depth in an area of his/her interest. All concentrations will be decided upon in conference with the student's departmental advisor.
 - Possible choices include: Reading, Early Childhood Education, Gifted Education, Guidance, Improvement of Instruction, Learning Disabilities, Urban Education, Educational Administration, Educational Media, or an academic concentration, e.g., history, English, mathematics.
 -3-6 hours
- III. Electives.....36 hours
- Total Hours Required (minimum).....

Reading

Master of Science

The Master of Science degree with a major in reading conforms to standards of the International Reading Association for the professional training of Reading Specialists. Upon successful completion of the program, the student is recommended for K-12 endorsement in reading in Nebraska.

- I. Core Professional Courses.....18 hours
 - TED 9110 Principles and Practices in Elementary Reading
 - TED 9120 Teaching Reading in the Secondary School
 - TED 9170 Seminar in Organization and Administration of Reading Programs
 - or
 - TED 9180 Seminar in Research in Reading
 - SPED 8130 Diagnostic and Remedial Instruction in Reading
 - SPED 8140 Measurement and Evaluation of Reading
 - SPED 8150 Clinical Practice in Reading.....6 hours
- II. Related Professional Courses.....12 hours
 - Including Introduction to Research and selected work in such areas as foundation and general education, teacher education, special education, and psychology.
- III. Related Cognate Courses.....
 - Including selected work in such areas as guidance and counseling and/or the various subject areas mentioned under sections I and II.

Secondary Education

Secondary Education students may earn the Master of Arts degree or the Master of Science degree. Professional certification and/or additional endorsements may be earned as a part of both degree programs by developing an appropriate Plan of Study in consultation with an advisor.

Master of Arts

- I. Required Courses.....15 hours
 - TED 8010 Introduction to Research
 - TED 8030 Seminar in Education: Secondary
 - TED 8330 Analysis of Teacher Behavior
 - TED 8410 Improvement of Instruction
 - TED 8430 School Curriculum Planning.....6 hours
- II. TED 8990 Thesis.....9 hours
- III. Related Professional/Academic Courses.....

Master of Science

- I. Required Courses.....15 hours
 - TED 8010 Introduction to Research
 - TED 8030 Seminar in Education: Secondary
 - TED 8330 Analysis of Teacher Behavior
 - TED 8410 Improvement of Instruction
 - TED 8430 School Curriculum Planning.....6 hours
- II. Related Teacher Education Courses.....

Urban Education

Master of Science

The Master of Science Program in Urban Education is designed for graduate students who are interested in exploring the contemporary issues confronting urban educational institutions. The range and depth of the inter-disciplinary course offerings in this program provide varied, challenging, and relevant experiences for both classroom teachers and community workers in allied professional fields. Students in this thirty-six hour program will increase their competence and expertise in functioning not only in the educational setting of the urban classroom, but also within the wider community milieu.

It is expected that students will be able to critically analyze the logic and structure of the educational institution, and inter-relationship of education and other primary socializing agencies.

Many of the courses offered in the program are designed specifically to facilitate an analysis of the ethnic, racial, and social characteristics of the contemporary urban scene.

It is also expected that students will develop an awareness of and the ability to handle the learning problems of urban youth. The program emphasizes a cultural awareness and appreciation of the varied life-styles within the urban setting, and specific skills to function effectively as an educator. In addition, attention will be focused on a critique of existing programs and the development of new strategies for change and the improvement of education.

- I. Required Courses..... 18 hours
 - TED 8010 Introduction to Research
 - TED 8020 History and Philosophy of Education
 - TED 8030 Seminar in Education: Urban
 - TED 8160 Education and Society
 - TED 8170 Alternative Strategies for Education
 - TED 8180 The Urban School
- II. Select 6 hours from any of the following:..... 6 hours
 - TED 8086 Mental Health for Teachers
 - TED 8226 Growth and Learning Problems of the Disadvantaged
 - TED 8130 Field Research Techniques in Urban Education
 - TED 8150 Comparative Education
 - TED 8190 Conflict and Controversy in Urban Education
 - TED 8200 Anthropology and Urban Education
- III. Electives (to be determined by the student and the advisor)..... 12 hours

Teacher Education

4070/8076 Education for the Uncertain Tomorrows (3) It is the intent of this course to offer educators the opportunity to become aware of basic principles in the field of future studies, the tools available to futurists, the projections for education in the future, future-oriented learning, what they can do to teach a course on future studies, and how they can integrate future into their personal and professional lives. Prereq: None.

4080/8086 Mental Health for Teachers (3) A study of the principles and practices conducive to good mental health in the classroom. Major emphasis is given to the teacher's role in providing an environment that will foster learning to relate to others and learning about oneself. Secondary emphasis is placed upon communication phenomena and the impact of institutions and authority structures upon mental health. Prereq: Junior or Senior standing.

4210/8216 Creating Bias Free Classrooms (3) This course is designed to develop practicing teachers' awareness of and skill in meeting students' needs in the areas of human understanding, acceptance and value. Students will examine existing attitudes toward various minority groups such as racial, ethnic, age, sex, etc. School materials and attitudes will also be examined in de-

4220/8226 Growth and Learning Problems of Disadvantaged (3) An intensive study designed to help students develop a basic understanding of child growth and development and learning problems of the disadvantaged children and youth. Prereq: Senior standing.

4240/8246 Parent Involvement in Early Childhood Education (3) This is a course for classroom teachers and teachers-in-training to learn to work effectively with parents. The course will examine the purposes and methods of several approaches to parent-teacher relations and help students become familiar with and develop the skills necessary for the planning, design, implementation, and evaluation of effective parent involvement components in early childhood settings. Prereq: Admission to Teacher Ed., CORE 1500; ELED 2250; or Graduate Standing.

4270/8276 Current Trends in Early Childhood Education (3) This course is intended for persons with an interest in the area of early childhood education and its current status at the local, national and international levels. Prereq: Admission to teacher education, Core 1500, TED 2250, 58 hours, required grade point average.

4280/8286 Patterns of Care in Early Childhood Education (3) Exploration of contemporary patterns of home and school care of the young child from birth to six years.

4290/8296 Learning Materials for Early

lecting appropriate learning materials for children from three to eight years of age. (F,S)

8450 Global Education (3) This course is designed to assist elementary and secondary teachers in understanding the nature and kinds of global education. Major emphasis will be placed on practical program implementation of global education concepts into the existing curricular offerings. Prereq: Admission to Graduate School.

4470/8476 Principles of Adult Education (3) An introduction to the study of adult education as a major development in contemporary America. The course surveys the major forms and problems of adult education and the foremost agencies providing programs. F,Su

4480/8486 Adult Group Leadership (3) A study of adult groups in modern society and the characteristics of effective leadership in all types of groups. (S,Su)

8510 Aerospace Education Workshop (3) The course will focus on aviation and space education and its impact on society. It will seek to communicate knowledge, impart skill, and develop attitudes relative to the scientific, engineering and technical — as well as the social, economic and political aspects of aviation and space flight efforts. It is designed to serve the graduate student in the college of education primarily; however, students with other professional goals will be considered. Its emphasis will be K-12 and as such is meant to serve both the present elementary and secondary education graduate students. Prereq: Graduate standing.

4590/8596 Microcomputers and the Library Media Program (3) This course is designed for library media specialists and directors to acquaint them with the applications of the microcomputer for library media centers. Computer terminology, software and hardware evaluation, instructional uses, and practical library management uses will be included in the total study of microcomputers. Prereq: Graduate Standing.

4650/8656 Literature for Children and Youth (3) The course is designed as a graduate level course dealing with the utilization of literary materials for children from pre-school through grade six reading level. It is to provide the student an opportunity to explore, evaluate, and understand literature for children; to acquaint students with research in the field; and to provide an avenue for developing more meaningful and creative learning activities for children. Prereq: Graduate.

4660/8666 Literature for the Adolescent (3) This course is designed to assist library media specialists, English teachers, teachers of the humanities and other classroom teachers to gain information about adolescents, their reading and viewing habits and interests. Factors which affect reading, guidance in reading, and types of literature, regardless of format, will be examined. Prereq: Graduate Standing.

4710/8716 Reference and Bibliography (3) This course will examine the reference function of libraries. It is designed to acquaint students with

of information. Prereq: Admission to Graduate College.

4720/8726 Advanced Reference and Subject Bibliography (3) This course will provide an introduction to computer-assisted reference work; combine evaluation of reference sources and services with various reference philosophies; identify and discuss reference materials in the sciences, humanities and social sciences; and describe the process and flow of information through an information retrieval system. Prereq: Admission to Graduate College and TED 8710, Reference and Bibliography.

4740L/8746 Cataloging and Classification I (3) An introduction to the basic cataloging procedures prescribed by the American Library Association and the Library of Congress. The course also involves working with the Dewey Decimal Classification System, Sears List of Subject Headings, and MARC format used by OCLC. Prereq: Admission to the Graduate College.

4750/8756 Cataloging and Classification II (3) The course is designed to develop new cataloging skills including: nonprint materials; analytical cataloging; serial cataloging; and work with Library of Congress and MARC formats used on the OCLC system. Prereq: Graduate Standing and TED 8746 - Cataloging and Classification I.

4760/8766 Selection and Evaluation of Educational Media (3) This course is designed for persons interested in gaining information about learning resources for preschool through adolescent students particularly in a school environment. Prereq: Admission to Graduate College.

4770/8776 Production and Utilization of Educational Media (3) The purpose of this course is to introduce students to educational technology through a study of the history and theory of the field. It is intended to provide students with a background in the characteristics, selection, evaluation, production, and utilization of educational media. Prereq: Admission to Graduate College.

4780/8786 Instructional Television Program Planning and Production (3) Students will be introduced to the role of television as applied to instruction. Production training and practice, TV lessons and series planning, and viewing and evaluation of lessons will be included in addition to production of a major project of practical significance and application. Prereq: Graduate Standing.

4790/8796 Photography as an Instructional Medium (3) Various photographic techniques will be studied to enhance the visual literacy skills of the students through the sorting and organization of visual representations into patterns and relationships of non-verbal expressions. This course is designed for media specialists and elementary and secondary teachers interested in utilizing photography as an instructional medium. Prereq: LS 4870/8876.

4800/8806 Administration of the Instructional Materials Center (3) A course designed for students who wish to prepare themselves for the administration of an educational media program within an elementary and/or secondary

4810/8816 Principles and Philosophy of Vocational Education (3) A study of the basic philosophy underlying vocational education and the principles and practices in the various fields. (F,Su)

4850/8856 Coordination Techniques in Vocational Education (3) Reviews responsibilities and techniques of coordination for the vocational teacher-coordinator and or vocational coordinator, with special emphasis upon local administration of the part-time cooperative program and analysis of the laws and regulations governing this program. (S,Su)

8000 Special Studies (1-3) A series of intensive courses especially for teachers in service scheduled as regular seminars, or workshops, according to purpose. Prereq: Graduate standing and departmental permission.

8010 Introduction to Research (3) To acquaint the beginning graduate student with the nature and significance of research; to enable the student to read, evaluate and apply research results and techniques; to give some understanding of the meaning and spirit of research; to give some experience in studying and preparing research reports.

8020 History and Philosophy of Education (3) This course is designed to provide a critical perspective, both historical and philosophical, for understanding education in the United States. The course examines critically the evolution of educational thought and practice from the Colonial era to the present U.S.

8030 Seminar in Education — Special Topics (3) The course provides an in-depth study of selected educational problems and ideas. When scheduled, the specific focus of the course may be limited to elementary education, secondary education, urban education or other appropriate educational areas. Prereq: Graduate Standing.

8040 Seminar in Supervision of Student Teachers (3) The seminar is designed for experienced teachers who are or may be serving as cooperating teachers, and who desire to study the aims, procedures, objectives, trends and development of student teaching.

8060 Current Issues and Trends in Education (3) Designed as an advanced study for the purpose of exploring current issues and trends within the K-12 Curriculum. Prereq: Graduate Standing.

8090 Economic Education (3) A study and examination of economic principles, teaching strategies, and curriculum materials, and how they can be related to the teacher's classroom presentation. This course is designed to furnish the K-12 teacher with sufficient background and understanding to aid in the recognition of economic issues and the teaching of economic concepts and principles. Open to any graduate student with no previous college work in economics who is teaching K-12. Not open to majors in economics.

8100 Research Project (1-3) Individual or group study and analysis of specific problems in schools. Typical problems will be concerned with curriculum and instruction in areas which have a

level. Prereq: Graduate standing and departmental permission.

8110 Introduction to Multicultural Education (1) This course introduces the concept of multicultural education, including the development of an awareness of cultural and ethnic groups. Participants will develop a multicultural perspective to the process of education. Prereq: Graduate.

8130 Field Research Techniques in Urban Education (3) The basic purpose of this course is to give students an opportunity to design and conduct field research within the urban educational milieu. Anthropological field research and naturalistic studies will be given emphasis. Students will be assisted in developing a field research design and will learn to gather and collate data. The course will culminate in the completion of an urban educational field study. Prereq: Graduate standing. TED 8010, 8320 or permission of instructor.

8140 Urban Cultures and Teaching: The City as Teacher (3) The City as Teacher is a unique course designed specifically for educators in the Omaha metropolitan area. Teachers will be introduced to the Omaha metropolis as a microcosm of America. Utilizing urban systems theory in addition to numerous field trips they will have opportunities to explore the ethnic, cultural and religious institutions of the city and apply that knowledge by using a theoretical base. This field work will be followed by brainstorming sessions, skills seminars, guest speakers, and idea exchanges that will be the basis for improved teaching strategies and the development of new multicultural units of study for the urban classroom. Prereq: Graduate standing.

8150 Comparative Education (3) An intensive study of the educational systems of selected nations found in Europe, Asia, Latin America, and Africa; particular emphasis is placed on a total study of the society selected and its resulting educational adaption and future educational directions.

8160 Education and Society (3) A study of the problems that modern society is confronted with and the role(s) that education has in helping society meet its challenges. Emphasis will be placed on the interface between the educational institution and the other major arenas forming the social fabric. Attention will be given to the mechanism of change.

8170 Alternative Strategies for Education (3) An intensive study of (A) The impact of present school organization and practice on the student and (B) Current alternative proposals for educational innovation. A brief overview of both the historical development and theoretical assumptions underpinning the traditional school program will serve as a foundation from which to analyze and evaluate the merit and utility of contemporary strategies. Stress will be placed on the wide social implications of the models discussed.

8180 The Urban School (3) An analysis of the societal and institutional processes and problems

8190 Conflict and Controversy in Urban Education (3) A course designed for students who wish to keep abreast of contemporary issues which confront the educational institution and the teaching profession in an urban milieu. Topics are modified annually to reflect current educational issues.

8200 Anthropology and Urban Education (3) This course is designed to examine ways in which education, conceptualized as cultural transmission, contributes to and is influenced by continuities and changes in culture. An understanding and working knowledge of the culture concept is basic to the course. Interrelationships among ecological, social, and ideological forms in a subculture or society will be stressed. A limited anthropological field study is a requirement for this course. Prereq: TED 8010 Introduction to Research.

8300 Effective Teaching Practices (3) This course will focus on specific characteristics and behaviors of effective teachers. Course content will be derived from research on teaching and learning. Students will develop an instructional paradigm that contains a research base and design. Prereq: Admission to the Graduate College. Admission to a College of Education Program or permission.

8330 Analysis of Teacher Behavior (3) Emphasis is placed upon current observational systems for analysis of teacher behavior in a classroom setting. Specific topics include in-depth instruction to inter-action analysis, micro-teaching, non-verbal behavior and simulation. Student proficiency in these observational systems using video-tape equipment is stressed.

8340 Methods and Techniques for Identification and Teaching Listening Skills in the Classroom (3) The identification of listening problems and analysis of teaching methodology for improving listening skills in today's classroom. Practical methods of teaching listening as applied to specific learning problems in the areas of Elementary and Secondary Education will be emphasized. (A research paper presenting an in depth analysis of deterrents to listening in the classroom with suggested solutions will be completed by each participant. Prereq: Admission to Graduate College, College of Education and one year teaching experience. TED 8010 - Introduction to Research.

8350 Models for Teaching (3) This course is designed to increase awareness and knowledge of teaching skills which can expand a teacher's repertoire. These additional skills and knowledge will allow a teacher to provide instruction to a broader range of student abilities. Prereq: None.

8360 Diagnostic and Corrective Instruction (3) This course involves the study of methods of diagnosing children's difficulties in the basic curriculum areas of the educational program of the elementary school and corrective techniques for overcoming such problems. The area of reading is included as it relates to other subject areas.

8370 Introduction to the Middle School (3) The course is intended for persons who have a need for acquiring knowledge and skills relevant to the operation of the Middle School, and who may ultimately need certification for professional

8380 Introduction to Instructional Theory Into Practice (3) This course is designed for practicing teachers who are working to improve teaching skills in their classroom. This course will focus on utilizing the research and practices in the Madelyn Hunter teaching model. Prereq: Admission to Graduate College.

8410 Improvement of Instruction: Mathematics (3) This course is designed for those students who wish to extend their skills in employing instructional techniques for teaching mathematics. Emphasis is placed upon new developments such as computers and calculators and contemporary teaching strategies.

8420 Trends and Teaching Strategies in Science Education (3) This course is designed for the graduate student whose study program emphasis is in the area of science education. Its focus will be K-12 and as such is meant to serve graduate students in both elementary and secondary education departments. The course will describe and analyze past and present trends in science education including curricula, teaching-learning strategies, the laboratory, and instructional materials. Particular strategies that have merit and relevance concerning today's students and teachers will be treated in depth.

8430 School Curriculum Planning Designed to provide the student with understanding of the nature and trends in school curriculum development with the principles and practices utilized in curriculum planning. Strong emphasis is placed on curriculum construction.

8440 International Curriculum Practices (3) An analysis of curriculum practices and procedures that are currently utilized in selected countries around the world. Units of study will include Belgium, France, Germany, England, China, Africa, and Russia. The course activities will include correspondence with foreign students and educators as well as in-depth research on assigned areas. Prereq: Graduate standing.

8460 Simulation/Gaming Laboratory for Teachers (3) This course is designed to familiarize teachers with simulation/games. It is designed to provide them with the ability to understand, use, and create simulation/games for the classroom. Prereq: Graduate Standing.

8490 Teaching Adults to Read: A Course in Literacy Training (3) This course is designed for elementary-secondary, ABE teachers, and other individuals interested in working with adult illiterate populations. The major emphasis in this course will be understanding the adult learner, developing methods and procedures appropriate for teaching adults to read and identifying and developing appropriate testing instruments. Prereq: FED 8010 and one course in reading at either the graduate or undergraduate level.

8500 Workshop: Newspaper in the Classroom (3) A course designed to assist teachers in planning to use the newspaper as an aid to classroom instruction. The course content includes the importance of the newspaper, methods for using the newspaper, activities suitable for classroom

8530 Automated Information Systems (3) To examine the historic, current, and future trends of automated information systems; to ascertain the flow of information through a retrieval system; to introduce vocabulary, methodology, theory and techniques utilized in operating automated systems; criteria for evaluation and selection of automated retrieval systems and services. Prereq: Graduate.

8540 Using Microcomputers in the Educational Process (3) This course is designed to enable teachers, administrators, and other school personnel to understand what microcomputers are and how they can be applied to the educational process. Elements of computer terminology, programming, and applications will be considered along with philosophical aspects of man/machine relationships. The course is not intended for persons who have a background in computing or programming. Prereq: Graduate Standing.

8550 Enhancing Instruction with Microcomputers (3) This course examines the ways in which microcomputers can be used to improve curricular offerings and enhance instructional activities in elementary and secondary schools. Course enrollees will review their own instructional goals and practices and compare these with the capabilities/limitations of microcomputers. Current and projected software and hardware developments will be evaluated in relation to anticipated educational needs. Prereq: Graduate standing.

8560 Developing Microcomputer Instructional Courseware (3) This course is designed for teachers and other educational personnel who wish to design instructional software for a microcomputer. The concepts of task analysis, motivation, computer graphics, student-computer interaction, evaluation and writing support materials are considered. Various authoring systems will also be examined. Prereq: TED 8540 or equivalent or familiarity with the BASIC language.

8580 LOGO and the K-12 Curriculum (3) This course is intended for elementary and secondary teachers. It provides an introduction to the LOGO language for microcomputers and its applications to the K-12 curriculum. The history, philosophy, and text/graphics operations of LOGO are considered with particular emphasis placed on implementing LOGO into the various areas of the elementary and secondary school curriculum. Prereq: Graduate Standing. No previous computer knowledge or experience is required.

8820 Introduction to Vocational Special Needs Students (3) Designed for secondary education personnel who desire knowledge of the history and current status of Vocational Special Needs. Students will gain a better understanding of handicapped and disadvantaged students. Prereq: Admission to Graduate College.

8830 Curriculum Construction for Adult and/or Special Needs Students (3) Designed for teachers, supervisors, coordinators, and administrators who are working with adult learners and/or special needs learners. The course includes principles, needs, factors, and trends that should be considered in developing curriculum to meet the needs of special needs students. Prereq: Admission to Graduate College.

8820 Introduction to Vocational Special Needs Students.

8840 Career Exploration & Occupational Readiness for the Special Needs Learner (3) The course involves the processes of diagnosing students' needs in vocational education, communicating occupational information, and assisting students in the preparation for job entry-level employment. This course is intended for teachers, counselors, and educational support personnel. Prereq: TED 8820 Introduction to Vocational Special Needs.

8880 Administration & Supervision of Adult/Vocational Education (3) Basic concepts for administration and supervision of vocational education, as related to the needs of the superintendent, principal, supervisor. (Same as EDAD 8880.) Prereq: Graduate Standing.

8900 Introduction to the Education of the Gifted (3) The course involves the processes of defining and identifying characteristics of giftedness, analyzing associated problems, examining relevant research, and relating these to the overall education of gifted individuals. Prereq: Admission to Graduate College; one year teaching experience.

8910 Guiding Gifted Students (3) A course designed to increase teacher awareness of the social and emotional needs of gifted students. Teachers will also develop skills that will assist gifted students in meeting these developmental challenges. Prereq: Admission to graduate study. (Same as Coun 8910.)

8920 Teaching the Gifted and Talented (3) This course will focus upon the processes for developing a total sequential K-12 program for the gifted and talented, as well as the practical program implications for the individual classroom. Prereq: Admission to Graduate College and TED 8900 - Introduction to the Education of the Gifted or permission.

8930 Individualization of Instruction (3) The course involves the study of the philosophy of individualization and the provisions needed in the areas of curriculum, learning factors/styles, student and teacher roles, and physical arrangements. Prereq: Admission to Graduate College.

8940 Individual Factors/Styles that Affect Teaching and Learning (1) The course involves the study of the various factors/styles that affect teaching and learning; including the rationale, the various models, and the application to the classroom. Prereq: Admission to the Graduate College.

8960 Creativity (3) This course focuses upon defining and identifying the characteristics of the creatively gifted student, as well as studying educational models, program planning and teaching strategies. Prereq: Admission to Graduate College.

8980 Practicum in Teaching the Gifted K-12 (3) This supervised practicum in gifted education is designed to give field experience to the teacher whereby he/she may learn principles and educational procedures for teaching gifted students. Prereq: Admission to Graduate College and

8990 Thesis (1-6) Independent research project required of all students taking Master of Arts degree. See major adviser.

9110 Principles and Practices in Elementary Reading (3) This is a beginning graduate course for both elementary and secondary teachers and is open to any student who has graduate standing. Major emphasis will be given to the administration, organization, evaluation, and methods and materials for teaching reading from Kindergarten through the sixth grades. There are no prerequisites except graduate standing.

9120 Teaching Reading in the Secondary School (3) An advanced course in reading for elementary or secondary teachers. Major emphasis will be given to the administration, organization, evaluation, and methods and materials for the teaching of reading in each of the content subjects at the junior and senior high levels.

9170 Seminar in Organization and Administration of Reading Programs (3) Participation in the seminar is limited to individuals who have completed at least one graduate reading course (or equivalent) and who are professional workers who are charged with the total or partial responsibility for organizing and administering

reading programs. Familiarity with the philosophy, organization, and major research related to different reading programs will be emphasized. Local and area reading authorities will conduct panels and lectures on topics chosen by the students. Prereq: One graduate reading course or permission of instructor.

9180 Seminar in Research in Reading (3) A course for graduate and post-graduate students relating to in-depth studies of significant, recent research in reading with appropriate application for instructional procedures which may be undertaken. Each student will conduct self-initiated research and report the results of the activity to other class members for comment and evaluation. Prereq: One graduate reading course (or equivalent), FED 8010 (or equivalent), and permission.

9360 Seminar in Applications of Non-Verbal Communication Theory (3) Theories and research on the development, facilitation and barriers of human non-verbal communication. Analysis of non-verbal interaction with specific applications to education, business, supervision, counseling, therapy and interpersonal speech communication. (Cross listed as Psychology 9360 and Comm. 9550.) Prereq: Course in research methods or permission of instructor.

NON-DEGREE AREAS AND COURSE DESCRIPTIONS

Art

Graduate Art courses are offered to fulfill requirements for a minor field or as cognate or selected courses on a plan of study.

Chemistry

Graduate Chemistry courses are offered to fulfill requirements for a minor field or as cognate or selected courses on a plan of study.

Engineering Mechanics

Graduate courses are offered to fulfill requirements for a minor field or as cognate or selected courses on a plan of study.

Industrial Systems Technology

Graduate courses are offered to fulfill requirements for a minor field or as cognate or selected courses on a plan of study.

Foreign Languages

Graduate Foreign Languages courses are offered to fulfill requirements for a minor field or as cognate or selected courses on a plan of study.

Home Economics

Home Economics graduate offerings at UNO may be used as a minor (HDF, Nutr. Mgt. or TCD) for those pursuing programs in another discipline. The minor portion should be determined in consultation with a designated member of the Graduate Faculty from Home Economics.

UNO courses may also be used to satisfy recertification.

Admission to the graduate program in the College of Home Economics requires presentation of

Application for a graduate degree program in Home Economics is to be made to Graduate Studies, Lincoln Campus. In addition to this, an important step to initiate a graduate program is to consult with the chairman of the appropriate department in Lincoln. Staff in the Omaha Program will assist in making such appointments. For a graduate degree in Home Economics, it will be necessary to take Home Economics courses on the Lincoln campus.

Interdepartmental area offers graduate work leading to the Master of Science or Master of Arts degree.

Students applying for study in the Interdepartmental Area must hold a bachelor's degree in Home Economics or its equivalent. The undergraduate work must have included the equivalent of 24 hours in Home Economics, distributed in at least three subject matter areas and 20 hours in Natural and Social Sciences including a minimum of 9 hours in the Natural and 6 hours in the Social Sciences.

Work leading to the master's degree in Home Economics may be completed under Option I, II, or III. (See Graduate Studies Bulletin-Lincoln) If Option I is selected the thesis research may be done in any one of the four cooperating departments. Under any option not more than one-half of the total program for the master's degree, including thesis research when applicable, may be completed in the major subject matter areas. These subject matter areas are: Education and Family Resources; Human Nutrition and Food Service Management, Human Development and the Family, Textiles, Clothing and Design. At least 6 hours of the remaining work must be completed in one or more of the subject matter areas other than the major one. Additional supporting courses to complete the program may be carried in cooperating departments or in the departments outside of the College of Home Economics. However, if Option II is selected the required minor must be completed in a department other than those in the College of Home Economics, which can be an approved graduate program at UNO.

Separate programs leading to the Master's degree are also offered by the Department of Human Nutrition and Food Service Management, Department of Human Development and the Family and the Department of Textiles, Clothing and Design.

Human Nutrition and Food Service Management — Candidates for the Master of Science degree in Human Nutrition and Food Service Management must hold a Bachelor of Science degree or a Bachelor of Arts degree from an accredited college and have completed undergraduate preparation the equivalent of that required in the Basic General Education Core in Home Economics plus at least 10 hours exclusive of freshmen courses in Biochemistry, in Microbiology, and in Physiology for a total of at least 18 hours in Human Nutrition and Food Service Management, Chemistry and Biological Science.

Human Development and the Family — Candidates for the Master of Science degree in Human Development and the Family must hold a Bachelor of Science or a Bachelor of Arts degree from an accredited college and have completed undergraduate preparation the equivalent of that required in the Basic General Education Core in Home Economics plus a major of at least 18 hours exclusive of freshmen courses in Human Development and the Family or the equivalent from Psychology, Educational Psychology or Sociology.

Textiles, Clothing and Design — Students may qualify for study in this area by presenting a baccalaureate degree from an accredited institution and by completing a minimum of 12 hours of undergraduate coursework beyond the freshman level in Textiles, Clothing and Design or equivalent from a related area such as Art or Architecture. The graduate Area Committee will consider the qualifications for admission of applicants for study in Textiles, Clothing and Design and leading to a Master of Science or Master of Arts degree and will make recommendations to the Graduate College. Deficiencies as assessed on an individual basis may be removed concurrently with graduate studies.

Education and Family Resources — Education and Family Resources is included in the Interdepartmental area.

Philosophy and Religion

Graduate courses in Philosophy and Religion are offered to fulfill requirements for a minor field or as cognate or selected courses on a plan of study.

Physics

Graduate Physics courses are offered to fulfill requirements for a minor field or as cognate or selected courses on a plan of study.

Art

Studio Art

4000/8006 Special Studies in Art Education (1-3) A series of intensive courses in the history and theory of art education designed specifically for elementary and secondary school art teachers.

8100/8116 Technical Problems—Drawing (3) Advanced, individualized instruction in various graphic media, as determined by the student and instructor. Prereq: Permission.

8316 Advanced Sculpture (3) Advanced work in area of student's choice with facilities for oxy-acetylene welding, arc welding, and wood work-

to work and develop individually. Strong emphasis on knowledge of contemporary art. Prereq: Art 3410 and permission of the instructor.

4510/8516 Advanced Techniques in Printmaking (3) Intaglio and lithography stressing color and technical proficiency in both media. Strong emphasis on image and content development. Prereq: Art 2510 and 3510 and permission of instructor for 8516.

4610/8616 Advanced Ceramics (3) Advanced work on the potter's wheel, glaze composition, loading and firing of gas and electric kilns. Prereq: For 4610, Art 3610. For 8616, permission.

8310 Graduate Sculpture (3) Advanced problems in sculptural media. Prereq: 8316.

8410 Graduate Painting (3) More complex problems in the oil medium and related material. Prereq: 8416.

8510 Special Processes in Printmaking (3) Advanced problems in printmaking stressing special processes in lithography, intaglio, and collograph. Strong emphasis on image and content development. Prereq: Art 4510 and permission.

Chemistry

All courses cited as prerequisites for enrollment in Chemistry must be completed with a grade of "C" or better.

3350/8355 Physical Chemistry (3) A presentation of selected topics from the areas of classical thermodynamics, and electrochemistry. Prereq: Chemistry 2260, 2264 or 2274, 2400, 2404, Physics 2120, Math 1960.

3354/8359 Physical Chemistry Laboratory (1) Physical chemistry laboratory. Chemistry 3350 to be taken concurrently. Prereq: Chemistry 2260, 2264 or 2274, 2400, 2404, Physics 2120, Math 1960.

3360/8365 Physical Chemistry (3) A presentation of selected topics from the areas of quantum mechanics, spectroscopy, kinetics and statistical mechanics. Prereq: Chemistry 3350, 3354.

3364/8369 Physical Chemistry Laboratory (1) Physical chemistry laboratory. Chemistry 3360 to be taken concurrently. Prereq: Chemistry 3350, 3354.

3400/8405 Instrumental Analysis (2) Lecture two hours and discussion one hour. Instrumental methods of quantitative analysis. Chemistry 3404 to be taken concurrently. Prereq: Physical Chemistry. (Physical Chemistry may be taken concurrently.)

3404/8409 Instrumental Analysis Laboratory (2) Laboratory for Chemistry 3400. Chemistry 3400 to be taken concurrently. Prereq: Physical Chemistry. (Physical Chemistry may be taken concurrently.)

3700/8705 Radiochemistry (2) Lecture two hours and discussion one hour. A survey of the basic principles of radiochemistry and their application in the fields of biology, chemistry, and med-

3704/8709 Radiochemistry Laboratory (1) Introductory radiochemistry laboratory for Chemistry 3700. Chemistry 3700 to be taken concurrently. Prereq: Physical Chemistry or graduate standing. (Physical Chemistry may be taken concurrently.)

4230/8236 Advanced Organic Chemistry (3) An advanced lecture course in modern theories and special topics in organic chemistry. Prereq: Chemistry 2260 and Physical Chemistry, or graduate standing. (Physical Chemistry may be taken concurrently.)

4240/8246 Advanced Organic Chemistry (3) An advanced lecture course in organic chemical reactions. Prereq: Chemistry 2260 and Physical Chemistry, or graduate standing. (Physical Chemistry may be taken concurrently.)

4500/8506 Advanced Inorganic Chemistry (3) Theories of chemical bonding, the determination of chemical structures, and the application of modern chemical theory to classical and recent problems in inorganic chemistry. Prereq: Chemistry 2500, Physical Chemistry. (Physical Chemistry may be taken concurrently.)

4510/8516 Advanced Inorganic Preparations (1-2) Laboratory preparation of representative types of inorganic compounds by various standard and special experimental techniques. Prereq: Chemistry 4500. (Chemistry 4500 may be taken concurrently.)

4650/8656 Biochemistry (3) Chemistry and biochemistry of proteins, carbohydrates and lipids. Enzymes and energetics. Biological oxidation. Chemistry 4654 to be taken concurrently. Prereq: Chemistry 2260, 2264 or 2274, and Physical Chemistry or graduate standing. (Physical Chemistry may be taken concurrently.)

4654/8659 Biochemistry Laboratory (1) Biochemistry laboratory for Chemistry 4650. Chemistry 4650 to be taken concurrently. Prereq: Chemistry 2260, 2264 or 2274, and Physical Chemistry or graduate standing. (Physical Chemistry may be taken concurrently.)

4660/8666 Biochemistry (3) Intermediary metabolism of carbohydrates, lipids, amino acids, and nucleotides. Structure of nucleic acids. Replication, transcription, and translation. Chemistry 4664 to be taken concurrently. Prereq: Chemistry 4650, 4654, and Physical Chemistry or graduate standing. (Physical Chemistry may be taken concurrently.)

4664/8664 Biochemistry Laboratory (1) Biochemistry laboratory for Chemistry 4660. Chemistry 4660 to be taken concurrently. Prereq: Chemistry 4650, 4654, and Physical Chemistry or graduate standing. (Physical Chemistry may be taken concurrently.)

4930/8936 Special Topics in Chemistry (1-3) Selected special topics in chemistry. Prereq: Chemistry 2260, 2400. Some topics will require more advanced prerequisites and will be accepted for advanced coursework in Chemistry.

4990/8996 Chemistry Problems (1-3) Independent student research. To receive a passing grade the student must present a seminar on the

4990/8990 Research in Chemistry (Arranged) Provides the student with an opportunity for experience in the solving of an actual research problem in the field of chemistry. To receive a passing grade the student must present a seminar on the research project to the Chemistry faculty. Prereq: Permission of instructor, and an undergraduate chemistry major (not less than 32 hours).

Engineering Mechanics

4480/8480 Advanced Mechanics of Materials (3) Stresses and strains at a point. Theories of failure. Thick-walled pressure vessels and spinning discs. Torsion of noncircular sections. Design of thin-walled sections, open, closed, and multicelled. Bending of unsymmetrical sections. Cross shear and shear center. Curved beams. Introduction to elastic energy methods. Prereq: EM 3250, 3730.

4520/8520 Experimental Stress Analysis I (3) Investigation of the basic theories and techniques associated with the analysis of stress using mechanical strain gages, electric strain gages, brittle lacquer, photoelasticity, and membrane analogy. Prereq: EM 3250.

4600/8600 Vibration Theory and Applications (3) Free and forced vibrations of mechanical and structural systems with various types of damping. Vibration isolation. Harmonic and nonharmonic disturbances. Shock spectrums. Rayleigh's method for beams. Lagrange's equation. Design of vibration absorbers. Theory of vibration measuring instruments. Experimental methods and techniques. Prereq: EM 3730; Math 2350.

4800/8800 Digital Computer Methods in Engineering Analysis (3) Computers and programming. Roots of algebraic and transcendental equations. Simultaneous algebraic equations. Numerical integration and differentiation. Ordinary initial-value problems. Error analysis. Ordinary boundary value problems. Two-dimensional problems. Digital computer simulation by CSMP. Emphasis is placed on the application of numerical methods to the solution of engineering problems. Prereq: Math 2350; EM 1120.

Industrial Systems Technology

4210/8216 Contemporary Trends in Industrial Education for The World of Construction (3) Introduction to a new program development in industrial education, with major emphasis placed on the world of construction curriculum. Analyzation of basic construction operations and management practices utilized in industry and adapts them as learning units for the junior high industrial laboratory. Prereq: For 4210, junior. For 8216, graduate standing.

4220/8226 Contemporary Trends in Industrial Education for The World of Manufacturing (3) Introduction to a new program development in industrial education, with major emphasis placed upon the world of manufacturing curriculum. Analysis of basic manufacturing operations and management practices utilized in industry and adapts them as learning units for the junior high industrial laboratory. Prereq: For 4220, junior. For 8226, graduate standing.

Foreign Languages and Literature

4010/8016 Advanced Conversation and Composition (3) Further practice in oral fluency and writing skills along with grammar review and stylistics. Prereq: French 3030 and 3040 or 5 years of high school French.

4150/8156 Contemporary French and German Novel (3) Comparative study of selected contemporary French and German novels. Conducted in English with English translations. Additional readings in French for French students. Prereq: Permission of the instructor. (Same as German 4150/8156 and English 4150/8156).

4170/8176 Contemporary French and German Drama (3) Comparative study of selected contemporary French and German plays. Conducted in English with English translations. Additional readings in French for French students. Prereq: Permission of the instructor. (Same as German 4170/8176 and English 4170/8176).

4580/8586 Introduction to Linguistics (3) An introduction to the concepts and methodology of the scientific study of language; includes language description, history, theory, variation, and acquisition as well as semantics, lexicography, and foreign language learning. Prereq: Junior standing or permission; Graduate standing.

4860/8866 Modern French Women Authors (3) A comparative treatment of works by women in contemporary and recent French literature; the feminine perspective on society, politics and human values as expresses in those works. Conducted in English with readings in French or English. (Same as English 4860/8866) Prereq: Permission of instructor.

4900/8906 Independent Study (1-3) Guided independent study and research under tutorial supervision. May be repeated with different topic but not in same semester for maximum of six semester hours total. Prereq: Permission of instructor.

4960/8966 Pro-Seminar (1-3) Detailed study of narrower phases of literature, language, or culture. Prereq: Permission of the instructor.

German

4010/8016 Advanced Conversation and Composition (3) Practice in conversation and written composition, grammar review, study of phonetics and basic reference works. Prereq: German 3040 or permission.

4100/8106 Introduction to Germanic Folklore (3) An intensive familiarization of the student with the broad spectrum of folklore in modern and ancient societies of the indo-germanic continuum. Definition of folklore as an academic field and the delineation of the material studied by the student of folklore. Introduction to the folklorist's methodology in collecting, archiving, and research. To be taught in English. Prereq: For 4100, at least three credit hours in any one of the following areas: Anthropology, art, music, literature, psychology, sociology, or history. For 8106, graduate standing or permission of instructor.

contemporary French and German novels. Conducted in English with English translations. Additional readings in German for German students. Prereq: Permission of the instructor. (Same as French 4150/8156 and English 4150/8156).

4170/8176 Contemporary French and German Drama (3) Comparative study of selected contemporary French and German plays. Conducted in English with English translations. Additional readings in German for German students. Prereq: Permission of the instructor. (Same as French 4170/8176 and English 4170/8176).

4310/8316 German Literature of The 19th Century (3) Survey of the literature of the nineteenth century from Romanticism to Naturalism. Prereq: German 3150 or permission of instructor.

4320/8326 German Literature of The 20th Century (3) Survey of literature of the twentieth century from Expressionism to the literature after World War II. Prereq: German 3150 or permission of instructor.

4380/8386 German Civilization From The 18th Century to The Present (3) Detailed analysis of German art, architecture, literature, music, and philosophy. The influence of the sciences and of technology upon modern German civilization and culture. Prereq: For 4380, permission of the instructor. For 8386, graduate standing and permission of the instructor.

4400/8406 German Novelle (3) Survey of the German short story, its historical origin, characteristics. Prereq: German 3150 or permission of instructor.

4440/8446 German Drama (3) History of drama development, study of several of the more important dramas. Prereq: German 3150 or permission of instructor.

4490/8496 German Literature of The Seventeenth Century (3) The principal dramatic, epic and lyric works of 17th century German literature. Prereq: German 3150 or permission of instructor.

4500/8506 German Literature of The Eighteenth Century (3) A study of representative authors of the enlightenment, storm and stress, and German classicism: Lessing, Herder, Schiller, and Goethe. Prereq: Permission of instructor.

4580/8586 Introduction to Linguistics (3) An introduction to the concepts and methodology of the scientific study of language; includes language description, history, theory, variation, and acquisition as well as semantics, lexicography, and foreign language teaching. Prereq: Junior standing or permission; graduate standing.

4590/8596 Bibliography and Methodology (1-2) An introduction to the basic bibliography and methodology of German literature and language. Prereq: Permission of instructor.

4900/8906 Independent Study (1-3) Guided independent study and research under tutorial supervision. May be repeated with different topic but not in same semester for maximum of six semester hours total. Prereq: Permission of instructor.

Spanish

4010/8016 Advanced Conversation and Composition (3) For graduate students who need a refresher course in conversation, grammar, and composition. Prereq: Graduate status.

4100/8106 Theater of The Golden Age (3) Foremost Spanish dramatists and plays of the sixteenth and seventeenth centuries, with emphasis on Lope de Vega, Tirso di Molina, and Calderon de la Barca. Prereq: For 4100, Spanish 3170 or permission of the instructor.

4110/8116 Novel of The Golden Age (3) Study of the prose masterpieces of the sixteenth and seventeenth centuries, including such works as Lazarillo de Tormes, La Celestina, and Don Quixote. Prereq: For 4110, Spanish 3170 or permission of the instructor.

4160/8166 Latin American Literature of The Twentieth Century (3) Critical and analytical study of the foremost Spanish American dramatists, poets, and essayists from modernism to the present. Prereq: Spanish 3220 or permission of the instructor.

4180/8186 Chicano Literature and Culture (3) In English. A study of the representative works of Mexican American, Spanish American, and American writers, along with their cultural and historical antecedents. Does not apply toward foreign language requirements. Prereq: Permission of the instructor. (Same as English 4180/8186)

4200/8206 Latin American Novel (3) Study of representative novels and novelists of the nineteenth and twentieth centuries, with emphasis on contemporary authors. Prereq: Spanish 3220 or permission of the instructor.

4240/8246 Generation of 1898 (3) Examination of the ideology, philosophy, and literary techniques of Unamuno, Martinez Ruiz, Valle-inclan, Baroja, and Antonio Machado. Prereq: Spanish 3180 or permission of the instructor.

4350/8356 Latin American Short Story (3) Representative stories of the nineteenth and twentieth centuries, from Romanticism to current production. Prereq: Spanish 3210 and 3220 or permission of the instructor.

4550/8556 Modern Drama of Spain (3) Ideologies, techniques, trends, and influences of the major Spanish dramatists of the nineteenth and twentieth centuries. Prereq: Spanish 3180 or permission of the instructor.

4560/8566 Modern Novel of Spain (3) Analytical study of the representative Spanish novelists of the nineteenth and twentieth centuries from P. A. de Alarcon to Cela. Prereq: Spanish 3180 or permission of the instructor.

4580/8586 Introduction to Linguistics (3) An introduction to the concepts and methodology of the scientific study of language; includes language description, history, theory, variation, and acquisition as well as semantics, lexicography, and foreign language teaching. Prereq: For 4580, junior standing or permission of the instructor.

4900/8906 Independent Study (1-3) Guided independent study and research under tutorial supervision. May be repeated with different topic but not in same semester for maximum of six semester hours total. Prereq: Permission of instructor.

not in same semester for maximum of six semester hours total. Prereq: Permission of instructor.

4960/8966 Pro-Seminar (1-3) A detailed study of narrower phases of literature, language, or culture. Prereq: Permission of the instructor.

Home Economics

Human Nutrition and Food Service Management

8400 Advanced Foods (3) Chemistry of food; an examination of the objective and subjective methods of evaluation of food quality and characteristics. Prereq: HNFM 2410, 12-14 hours natural science or permission of instructor.

8500 Advanced Nutrition (3) Biochemical and Physiological aspects of normal nutrition (offered summer session only) (alternate with HNFM 8520). Prereq: Biochemistry or permission of instructor.

8520 Clinical Nutrition (1-5) Normal nutrition considered in relation to the deviations which may occur in those diseases commonly treated by diet. (A.) Lecture (3); (B.) Research laboratory (1-2) 1 credit required in some HNFM options; may be taken concurrently with or independently of 4520A/8520A. (C.) Diet Writing Laboratory (1) only offered concurrently with 4520A/8520A. Prereq: HNFM 4500 or permission of instructor.

4530/8530 Cultural Aspects of Diet (3) Cultural approach to development of the dietary patterns of various population groups. Factors involved in food habit alteration. Offered alternate years only. Prereq: FdNutr 2410, 9 hours social science or permission of instructor.

8550 Nutrition Throughout the Life Cycle (3) Influence or normal physiological stress throughout the life span including pregnancy, lactation, growth, and aging on nutritional requirements. Prereq: 3 hrs HNFM, 3 hrs HDVF, 6 hrs natural science or permission.

8700 Quantity Food and Equipment (3) Observation and practice in institution food departments. Experience in preparation and service of food, use of equipment, menu planning and food cost accounting. Prereq: HNFM 1500, 2420, or permission of instructor.

9530 Ecology of Malnutrition (3) Fundamental principles underlying the current world malnutrition problems. Investigation of projected future problems and schemes for their prevention or solution. Prereq: FN 8500 and 8530, or permission of instructor.

Philosophy and Religion

Philosophy

3050/8055 The Philosophy of Space Exploration (3) This course deals mainly with the justification of space exploration in the face of conflicting needs. Topics to be studied include objections to the space program and responses to them, spinoff benefits, space industrialization, pla-

retical issues. Prereq: Graduate standing or permission of instructor.

4650/8656 Philosophy of Mind (3) A discussion of various accounts of the nature of minds which focuses upon philosophical problems such as whether the mind is identical with the brain, the extent of similarities between human minds and computers, the nature of personal identity, and the relationship of mental activity to behavior.

8900 Readings in Philosophy (3) An individually organized program of readings pertinent to one or more topics subordinate to the heading of Philosophy. To be carried out under the supervision of a member of the graduate faculty. May be repeated once for credit. Prereq: Graduate standing, permission of the instructor, and no incompletes outstanding.

Religion

4150/8156 Judaism in the Modern Age (3) A critical investigation of Judaism since the Enlightenment emphasizing historical, intellectual and religio-legal developments. Pivotal movements (e.g., Hassidism, Reform, Historical/Conservative Judaism, Modern Orthodoxy, Zionism) and major historical events (e.g., the American and French Revolutions, Tsarist oppression, the Holocaust, and the establishment of the State of Israel) will be analyzed for their on going impact. Prereq: Nine hours in Religion or permission of instructor.

4300/8306 Existentialism and Religious Thought (3) A study of existentialism in its theistic (e.g., Kierkegaard) and atheistic (e.g., Sartre) forms, and its impact on recent Jewish and Christian thought.

8900 Readings in Religion (3) An individually organized program of readings pertinent to one or more topics subordinate to the heading of religion. To be carried out under the supervision of a member of the graduate faculty. May be repeated once for credit. Prereq: Graduate standing, permission of the instructor, and no incompletes.

Physics

3010/8015 Elements of Electronics (3) The background of theory, operation, and practice of electronic devices and circuits particularly as they apply to scientific instrumentation. Both solid state and vacuum tube principles and circuits are involved. Prereq: Calculus and Physics 1120 or 2120.

3020/8025 Optics (3) The nature of light energy as disclosed through studies of geometrical optics, physical optics and quantum optics. Prereq: Math 1960 and Physics 1120 or 2120.

3050/8055 The Philosophy of Space Exploration (3) This course deals mainly with the justification of space exploration in the face of conflicting needs. Topics to be studied include objections to the space program and responses to them, spinoff benefits, space industrialization, planetary and interstellar exploration, space colonies, search for life elsewhere, and other related topics.

8165 Current Topics in Science (1-3) The subject matter of this course will generally not be presented in a standard physics course and may be of an interdisciplinary nature. The specific topics and prerequisites will be listed in the schedule. Prereq: Consent of instructor.

3750/8755 Electricity and Magnetism I (3) An advanced discussion of electrostatics and magnetostatics as well as a.c. theory. Prereq: Calculus, Physics 3250, or permission.

3760/8765 Electricity and Magnetism II (3) A course in electrodynamics. Topics include Maxwell's equations and methods for their solution, boundary conditions, as well as energy, momentum, and transformations of the fields. Prereq: Physics 3750.

3850/8855 Thermodynamics and Statistical Mechanics (3) The topics of thermodynamics in-

clude various equations of state, first and second laws of thermodynamics, thermodynamic potentials and their uses. In addition, an introduction to classical statistics, Bose-Einstein and Fermi-Dirac statistics as well as transport phenomena is given. Prereq: Calculus and Physics 2120 or 2160.

4350/8356 Astrophysics (3) Physics and theory of the physical characteristics, distribution, and space motion of stars and stellar systems; internal structure, evolution, and death of stars structure of stellar atmospheres; interstellar matter and gaseous nebulae; structure and origin of the universe. Prereq: Physics 2130 or 4120 and Calculus I and II (Phys 1350 is helpful).

4950-4960/8956-8966 Problems in Physics (Each 1-3) Individual laboratory and/or library work in some field of energy. Prereq: General physics and permission of instructor. For 4960: 4950 and permission of instructor.

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- DONALD F. NORRIS** *Public Administration* Ph.D., University of Virginia, 1971; Associate Professor
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Please note: The specific requirements for the various graduate programs offered and the descriptions of courses offered by those programs can be found in the section entitled DEGREE/CERTIFICATE REQUIREMENTS AND COURSE DESCRIPTIONS. See the Table of Contents for page numbers for the desired programs.

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