General Academic Catalog (1968-1969)

University of Nebraska at Omaha
Bulletin of the
UNIVERSITY OF NEBRASKA
AT OMAHA

VOLUME XXV, NUMBER 1
JUNE 1968

GENERAL CATALOG

for the academic year
1968-69

UNIVERSITY OF OMAHA 1908–1931
MUNICIPAL UNIVERSITY OF OMAHA 1931–1968
ADMINISTRATION
UNIVERSITY OF NEBRASKA

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Dean, The College of Continuing Studies
   Director, Summer Sessions
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Dean, The Graduate College
   Chairman of the Graduate Faculty
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UNIVERSITY OF NEBRASKA AT OMAHA
HISTORICAL SKETCH

The University of Nebraska at Omaha became a part of the state college system on July 1, 1968, but its history as an educational institution covers more than a half century.

In 1908, through the efforts of a group of far-sighted citizens, the University of Omaha was incorporated as a co-educational, non-sectarian college. The first college term opened in September, 1909, under the leadership of Dr. Daniel E. Jenkins. The original campus was located at 24th and Pratt Streets.

The University grew rapidly in these early years. Its physical plant was developed through the acquisition of additional properties. The John Jacobs Memorial Gymnasium, a gift of Mrs. M. O. Maul, and Joslyn Hall, a gift of Mrs. George A. Joslyn, were the major buildings.

The movement to make the University a municipal institution began in 1929. In that year the Legislature of Nebraska passed an act authorizing cities of the metropolitan class to establish and maintain municipal universities.

The citizens of Omaha voted on May 6, 1930 to establish the Municipal University of Omaha. In the summer of 1930, the Omaha Board of Education selected the first University Board of Regents, which was inducted into office on July 1, 1930. In January, 1931, the new Board of Regents took over the old University of Omaha and its properties.

In November, 1936, the University received a grant from the Public Works Administration. This grant, together with accrued building funds, financed in 1937-38, the erection of a modern educational structure of Georgian style on the permanent 52-acre site south of Dodge Street at 60th.

The University continued to grow. Important advances were made in faculty personnel, curricular reforms, administrative organization, scientific laboratories, and in library facilities during the presidencies of Dr. W. E. Sealock, 1931-35, Dr. Rowland Haynes, 1935-48, Dr. Milo Bail, 1948-65, Dr. Leland E. Traywick, 1965-66, and Dr. Kirk E. Naylor who took office June 5, 1967. The University now has five undergraduate colleges, plus a Graduate College.

In 1949, the $750,000 Fieldhouse, stadium and playing fields were completed providing facilities in all sports. In June, 1951, an Air Force ROTC unit was established. The $850,000 Gene Eppley Library was completed in 1955.

In 1959, the Milo Bail Student Center Building and the Engineering Classroom Building were completed for use in an expanded educational program.

In 1962 and 1964 two wings totaling $575,942 were completed on the Engineering Building and two $580,000 wings on the Gene Eppley Library were completed in 1963.

In April, 1967, the Legislature of Nebraska passed a bill authorizing the merger of the University of Omaha with the University of Nebraska. Omaha voters approved the merger by a nearly 4 to 1 majority on December 12, 1967, and the University of Nebraska at Omaha was established effective July 1, 1968.
THE UNIVERSITY AT A GLANCE

...To earn a living
And live a cultured life
Not as two processes
But as one...

The primary purposes of the University of Nebraska at Omaha are:
first, to maintain a faculty of dynamic teacher-scholars of high character
and competence who will inspire able and willing students to achieve to
the maximum of their abilities; and second, to provide classroom, lab­
oratory, and library facilities adequately equipped to produce an envi­
ronment conducive to learning of the highest order.

By contemporary standards the University of Nebraska at Omaha is
not a large institution. Composed of a student body of 9,000 (4,500 day—
4,500 evening), the University attempts to treat each student as an indi­
vidual; his background, his problems, and his aspirations all receive
constant attention. Ample opportunity is provided for specialized study
in terms of interest, talent, and ultimate vocational objective. Thus, the
University is concerned that its graduates be good citizens who earn a
better living and live a richer, fuller life.

A university may well be judged by the success of its graduates. For
a half century since its founding in 1908, the University has furnished
Omaha, the state of Nebraska, and the nation with men and women of
sound intellectual training and strong character.

The University of Nebraska at Omaha has six colleges—the College of
Arts and Sciences, the College of Education, the College of Business
Administration, the College of Engineering and Technology, the College
of Continuing Studies and the Graduate College. Each conducts day
and evening classes to meet the multiple needs and demands of the
community.

The University, as a further service to the community, designs train­
ing courses for thousands of business and industrial employees; supplies
in-service training for teachers; conducts television classes for University
credit on KMTV and WOW-TV; and sponsors a wide variety of confer­
ces, workshops, lectures, and concerts to enrich the regular academic
program.
ACCREDITED STANDING

The University of Nebraska at Omaha is fully accredited by the North Central Association of Colleges and Secondary Schools, the National Council for Accreditation of Teacher Education, American Association of Collegiate Schools of Business, and is a member of the National Commission of Accrediting (not an accrediting agency), the American Association of Colleges for Teacher Education, the Association of Urban Universities, the Association of American Colleges, the National University Extension Association, the American Association of University Women, the Council of Graduate Schools in the United States, the Midwest Conference on Graduate Study and Research, the Association of University Evening Colleges, the Adult Education Association of the United States, Association of Governing Boards, the approved list of the International Reading Association, and the American Council on Education. Its courses are accepted, for purposes of teacher certification, by the Nebraska State Department of Public Instruction.

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.
FIRST SEMESTER 1968 - 69

September 1  Last day for submitting applications for admission to first semester.

September 4  Guidance examinations for all first semester freshmen and all transfer students who have not previously taken Omaha University guidance examinations.

September 9-13  Registration.

September 14  New Student Day. 9:00 A.M. Attendance required of all new and transfer students.

September 16  Official beginning of first semester at 7:30 A.M. Day and evening classes begin.

September 16  Late registration begins.

September 20  Last day for registering for a day class, or adding a day class to a schedule, up to 4:00 P.M. (or changing a day class from “audit” to “credit” or “credit” to “audit”).

September 21  9:00 A.M. to 12:00 Noon. Last day for registering for an evening class, or adding an evening class to a schedule (or changing an evening class from “audit” to “credit” or “credit” to “audit”).

October 8  Founders’ Day.

October 30  Six-week reports on first-semester freshmen due in Academic Deans’ Offices by 4:00 P.M.

November 8  Last day a class may be dropped in order to receive a “W” or an “X.”

November 27  Thanksgiving recess begins at 9:40 P.M.

December 2  Classes resume at 7:30 A.M.

December 9  Last day for filing applications for degrees to be conferred in January, 1969.

December 20  Christmas Convocation.

December 21  Christmas Vacation begins at noon.

January 6, ’69  Classes resume at 7:30 A.M.

January 15  Last day for submitting applications for admission to second semester.

January 14-21  Final Examinations.

January 23  All grades due in Registrar’s Office by 3:30 P.M.

January 25  Mid-year Commencement 10:00 A.M. (Saturday)
# SECOND SEMESTER 1968 - 69

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
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<tbody>
<tr>
<td>January 25</td>
<td>Guidance examinations for first semester freshmen and transfer students.</td>
</tr>
<tr>
<td>January 27-31</td>
<td>Registration.</td>
</tr>
<tr>
<td>February 1</td>
<td>New Student Day.</td>
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<tr>
<td>February 3</td>
<td>Official beginning of second semester at 7:30 A.M. Day and evening classes begin.</td>
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<tr>
<td>February 3</td>
<td>Late registration begins.</td>
</tr>
<tr>
<td>February 7</td>
<td>Last day for registering for a day class or adding a day class to a schedule, up to 4:00 P.M. (or changing a day class from “audit” to “credit” or “credit” to “audit”).</td>
</tr>
<tr>
<td>February 8</td>
<td>9:00 A.M. to 12:00 Noon. Last day for registering for an evening class, or adding an evening class to a schedule (or changing an evening class from “audit” to “credit” or “credit” to “audit”).</td>
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<tr>
<td>March 28</td>
<td>Last day a class may be dropped in order to receive a “W” or an “X.”</td>
</tr>
<tr>
<td>April 2</td>
<td>Spring Vacation begins at 9:40 P.M.</td>
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<tr>
<td>April 8</td>
<td>Classes resume 7:30 A.M.</td>
</tr>
<tr>
<td>April 8</td>
<td>Last day for filing applications for degrees to be conferred in June, 1969.</td>
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<tr>
<td>May 9</td>
<td>Ma-ie Day—Student holiday.</td>
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<tr>
<td>May 22-29</td>
<td>Final Examinations.</td>
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<tr>
<td>May 29</td>
<td>Alumni Achievement Day.</td>
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<tr>
<td>May 30</td>
<td>Memorial Day Holiday (University closed)</td>
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<tr>
<td>May 31</td>
<td>All grades due in Registrar’s Office by 12:00 Noon.</td>
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<tr>
<td>June 2</td>
<td>Sixtieth Commencement. (Monday)</td>
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## SUMMER 1969

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
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<tr>
<td>June 6-7</td>
<td>Registration.</td>
</tr>
<tr>
<td>June 9-July 11</td>
<td>First Session.</td>
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<tr>
<td>June 10-July 31</td>
<td>Evening Session.</td>
</tr>
<tr>
<td>July 4</td>
<td>Holiday (University closed)</td>
</tr>
<tr>
<td>July 11</td>
<td>Last day for submitting applications for admission to second summer session.</td>
</tr>
<tr>
<td>July 18</td>
<td>Last day for filing applications for degrees to be conferred Aug. 31, 1969.</td>
</tr>
<tr>
<td>July 14-Aug. 15</td>
<td>Second session.</td>
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ADMISSION TO THE UNIVERSITY

I. PROCEDURES FOR SECURING ADMISSION

1. Obtain an application blank and a medical history questionnaire from the Admissions Director, Room Adm. 144. The blank will be mailed upon request.

2. Return properly completed application blank and medical form to the Admissions office. Two official copies of your high school record (transcript) must either accompany the application or be sent by your high school principal. Students who are transfers from other colleges are required to have official transcripts and evidence of honorable dismissal sent to the Admissions Director from each institution attended. All credentials become the property of the University and are not returned to the individual student.

3. All credentials must be on file in the Admissions office no later than September 1, January 15 or June 1, for consideration for first semester, second semester or summer school, respectively.

4. Report for Guidance Examinations (not entrance examinations) according to scheduled time of administration. Transfer students report unless notified of acceptance with a minimum of 58 semester hours. The fee for the examination taken at a regularly scheduled time (see University Calendar) is $5.00, payable in advance.

5. Attend New Student Day Activities.

6. Complete registration for classes on scheduled date (see University Calendar).

II. REQUIREMENTS FOR ADMISSION

1. A graduate of any accredited high school is eligible to apply for freshman standing. The colleges require presentation of credit in certain subjects as indicated:

   COLLEGE OF CONTINUING STUDIES
   No specific requirements.

   COLLEGE OF ARTS AND SCIENCES
   A satisfactory score on the School and College Ability Tests.

   COLLEGE OF ENGINEERING AND TECHNOLOGY
   Each engineering curriculum requires:
   - English 3 units
   - Algebra 1-1\(\frac{1}{2}\) units
   - Geometry 1-1\(\frac{1}{2}\) units
   - Science 1 unit
   (above freshman year)

   COLLEGE OF BUSINESS ADMINISTRATION
   Algebra—1 unit. Geometry—1 unit. Deficiency may be removed after registration.

   COLLEGE OF EDUCATION
   A satisfactory score on the School and College Ability Test.
2. Graduates of non-accredited high schools may be admitted provisionally. Such students must acquire regular standing, through successful course work, within their first semester of residence.

3. Persons at least 21 years of age who do not fulfill the admission requirements for freshman standing, but who present an equivalent academic training, or who have otherwise acquired adequate preparation for collegiate courses, may be admitted, upon approval, as an adult student in the College of Continuing Studies. An applicant under 21 years of age may not be admitted to the College of Continuing Studies except on approval of the Dean.

4. A transient student desiring to enroll in summer school or an adult student who has attended another institution may be admitted upon signing a statement that he is "eligible to return" and "in good standing" at his former institution. It is the student's responsibility to see that a verifying transcript or statement of good standing is received in the Admissions Office by the end of the second week of the semester in which he is enrolled.

III. ADVANCED STANDING

Credits submitted by transcript from other colleges and universities will be properly evaluated for admission to any one of the five colleges by the Director of Admissions. Evaluations are forwarded to the Dean of the College and the Registrar. All credentials must be on file in the Admissions Office no later than September 1, January 15 or June 1 for consideration for first semester, second semester or summer school respectively.

A fee of $5.00 must be paid by the applicant for evaluation.

All inquiries and correspondence relating to the admission of students should be addressed to:

Director of Admissions
THE UNIVERSITY OF NEBRASKA AT OMAHA
Omaha, Nebraska 68101

GUIDANCE SERVICES

Testing

The University believes that academic programs can be most efficiently planned in terms of the interests, aptitudes, and objectives of the individual student; therefore, an extensive counseling system has been developed.

All new students who have not reached junior standing are required to take a series of guidance examinations.

Each student is assigned to an academic counselor who will, through interpretation of the examination results and by personal interview, advise the student on the courses for which he should register. It is desirable to take these examinations as early as possible in advance of the opening of the school year. One full day is required. The date scheduled
for such guidance examinations will be stated in the letter of acceptance for admission to the University, which the student receives from the Admissions Office. A student may not complete his registration or attend classes until these guidance examinations have been completed.

**Guidance and Placement Tests**

After a student has been admitted to the University he is required to take a group of Guidance and Placement Tests. These tests are available to all students who enter the University and are required of students who matriculate to the University as freshmen or transfer from another university at the freshman or sophomore level. The results of these tests are used to help each student determine in which and how many courses he should probably enroll while at the University. They are given on specified dates on a group basis and require about seven hours to complete. They may be taken on an individual basis at different times if the student is willing to pay the individual testing fee for this service.

**Competitive Examination for Regents Scholarships**

The Regents of the University of Nebraska at Omaha annually award 30 scholarships to graduates of high school in the Nebraska area on the basis of competitive examinations administered by the Academic Testing and Counseling Department. These scholarships provide the remission of resident tuition for the freshman year and are renewable upon maintenance of a superior grade record.

A student who elects to take the competitive scholarship examinations may substitute the results of these tests for the required Guidance and Placement Examinations.

**Advanced Placement Program with High Schools**

The Advanced Placement Program is based on the belief that many students are capable of completing college level courses while still in high school. With this belief in mind, the College Entrance Examination Board assists high schools in planning such courses and provides examinations for them. Scores from these examinations may be forwarded to the university or college which the student wishes to enter.

Upon recommendation of the appropriate Department Chairman the Curriculum Committee of the College of Liberal Arts and Sciences may grant exemptions from the 125-hour requirement for graduation to a maximum of twenty-four hours provided that the student has achieved satisfactory scores on the Advanced Placement Examinations of the College Entrance Examination Board or shows other evidence of advanced work.

Since all examination scores sent to this University are directed to the Department of Guidance and Counseling, any student wishing to ask for such consideration by the appropriate department head should contact the Guidance Department in order that the department head may be notified of his scores.
Advanced Placement within a Department

Various departments within the University are offering the opportunity for advanced placement in courses within their departments. Placement tests are currently being offered in the departments of mathematics and foreign language. Many other departments are contemplating using placement tests.

Students with less than 1 year of high school language should be enrolled in 111 sections and will not take the Placement Tests. All students who have had as much as 1 year and less than 4 years of the study of French, German or Spanish in high school and who wish to continue this language in college are required to take the Placement Tests through the Office of Academic Testing and Counseling. If the student does not take the tests at the regular Spring testing period, he must make individual arrangements with the Office to take the tests before registering.

Vocational and Educational Guidance Test Battery

While there is no one test or group of tests which will magically reveal exactly the occupation for which one is best suited, a battery of psychological tests may be helpful to clarify interests and to indicate aptitudes for certain broad fields of work. The vocational test battery offered by this department includes tests of five major types—intelligence, interest, achievement, aptitude, and personality—on the belief
that each of these factors is significant in understanding oneself and in making educational and vocational plans.

Any full time student may avail himself of the opportunity to take these tests at no cost. Prospective students may take the battery of tests on a fee basis. Qualified counselors are available to all students for explanation and interpretation of these tests.

Examinations for Admission to Graduate or Professional Schools

The Academic Counseling and Testing Department also administers special examinations required of those wishing to enter professional or graduate school. The following are among these types of examinations which are administered by this department: the Graduate Record Examination, Miller Analogies Test, National League of Nursing, Pre-Nursing and Guidance Examinations, National League of Nursing Graduate Nurse Examination, and the Law School Admission Test.

Those wishing to take these examinations may contact the Academic Testing and Counseling Department for information and applications for these tests.

UNIVERSITY DIVISION

The University Division, established in the 1962-63 academic year, provides a setting in which the student who has not yet made a definite choice as to major or occupation is free to take an exploratory program of studies. In addition to offering him the opportunity to choose from among the broad range of courses offered in all the colleges in the University, the University Division attempts to assist the undecided student by employing a staff of full time professional counselors to aid him in finding suitable goals.

Enrollment in this Division may also be advantageous to some other students besides those who have not yet decided on a major. Any student who was not eligible for acceptance to another college within the University because of low high school grades or scores on the guidance and placement examinations may be enrolled in the University Division in order to give him the chance to prove his academic competence. While working to become eligible for admission to the college of his choice, the student is free to take much the same course work from the college to which he aspires as he would if he were actually enrolled in that college. By enrolling in the University Division, however, he has the advantage of receiving special attention and assistance from the counseling staff in establishing good study habits and finding a sense of purpose and direction to his studies, so that his chances of success in his college program may be increased.

Procedure for Transferring from University Division

A student who enrolls in the University Division because he has not yet been accepted by the college he wishes to enter may generally prove his academic competence and thereby become eligible for admission to that college by completing at least one semester with a grade point aver-
age of 2.0. As soon as the student is eligible for admission to the college of his choice, he may transfer from the University Division.

The student who has entered the University Division because he has not yet chosen a major and wishes to take advantage of the chance to take an exploratory program and the counseling service available through this Division may transfer as soon as he has made a decision as to the academic and career program he wishes to pursue.

Since the University Division is seen as a means for assisting the student to choose and enter an appropriate college, it is expected that by the time he has achieved junior standing he will have chosen and transferred to another college.

Requirements

The only required course in the University Division is a one credit orientation course designed to acquaint the student with the various colleges in the University, vocational opportunities open to him, methods of effective study, and with university life in general. The student is urged, however, to follow programs which will fulfill general requirements of the schools which he feels he may wish to enter along with the exploratory program, so that when he is ready to transfer he will not be as likely to lose a great deal of time in making up requirements.

THE COUNSELING CENTER

The Counseling Center performs a variety of essential educational functions. These functions are in harmony with the purposes of the University and are available to all undergraduate students. A student may come to the Counseling Center offices, Room 213 in the Administration Building, and make an appointment to see a counselor anytime it is convenient for him. It is not uncommon for other students to refer people to the Counseling Center, and faculty members are also concerned enough about individual students that they, too, send people to the Counseling Center for the professional services available there.

Since the pursuit of intellectual learning is often influenced by everyday problems of living, the staff within the Center serves to assist the student to meet these situations in a way which encourages the total educational experience to have maximum effect. Counseling often gives consideration to those areas which are somewhat private and a student can expect that whatever is said to this counselor will be treated in confidence.

It is readily apparent that the main concern of the Counseling Center is the student. The aim, therefore, is to assist each person in understanding himself in relation to the social and psychological world in which he lives. This implies helping each student to understand his aptitudes, interests, attitudes, abilities, opportunities for self-fulfillment, and the interrelationships between these. This process enhances the student's personal decision-making competency and usually involves the areas of career choice, study habits and attitudes, and personal-social relationships.

The Counseling Center makes an attempt to be objective in assessing Aptitude, Interests, Achievement, Intelligence, and Personality. Objective
measures of these factors are available to the student and often contribute to better self-understanding. When students wish help in appraising their talents and interests, in order to select appropriate programs of study for their career objectives, both testing and career counseling are available.

One of the more-frequent laments of the entering freshmen is, "I have no study habits," or, "I don't know how to study." In many instances the Counseling Center can be of help to the student in determining the cause of this dilemma. Once the cause is known, the student then implements a plan for overcoming this difficulty.

Another area of concern to students has to do with the area of personal and emotional problems. Self-doubt, depression, and loneliness occur at sometime in most everyone's life. These concerns can be most distressing and upsetting. They may even disrupt the learning process and cause a dissatisfying experience, not just in college, but with family also. Personal concerns of any type may be discussed frankly and in complete privacy. This experience quite often results in students becoming more comfortable with themselves and being more effective in their total life experience.

Quite frequently students are uncertain where to turn for assistance. The Counseling Center is adequately staffed with professional counselors and works quite closely with other University services. When it is apparent that these other services, such as the Reading Clinic, Student Health, the Speech and Hearing Clinic, Student Placement, and Student Aid, are a more appropriate service, then the student is referred to them. The Counseling Center also maintains a list of referral sources outside the University for those students who may profit from them. Thus, if a student needs assistance in determining the proper source to consult, the Center stands ready to provide this service.
THE GENE EPPLEY LIBRARY

The Gene Eppley Library, a gift of Eugene C. Eppley of Omaha, is a modern Georgian two-story building housing the library and the Adult Education Conference Center. Designed to reflect the principles of functional planning, the library offers an invitation to reading through its open shelf collections and integrated reading areas. Each student may select his own type of study facility—from an individual carrell to an easy chair in the popular reading lounge.

The library numbers over 220,000 volumes and 125,000 documents chosen through the co-operative efforts of the faculty and library staff to provide for the curricular and recreational reading interests of students. Over 1,500 American and foreign periodicals are received regularly and extensive back files are maintained through binding and microfilms. As a United States government document depository, the library makes available complete files of the major government publications. The extensive pamphlet collection is particularly strong in the field of vocational materials.

The open shelf arrangement of the general book collection gives students the opportunity to select their own materials and invites browsing in all subject fields. Reference librarians provide library instruction through orientation lectures and assist students in using the library for information and research. Librarians serve as reader-consultants in guiding students in selecting reading materials and developing reading programs.

Special services in the library include the Education Curriculum Laboratory with its collections of text books and curriculum materials, research rooms for faculty, and seminar rooms for advanced classes. A classroom and laboratory house the materials for library science and a sample collection of literature for elementary and high school. The Eppley Adult Education Conference Center with its auditorium, conference rooms, and lounge offers opportunities for workshops, conferences, and informal groups to work in close co-operation with library materials.

The Audio-Visual Department of the library makes available the newer media of communication including educational films, film-strips, and recordings. Its facilities include listening rooms, a classroom, a preview room, and a tape recording laboratory. Instruction in the use of audio-visual materials is a requirement for all students in the College of Education.
THE COLLEGE OF ARTS AND SCIENCES

ROBERT D. HARPER, Dean

The College of Arts and Sciences offers work toward the degrees of Bachelor of Arts, Bachelor of Fine Arts, Bachelor of Music, and Bachelor of Science, as well as pre-professional programs for students planning to enter such fields as medicine, law, and theology. The College is organized into 17 departments, grouped under the three large divisions of the Humanities, the Social Sciences, and the Natural Sciences.

The Lower Division of the College, comprising the first two years of work, offers a program of general education with emphasis on breadth rather than depth. Subjects required or recommended for freshmen and sophomores include English, foreign languages, and basic courses in each of the three subject divisions. A somewhat less flexible program is prescribed for some pre-professional students.

The last two years of the liberal arts program, while essentially a continuation of the Lower Division work, provide for specialization in one or two subject areas. At present, academic majors are available in the following fields: art, biology, chemistry, economics, English, foreign languages and literatures, geography, history, journalism, mathematics, music, philosophy, physics, political science, psychology, sociology, speech, and urban studies.

The pre-professional programs of study are determined largely by the requirements of the graduate or professional schools which students intend to enter. If arranged carefully, they provide a sufficient variety of courses so that their objectives are virtually the same as those of the four-year course leading to the degree of Bachelor of Arts.

THE COLLEGE OF EDUCATION

PAUL C. KENNEDY, Dean

The professional education of teachers was introduced as a function of the University of Omaha in 1911. The work was conducted by a small Department of Education. From 1948 to 1950 the faculty was enlarged in order that services to the teaching profession might be more adequately provided, and in 1950 the College of Education was established. It is composed of the following departments: Business Education; Elementary Education; Educational Foundations; Guidance; Health, Physical Education and Recreation for Men; Health, Physical Education and Recreation for Women; Home Economics; Library Science; School Administration; Secondary Education; and Special Education.

The purposes of the College of Education are threefold: (1) to provide for the education of students who are preparing to teach; (2) to contribute to the professional growth and development of educators who wish to improve their skills and understandings, (3) to provide educational services to organized agencies that are cooperating with the schools and to personnel in other types of education institutions.

According to their individual interests and aptitudes, students may prepare in one or more of the following areas: Business Education, E-
mentary Education, Guidance, Health and Physical Education for Men, Health and Physical Education for Women, Library Science, Recreation Education, School Administration, Secondary Education, and Special Education (Teaching the Deaf, Teaching the Hearing Handicapped, Teaching the Educable Mentally Retarded, Teaching the Trainable Mentally Retarded, Speech Therapy, Reading Specialist).

The specific objectives of the College of Education are:

1) to prepare candidates for the profession of teaching:
   - who possess capacity for and appreciation of scholarship;
   - who possess sound physical, mental, and social health;
   - who understand and support the American public school system;
   - who express themselves clearly, concisely, and meaningfully in speaking and writing;
   - who consider teaching a professional experience;
   - who possess sound academic and professional qualifications for teaching in their chosen field;

2) to provide services to individuals and organizations that strive to improve teacher competence;
   - that endeavor to raise standards of teacher education;
   - that desire to improve educational programs;
   - that encourage an appreciation of the American public school system;

3) to promote research and innovation for the improvement of teacher education.

THE COLLEGE OF BUSINESS ADMINISTRATION

JOHN W. LUCAS, Dean

The curricula in the College of Business Administration provide young men and women with a variety of areas of study for professional specialization.

Each curriculum allows the student ample freedom to select individual courses in other colleges of the University to satisfy his general or cultural interests so that with his specialization he will achieve a well-balanced education.

The College of Business Administration is a member of the American Association of Collegiate Schools of Business, which is the accrediting organization for collegiate schools of business.

THE COLLEGE OF ENGINEERING AND TECHNOLOGY

ANSON D. MARSTON, Dean

The College of Engineering and Technology offers Bachelor of Science degrees in Civil Engineering, General Engineering, Industrial Engineering and Industrial Technology. In addition, well planned two-year programs lead to Associate titles in engineering technology. The College embraces the departments of Civil Engineering, Industrial and General Engineering, Industrial Technology, and Nursing, plus the Technical Institute.
The metropolitan area of Omaha contains the greatest industrial and commercial center between Chicago and Denver, between Minneapolis-St. Paul and Kansas City. It also contains a major concentration of hospitals and health agencies. The current explosion in technology creates a major demand for professionally trained engineers, engineering technicians, and nurses. The College maintains close contact with leading engineers and with local industries to assure that instruction provides a strong scientific base, a thorough understanding of professional problems, and a well rounded education.

The professional engineering programs are so designed that the first two years are essentially common, making it possible in most cases for students to transfer from one program to another without loss of time. The last two years of these programs provide the specialized courses required for each field; while curricula list specific courses to be taken, each student is treated as an individual and permitted to make reasonable substitutions upon approval of the counselor, the department head, and the dean.

THE COLLEGE OF CONTINUING STUDIES
WILLIAM T. UTLEY, Dean

The College of Continuing Studies is the unit of the University of Nebraska at Omaha which serves the adult community. Since its establishment in 1931, it has achieved national recognition through its innovations in the field of higher adult education. Here was developed the Tele-Lecture conference technique. Its TV Classroom, begun in 1952, is the nation’s oldest college credit series co-sponsored with a commercial station. The degree completion program for military personnel, known internationally as the Bootstrap program, is the largest in the country. And, its degree designed for adults was a pioneer venture that is now increasingly copied and adapted.

Because it is now clear that no one’s education is or ever will be complete, and because effective citizenship requires each of us to be in a constant state of development, the demands of our society for continuing education constantly increase. In response to these needs the program of the College is broad and varied, providing for intellectual development, vocational and professional growth, and cultural enrichment. The activities of the College are administered primarily through two divisions: I. Academic Studies, and II. Non-credit Community Services.

AIR FORCE ROTC

The Department of Aerospace Studies is a regular instructional department of the University of Nebraska at Omaha and functions according to the rules and policies of the University and those of USAF. The Air Force ROTC program, under the recently enacted Vitalization Act, is designed to develop the skills and attitudes vital to the career professional Air Force officer. Upon successful completion of the Air Force ROTC program and graduation from the University, cadets are commissioned Second Lieutenants, USAF Reserve. Instruction includes a two-year basic
course (General Military Course-GMC) and a two-year advanced course (Professional Officer Course-POC). GMC training is a prerequisite for entry into advanced POC. This may be accomplished by completing either the college GMC program or a six-week "Field Training (FT)" program at an Air Force Base. Applicants for the six-week FT must arrange for such training prior to completing their sophomore year. A limited number of Financial Assistance Grants are available to outstanding sophomore, junior, and senior cadets. For complete information on the Air Force ROTC program contact the Professor of Aerospace Studies (PAS).

**FOOD SERVICE**

**MILO BAIL STUDENT CENTER**

The Student Center features game rooms, bookstore, lounges, offices, student meeting rooms, conference rooms, ballroom, cafeteria, faculty dining room, snack bar, vending operation, and private dining rooms.
The purpose of the University Food Service is to provide wholesome, nutritious food to the members of the University community at the lowest possible cost.

The University Food Service is not a public eating establishment. Food Service is maintained for the students, faculty and persons academically related or affiliated with the University of Nebraska at Omaha. Students and Faculty may bring guests occasionally, but the practice is not encouraged. Activity Cards may be checked periodically by supervisors and cashiers.

The Director of Food Services will be happy to plan your special events menus with you.

All food is dispensed on a strictly cash basis. No one may defer payment for meals. Food may not be brought into the Food Service area by organizations for special events.

**URBAN STUDIES CENTER**

The Urban Studies Center serves a four-fold purpose—research, community information, education, consultation—in the city of Omaha and its metropolitan environs. Extensive library resources pertaining to all phases of urban life will be available at the Center. It will serve as a clearing house for information and as a diagnostician, interpreter, and therapist of urban phenomena. The Center, in addition to serving interested students and citizens, will also assist public officials, as well as officials of private and voluntary organizations involved with urban problems.

**BOOKSTORE**

**MILO BAIL STUDENT CENTER**

Textbooks and supplies necessary for classes taught by the University of Nebraska at Omaha are sold in the Book Store to University of Nebraska at Omaha students and faculty only. Clerks may require identification cards at any time, and the Book Store Manager may refuse to sell merchandise which he has reason to believe is going to non-students or non-faculty members of the University of Nebraska at Omaha. All sales in the Book Store are on a strictly cash basis. No books or supplies may be charged unless payment for same has been guaranteed by scholarship funds or a governmental agency. Charge authorizations must originate with the University cashier.

**COMPUTER CENTER**

**ENGINEERING BUILDING, ROOM 186**

The Computer Center contains an NCR RMC MARK II Computer and an IBM 1620 Computer. Services available to faculty and students include data preparation and compilation and execution of program. As modern computational techniques become an integral part of many fields of study, the Center is used to introduce the student to these techniques. Faculty members and graduate students use the computers as a research tool.
All students desiring employment should register in the Placement Office, Room 238. The Placement Office helps students and graduates get full-time, part-time or summer jobs. Seniors and juniors will find available dozens of brochures describing job openings in all types of American business. Senior interviews are arranged with companies which recruit college graduates. Approved Personal Data Sheets are supplied registered seniors without charge.

The Placement Office makes an active effort to obtain employment for all students desiring jobs. It cannot, however, guarantee to secure employment for every student.

ATHLETICS
FIELDHOUSE

The University of Nebraska at Omaha has gained an enviable reputation for the quality and character of its athletic teams and currently is a member of the Central Intercollegiate Conference. National recognition and honors have been received in all sports and steady progress in intercollegiate athletics has been evident during the past decade.

Full schedules of contests with other colleges and universities are sponsored each year in football, basketball, baseball, track, tennis, golf, cross country and wrestling. Each sport has competent coaches, excellent equipment, outstanding facilities, and appropriate medical care for members of the University sponsored teams. The opportunity to participate on a team is open to all bona fide students who have the desire.
Intercollegiate athletics are directed and controlled in the same manner as all other academic and extracurricular activities. All athletic policies conform to the basic policy of the University. These are determined by the Board of Regents and the responsibility for administration is delegated to the President of the University. The specific administration of the program is conducted by the Director of Athletics. A Faculty Committee on Athletics advises in the administration of the program which is designed primarily for the students of the University and its normal constituency.

The athletic program is co-ordinated with the physical education and intramural programs including similar principles, aims, and objectives.

**INTRAMURALS FOR MEN AND WOMEN**

"A sport for everyone and everyone in a sport."

Intramural activities are offered for both men and women, giving students an opportunity for fun, relaxation, and physical development. To be eligible, a student must be registered for six hours and possess a day school activity card. The program of sports makes it possible for students to play games in which they are interested. Men's intramural sports are archery, cross country, flag-football, volleyball, basketball, bowling, swimming, billiards, curling, wrestling, tennis, table tennis, track, softball, golf, and badminton. Women's sports include volleyball, softball, tennis, table tennis, golf, mixed volleyball, archery, basketball, track and field, riflery, bowling, orchesis, and badminton.

**READING LABORATORY**

ENGINEERING BUILDING, ROOM 151

Students who desire to improve their reading and study skills may do so by enrolling in the reading improvement courses in the Reading Laboratory, under the supervision of the Department of English. Each enrollee is required to attend a specified number of class lectures and laboratory sessions. The Reading Laboratory offers the latest in instructional materials and techniques.

**ALUMNI ASSOCIATION**

MILO BAIL STUDENT CENTER

This organization has as its goals the preservation of college friendships and the advancement of the University of Nebraska at Omaha.

Through the Association's by-laws membership is awarded to persons holding college degrees or honorary and associate titles from the University, as well as to former students who have attended at least two years and who express an interest in the organization.

Five officers and a 16-member Board of Directors govern the Association. To conduct the work of the Association, a full-time executive-secretary and an assistant are employed by the University. The office staff keeps up-to-date records on both graduates and former students; special
mailings and the regular Alumni Newsletter go to more than 16,000 alumni.

The Association has its offices—reception room-lounge, executive office and workroom—in the new Student Center. The offices were furnished through contributions to the Alumni Building Fund.

To take the place of membership dues, the Association established an annual Fund Drive in 1953. Yearly receipts are now over $25,000 a year and maintain the Association's many scholarships as well as buying equipment and teaching aids for the University and supplying lobby furnishings in the Gene Eppley Library and in the Milo Bail Student Center.

Social events for alumni include Achievement Day, which honors a distinguished alumnus or faculty member, and Homecoming. In addition, lecture programs are offered, free of charge, through the Institute of World Affairs. The Association in the past few years has spread nationwide, with active chapters in many cities.

**CLINICAL SERVICES DIVISION**

**ADMINISTRATION BUILDING, ROOM 109**

The Clinical Services Division of the Department of Special Education is designed as a training facility to provide practical experience for advanced students in Speech and Hearing, Teaching the Deaf, Teaching the Mentally Retarded, and Remedial Reading. In addition it offers opportunities to develop and evaluate new methods and techniques for the education or rehabilitation of handicapped children and adults.

Diagnostic services and remedial programs are available without charge to individuals in the Omaha area. The Clinical Services Division maintains currently used electronic equipment, tests, and materials for a variety of communication and learning disorders; one-way vision facilities allow for observation of individual and group therapy. These facilities are frequently used by other disciplines within the University for instruction and clinical research.

**SCHOLARSHIPS, AWARDS AND LOANS**

**WILLIAM J. GERBRACHT, Chairman**

**REGENTS' SCHOLARSHIPS**

The Regents of the University have provided one hundred twenty Regents' Scholarships which are awarded on the basis of competitive examinations to high school graduates. These scholarships provide the remission of resident tuition for the freshman year, and are renewable upon maintenance of a superior grade record.

**UNIVERSITY HONOR SCHOLARSHIPS**

There are twenty four University Honor Scholarships available to sophomores, juniors, and seniors. These scholarships are awarded strictly on the basis of scholastic achievement (no application is necessary). These scholarships provide the remission of resident tuition.
UNIVERSITY TUITION GRANTS

University Tuition Grants are available to regularly enrolled resident students at the University. The purpose of this grant is to give financial assistance to students who have indicated by previous academic performance that they can profit by a college education but need some financial assistance in order to continue their program of study. Application can be made to the Committee on Scholarships, Awards and Loans.

OTHER SCHOLARSHIPS, GRANTS, AND AWARDS

There are a number of other scholarships and awards which have been made available by the University, organizations, and individuals. Since conditions governing each scholarship or award vary, students interested should inquire at the Office of the Dean of Student Personnel, Room 240, Administration Building, for information.

FOR ENTERING FRESHMEN

Ak-Sar-Ben
Alumni
Blumkin Foundation
Gem Stores
Hinky-Dinky
Omaha Firemans Benefit
Regents

FOR SOPHOMORES AND JUNIORS

Building Owners and Managers Association Award (Real Estate, Junior)
Chi Omega Alumnae of Omaha Scholarship (Sophomore Girl)
George B. Lake Memorial Awards (American History)
Omaha Public Power District (Engineering or Business)
Omaha Real Estate Board Scholarship (Junior)

FOR JUNIORS AND SENIORS

A. A. Allwine Scholarship in Real Estate
Alumni Liberal Arts Award
Fred J. Armbrust Scholarship
Associated Nebraska Industrial Editors (Journalism)
Building Owners and Managers Association of Omaha Real Estate Law Award
Harry A. Burke Memorial Scholarship
Chriss-McKay Memorial Scholarship (Accounting)
Data Processing Management Scholarship (Business)
Distributive Education Clubs of America
James A. Douglas Scholarships (Liberal Arts)
Eastern Nebraska Chapter #111, Society of Residential Appraisers Real Estate Award in Urban Land Uses (Senior)
Estate Appraisers Scholarship (Senior)
Gilbert M. Hitchcock Scholarship (Physical Science)
Wilbur R. Irwin (Accounting)
Jenkins Memorial Scholarship, University Alumni Association (Senior)
Peter Kiewit Civil Engineering Scholarship
Peter Kiewit General Engineering Scholarship
Robert H. Kooper Scholarship in Business
Dr. C. Glenn Lewis Scholarship in Real Estate
Glenn L. Martin Scholarship
National Secretaries Association Scholarships
Nebraska Chapter #23 of the American Institute of Real Estate Appraisers Scholarship (Senior)
Nebraska Mortgage Bankers Real Estate Finance Scholarship
Nebraska Real Estate Association Scholarship (Senior)
Nebraska Society of Certified Public Accountants Scholarship (Senior)
Omaha Association of Insurance Agents
Omaha Chapter #12 of the Institute of Real Estate Management Award (Senior)
Omaha Civic Music Association
Omaha Real Estate Board Scholarship
Stanton Salisbury Memorial Scholarship
Walter H. Panko, Jr., Memorial Scholarship of Omaha Press Club (Journalism)
Wilfred Payne Scholarship
Pen and Sword Scholarship
Urban Land Uses Award
General Albert C. Wedemeyer Scholarship (Political Science)
Western Electric Fund (Engineering)
Women's Physical Education Award
Zeta Delta Chapter, Chi Omega (Social Science, Senior Women)

FOR ALL CLASSES

A. A. Allwine Scholarship (Biology)
American G. I. Forum Auxiliary
Associated Retailers of Omaha Scholarships in Retailing
Arthur Brandeis Scholarships in Retailing
Brewer-Nelson Memorial Scholarship
Kevin O'Connor Scholarship
Paul T. Crossman Memorial Scholarship
Leo Daly Art Scholarship
James A. Douglas Scholarship
Fraternal Order of Eagles
Friends of Music
Eileen Gorr Memorial (Education)
Rowland Haynes Memorial Scholarship
Hinky-Dinky Scholarships in Food Distribution
John Fitzgerald Kennedy Memorial Scholarship
Pat Kennedy Memorial Scholarship
Peter Kiewit Engineering Scholarship
N. Murray Longworth Memorial Scholarship
Mengedoht-Hatz Scholarship (Art)
Mrs. John F. Merriam (Art)
Emma S. Metz Music Scholarship
Hymie and Ella Milder Scholarships
Presser Foundation (Music)
W. H. Schmoller Music Award
Mrs. Rose Schnieder Memorial Scholarship
Sylvia Siporin Memorial Scholarship
Society of American Military Engineers
Mary R. Stoddard Scholarship
Fannie D. Wakley (Humanities)

STUDENT TUITION LOAN FUNDS

Limited loans are available from the Altrusa Club, Alumni Association, Administrative Management Society Loan Fund, the Lions Club, Ak-Sar-Ben, Faye L. Hickey, Insurance Women of Omaha, the Alpha Kappa Delta, Sigma Gamma Rho, Phi Delta Gamma (Graduate Women), and the National Defense Education Act of 1958. The College of Continuing Studies has a small loan fund for use of adult students. Information regarding loans may be obtained from the Dean of Student Personnel Office, Room 240, Administration Building.

ACADEMIC STANDING

COURSE CREDIT

Course credit is determined by the number of hours per week a class is in session, with some exceptions such as laboratory, physical education, band and choir. A course scheduled to meet three times per week for a semester merits, therefore, three semester hours credit.
STUDENT STUDY LOAD

1. A normal student load is 12 to 17 credit hours.

2. To be classified as a full-time student, the student must carry a minimum load of 12 credit hours.

3. Permission to carry fewer than 12 credit hours or more than 17 credit hours must be secured from the student’s academic Dean.

4. Any student granted permission to carry fewer than 12 credit hours shall be considered a part-time student in the College in which he is enrolled.

   In no case shall a student carry more than 21 hours in any one semester. This regulation applies to total or equivalent credits for courses taken in some other institution, in night school, audit courses, non-credit courses, or certificate courses, in addition to credits attained in residence.

5. A student shall not carry 18 semester hours of work unless he has maintained an average of “B” in a regular 15-hour load during the preceding semester. Application for permission to register for 18 hours or more should be made first to the academic counselor and then to the academic Dean.

   This regulation applies to total or equivalent credits for courses taken in some other institution, in night school, audit courses, non-credit courses, or certificate courses, in addition to credits obtained in residence.

6. Entering freshmen shall be limited to 16 hours except as otherwise required for specific programs, such as engineering and pre-medicine.

7. The credit hour load for which the student is registered at the end of the eighth week shall be considered as his total credit hour load or total credit hours attempted for the semester.

CLASSIFICATION, GRADES, QUALITY POINTS, AND PROMOTION

A student’s academic classification is determined by the number of semester hours of academic credit earned.

<table>
<thead>
<tr>
<th>Academic Classification</th>
<th>Range in Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman</td>
<td>0 through 26</td>
</tr>
<tr>
<td>Sophomore</td>
<td>27 through 57</td>
</tr>
<tr>
<td>Junior</td>
<td>58 through 90</td>
</tr>
<tr>
<td>Senior</td>
<td>91 through 124</td>
</tr>
</tbody>
</table>

Grades are determined by the daily record of the student and the record made on quizzes, mid-semester and semester examinations. The weight attached to each of these factors is determined solely by the instructor of the course.

The grading system is as follows:

- Passing grades are A, B, C, and D, the last being the lowest,
- F indicates failure and results in loss of credit. Each hour of credit
carries quality points computed according to the following schedule:

- For each semester hour of A, 4 quality points
- For each semester hour of B, 3 quality points
- For each semester hour of C, 2 quality points
- For each semester hour of D, 1 quality point
- For each semester hour of F, 0 quality points

In the Graduate College “S” represents a satisfactory grade on a thesis.

In addition to the above, the grade “Inc.” (incomplete) carrying “0” quality points is given under the following provisions:

INC.—A student may be reported incomplete if some minor portion of the work remains unfinished, provided the student’s standing in the course is not below “D.” An incomplete must be made up during the first eight weeks of the following semester. After this time an “Inc.” is computed as a failure.

Students receiving the grade “Inc.” will be held responsible for understanding the regulations governing removal of “Inc.”

To be eligible for a degree or an associate title, a student must present a scholastic average of “C”—2.0 quality points (in the case of transfer students with 58 or more hours, a 2.00 average must also be achieved in work taken at the University of Nebraska at Omaha.

All grades reported by the faculty to the Registrar at the end of each semester become a part of the student’s permanent record and are included in the computation of his quality points earned and his grade point average.

WITHDRAWAL FROM THE UNIVERSITY

A student who wishes to drop all classes and withdraw from the University proceeds as follows:

1. Obtain withdrawal slip from the Registrar’s Office or his counselor.
2. Confer with his counselor and obtain his signature on the withdrawal card.
3. Confer with his Academic Dean and obtain his signature on the withdrawal card.
4. Report to the Office of the Dean of Student Personnel and turn in his activity and library card.

Refunds will be based on the official schedule (page 41) of this catalog.

DROP—When a student finds it necessary to drop a course, he should see his counselor immediately. If a student is passing at the time he withdraws, his record will be marked “W,” indicating that he withdrew in good standing. If the student is failing at the time he withdraws, his record will be marked “X,” indicating that he was failing at the time of withdrawal.

A student may not drop a course with any other grade than “F” after the eighth week of the semester.
EXAMINATIONS

All examinations must be taken at the scheduled time; otherwise a late fee is charged. See page 41 for special examination fee.

ACADEMIC PROBATION

Academic probation is a status invoked whenever the academic performance of the student gives indication that he has fallen below the rate of progress expected of his classification. It is a period during which the student is given an opportunity to determine for himself whether he should continue his present college program relatively unchanged. Whenever any student completes a semester with a cumulative grade average which falls below the standard for "normal progress" shown in the following table, he will be placed on academic probation by the committee on Academic Standards.

<table>
<thead>
<tr>
<th>Hours Attempted</th>
<th>Accumulative Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 - 16</td>
<td>1.2</td>
</tr>
<tr>
<td>17 - 26</td>
<td>1.4</td>
</tr>
<tr>
<td>27 - 42</td>
<td>1.6</td>
</tr>
<tr>
<td>43 - 57</td>
<td>1.8</td>
</tr>
<tr>
<td>58 and over</td>
<td>2.0</td>
</tr>
</tbody>
</table>

To be restored to good standing, a student must raise his cumulative quality point average to the required minimum for his academic classification.

A student who has been placed on academic probation because of incompletes may be restored to good standing immediately upon completion of his incompletes providing his resulting cumulative average meets the requirements for his particular classification.

ACADEMIC SUSPENSION

For students failing to meet the requirements for restoration to good standing after one semester on probation, extension of probation or suspension shall be by action of the Committee on Academic Standards.

Application for reinstatement of suspended students from this university or any other university or college shall be submitted to the Director of Admissions in writing on the form supplied by that official prior to September first for the first semester and prior to January fifteenth for second semester of any school year.

The Director of Admissions will submit such applications which have been approved by the appropriate academic dean to the Faculty Committee on Academic Standards for final action.

The Committee on Academic Standards denies admission to any suspended student who has been out of school less than two full semesters.
CLASS ATTENDANCE

Students are required to attend all meetings of classes for which they are registered, and no student may be excused from any of the assigned class work. It may be assumed that irregular attendance will be reflected in lower course grades; moreover, absence reports are regularly sent to the Academic Deans and to the Dean of Student Personnel, who will take appropriate disciplinary action. In case of an unavoidable absence it is the student's responsibility to contact his instructor promptly and arrange to make up any work missed.

EXTRA-CURRICULAR ACTIVITIES

A student on academic probation may not participate in any form of organized extra-curricular activity, including any form of intercollegiate competition or public appearance, except in those activities in which public appearance or representation is essential to the earning of credit. This exclusion from extra-curricular activities for academic reasons is enforced not as a punishment; it is to give the student time to restore himself to good standing.

GENERAL ACADEMIC REGULATIONS

The Academic Year—Two semesters of approximately 16 weeks each constitute the academic year. The unit of instruction is the semester hour, which signifies one recitation a week throughout the semester, or equivalent.

Late Registration—Registration in any course for credit toward any degree, or any change of registration involving the addition of a course, is not permitted after the end of the first week of any semester or after the end of the second day of the summer session.

Credit—Not more credit than the amount stated in the catalog is permitted in any course. To receive credit all work must be done under the supervision of a member of the faculty.

Audit Students—A student may audit a regular credit course with the consent of his Dean. An audit student may not participate in recitation, turn in papers, or take examinations. He does not receive academic credit. An audit student may not change from audit to credit or credit to audit registration after the first week of a course.

Examinations—During the semester, examinations and quizzes are arranged by the faculty. Grades for those students who are not doing satisfactory work are reported by instructors to the Academic Deans. The last week of the semester is devoted to final examinations. Each examination is scheduled for two hours.

Students who are on scholarships or who wish to be eligible for activities must make up incomplete grades within two weeks of the last final examination. Unless these are made up, the student cannot be certified as being eligible.
Special Examination for Credit—Individuals desiring to earn credit by special examination shall pay the special examination fee and the tuition for the number of credit hours covered prior to taking a special examination. The Dean of the College concerned will determine whether a special examination may be taken and will arrange for the examination to be prepared, and he will set the time and place for the administration of it. Except as provision is made for granting credit by College Level Examination Programs, the number of credits earned by special examination shall not exceed 21 semester hours.

Application for Degrees—Applications for all degrees and associate titles must be filed in the Office of the Registrar early in the semester and not later than the date listed in the University Calendar.

Attendance at Commencement—Candidates for degrees are required to attend the commencement exercises in academic costume. Anyone finding it necessary to have his degree conferred in absentia must petition his academic Dean three weeks prior to the commencement exercises and pay the required fee.

Candidacy for a Second Baccalaureate Degree—A student who has met the requirements for a baccalaureate degree must complete a minimum of 30 additional semester hours at the University of Nebraska at Omaha for a second baccalaureate degree. A plan of study for the additional hours, approved by the department head and Dean(s) primarily concerned, must be filed in the Office of the Registrar by the completion of the fifteenth additional hour. Two baccalaureate degrees may be awarded simultaneously when the student becomes eligible to receive them.

UNIVERSITY CREDIT COURSES

All credit courses offered by the University may be applied toward any degree or certificate granted, except as stated under each department.

All courses offered for credit, whether scheduled for the regular academic year, the evening classes, or summer sessions, are listed by departments. General introductory courses are listed first.

The system of course numbers is arranged to indicate the level of instruction.

The first figure in each number designates the group to which a course belongs:
- 100-99—Courses open primarily to freshmen
- 200-99—Courses open primarily to sophomores
- 300-99—Courses open primarily to juniors
- 400-99—Courses open primarily to seniors
- 500—Courses open only to graduate students

Registration in courses more than one group removed from a student’s class standing is permitted only in music, speech, mathematics, physical education, and beginning foreign languages, except in special cases by permission of the Deans of the Colleges.
DEGREES WITH HONORS

The Baccalaureate Degrees with honors are awarded as follows:

(a) to all graduates whose scholastic average for their entire university career is 3.62 or above, but below 3.75; the degree *cum laude*;

(b) to all graduates whose scholastic average for their entire university career is 3.62 or above, but below 3.75; the degree *cum laude*;

(c) to all graduates whose scholastic average for their entire university career is 3.87 or above: the degree *summa cum laude*.

In order to qualify for degrees with honors, transfer students must achieve the required quality point average, not only for all University of Nebraska at Omaha courses, but also for all courses taken at other colleges and universities.

THE STATUTORY REQUIREMENTS FOR RESIDENCY

Section 85-502. A person shall not be deemed to have established a domicile in this state, for the purpose of Sections 85-101 to 85-504, unless:

(1) Such person is of legal age and shall have actually resided in this state continuously for four months with the intention of making this state his or her permanent residence;

(2) The parents, parent, or guardian having custody of a minor registering in a state educational institution shall have actually resided in this state continuously for four months, with the intention of such parents, parent, or guardian to make this state their, his, or her permanent residence;

(3) An emancipated minor, who shall have actually resided in this state continuously for four months, with the intention of making this state his or her permanent residence, and shall not have lived with nor been supported by his or her parents, or either of them, for two years or more prior to such registration;

(4) Such person is a woman and a nonresident of this state prior to her marriage, and marries a man who has actually resided in this state continuously for four months, and the intention of her husband is to make this state his permanent residence;

(5) Such person, if an alien, shall have his or her first United States naturalization papers, and shall have actually resided in this state continuously for four months, with the intention to make this state his or her permanent residence;

(6) Such person who has attained a degree from the University of Nebraska or one of the Nebraska state colleges while under a residence status, but who after graduation loses his residence status, may return to The University of Nebraska or one of the Nebraska state colleges for the purpose of taking graduate work or for the purpose of matriculating in one of the professional colleges and in such regard may be permitted to reestablish a residence in Nebraska during the period of study at the
school if the requisite intention to make this state his permanent residence in fact exists; or

(7) Such person is a dependent of a staff member of the University of Nebraska or one of the Nebraska state colleges who joins the staff immediately prior to the beginning of a term from an out-of-state location.

No person shall be deemed to have established a residence in this state during the time of attendance at such state institution as a student, nor while in attendance at any institution of learning in his state, except in the case of a minor who qualifies as provided in this section.

CLASSIFICATION OF RESIDENT AND NONRESIDENT STUDENTS

A student's right to classification as a resident for purposes of registration in a state educational institution must be determined under the provisions of Nebraska Revised Statutes of 1943, Sec. 85-502 (R.S. Supp., 1965).

Each semester, as students complete their registrations, they are required to certify to the accuracy of the personal information asked for on the registration form, including resident or nonresident status.

Students are nonresidents if any of the following is true:

1. Their parents live in another state.
2. Their parents have resided in Nebraska and now have moved out of the state. (They and their children become nonresidents even though property may still be owned in Nebraska.)
3. Their parents are in the Armed Forces from a home in another state, even though they may now live in Nebraska.
4. The student recently has lived and been employed in another state although originally from Nebraska.
5. The student's first enrollment in the University was as a nonresident. (Ordinarily it is not possible to become a Nebraska resident while attending the University or any other collegiate institution.)

Any student who has been classified as a nonresident who believes he can qualify as a resident should contact the registrar's office.

TUITION AND FEES

Student fees are payable in full at the time of registration. Registration is not complete until cleared by the cashier. The university reserves the right to change the amount of tuition and fees at any time, or to assess breakage, deposit, lost property, or service fees not specifically listed in this schedule.

The average fees per semester are approximately $250.00 for residents of Nebraska, and $450.00 for non-residents.

Students in need of loans, deferred payments, or other financial assistance must consult the Student Aid Officer in room Adm. 240, at least two weeks prior to the start of classes.
INSTRUCTION

Tuition, per semester credit hour:
Undergraduate, Graduate or Audit
   Resident of Nebraska ........................................... $15.00
   Non-resident ..................................................... 28.00

Applied Music: Voice and all instruments except pipe organ
   (Fee may be waived by the Head of the Music Department)
   One semester credit hour—additional fee ..................... 40.00
   Two semester credit hours (same instrument) additional fee 60.00
   Non-credit: 16 lessons ......................................... 50.00
   8 lessons ......................................................... 35.00

TV Classroom (per 3 hour course—includes materials) ............... 60.00

Conferences and Non-credit courses

Fees are determined for each offering on an individual basis.

GENERAL FEES

Full-time students (12 credit hours or more) per semester .......... $30.00
Part-time students (less than 12 hours) per semester ............... 15.00
Summer Sessions (per session) .................................... 15.00

General fees are assessed to every student each semester, except that
summer sessions students who complete registration for both sessions at
the initial registration period will be assessed the fee only once. Included
in this fee are charges for registration, health service, library, and stu­
dent center as well as materials and supplies furnished by the University
for instruction.

A portion of the general fee—$12.00 of full time, and $3.00 of part
time and summer—is specifically allocated to the Student Activities
Committee for the support of student programs, publications, athletics,
drama productions, etc.

The full-time fee of $30.00 also entitles the student to a regular stu­
dent activities card covering athletics, publications and general student
activities. Part-time students may obtain a regular student activities card
by paying the full-time fee of $30.00.

GRADUATION FEES

Graduate College .................................................. $15.00
Baccalaureate Degree ............................................. 12.50
Associate Title .................................................... 7.50
Degree in absentia—additional ................................... 5.00

OTHER FEES, CHARGES AND DEPOSITS

Matriculation and Change of College ................................ $10.00
   Payable upon initial enrollment and upon each subsequent
   change of college.
Late Registration (Day or Evening Classes) ......................... 3.00
Deferred Payments (if approved by Student Aid Officer) .......... 5.00
Change of Schedule—per change .................................. 5.00
Change of Academic Record—per change ........................................ 5.00
Removal of incomplete, grade change, etc. .................................. 5.00
Transcript Evaluation (transfer students and graduate college) ......... 1.00
Transcript of Academic Record—per copy ..................................... 6.00
Teacher Placement Registration ................................................... 12.00
Thesis Binding (additional copy—$4.00) ..................................... 5.50

Insufficient fund or no-fund checks are considered to be deferred payments. Late registration fee may also be assessed if applicable.

Replacement of Student Activity Card (with approval) ..................... 1.00
A.F.R.O.T.C. Activity Fee—per semester ..................................... 2.00
A.F.R.O.T.C. Uniform Deposit (refundable) ................................ 15.00
Key Deposit (if authorized) (refundable) ..................................... .50

Tests and Examinations:
  Guidance and Placement—at scheduled times ............................... 5.00
  Special, proficiency, advanced standing, or out of schedule ............ 5.00
  C.C.T. tests for credit in the College of Continuing Studies—
    $20.00 of this amount may be applied toward tuition if test score is satisfactory—per test .................. 25.00

Vocational Testing and Counseling:
  Fees for these services depend upon tests administered and extent of counseling. Inquire in room Adm. 213 for charges.

REFUND SCHEDULE

Refunds are computed from the date application is received by the Registrar, NOT from date of withdrawal from classes. Refund slips issued by the Registrar and given to students are void and not redeemable, unless presented to the Cashier (room Adm. 150) within 30 days after date of issue.

A student must file notice of withdrawal from class, accompanied by written approval of the adviser and the Dean of Student Personnel, with the Registrar immediately upon dropping any course.

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 in cash.

REGULAR SEMESTER

Withdrawal before classes start ............................................. 100%
Withdrawal during 1st or 2nd week ......................................... 75%
Withdrawal during 3rd or 4th week ......................................... 50%
Withdrawal during 4th to 8th week ......................................... 25%
Withdrawal after 8th week ..................................................... 0%
SUMMER SESSIONS 5 Week Session)

Withdrawal before classes start ........................................ 100%
Withdrawal during 1st three days ....................................... 75%
Withdrawal during remainder of the 1st week ......................... 50%
Withdrawal during 2nd week ............................................... 25%
Withdrawal after 2nd week .............................................. 0%

CREDIT COURSES (8 Week Session)

Withdrawal before classes start ........................................ 100%
Withdrawal during 1st week ............................................. 75%
Withdrawal during 2nd week ............................................. 50%
Withdrawal during 3rd week ............................................. 25%
Withdrawal after 3rd week ............................................... 0%

NON-CREDIT AND SPECIAL COURSES (10 Weeks or More)

Withdrawal before classes start ........................................ 100%
Withdrawal during 1st week ............................................. 50%
Withdrawal during 2nd week ............................................. 25%
Withdrawal after 2nd week ............................................... 0%

(Less than 10 Weeks)

Withdrawal before classes start ........................................ 100%
Withdrawal before 2nd class ............................................. 50%
Withdrawal after 2nd class ............................................... 0%

STUDENT ACTIVITIES

MILO BAIL STUDENT CENTER BUILDING

The University recognizes the value of a well-rounded program for student development and encourages students to participate in co-curricular activities. Students who have the time will be interested in the programs of the fraternities, sororities, special interest clubs, student publications, intramural, and intercollegiate activities.

A more complete description of these opportunities may be found in the Student Handbook.

In general, eligibility requirements for participation in extracurricular student activities provide that a person must be a regularly enrolled full-time student in good standing; that is, not on academic or disciplinary probation. However, since some groups maintain higher requirements, it is advisable to inquire at the Office of the Dean of Student Personnel about the eligibility requirements for any particular group or activity.
ORGANIZATIONS

Governing Bodies

Student Council
Panhellenic Council
Interfraternity Council

Scholastic Honor Societies

Alpha Lambda Delta (freshman women), founded at the University of Illinois, 1924
Beta Gamma Sigma (junior and senior men and women, College of Business Administration), founded at the University of Wisconsin, 1907
Phi Eta Sigma (freshman men), founded at the University of Illinois, 1923
Phi Kappa Phi (all-university, upper-class men and women), founded at the Universities of Maine, Tennessee, and Pennsylvania State, 1897

Leadership Honor Societies

Omicron Delta Kappa (junior and senior men), founded at the University of Omaha, 1950
Waokiya (senior women), founded at the University of Omaha, 1950

Honorary Clubs

Alpha Psi Omega (dramatics)
Alpha Kappa Delta (sociology)
Beta Alpha Psi (accounting)
Delta Omicron (music, women)
Gamma Pi Sigma (chemistry)
Pi Alpha Theta (history)
Phi Mu Alpha Sinfonia (music, men)
Pi Gamma Mu (social science)
Pi Kappa Delta (forensic)
Kappa Delta Pi, Eta Omega Chapter (education, men and women)
Sigma Tau Delta
Gamma Theta Upsilon (geography)

Religious Clubs

Campus Christian Fellowship
Christian Science Organization
Newman Club
Service Clubs

Interpem Council
Society of Pen and Sword (Bootstrapper Program)

Professional Fraternities

Delta Sigma Pi (business administration, men) Gamma Eta Chapter, 1949
University Chapter of Rho Epsilon (real estate), 1955
Phi Chi Theta (business administration, women)
Phi Epsilon Kappa (P.E. Majors and Minors)

Athletic Clubs

“O” Club (honorary, men)
Women’s Recreation Association

Social Clubs

Independent Student Association, 1935

Sororities

Alpha Xi Delta, Gamma Delta Chapter, 1950
Chi Omega, Zeta Delta Chapter, 1949
Sigma Kappa, Beta Omega Chapter, 1950
Zeta Tau Alpha, Gamma Mu Chapter, 1950

Fraternities

Alpha Epsilon Pi, Upsilon Omicron Chapter, 1961
Lambda Chi Alpha, Iota Delta Zeta Chapter, 1952
Pi Kappa Alpha, Delta Chi Chapter, 1952
Sigma Phi Epsilon, Nebraska Beta Chapter, 1951
Tau Kappa Epsilon, Epsilon Epsilon Chapter, 1956
Theta Chi, Delta Zeta Chapter, 1950

Student Publications

Gateway (newspaper)
Tomahawk (yearbook)
Student Directory
Grain of Sand (literary magazine)

Special Interest Groups

American Institute of Industrial Engineers
American Marketing Association, Student Chapter
American Society of Civil Engineers
Angel’s Flight
Arnold Air Society, Earl S. Hoag Squadron, 1952
   National Headquarters, 1954-55
Art Club
Band, marching and concert
Biology Club
Choirs
Circle “K”
Debate
Home Economics Club
Indiannes
Institute of Electric and Electronic Engineers
International Relations Club
International Students Organization
Ipmauoes
Music Educators National Conference, Chapter 437
University Amateur Radio Club
University Black Knights Chess Club
University Riding and Jumping Club
University Rifle Club
Orchies
Orchestra
Philosophy Club
Pre-Med Club
Press Club
Psi Chi
Ski Club
Sociology Club
Society of American Military Engineers
Student Affiliate, American Chemical Society
Student Education Association
University Math Metrics
University Players
Young Democrats
Young Republicans

IDENTIFICATION AND ACTIVITIES CARD

Each student who enrolls in twelve or more credit hours is required to pay a $30.00 general fee per semester. The payment of this fee entitles the student to a regular activity card, which must be carried at all times. This card admits the student, without further charge, to all University activities, athletic events, and social affairs which receive support from this fee. It also entitles the student to receive, without further charge, all student publications (except the Grain of Sand) issued during the year. Any student carrying less than twelve credit hours will pay a $15.00 general fee per semester.

The activities card serves as identification for service in the Food Service, Student Center, Bookstore, and Library. The student may be requested to show his activities card before being served in any of these facilities.
The activities card is given to the student at the time of registration, and is not valid until signed by the Financial Officer, indicating that fees are paid. Activities cards are non-transferable, and use by other than the student to whom issued is subject to disciplinary action. Lost cards may be replaced only with the approval of the Dean of Student Personnel, and upon payment of a duplicate card fee. A charge of $1.00 will be made for duplicate cards. If the student is suspended or withdraws, he must return his activities card to the office of the Dean of Student Personnel.

**UNIVERSITY REGULATIONS**

The University and its various colleges, divisions, and departments reserve the right to change the rules controlling admission to, instruction in, and graduation from the University or its various divisions.

Such regulations are operative whenever the University authorities deem necessary and apply not only to prospective students but also to those currently enrolled in the University.

The University also reserves the right to withdraw courses, to reassign instructors, and to change tuition and fees at any time.
The Graduate College provides the opportunity, the faculty and the resources to meet the various needs of graduate students for more advanced and more specialized education than the undergraduate work upon which all graduate programs are founded.

The first Master's degree was awarded by a special vote of the Board of Regents of the “old” University of Omaha in June, 1931. Graduate work leading to the Master of Arts degree was authorized by the newly organized Municipal University, September, 1931, to be supervised by a Committee on Graduate Studies. In 1942, the Graduate Division was established. The degree of Master of Science in Education was approved in 1948. In 1954, the Committee on Graduate Studies became the Graduate Council and the Chairman became the Director of the Division. In 1960, the Board of Regents authorized a year of graduate study in Education beyond the Master’s degree. In 1966, the Graduate Faculty replaced the Graduate Council.

Recognizing the growing importance of graduate education, the Board of Regents, in October, 1962, established the College of Graduate Studies as the sixth college of the University of Omaha. In 1966, the name was changed to The Graduate College.

The Graduate College at the University of Omaha was established to provide an opportunity for advanced study and independent investigation in a limited number of fields of learning for qualified students:

1. To work toward these degrees: Master of Arts, Master of Science, Master of Business Administration, Specialist in Education.
2. To earn graduate credit for the issuance or renewal of certificates for teachers and administrators.
3. To provide for professional advancement and scholarly objectives.

Consistent with these objectives, numerous opportunities are provided for advanced students to design and conduct original research or investigation to discover facts, methods or values. Working with the guidance of a major advisor, the student must exercise his own initiative to master and apply the principles of methodical study and evaluation, utilizing the existing literature in his chosen field of study. To enable the student to attain these objectives, the Graduate College provides workshops, institutes, seminars, research and special problems courses, and the supervision of theses or special projects.

Thus the Graduate College promotes the spirit of free investigation in the various fields of knowledge, and at the same time serves to unite the various branches of the University in the common task of advancing human knowledge and providing for society intelligent, capable leadership.

A student who is within three semester hours of having completed all requirements for the Bachelor’s degree at the University of Nebraska at Omaha may be provisionally admitted to the Graduate College.

A detailed Graduate Bulletin is available from the Graduate College.
FACULTY
UNIVERSITY OF NEBRASKA AT OMAHA
1968-69

ROBERT L. ACKERMAN ........................................ Elementary Education
Ed.D., University of Nebraska, 1968; Professor

PAUL B. ACKERSON ........................................ Secondary Education
Ed.D., Oklahoma State University, 1963; Professor

FREDERICK W. ADRIAN ...................................... History
Ph.D., Ohio State University, 1942; Professor

CLIFFORD ANDERBERG ...................................... Philosophy
Ph.D., University of Wisconsin, 1953; Professor and Head of Department

WILLIAM C. ARNWINE ..................................... Industrial/General Engineering
Ph.D., Iowa State University, 1967; Professor and Head of Department

DUANE ASCHENBRENNER .................................... Speech
M.A., Colorado State College, 1961; Assistant Professor; Director, Forensics

BRUCE P. BAKER II ........................................ English
M.A., University of Omaha, 1960; Assistant Professor

GEORGE BARGER ........................................... Sociology
Ph.D., Clark University, 1967; Associate Professor

NICHOLAS BARISS ........................................ Geography
Ph.D., Clark University, 1967; Associate Professor

BURWELL G. BEAMAN ....................................... Accounting
M.S., Kansas State University, 1960; C.P.A.; Assistant Professor

*WALTER J. BEAUPRE ....................................... Special Education
Ph.D., Columbia University, 1962; Professor and Head of Department; Director, Clinical Services

BOUL. BECK .................................................. History
Ph.D., University of Nebraska, 1961; Professor

JOSEPH V. BENAK .......................................... Civil Engineering
Ph.D., University of Illinois, 1967; Assistant Professor

ROBERT W. BENECKE ...................................... Accounting
D.B.A., University of Colorado, 1968; Associate Professor

DONALD BENNING ........................................... Physical Education for Men
M.S., University of Omaha, 1961; Assistant Professor, Coach

HOLLIE BETHEL ........................................... Elementary Education
Ed.D., University of Colorado, 1957; Professor and Head of Department of Elementary Education

JOHN V. BLACKWELL ....................................... Art
Ph.D., State University of Iowa, 1957; Professor and Head of Department

RICHARD H. BLAKE ...................................... Counseling and Guidance
Ed.D., University of Missouri, 1968; Assistant Professor, Guidance and Counseling

GARY L. BLUM ........................................... Philosophy
M.A., University of Notre Dame, 1965; Instructor

JOHN L. BOHRER ........................................... Music
M.A., University of Michigan, 1969; Assistant Professor
ANDREE BONNIN .......................... Foreign Languages  
Cert. of Adv. Studies, Universite D'Orleans-Tours, 1967; Instructor

PAUL D. BORGE .......................... Speech, Radio-TV  
M.A., University of Omaha, 1961; Assistant Professor; Head, Radio-TV  
Department; General Manager Channel 26

ROBERT P. BORGMAN ...................... Biology  
Ph.D., Iowa State University, 1962; Associate Professor

JAMES O. BORSHEIM ...................... Physical Education for Men  
M.A., Colorado State College, 1949; Assistant Professor; Basketball Coach

FRANK BOSILJEVAC ........................ Civil Engineering  
M.S., New Mexico University, 1966; Instructor

M. JEAN BRESSLER ...................... Secondary Education  
Ph.D., University of Nebraska, 1965; Assistant Professor

BARBARA BRILHART ...................... Educational Foundations  
Ph.D., Pennsylvania State University, 1966; Assistant Professor

JOHN K. BRILHART ...................... Speech  
Ph.D., Pennsylvania State University, 1962; Professor and Head of Department

NAN L. BRITT ............................ History  
M.A., Emory University, 1966; Instructor

MERLE E. BROOKS ...................... Biology  
Ph.D., University of Colorado, 1956; Professor

JAMES H. BROWN ...................... Industrial, General Engineering  
M.S., M.E., University of Nebraska, 1966; Registered Professional Engineer;  
Professor

WILLIAM M. BROWN ...................... Marketing  
Ph.D., University of Pittsburgh, 1957; Professor

BARBARA E. BUCHALTER ................ Mathematics  
Ph.D., University of Arizona, 1968; Assistant Professor

*SIDNEY A. BUCHANAN ................. Art  
M.A., New Mexico Highlands University, 1963; Instructor

CHARLES M. BULL ...................... Marketing  
Ph.D., University of Nebraska, 1962; The Frederick W. Kayser Professor of  
Marketing and Head of Department

DALE M. BUNSEN ...................... Secondary Education  
M.S., University of Wyoming, 1963; Assistant Professor

KENNETH BURKHOLDER ................ Educational Administration  
Ed.D., University of Nebraska, 1959; Professor

KARL H. D. BUSCH ...................... Biology  
Ph.D., Ohio State University, 1940; Professor and Head of Department

SHIRLEY BUZZARD ...................... Sociology  
M.A., University of Missouri, 1967; Instructor

H. CARL CAMP ...................... Political Science  
Ph.D., Washington University, 1965; Associate Professor

CLARK W. CAMPBELL ...................... Accounting  
M.S., University of Illinois, 1968; Instructor

MICHAEL H. CAMPBELL ................ Physical Education for Men  
M.P.E., University of Nebraska, 1966; Instructor

AL F. CANIGLIA ...................... Physical Education for Men  
M.S., University of Omaha, 1956; Assistant Professor, Football Coach
LLOYD R. CARDWELL ........................................ Physical Education for Men
B.S., University of Nebraska, 1953; Assistant Professor, Track Coach

J. RICHARD CARLSON ........................................ Speech
M.A., Northwestern University, 1954; Assistant Professor

ELTON S. CARTER ........................................ Speech
Ph.D., Northwestern University, 1950; Professor and Dean of Graduate College

PERRY P. CHANG ........................................ Economics
Ph.D., University of Washington, 1958; Professor

JOHN B. CHAPMAN ........................................ Management
M.S.B.A., University of Denver, 1968; Instructor

EDWIN L. CLARK ........................................ Speech
Ph.D., State University of Iowa, 1951; Professor; Director, University Theater

CONSTANCE L. CLAUSSEN ................................ Physical Education for Women
M.A., Adams State College, 1963; Assistant Professor and Head of Department

WILLIAM T. CLUTE ........................................ Sociology
M.A., University of Maryland, 1965; Instructor

DONALD R. CONNELL ...................................... Economics
M.S., Fort Hays State College, 1958; Assistant Professor

NILA CORKILL ........................................ Library Science
M.A., University of Denver, 1963; Instructor; Cataloger

HUGH P. COWDIN ......................................... Journalism
Ph.D., University of Iowa, 1968; Associate Professor and Head of Department

MARY JEAN CURTIS ...................................... English
M.A., University of Kansas, 1967; Instructor

DONALD C. CUSHENBERY ................................ Special Education
Ed.D., University of Missouri, 1964; Professor

HARL DALSTROM ........................................ History
Ph.D., University of Nebraska, 1965; Associate Professor

HAROLD L. DAVIS ......................................... Industrial Arts
M.A., Colorado State College, 1958; Associate Professor

JUDITH DECKER ......................................... Mathematics
M.A., University of Iowa, Iowa City, 1967; Instructor

KENNETH A. DEFFENBACHER .............................. Psychology
Ph.D., 1968, University of Washington; Assistant Professor

VOJISLAV DOSENOVICH ................................. Foreign Languages
B.D., Sarajevo, Yugoslavia, 1937; M.A., University of Omaha, 1953; Instructor

ELLA JANE DOUGHERTY ................................ Library Science
M.A., University of Denver, 1963; Instructor; Staff Librarian

TIMOTHY DUFFIELD ..................................... Art
Art Teachers Certificate, Leeds College of Art (England), 1964; Instructor

RICHARD DUGGIN ......................................... English
M.P.A., University of Iowa, 1963; Assistant Professor

JOSEPH C. DUNN ......................................... Educational Foundations
Ed.D., University of Missouri, 1955; Professor and Head of Department

DOROTHY DUSTIN ......................................... English
M.A., University of Omaha, 1964; Instructor

JAMES EDER ........................................ Physics
M.S., University of Nebraska, 1966; Instructor
*LAWRENCE E. EHLERS
M.S., Kansas State University, 1960; Associate Professor

KENNETH ELLER
M.A., University of Kansas, 1965; Instructor

LAWRENCE P. ETTKIN
M.B.A., Kent State University, 1968; Instructor

*DANIEL C. FAHRLANDER
B.A., University of Iowa, 1962; Assistant Professor

PAMELA FINE
M.S., University of Omaha, 1967; Instructor; Counselor

MARY ALICE FISHER
M.A., Creighton University, 1966; Instructor

FRANKLIN S. FORBES
J.D., State University of Iowa, 1963; Associate Professor

*JOHN C. FOUT
M.A., University of Omaha, 1964; Instructor

*WARREN T. FRANCKE
M.A., University of Omaha, 1966; Assistant Professor

VIRGINIA FRANK
M.A., Brown University, 1964; Assistant Professor

EUGENE H. FREUND
M.A., Eastern Michigan U., 1959; Assistant Professor

DENNIS A. FUS
M.A., Indiana University, 1962; Instructor

DALE A. GAEDDERT
M.A., Kansas University, 1963; Instructor

ELVIRA E. GARCIA
M.A., Kent State University, 1968; Instructor

GERALD GARRETT
M.S., Kearney State, 1968; Instructor

*KENNETH J. GARRY
M.S., Indiana State University, 1966; Instructor

EDNA J. GARTE
M.A., City College, 1967; Instructor

RICHARD E. GIBSON
M.S., University of Illinois, 1955; Registered Professional Engineer; Associate Professor

CHARLES R. GILDERSLEEVE
M.A., University of Arizona, 1964; Assistant Professor

KENNETH J. GILREATH
M.S., University of Omaha, 1967; Assistant Professor

G. WAYNE GLIDDEN
Ed.D., University of Nebraska, 1964; Professor

ERNEST F. GORR
M.S., University of Omaha, 1954; Associate Professor

DONALD J. GRANDGENETT
Ed.D., Arizona State University, 1967; Assistant Professor

SONIA R. GREEN
M.S., University of Omaha, 1965; Assistant Professor
Catherine M. Griesel
M.A., Northwestern University, 1947; Instructor

Linda Gullum
M.A., Purdue University, 1967; Instructor

Ert J. Gum
Ph.D., Louisiana State University, 1963; Associate Professor

Paul Haeder
M.A., Purdue University, 1968; Professor and Head of Department

Mary N. Halgad
M.A., Creighton University, 1982; Instructor

Norman H. Hamm
M.A., Kent State University, 1966; Instructor

Gordon D. Hansen
M.A., University of Omaha, 1965; Assistant Professor, Assistant to Dean, College of Liberal Arts and Sciences

Robert D. Harper
Ph.D., University of Chicago, 1949; Professor; Dean of College of Liberal Arts and Sciences

William A. Harriman, III
M.S., University of Omaha, 1962; Assistant Professor

George T. Harris
Ph.D., State University of Iowa, 1953; The Frederick W. Kayser Professor of Finance

Yvonne H. Harsh
M.A., University of Omaha, 1984; Instructor; Director, Placement

E. La Verne Haselwood
M.S., University of Denver, 1983; Assistant Professor and Head of Department

Barbara Helling
Ph.D., University of Nebraska, 1966; Assistant Professor

George C. Helling
Ph.D., University of Minnesota, 1959; Professor and Head of Department

Barbara J. Hicks
B.A., University of Omaha, 1966; Instructor

Wayne Higley
Ph.D., University of Illinois, 1982; Professor

Elizabeth L. Hill
M.Ed., University of Missouri, 1955; Associate Professor; Associate Dean of Student Personnel

Jack A. Hill
Ph.D., University of Texas, 1964; Professor and Head of Department

Peter W. Hill
M.F.A., Cranbrook Academy of Art, 1958; Associate Professor

Roger Hoburg
Ph.D., University of Nebraska, 1967; Assistant Professor

William C. Hockett
M.B.A., University of Denver, 1949; C.P.A.; Professor and Head of Department

Leta F. Holley
Ed.D., University of Colorado, 1960; Professor and Head of Department

Irene Hoover
M.S., University of Omaha, 1966; Instructor
JAMES Q. HOSSACK .................................................. Civil Engineering
M.S.C.E., University of Nebraska, 1959; Registered Professional Engineer;
Associate Professor and Head of Department

*HELEN HOWELL ............................................................. Elementary Education
M.S., University of Omaha, 1962; Assistant Professor

JO ANN D. HUNDTOFTE .................................................. English
M.A., University of Washington, 1961; Instructor

ROBERT E. HUNTER .................................................... Technical Institute
M.S., University of Omaha, 1965; Instructor

FRANCIS M. HURST .................................................. Psychology
Ed.D., Indiana University, 1954; Professor

ROBERT HUTCHISON .............................................. Speech
M.A., Bowling Green University, 1967; Instructor

CHARLES O. INGHAM .................................................. Biology
Ph.D., University of Utah, 1963; Assistant Professor

DONNA JORGENSEN .................................................. Art
M.Ed., University of Nebraska, 1961; Instructor

GENE F. KAFKA .................................................. Counseling and Guidance
M.S., University of Omaha, 1966; Instructor; Counselor

JOHN C. KASHER .................................................. Physics
M.S., Boston College, 1967; Instructor

DARRELL F. KELLAMS ............................................. Educational Administration and Supervision
Ed.D., University of Kansas, 1964; Associate Professor;
Head, Dept. of Educ. Adm. and Supervision

ERNEST J. KEMNITZ, JR. ........................................... Chemistry
M.A., South Dakota University, 1963; Instructor

PAUL C. KENNEDY .................................................. Education
Ed.D., University of Kansas, 1955; Professor and
Dean of the College of Education

C. ROBERT KEPPEL .................................................. Chemistry
Ph.D., Massachusetts Institute of Technology, 1959; Associate Professor

CLEMM KESSLER III .................................................. Psychology
Ph.D., Western Reserve U., 1967; Assistant Professor

ELLEN KILLERLAIN .................................................. Library Science
BSLS, University of Denver, 1940; Instructor; Full-time Cataloger

MARGARET P. KILLIAN .................................................. Home Economics
M.A., Columbia University, 1929; Professor and Head of Department

EDWIN E. KINNEY .................................................. Engineering, Technical Institute
B.C.E., University of Minnesota, 1942; Registered Professional Engineer;
Assistant Professor; Director, Technical Institute

GLENN KIRBY, JR. .................................................. Economics
M.A., Southern Methodist University, 1966; Instructor

BERNARD D. KOLASA .................................................. Political Science
M.A., University of Nebraska, 1962; Assistant Professor

JOHN KUCER .................................................. Educational Foundations
M.S., University of Omaha, 1967; Assistant Professor

GAYLON KUCHEL .................................................. Law Enforcement and Corrections
M.A., State University of Iowa, 1950; Associate Professor
Head of Dept. of Law Enforcement and Corrections (CCS)
BERT M. KURTH .................................................. Physical Education for Men  
M.S., State University of Iowa, 1948; Assistant Professor  
Director, Intramurals  

W. C. B. LAMBERT .................................................. Political Science  
Ph.D., Washington University, 1950; Professor  

RICHARD L. LANE .................................................. English  
M.A., University of Kansas City, 1956; Associate Professor  

NELONTINE MAXWELL LARSEN ..................................... Mathematics  
M.A., University of South Dakota, 1963; Instructor  

STEPHEN LARSEN .................................................. Special Education  
M.S., University of Omaha, 1966; Assistant Professor  

HARVEY R. LEAVITT ............................................... English  
M.A., University of Omaha, 1966; Instructor  

WILLIAM B. LEMAR ............................................... Civil Engineering  
M.E., Yale University, 1947; Registered Professional Engineer;  
Associate Professor  

C. GLENN LEWIS .................................................. Business Administration  
J.D., State University of Iowa, 1927; M.B.A., Indiana University, 1956;  
Professor; Director, Real Estate Program; Omaha Real Estate Board Chair  
in Real Estate Professor  

MARY JANE LICKTEIG ............................................. Elementary Education  
M.S., University of Omaha, 1967; Instructor  

WALTER W. LINSTROMBERG ....................................... Chemistry  
Ph.D., University of Missouri, 1955; Professor  

ELLEN LORD ........................................................ Library Science  
B.A.L.S., University of Michigan, 1938; Professor; Librarian  

JOSEPH KWANG-WU LU .............................................. Library Science  
M.S.L., Western Michigan University, 1968; Instructor and  
Documents Librarian  

JOHN W. LUCAS .................................................. Business Administration  
M.B.A., Ohio State University, 1933; LL.D., University of Omaha, 1968;  
Professor and Head of Department; Dean of College of Business Administration  

VERA LUNDAHL .................................................. Physical Education for Women  
M.S., University of Illinois, 1954; Assistant Professor  

STEELE R. LUNT .................................................. Biology  
Ph.D., University of Utah, 1964; Assistant Professor  

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M.F.A., University of Iowa, 1963; Assistant Professor  

*JACK A. MALIK .................................................. Music  
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JOHN P. MALONEY .................................................. Mathematics  
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BARBARA MANNING ................................................ Psychology  
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DONALD D. MANSON ............................................... Speech  
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D. N. MARQUARDT .................................................. Chemistry  
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Head of Department
ANSON D. MARSTON .................................................... Engineering
M.S.C.E., University of Wisconsin, 1926; E.E., Iowa State University, 1931;
Registered Professional Engineer; Professor and Head of Department;
Dean of College of Engineering and Technology; D.Sc., University of
Omaha, 1965

JOSEPH McCARTNEY .................................................... Journalism
B.S., University of Omaha, 1961; Instructor

MARION R. McCaulley ................................................ Library Science
M.A., State University of Iowa, 1950; M.S.L.S., University of Illinois, 1952;
Associate Professor; Head Reference Librarian

KATHLEEN McKENNEY ............................................... Special Education
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M.A., University of Denver, 1963; Instructor; Catalog Librarian

RICHARD A. McLELLAN .............................................. English
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ORVILLE D. MENARD ............................................... Political Science
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JOANNE MINARCINI ............................................... Speech
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JOYCE MINTEER ..................................................... Business Administration
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GLLEN A. NEWKIRK ................................................ English
Ph.D., University of Denver, 1966; Associate Professor

M. GENE NEWPORT ................................................ Management
Ph.D., University of Illinois, 1963; Professor
<table>
<thead>
<tr>
<th>Name</th>
<th>Degree, Institution, Year</th>
<th>Position/Department</th>
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<tbody>
<tr>
<td>JOHN M. NEWTON</td>
<td>Ph.D., Ohio State University, 1955; Professor and Head of Department</td>
<td>Psychology</td>
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<tr>
<td>DAVID LEE NICKLIN</td>
<td>M.A., University of Omaha, 1965; Instructor</td>
<td>English</td>
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<tr>
<td>JOHN R. NYE</td>
<td>M.S., Iowa State University, 1964; Assistant Professor</td>
<td>Sociology</td>
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<tr>
<td>KEITH OBERLANDER</td>
<td>M.A., Northwestern University, 1965; Instructor</td>
<td>Mathematics</td>
</tr>
<tr>
<td>B. GALE OLESON</td>
<td>Ph.D., University of Wyoming, 1953; Professor, Director, Counseling and Guidance</td>
<td>Counseling and Guidance</td>
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<tr>
<td>ROBERT C. O'REILLY</td>
<td>Ed.D., University of Kansas, 1962; Professor; Assistant Dean, Graduate College</td>
<td>Educational Administration</td>
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<tr>
<td>RICHARD A. OVERFIELD</td>
<td>M.S., Kansas State Teachers College, 1960; Assistant Professor</td>
<td>History</td>
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<td>RUSSELL W. PALMER</td>
<td>Ph.D., University of Iowa, 1966; Assistant Professor</td>
<td>Philosophy and Religion</td>
</tr>
<tr>
<td>DOROTHY PATACH</td>
<td>M.S., University of Omaha, 1961; Assistant Professor; Director, Nursing Education</td>
<td>Nursing Education</td>
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<tr>
<td>D. T. PEDRINI</td>
<td>Ph.D., University of Texas, 1958; Professor</td>
<td>Psychology</td>
</tr>
<tr>
<td>WILLIAM L. PENDGRAFT</td>
<td>M.S., University of Omaha, 1967; Instructor</td>
<td>Biology</td>
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<tr>
<td>KERMIT C. PETERS</td>
<td>M.M., Eastman School of Music, 1958; Associate Professor</td>
<td>Music</td>
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<tr>
<td>JAMES B. PETERSON</td>
<td>Ph.D., State University of Iowa, 1953; Professor and Head of Department</td>
<td>Music</td>
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<tr>
<td>WILLIAM PETROWSKI</td>
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<td>History</td>
</tr>
<tr>
<td>DONALD J. PFLASTERER</td>
<td>M.Ed., University of Nebraska, 1952; Associate Professor; Dean of Student Personnel</td>
<td>Counseling and Guidance</td>
</tr>
<tr>
<td>EUGENE R. PIBAL</td>
<td>M.B.A., University of Denver, 1965; Instructor</td>
<td>Accounting</td>
</tr>
<tr>
<td>ROSS A. PILKINGTON</td>
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<td>Counseling and Guidance</td>
</tr>
<tr>
<td>MARION PLAYFOOT</td>
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<td>Library Science</td>
</tr>
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</tr>
<tr>
<td>CHERYL H. PREWETT</td>
<td>M.S., Oklahoma State University, 1939; Professor and Head of Department</td>
<td>Industrial, General Engineering</td>
</tr>
<tr>
<td>RONALD L. PULLEN</td>
<td>M.S., University of Omaha, 1955; Associate Professor; Director, Audio Visual Department</td>
<td>Educational Foundations</td>
</tr>
</tbody>
</table>
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Ph.D., The Victoria University of Manchester, England, 1935;
Professor and Head of Department

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Public Affairs Institute; Dean, College of Continuing Studies

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M.S., Washington University, 1936; Professor

O. WILLIAM VONSEGGERN ............................ Business Administration
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THOMAS P. WALSH .................................... English
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JOHN WANZENRIED ................................... Speech
M.A., Bowling Green University, 1966; Instructor

RALPH M. WARDLE ..................................... English
Ph.D., Harvard University, 1940; The Albert W. Jefferis Professor,
and Head of Department

DONALD C. WATCHORN ................................ Physical Education for Men
M.S., University of Omaha, 1961; Assistant Professor and Head of Department
<table>
<thead>
<tr>
<th>Name</th>
<th>Degree(s) and Affiliations</th>
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<tr>
<td>FLOYD WATERMAN</td>
<td>Educational Foundations. Ed.D., Columbia University, 1965; Professor; Director, Teacher Corps</td>
</tr>
<tr>
<td>ROBERT WELK</td>
<td>Speech. M.A., Kent State University, 1962; Assistant Professor</td>
</tr>
<tr>
<td>JANET WEST</td>
<td>Economics. M.A., Michigan State University, 1964; Instructor</td>
</tr>
<tr>
<td>WAYNE WHEELER</td>
<td>Sociology, Urban Studies. Ph.D., University of Missouri, 1959; Professor; Coordinator, Urban Studies</td>
</tr>
<tr>
<td>RICHARD L. WICKOFF</td>
<td>Psychology. Ph.D., Oklahoma University, 1965; Assistant Professor</td>
</tr>
<tr>
<td>PAULINE WILCOX</td>
<td>Elementary Education. M.S., University of Omaha, 1966; Assistant Professor</td>
</tr>
<tr>
<td>J. D. WILLARD</td>
<td>Philosophy and Religion. M.S., University of Wisconsin, 1964; Assistant Professor</td>
</tr>
<tr>
<td>WARREN WITTEKIND</td>
<td>Journalism. B.S., University of Omaha, 1949; Instructor; Executive Secretary Alumni Association</td>
</tr>
<tr>
<td>JAMES M. WOOD</td>
<td>Special Education. Ph.D., University of Utah, 1966; Associate Professor</td>
</tr>
<tr>
<td>VIRGIL V. YELKIN</td>
<td>Physical Education for Men. M.S., University of Omaha, 1957; Associate Professor; Director of Athletics; Baseball Coach</td>
</tr>
<tr>
<td>LUCILLE ZELINSKY</td>
<td>Sociology. M.S.W., Wayne University, Detroit, 1947; Instructor</td>
</tr>
<tr>
<td>RAYMOND A. ZIEBARTH</td>
<td>Secondary Education. Ph.D., University of Minnesota, 1963; Professor; Head of Department of Secondary Education</td>
</tr>
<tr>
<td>JOHN M. ZIPAY</td>
<td>Geography. M.A., Southern Illinois University, 1966; Instructor</td>
</tr>
</tbody>
</table>

**EMERITUS FACULTY**

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<tr>
<th>Name</th>
<th>Department</th>
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<tbody>
<tr>
<td>MARTIN BUSH</td>
<td>Music. F.A.G.O., Professor and head of Department, 1933-1953</td>
</tr>
<tr>
<td>RODERIC B. CRANE</td>
<td>Economics. M.B.A., University of Chicago, 1941; Professor and Head of Department, 1936-1964; The Frederick W. Kayser Professor of Economics, 1961-1967</td>
</tr>
<tr>
<td>HURFORD H. DAVISON</td>
<td>Retailing. M.B.A., Harvard Graduate School of Business Administration, 1924; Professor and Head of Department, 1948-1963</td>
</tr>
<tr>
<td>RUSSEL C. DERBYSHIRE</td>
<td>Zoology. Ph.D., Iowa State College, 1938; Assistant Professor, 1931-1961</td>
</tr>
<tr>
<td>NELL WARD DOAN</td>
<td>Chemistry. Ph.D., University of Iowa, 1939; Professor and Head of Department, 1918-1955</td>
</tr>
<tr>
<td>JAMES M. EARL</td>
<td>Mathematics. Ph.D., University of Minnesota, 1928; Professor and Head of Department, 1931-1962</td>
</tr>
<tr>
<td>CHRISTOPHER S. ESPINOSA</td>
<td>Foreign Languages. Ph.D., University of Rome, Italy, 1924; Professor and Head of Department, 1932-1964</td>
</tr>
</tbody>
</table>

*Leave of Absence*
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Ph.D., University of Minnesota, 1931; Professor and Head of Department, 1931-1957

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Ph.D., University of Missouri, 1931; L.H.D., University of Omaha, 1967; Professor;
Dean of College of Education; Liaison Director, Child Study Service in cooperation
with Omaha Public Schools, 1948-1967

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Ph.D., State University of Iowa, 1936; LL.D., University of Omaha, 1966; Professor;
Dean of College of Engineering and Technology, 1929-1966

FRANCES HOLLIDAY ................................................ Education
Ed.D., George Washington University, 1949; Professor and Head of Department,
1949-1958

GERTRUDE KINCAIDE ............................................ Foreign Languages
M.A., University of Nebraska, 1929; Associate Professor and Head of Departments
of Foreign Languages and Literature, 1943-1951

BERTHA KOCH ....................................................... Art
Ph.D., Ohio State University, 1929; Professor and Head of Department, 1931-1958

JAY B. MacGREGOR .............................................. Education
Ph.D., University of Iowa, 1931; Professor; Dean of Student Personnel, 1952-1960

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M.A., University of Illinois, 1928; Associate Professor, 1929-1960

ROY W. NOLTE ...................................................... Education
M.A., University of Missouri, 1935; Associate Professor; Supervisor, C.A.E.
Military Education Program, 1952-1962

HEDVIG NYHOLM ................................................... English
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Ph.D., University of Wisconsin, 1930; LL.D., University of Omaha, 1963; Professor
and Head of Department of Humanities, 1931-1963; Regents' Distinguished
Professor, 1962-1963

HARRY RICE ......................................................... Mathematics
M.S., University of Iowa, 1928; D.Sc., University of Omaha, 1968;
Associate Professor, 1942-1967

BENJAMIN SCHWARTZ ............................................. Religion
S.T.B., Boston University School of Theology, 1922; Part-time Instructor, 1955-1966

BENJAMIN STERN ................................................ Mathematics
M.S., California Inst. of Tech., 1935; Instructor, 1956-1965

T. E. SULLENGER ................................................ Socioclogy
Ph.D., University of Missouri, 1930; Professor and Head of Department, 1923-1958

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Ph.D., University of Minnesota, 1932; Associate Professor, 1944-1955

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M.E., Carnegie Institute of Technology, 1927; Professor and Head of Department,
1953-1962
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THOMAS E. MOORE, B.S. ................................................... Assistant Dean
WILLIAM G. KAESER, B.S. ........................................ Director, On-Campus Military Education
JAMES R. ERIXON, B.A. ................................................ Director, Conferences and Workshops
WILLIS P. ROKES, J.D., Ph.D., C.L.U., C.P.C.U. ....................... Director Insurance Education Program
C. GLENN LEWIS, M.B.A., J.D. ........................................... Director
Real Estate Certification Program
ROBERT P. BORGMAN, Ph.D. ........................................ Director, Medical Technology Program
GAYLON L. KUCHEL, M.A. ........................................... Chairman
Department of Law Enforcement and Corrections
PAUL D. BORGE, M.A. ................................................... Director of Radio and T.V.;
Manager, Channel 26-ETV
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Off-Campus Military Programs

AIR FORCE ROTC DETACHMENT 470
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M.S., George Washington University, 1964; Professor
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B.S., Colorado State University, 1953; Assistant Professor
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CAPTAIN SAMUEL L. HALL ........................................ Aerospace Studies
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SSGT. THOMAS H. CALLAHAN ........................................ Aerospace Studies
Cadet Records Clerk
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COLLEGE OF ARTS AND SCIENCES

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Buford Byars ........................................................................ Director, Office of Information
Elton S. Carter, Ph.D. .............................................................. Dean, The Graduate College
Ralph H. Bradley, B.S. .......................................................... Director, Office of Information
Ralph H. Bradley, B.S. .......................................................... Director, Office of Information
Prefect Emeritus

Director, Radio-TV Dept.

Director, Office of Information

Coordinator, Data Processing

Dean, The Graduate College
Chairman, Graduate Faculty

University Nurse

University Social Director

Director, Conferences and Workshops

Director, Student Aid

Assistant Dean of Student Personnel

Manager, Food Services

Assistant to the Dean, College of Arts and Sciences

Dean, The College of Arts and Sciences

Director, Placement

Accountant

Associate Dean of Student Personnel

Director of Business and Finance

Dean, The College of Education

Director, Technical Institute

Manager, University Bookstore

Assistant Director of Business and Finance

Assistant Registrar

Superintendent, Physical Plant

Librarian

Dean, The College of Business Administration

Dean, The College of Engineering and Technology

Raymond B. Means, M.A. ........................................... Associate Librarian

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John E. Pearson, A.B.A. .................................................. Manager, Stenographic Bureau

Donald J. Pflasterer, M.Ed. ........................................... Dean of Student Personnel
Ronald L. Pullen, M.S. ........................................ Director, Audio-Visual Department
George R. Bachford, Ed.D. ................................ Vice President-Campus Development
Fred D. Ray, B.S. ........................................... Director, Student Center Operations, and Activities Program

Robert J. Robinson, M.S. ........................................ Director, Computer Center
Donald V. Roddy, M.S. ........................................ Assistant Director, Student Aid
James A. Scriven, Ed.D. ........................................ Director, Admissions
Virgil Sharpe, B.A. ........................................... Registrar
Edward J. Smith, M.D. ........................................ University Physician
Hazel C. Spangler ............................................. Secretary to the President
George Thompson, B.A. .................................... Assistant Dean, College of Continuing Studies
Velma Titzell ...................................................... Cashier
William T. Utley, M.A. ....................................... Dean, The College of Continuing Studies
Harvey Vogler .................................................. Business Manager, Athletics
Wayne Wheeler, Ph.D. ......................................... Coordinator, Urban Studies
Warren Wittekind, B.S. ...................................... Executive Secretary, Alumni Association
Virgil Yelkin, M.S. ........................................... Director, Athletics
THE COLLEGE OF ARTS AND SCIENCES

ROBERT D. HARPER, Dean

The College of Arts and Sciences offers work toward the degrees of Bachelor of Arts and Bachelor of Science, Bachelor of Fine Arts, and Bachelor of Music as well as pre-professional programs for students planning to enter such fields as medicine, law and theology. The College is organized into 17 departments, grouped under the three large divisions of the Humanities, the Social Sciences, and the Natural Sciences.

The Lower Division of the College, comprising the first two years of work, offers a program of general education with emphasis on breadth rather than depth. Subjects required or recommended for freshmen and sophomores include English, foreign languages, oral communication, mathematics, and basic courses in each of the three subject divisions. A somewhat less flexible program is prescribed for some pre-professional students.

The last two years of the liberal arts program, while essentially a continuation of the Lower Division work, provide for specialization in one or two subject areas. At present, academic majors are available in the following fields: art, biology, chemistry, economics, English, foreign languages and literatures, geography, history, journalism, mathematics, music, philosophy, physics, political science, psychology, science, sociology, speech, and urban studies.

The pre-professional programs of study are determined largely by the requirements of the graduate or professional schools which students intend to enter. If arranged carefully, they provide a sufficient variety of courses so that their objectives are virtually the same as those of the four-year course leading to the degree of Bachelor of Arts.

REQUIREMENTS FOR THE BACHELOR OF ARTS DEGREE

1. **Total hours.** Each candidate must present a total of at least 125 semester hours of college credit.

2. **Quality of work.** Each candidate for the degree must attain an average grade of at least “C” in all college work, including work transferred from other institutions. In his major field the candidate must attain at least a “C” grade in as many credit hours of work as the minimum number required for the major in the department concerned. All grades reported by the faculty to the Registrar become a part of the student's permanent record and are included in the computation of his grade point average, even though some of these grades may be for work done in excess of the 125 hours required for graduation.

3. **Residence.** Thirty of the last 36 hours required for the degree must be registered for and carried at the University of Nebraska at Omaha.

4. **English.** The requirement in English is six semester hours of credit in courses to be determined by the Department of English.

5. **Foreign Language.** The candidate must present two years of college work in one foreign language or the equivalent thereof as deter-
An acceptable equivalent may consist of:
(a) One or one and one-half years of foreign language in high school, plus three semesters of college work in the same language. (12 Hours)
(b) Two or two and one-half years of foreign language in high school, plus two semesters of college work in the same language. (8 Hours)
(c) Three or three and one-half years of foreign language in high school, plus one semester of college work in the same language. (4 Hours)
(d) Four years of work in the same foreign language in high school. All students who wish to continue in college a language begun in high school must take the placement tests before registration in a language section.

A student fulfilling the foreign language requirement through a combination of high school and college work must complete the language chosen through the fourth semester college course.

6. The Divisions. In general, the requirements in each of the three divisions—Humanities, Natural Sciences, and Social Sciences—is a minimum of 12 credit hours. The specific requirements for each division are as follows:

**Humanities:** (Art, English, foreign languages, journalism, music, philosophy, religion, and speech). The student must present a minimum of 12 hours, with no more than eight from any one subject field. It is specifically noted that the following courses may not be used to satisfy any part of the requirement in humanities: English 105, 109, 111, 112, 205, 217, 219 and 240; Speech 221, 223, 225, 231, 324, 331, 333, 351, 401-402, 434 and 435; courses in foreign languages bearing numbers below 300, and foreign language 313 and 335. It will also be noted that in the departments of Art and Journalism only the following courses may be used: Art 201, 202, 204, 305, 306, 407, and 409; Journalism 115, 116, 201, 211, 227, 340, 341, 343, and 490-491.

Each semester of the five hour survey courses in Humanities may be substituted for six hours of departmental courses.

**Natural Sciences:** (Biology, chemistry, physical geography, geology, and physics). The student must present a minimum of 12 semester hours to include at least one laboratory course from each of two of the following groups:
A. Chemistry, physics
B. Geology, physical geography
C. Biology, botany, zoology

**Social Sciences:** (Economics, geography [except physical geography and geology], history, political science, psychology, and sociology). The student must present a minimum of 12 hours, with no more than 8 from any one subject field.
7. **Oral Communication.** The student must present one course in oral communication of at least 3 credit hours which may be applied toward the humanities requirement.

8. **Mathematics.** A student must present three semester hours in an approved course in logic, mathematics, or computer science. The student may be exempted from this requirement by achieving a suitable examination score as determined by the Department of Mathematics.

9. **Major Field.** Each candidate must present a major including at least 18 credit hours of upper division work designated as appropriate by the faculty in one of the following fields: art, biology, chemistry, economics, English, French, geography, German, history, journalism, mathematics, music, philosophy, physics, political science, psychology, science, sociology, Spanish, speech, urban studies. A candidate meeting the requirements in each of two fields may present a double major in these fields.

10. **Maximum hour limits.** No candidate may count toward the Bachelor of Arts Degree a total of more than 44 credits in any one department of the College, including the department in which he presents his major.

11. **Other limitations on credit granted: nine-hour rule.** In general an Arts and Sciences student may apply toward his degree a total of nine semester hours or less in approved courses offered outside the College of Arts and Sciences (or its equivalent in another institution). The only exceptions to this limitation are the following:

   - All credits in the Department of Air Science.
   - The first four credits in activity courses in physical education.
   - The courses in the College of Education required for the Nebraska Secondary School Certificate.
   - Courses necessary for a second major or teaching field, provided the student also completes a major in the College of Arts and Sciences.

   Such courses as a department head may wish to recommend for inclusion in an Arts and Sciences major field (e.g. Photography for an Art major or Accounting for an Economics major).

12. **Credits not acceptable.** Credit in the following courses may not be applied toward the degrees offered by the College of Arts and Sciences: Chemistry 100, English 109, Mathematics 100, 111, 112, plus courses in other colleges of the University not approved by the Arts and Sciences faculty.

13. **Special provisions for professional students.** Students who have completed 96 semester hours of work at the University of Nebraska at Omaha shall be eligible for the degree of Bachelor of Arts after the satisfactory completion of a year's work in an approved professional college, provided that such students must have completed 12 hours of the upper division hours required in their major field and that the minimum requirements for graduation, except for the total number of hours, have been met. No more than one-sixth of the last 72 or more of the required 96 hours may be transferred from another institution.
REQUIREMENTS FOR THE BACHELOR OF FINE ARTS DEGREE

Candidates for the degrees of Bachelor of Fine Arts must meet all the requirements for the Bachelor of Arts degree, with the following exceptions:

1. **Total hours.** Each candidate must present a total of at least 130 semester hours of credit, rather than 125 hours.

2. **Foreign Language.** The candidate must present one year of college work in a foreign language (or an equivalent approved by the Department of Foreign Languages and Literatures), instead of the two years required for the Bachelor of Arts degree.

3. **Natural Science.** The candidate may present Physics 101 and Biology 102 in lieu of the 12 hours required in the natural sciences or either of these courses in lieu of six hours.

4. The student need not present work in oral communication or in mathematics, logic, or computer science.

5. **Maximum hour limits.** A candidate for the Bachelor of Fine Arts degree may present up to a maximum of 68 hours in his major field (art or music).

BACHELOR OF ARTS WITH THE SECONDARY TEACHING CERTIFICATE

Students who plan to teach can meet the requirements for the degree of Bachelor of Arts as well as the requirements for the Secondary Teaching Certificate. Students in the College of Arts and Sciences who are considering the possibility of teaching careers should consult the Dean of the College of Education about the subjects required for the teaching certificate.

PRE-LEGAL CURRICULUM

**MR. TRICKETT, Advisor**

Students who are preparing to attend a law school should anticipate at least three years of college work, although most law schools require the Bachelor of Arts, or similar degree, for admission.

No program of prescribed studies is outlined for pre-legal students. Rather, and in keeping with the suggestions of the Committee on Pre-Legal Education of the Association of American Law Schools, the academic program of each student is arranged in the way which will best assure the development of those basic skills and insights needed for the study of law. Copies of the summary statement of the Association of American Law Schools may be obtained from the Pre-Legal Advisor or the freshman counselors.

Under requirement 13 for the degree of Bachelor of Arts, students admitted to law school after three years of pre-legal work may complete the requirements for the B.A. degree after the first year in law school.

PRE-MEDICAL CURRICULUM

**MR. MARQUARDT, Advisor**

Pre-medical students must secure a minimum of 90 semester hours of college credit before making application to enter most medical colleges.
Medical colleges ordinarily give preference to students who have received a baccalaureate degree. The pre-medical program must include 12 hours of English (of which one year must be composition), 16 hours in chemistry (must include two semesters of general or inorganic chemistry and a two-semester complete course in organic chemistry), 12 hours in biology, eight hours in a complete physics course which is commensurate with the student's mathematical background, and nine hours of mathematics, which should include calculus. The remainder of the 90 credit hours should be selected to meet the special interests of the student and the basic requirements for the Bachelor of Arts degree. Unless biology is chosen as a major, courses which will be encountered in the medical colleges should not be included.

Under requirement 13 for the degree of Bachelor of Arts, students who take three years of pre-medical work may complete the requirements for the B.A. degree after the first year in medical school. Such students must complete the two-year foreign language requirement, but they may offer six credit hours in philosophy and/or English literature instead of 12 credit hours in the Humanities. They may also present six credit hours in the Social Sciences instead of 12 credit hours.

For the convenience of the student, a general pre-medical program is listed below. The basic science requirements are included, but the large number of electives will allow such flexibility that the student may choose any one of several fields as a major.

**SUGGESTED PRE-MEDICAL PROGRAM**

### FIRST YEAR

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>Math. 195 (Calculus I)</td>
<td>Math. 196 (Calculus II)</td>
</tr>
<tr>
<td>Chem. 110 (General)</td>
<td>Chem. 120 (General)</td>
</tr>
<tr>
<td>English Composition</td>
<td>English Composition</td>
</tr>
<tr>
<td>Electives</td>
<td>Electives</td>
</tr>
<tr>
<td>3-5</td>
<td>3-5</td>
</tr>
<tr>
<td><strong>15-17</strong></td>
<td><strong>15-16</strong></td>
</tr>
</tbody>
</table>

### SECOND YEAR

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biol. 175 (Zoology)</td>
<td>Biol. 145 (Botany)</td>
</tr>
<tr>
<td>Chem. 213 (Organic)</td>
<td>Chem. 214 (Organic)</td>
</tr>
<tr>
<td>English</td>
<td>English</td>
</tr>
<tr>
<td>Electives</td>
<td>Electives</td>
</tr>
<tr>
<td>3-5</td>
<td>3-5</td>
</tr>
<tr>
<td><strong>15-17</strong></td>
<td><strong>15-17</strong></td>
</tr>
</tbody>
</table>

### THIRD YEAR

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physics 211 (General)</td>
<td>Physics 212 (General)</td>
</tr>
<tr>
<td><strong>Chem. 230 (Analytical)</strong></td>
<td>Biology</td>
</tr>
<tr>
<td>Electives</td>
<td>Electives</td>
</tr>
<tr>
<td>6-8</td>
<td>7-8</td>
</tr>
<tr>
<td><strong>15-17</strong></td>
<td><strong>15-17</strong></td>
</tr>
</tbody>
</table>

**FOURTH YEAR**

Completion of academic major and other requirements for Bachelor of Arts degree.

* Students with insufficient background in high school mathematics must precede calculus with college algebra and/or trigonometry (Math. 111, 112).
** Required by many medical colleges.
ADVANCED PLACEMENT

Upon recommendation of the appropriate Department Chairman the Curriculum Committee of the College of Arts and Sciences may grant exemptions from the 125-hour requirement for graduation to a maximum of 24 hours. Such recommendation will normally be based on a student's performance in the Advanced Placement Examination of the College Entrance Examination Board, but may also be based on other evidence of advanced work presented by the student. Department Chairmen may, at their discretion, accept students for advanced placement without credit or exemption from credit.

DEPARTMENTS OF INSTRUCTION

Key to symbols:
I—offered in the first semester of each year
II—offered in the second semester of each year
S—offered in the summer session

DIVISIONAL COURSE IN THE HUMANITIES

101-102 Introduction to the Humanities (I, II) 5 hours each
A functional survey of literature, philosophy, and the arts. During the first semester this survey reveals the ideals which gave meaning to life in the past; during the second semester it emphasizes the variety of ideals which motivate life today.

ART

PROFESSOR BLACKWELL (Head);
ASSOCIATE PROFESSOR HILL;
ASSISTANT PROFESSOR MAJESKI;
INSTRUCTORS BUCHANAN, DUFFIELD, GARTE, JORGENSEN;
ASSISTANT INSTRUCTOR WOLD

A major will lead to either the Bachelor of Arts or the Bachelor of Fine Arts degree.

BACHELOR OF ARTS

All majors are required to take a minimum of 39 credit hours; 12-15 credit hours shall be in the area of history and theory of art, and 24-27 credit hours in the area of studio work depending upon the area of concentration. Art 205, 206, 495, 110, 111, 121, 122, 231, 241, 251, and 261 are required.

Students who plan to teach art in the secondary schools are required to have a major in art education, and teaching certification. A total of 125 hours includes 39 in art and 29 hours in education. Electives should comprise such courses needed to fulfill a second teaching field. Art 205, 206, 495, 110, 111, 121, 122, 231, 241, 251, 261, 336 and either 330 or 430 are required. Students taking their degree in the College of Education with art as a teaching field have the same art requirements.
BACHELOR OF FINE ARTS

This degree requires a total of 130 hours with 66 credit hours in art. Eighteen credit hours shall be in the history and theory of art, 45 credit hours in studio work, and three credit hours in thesis. Art 205, 206, 409, 110, 111, 121, 122, 231, 241, 251, 261, and 491 are required.

Majors interested in the special field of art education must also include in their courses Art 336 and either 330 or 430 as part of the Bachelor of Fine Arts requirements.

HISTORY AND THEORY OF ART

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>201</td>
<td>Introduction to Art</td>
<td>3</td>
<td>Non-Art Major</td>
</tr>
<tr>
<td>205</td>
<td>Survey of Art History</td>
<td>3</td>
<td>None</td>
</tr>
<tr>
<td>206</td>
<td>Survey of Art History</td>
<td>3</td>
<td>205</td>
</tr>
<tr>
<td>325</td>
<td>Oriental Art History</td>
<td>3</td>
<td>None</td>
</tr>
<tr>
<td>335</td>
<td>Ancient Art History</td>
<td>3</td>
<td>206 or Permission</td>
</tr>
<tr>
<td>445</td>
<td>Medieval Art History</td>
<td>3</td>
<td>206 or Permission</td>
</tr>
<tr>
<td>455</td>
<td>Renaissance Art History</td>
<td>3</td>
<td>206 or Permission</td>
</tr>
<tr>
<td>465</td>
<td>Baroque and Rococo Art History</td>
<td>3</td>
<td>206 or Permission</td>
</tr>
<tr>
<td>475</td>
<td>Modern Art History</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>
495 **Senior Seminar** (II) 3 hours
Individualized problems and discussion related to the history and theory of art. Prereq: Permission.

**ART EDUCATION**

330 **Art for the Elementary Teacher** (I, II) 3 hours
An introduction to the theory and methods of teaching art in the elementary school. Prereq: Junior Standing.

336 **Arts and Crafts** (I, II, S) 3 hours
Experimentation with various art media used in the elementary and secondary schools. Prereq: Junior Standing.

430 **Art for the Secondary Teacher** (I, II, S) 3 hours
Theory and methods of teaching art in the secondary school. Prereq: Junior Standing.

436 **Functional Relationship in Crafts** (I, II) 3 hours
Advanced class in arts and crafts with emphasis on secondary level presentation. Prereq: Junior Standing.

**STUDIO ART**

110 **Drawing** (I, II) 3 hours
Art fundamentals, emphasis on line, value, shape, texture, and the components of art. Prereq: None.

111 **Drawing** (I, II, S) 3 hours
Art fundamentals, emphasis on color and space in drawing.
Prereq: 110

121 **Design** (I, II, S) 3 hours
Art fundamentals, emphasis on the design elements of line, value, shape, and texture. Prereq: None.

122 **Design** (I, II, S) 3 hours
Art fundamentals, emphasis on design elements, of color and space. Prereq: 121

181 **Watercolor Painting**
Covers watercolor techniques, beginning and advanced.

210 **Lifedrawing** (I, II, S) 3 hours
An introduction to drawing of the human form. The goal is to introduce the various materials used in drawing and relate them to the problems of drawing the figure. Prereq: 111 and 122.

211 **Lifedrawing** (I, II, S) 3 hours
Instruction in life drawing to help the student to become aware of unfamiliar forms in the figure. Creative work in materials and ideas. Prereq: 210
231 **Elementary Sculpture** (I, II) 3 hours

241 **Elementary Painting** (I, II, S) 3 hours
Practical instruction in oil painting and related medias. The course gives the student the time and environment to work and develop individually. A strong emphasis is placed on a complete knowledge of contemporary art. Prereq: 122 or Permission.

251 **Elementary Printmaking** (I, II, S) 3 hours
Fundamentals of relief and intaglio techniques. Prereq: 122 or Permission.

261 **Elementary Ceramics** (I, II) 3 hours
Basic methods of forming and decorating pottery, introduction to glaze composition, kiln loading, and firing. Prereq: 122 or Permission.

271 **Lettering** (I, II) 3 hours
Speedball, brush, and mechanical, working with many different kinds of materials to create letter forms. Prereq: 122 or Permission.

272 **Layout** (I, II) 3 hours
Working with design and lettering for commercial advertising. Prereq: 122 or Permission.

281 **Jewelry** (I, II) 3 hours
An introduction to basic jewelry making techniques in copper, enameling, brass, wood, and sterling silver with emphasis on creative design.

331 **Intermediate Sculpture** (I, II) 3 hours
Exploration and continuation of sculpture 231 with additional work in mold making, drip lead casting, and oxyacetylene welding. Prereq: 231.

341 **Intermediate Painting** (I, II, S) 3 hours
Practical instruction in oil painting and related medias. The course gives the student the time and environment to work and develop individually. A strong emphasis is placed on a complete knowledge of contemporary art. Prereq: 241.

351 **Intermediate Printmaking** (I, II, S) 3 hours

361 **Intermediate Ceramics** (I, II) 3 hours
Basic methods of forming pottery on the potter's wheel. Continuation of glaze composition, further development in design and decoration of pottery. Prereq: 261.
Illustration I
   (I) 3 hours
   Work in Black and White with techniques covering Commercial Illustration. Prereq: 272.

Advanced Sculpture
   (I, II) 3 hours
   Advanced work in area of student’s choice, with facilities for oxyacetylene, arc welding, and general metal working. Prereq: 331.

Advanced Painting
   (I, II, S) 3 hours
   Practical instruction in oil painting and related medias. The course gives the student the time and environment to work and develop individually. A strong emphasis is placed on a complete knowledge of contemporary art. Prereq: 341.

Advanced Printmaking
   (I, II, S) 3 hours
   Intaglio process stressing technical proficiency in the various media. Prereq: 351.

Advanced Ceramics
   (I, II) 3 hours
   Advanced work on the potter’s wheel, glaze composition, loading and firing of a high-fire kiln. Prereq: 361.

Illustration II
   (II) 3 hours
   Work in Black and White with techniques covering Commercial Illustration. Prereq: 272.

Technical Problems
   (I, II, S) Each 3 hours
   Advanced and individual problems related to the student’s area of studio concentration. Prereq: Permission.

Thesis
   (I, II) 3 hours
   Individually designed projects in the student’s area of studio or Art History concentration. Prereq: Permission.

BIOLOGY

PROFESSORS BUSCH (Head), BROOKS;
ASSOCIATE PROFESSORS BORGMAN, RASMUSSEN;
ASSISTANT PROFESSORS INGHAM, LUNT, SHARPE,
SUTHERLAND; INSTRUCTOR PENDGRAFT

A departmental or education major in biology requires credit in:
Biology 145, 175, a morphological science (Biology 275, 285, 344, 354, 363, 374, or 384); Biology 414; Biology 444 or 474; Biology 213, 423 and one or more electives from 244, 253, 323, 334, 402, 454, 484, 494; Chemistry 110-120, 213-214; Physics 111-112 (or 211-212); Mathematics 101 and 102 or Calculus I.

A teaching field consists of Biology 145, 175, 213, 275 and any other course counting toward a biology major, particularly 334 and/or 253; Chemistry 110-120.
GENERAL SCIENCE

A major in general science consists of Chemistry 110-120, Physics 111-112 (or 211-212), Mathematics 101-102 or Calculus I; Biology 145, 175, or an approved alternate, plus 15 credit hours in advanced courses which count toward a major in biology, chemistry, or physics.

A teaching field consists of Chemistry 110-120, Physics 111-112 (or 211-212), Biology 145, 175.

*102 Principles of Biology (I, II, S) 5 hours
An intellectual, esthetic, and scientific approach to the complexities of living things and their interrelationships in nature. Prereq: None.

145 General Botany (I, II, S) 5 hours
A comprehensive treatment of classical botany combined with recent developments. Prereq: High school biology.

175 General Zoology (I, II, S) 5 hours
A study of the animal kingdom from the standpoint of morphology, anatomy, physiology, biochemistry, genetics, embryology, evolution, and ecology. Prereq: High school biology.

213 Genetics (I, II) 3 hours
Facts and theories of heredity and practice in their interpretation. Prereq: Biology 102 or Biology 145 or 175.

244 The Biology of Microorganisms (II) 4 hours
A comparative study of microorganisms, principles and applications. Prereq: Biology 102 or 145 or 175 or equivalent.

253 Flora of Eastern Nebraska (I, II, S) 3 hours
The classification, identification, and recognition of common vascular plants, including weeds, ornamentals, and indigenous plants, found in the Omaha area. Prereq: Biology 102, Biology 145.

275 Physiology and Anatomy of Man (I, II, S) 5 hours
A study of the structure and associated functions of the human body. Prereq: Biology 175 or Biology 102, and Permission for PE and Home Economics majors.

285 Comparative Anatomy of Vertebrates (I, II) 5 hours
The skeletal, muscular, digestive, respiratory, circulatory, endocrine, urogenital, and nervous systems. Prereq: Biology 175.

323 Microtechnique (I) 3 hours
A course in the techniques of collection, fixation, dehydration, staining, clearing and mounting of biological material in the process of the manufacture of microscope slides. Prereq: Two years of biological sciences.

334 Ecology (I, S) 4 hours
The study of the behavior of whole organisms and groups of

* Credit cannot be applied toward a major or minor in biology. Not open to students with "C" or better in advanced high school biology.
organisms in relation to their total living and non-living environment. Prereq: Biology 145, 175; Junior-Senior.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>344</td>
<td>Morphology of Lower Plants</td>
<td>(I) 4</td>
<td>A lecture and laboratory course which covers the ecology, morphology, and evolutionary trends of algae, fungi, and bryophytes. Prereq: Biology 145; Junior-Senior.</td>
</tr>
<tr>
<td>354</td>
<td>Morphology of Higher Plants</td>
<td>(II) 4</td>
<td>A lecture and laboratory course covering the living and fossil vascular plants with emphasis on morphology, ecology, and evolutionary trends. Prereq: Biology 145; Junior-Senior.</td>
</tr>
<tr>
<td>363</td>
<td>Plant Anatomy</td>
<td>(I) 3</td>
<td>A study of cells, tissues, and organs of vascular plants with particular emphasis on internal structure of seed plants. Prereq: Biology 145; Junior-Senior.</td>
</tr>
<tr>
<td>374</td>
<td>Histology</td>
<td>(I) 4</td>
<td>The microscopic anatomy of tissues and organs, their adaptations, and functional significance. Prereq: Biology 175, a course in anatomy; Junior-Senior.</td>
</tr>
<tr>
<td>384</td>
<td>Embryology</td>
<td>(II) 4</td>
<td>An intensive study of the embryology and development of the vertebrate animal, particularly the human, from gametogenesis to organogenesis as revealed by a study of selected vertebrate embryos and fetuses. Prereq: Biology 175 and a course in anatomy; Junior-Senior.</td>
</tr>
<tr>
<td>402</td>
<td>Problems and Projects in Biology</td>
<td>(I, II, S) 2</td>
<td>Individual field and laboratory work of an investigational nature involving research, library research, conferences, and a written report. Prereq: At least two years of work in biology; permission of biology advisor; Junior-Senior.</td>
</tr>
<tr>
<td>414</td>
<td>Cellular Biology</td>
<td>(I) 4</td>
<td>This course is a comprehensive study of the structure and function of plant and animal cells. Prereq: Courses in mammalian anatomy or plant morphology or plant anatomy; organic chemistry; physics; Junior-Senior.</td>
</tr>
<tr>
<td>423</td>
<td>Organic Evolution</td>
<td>(II) 3</td>
<td>A study of organic evolution in terms of evidences which support the theory and the mechanisms involved in the process. Prereq: Biology 213, Junior-Senior.</td>
</tr>
<tr>
<td>444</td>
<td>Plant Physiology</td>
<td>(II) 4</td>
<td>A study of plant processes and functions with particular emphasis on photosynthesis, respiration, mineral nutrition, and morphogenesis. Prereq: One year each of botany, organic chemistry, math, and physics; Junior-Senior.</td>
</tr>
</tbody>
</table>
454 **Taxonomy of Vascular Plants**
(II) 4 hours
The identification, nomenclature and classification of vascular plants with emphasis on gymnosperms and angiosperms. Prereq: Biology 145; Junior-Senior.

464 **General Bacteriology**
(I) 4 hours
The nature of microorganisms, their life processes, their biological and economical significance. Prereq: Biology 145, Chemistry 214; Junior-Senior.

474 **Animal Physiology**
(II) 4 hours
This course is a comprehensive study of the functions of the animal body systems. Prereq: Courses in mammalian anatomy, organic chemistry, and physics; Junior-Senior.

484 **Parasitology**
(II) 4 hours
Taxonomy, morphology, life history, dissemination, and control of the parasitic protozoans, helminths, and arthropods. Prereq: Biol. 175; Junior-Senior.

494 **Entomology**
(II) 4 hours
The study of insects, their classification, morphology, physiology, behavior, life histories, ecology, and evolution. Prereq: Biol. 175; Junior-Senior.

502 **Problems in Biology**
(I, II, S) 2 hours
Research investigation in various areas of biology. Prereq: Sufficient work in biology and the ancillary sciences necessary to pursue adequately the area of investigation involved.

501 **Seminar in Biology**
(I, II, S) 1 hour
A study of current research in any of the divisions of biology. Prereq: Graduate student in biology.

511 **Experimental Genetics**
(II) 1 hour
A laboratory course utilizing techniques of biometrics, computers, and experimentation with organisms such as *Drosophila* sp. Prereq: Biology 145, 175, 213, Genetics, equivalent or concurrent.

513 **Advanced Genetics**
(II) 3 hours
Lecture covering quantitative, human, biochemical, and cytogenetical aspects of genetics. Prereq: Biology 145, 175, 213 or equivalent, Genetics.

514 **Limnology**
(S) 4 hours
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 145, 175; one year chemistry; one year physics.

574 **Invertebrate Zoology**
(I) 4 hours
A comprehensive study of the invertebrate animals from an anatomical, physiological, embryological, and ecological standpoint. Prereq: Graduate student in biology; Biology 175.
CHEMISTRY

PROFESSORS MARQUARDT (Head), LINSTROMBERG, STAGEMAN; ASSOCIATE PROFESSOR KEPEL; ASSISTANT PROFESSOR HOBURG; INSTRUCTORS KEMNITZ, SULLIVAN; ASSISTANT INSTRUCTOR WATKINS

A major in chemistry consists of 42-44 credit hours, including Chemistry 110-120, 213-214, 230, 349-350, 361, 410, 423-424, and the remaining hours necessary selected from 313-314, 411-412, 493-494, or 495-496. Mathematics through integral calculus must be included in the supporting subjects, as well as one year of college physics (211-212) and a reading knowledge of German*, Chemistry 110a and 120a cannot be substituted for Chemistry 110 or 120 in the chemistry major, pre-medical, or pre-engineering curriculum without the approval of the department head.

**100 Elementary Chemical Principles (I, II) 3 hours
Survey of general chemical principles for students who have had no high school chemistry or have had insufficient preparation for Chemistry 110. (Lect.-3) Prereq: None.

101 College Chemistry (I) 5 hours

102 Elementary Organic Chemistry (II) 5 hours
Chemistry of carbon compounds. A one-semester terminal course. (Lect.-3, Disc.-1, Lab.-4). Prereq: Chemistry 101 or 120.

110 General Chemistry (I, II, S) 4 hours
A comprehensive survey of chemical principles primarily for students planning a professional course. (Lect.-3, Lab.-4) Prereq: High school chemistry or Chemistry 100 with a grade of C or above, and high school algebra and trigonometry.

120 General Chemistry and Qualitative Analysis (I, II, S) 4 hours
A study of rate of reactions and equilibrium, ionization equilibrium, theories of solution and precipitation in the separation and identification of cations and anions. (Lect.-3, Lab.-4) Prereq: Chemistry 110 with a grade of C or above.

202 Elementary Biochemistry (I) 4 hours
An introduction to the chemical components and reactions of living matter. (Lect.-3, Lab.-4) Prereq: Chemistry 102 or 214 and Biology 275.

213-214 Organic Chemistry (Chem. 213, I) (Chem. 214, II) Each 4 hours
The fundamental chemistry of the carbon compounds. (Lect.-3, Lab.-4) Prereq: For Chemistry 213: Chemistry 120 with a grade of C or above; For Chemistry 214: Chemistry 213 with a grade of C or above.

* Usually 2 years of College German.

**Credit not allowable toward degrees in the College of Arts and Sciences.
230 Elementary Quantitative Analysis  
Classical and standard non-instrumental methods of quantitative analysis. (Lect.-2, Lab.-8) Prereq: Chemistry 120 with a grade of C or above.

313-314 Organic Preparations  
(Chem. 313, I) (Chem. 314, II) Each 1-3 hours  
An advanced laboratory course in the synthesis of more complex organic compounds. (Lab.-4-12) Prereq: Chemistry 214.

349-350 Physical Chemistry  
(Chem 349, I) (Chem 350, II) Each 4 hours  
An introduction to thermodynamics and atomic and molecular structure and the application of these concepts to thermochemistry, equilibrium, solutions, electrochemistry, kinetics, solids, and chemical bonding. (Lect.-3, Lab.-4) Prereq: For Chem 349: Chemistry 230 and 214, Physics 212, Math 196; For Chemistry 350: Chemistry 349 with a grade of C or above.

361 Instrumental and Advanced Quantitative Analysis  
(II) 4 hours  
Instrumental, physico-chemical, and special methods applied to quantitative analysis. (Lect.-2, Lab.-8) Prereq: Chemistry 350 (may be taken concurrently).

410 Advanced Inorganic Chemistry  
(II) 3 hours  
Theories of chemical bonding, the determination of chemical structures, and the application of modern techniques to classical and recent problems in inorganic chemistry (Lect.-3) Prereq: Chemistry 350 (may be taken concurrently).

411-412 Advanced Inorganic Chemistry Preparations  
(Chem. 411, I) (Chem. 412, II) Each 1 hour  
Laboratory preparation of representative types of inorganic compounds by various standard and special experimental techniques. (Lab.-4) Prereq: Chemistry 410 (may be taken concurrently).

423 Advanced Organic Chemistry  
(I) 3 hours  
An advanced lecture course in modern theories and special topics. (Lab.-3) Prereq: Three years of college chemistry including Chemistry 214.

424 Identification of Organic Compounds  
(II) 3 hours  
A laboratory course in the systematic identification of organic compounds by classification reactions, spectral analysis, and the preparation of derivatives. (Lect.-1, Lab.-8) Prereq: Three years of college chemistry including Chemistry 214.

493-494 Biochemistry  
(Chem. 493, I) (Chem. 494, II) Each 4 hours  
Problems in Chemistry
(Chem. 495, I) (Chem. 496, II) Credit arrg.
Independent student research. Prereq: Three years of chemistry and permission of instructor.

Research in Chemistry
(I, II, S) Credit arrg.
Provides the student with an opportunity for experience in the solving of an actual research problem in the field of chemistry. Prereq: Permission of instructor.

ECONOMICS

PROFESSORS STEELE (Chairman), KAYSER PROFESSOR OF ECONOMICS, AND CHANG; ADJUNCT PROFESSOR KLEMME; ASSOCIATE PROFESSOR SNYDER; ASSISTANT PROFESSORS CONNELL AND STOLEN; INSTRUCTORS KIRBY AND WEST

A major in the Department of Economics consists of a minimum of 30 hours. The following specific courses are required:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>201-2</td>
<td>6 hours credit</td>
</tr>
<tr>
<td>320</td>
<td>3 hours credit</td>
</tr>
<tr>
<td>322</td>
<td>3 hours credit</td>
</tr>
<tr>
<td>345</td>
<td>3 hours credit</td>
</tr>
<tr>
<td>313</td>
<td>3 hours credit</td>
</tr>
<tr>
<td>400-level</td>
<td>6 hours credit</td>
</tr>
<tr>
<td>Principles of Economics</td>
<td>6 hours credit</td>
</tr>
<tr>
<td>Economic Theory—Micro</td>
<td>3 hours credit</td>
</tr>
<tr>
<td>Economic Theory—Macro</td>
<td>3 hours credit</td>
</tr>
<tr>
<td>Money and Banking</td>
<td>3 hours credit</td>
</tr>
<tr>
<td>Statistics (See Bus. Adm.)</td>
<td>3 hours credit</td>
</tr>
<tr>
<td>Economic Electives</td>
<td>6 hours credit</td>
</tr>
<tr>
<td>Economic Electives</td>
<td>6 hours credit</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
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</tbody>
</table>

Majors considering graduate work in economics would do well to secure a background in mathematics through calculus.

Students who wish to teach economics in secondary schools may follow the major program and complete requirements for the Secondary Teaching Certificate, or they may major in the College of Teacher Education, in which case they must take a program recommended by the Economics Department.

A major in urban studies consists of 36 semester hours selected from the courses listed below. At least 3 semester hours must be completed in each departmental area (economics, geography, political science, and sociology) plus 15 hours in one of the above fields. The remaining 9 hours of electives will be scheduled in consultation with the program director.

The following courses may be used to satisfy the urban studies major.

Economics: 312, 355, 456*.
Geography: 313, 353, 363, 412*, 443*.
Political Science: 216, 301*, 317*, 319, 440, 441.

* Courses marked with an asterisk are to be given priority by students majoring in urban studies.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>201</td>
<td><strong>Principles of Economics</strong></td>
<td>3 hours</td>
<td>Modern economic concepts and ideas are introduced and related to the understanding of human behavior. A study of how limited resources are used in relation to the macro-problems of national income, employment, growth, and money.</td>
</tr>
<tr>
<td>202</td>
<td><strong>Principles of Economics</strong></td>
<td>3 hours</td>
<td>A continuation of Econ 201 with emphasis upon pricing, markets for products and resources, and the international and comparative systems. Prereq: Econ 201.</td>
</tr>
<tr>
<td>311</td>
<td><strong>American Economic History to 1865</strong></td>
<td></td>
<td>(same as Hist. 311) A study of our agricultural, commercial, financial, and industrial society, from Colonial times through the Civil War. Prereq: Econ 201, 202.</td>
</tr>
<tr>
<td>312</td>
<td><strong>American Economic History Since 1865</strong></td>
<td></td>
<td>(same as Hist. 312) A continuation of Econ 311 from the Civil War to the present. Prereq: Econ 201, 202.</td>
</tr>
<tr>
<td>313</td>
<td><strong>Economic Geography</strong></td>
<td>3 hours</td>
<td>(same as Geog. 313) An intensive study of commercial production in agriculture, fishing, forestry, mining, and manufacturing as related to geographic factors. Prereq: Econ 201, 202.</td>
</tr>
<tr>
<td>315</td>
<td><strong>Labor Economics</strong></td>
<td>3 hours</td>
<td>An historical and analytical survey of developments in the field of labor. Prereq: Econ 201, 202.</td>
</tr>
<tr>
<td>320</td>
<td><strong>Economic Theory: Micro</strong></td>
<td>3 hours</td>
<td>An advanced theory course including the economics of the firm and price analysis. Prereq: Econ 201, 202.</td>
</tr>
<tr>
<td>322</td>
<td><strong>Economic Theory: Macro</strong></td>
<td>3 hours</td>
<td>Macroeconomics concerns itself with the output, income and growth of the U.S. Economy as a totality. Prereq: Econ 201, 202.</td>
</tr>
<tr>
<td>335</td>
<td><strong>Economic Systems</strong></td>
<td>3 hours</td>
<td>(II) An analysis of the underlying concepts and characteristic features of the major economic systems as exemplified by capitalism, communism, and socialism. Prereq: Econ 201, 202.</td>
</tr>
<tr>
<td>345</td>
<td><strong>Money and Banking</strong></td>
<td>3 hours</td>
<td>A banking approach to the fundamentals of the monetary and banking system. Prereq: Econ 201, 202.</td>
</tr>
<tr>
<td>351</td>
<td><strong>Economic History of Europe to 1760</strong></td>
<td>3 hours</td>
<td>(same as Hist. 351) A survey of agricultural, commercial, financial, and industrial European society, from ancient Crete to 1760. Prereq: Econ 201, 202.</td>
</tr>
<tr>
<td>352</td>
<td><strong>Economic History of Europe Since 1760</strong></td>
<td>3 hours</td>
<td>(same as Hist. 352) A survey of agricultural, commercial, financial and industrial European society, together with the development of economic thought from 1760 to the present. Prereq: Econ 201, 202.</td>
</tr>
</tbody>
</table>
355 **Public Finance** (I) 3 hours
Theories of taxation and principles of public expenditure. Prereq: Econ 201, 202.

365 **International Economics** (I) 3 hours
Principles and financing of international trade. Monetary tariff and lending policies. Prereq: Econ 201, 202.

411 **Government and Labor** (II) 3 hours
Provides a background of knowledge and understanding of the development of public policy, the regulation of labor by government and the relationship of the various levels of government to labor. Prereq: Econ 315.

418 **Collective Bargaining** (I) 3 hours
A study of the issues, structures and procedures involved in collective bargaining, and the settlement of disputes, as centered around the labor-management contract. Prereq: Econ 315.

421 **Advanced Firm and Industry Theory** (I) 3 hours
The effects of changes in conditions of supply and demand under alternative market structures affecting firm and industry are examined. General equilibrium and welfare economics are introduced. Prereq: Econ 320.

423 **Advanced Macro-Theory** (II) 3 hours
A study of the level of income, production, employment, and growth. Classical and Keynesian systems are contrasted, with recent theoretical paths being explored. Prereq: Econ 322.

426 **History of Economic Thought** (II) 3 hours
From Mercantilism to the modern period. Focus is on the interactions of institutional milieu, thought and economic doctrine. Prereq: Econ 201, 202.

430 **Econometrics** (I) 3 hours
The study and application of modern statistical and mathematical procedures to theoretical economic models. Prereq: Permission of Instructor.

436 **Comparative Economic Philosophy** (I) 3 hours
The mainstreams of political and economic philosophy are examined in order to understand both the political basis of comparative economic systems as well as to judge the political consequences of changing economic policy. Prereq: Econ 322 or Permission.

443 **Geography of Manufacturing** (same as Geog. 443)

445 **Monetary Theory and Policy** (I) 3 hours
The role of money in the stabilization at high levels, production, employment, income and prices. Emphasis is on contemporary problems. Prereq: Econ 345.
Economics of Commercial Banking (II ao) 3 hours
The economics of the individual commercial bank; banking laws; organization; management of reserve; lending and investing procedures and policies. Prereq: Econ 345.

State and Local Finance (II ao) 3 hours
Economic resource allocation problems of state and local government, with particular reference to Nebraska and Omaha. Prereq: Econ 355.

Economic Development (II) 3 hours
Problems relating to early stages of economic development; investment priorities, mobilizing savings and policies and programs are studied. Prereq: Econ 201-202.

Managerial Economics (II) 3 hours
Economics applied in decision making, with special emphasis on application of the micro theory. It aims to bridge the gap between theory and managerial practice, stressing the measurement of theoretical concepts, collection and evaluation of information and comparison of alternatives. Prereq: Econ 320.

Internship in Local Government (same as Pol. Sci. 491)
Credit 2 hours per sem, to a max. of 6

Special Topics (I, II, S) 1-3 hours
Individual investigations of special problems in economics for majors. Prereq: Permission of Department Head.

Special Topics (same as Econ 495) (I, II, S) 1-3 hours
Prereq: Permission of Department Head.

Economic Education (I) 3 hours
Open to any graduate student with no previous college work in economics who is teaching K-12. Not open to majors in Economics. 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.

Economic Education (II) 3 hours
A continuation of Econ. 505.

Economic Security (I) 3 hours
The analysis and discussion of problems and programs of economic security, emphasizing historical developments, present programs, possible future developments, and various arguments and proposals. Particular attention will be given, especially through student research, to programs aimed at reducing urban poverty. Prereq: Permission of Instructor.

Seminar in Labor Economics (I ao) 3 hours
A study and investigation of current developments and issues involving labor institutions, labor relations, wage theories and
employment policies. Local and regional studies will be stressed. Prereq: Six hours of credit in undergraduate labor economics or permission.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Hours</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>521</td>
<td>Seminar in Micro Theory</td>
<td>(I) 3</td>
<td>This is required of graduate Economics and Business students. Familiarization with quantitative tools in micro economics analysis, including the recent development in the theory of the firm and operations research, will be investigated. Prereq: Econ 320 or 421, or Permission of instructor.</td>
</tr>
<tr>
<td>523</td>
<td>Macroeconomic Theory</td>
<td>(II) 3</td>
<td>A study of the many refinements of the Keynesian model, including some extensions of this theory, especially in connection with cyclical behavior, investment and economic growth. This is required of graduate Economics and Business students. Prereq: Econ 322 or 423, or Permission of instructor.</td>
</tr>
<tr>
<td>530</td>
<td>Econometrics</td>
<td>(II) 3</td>
<td>The study and application of statistical and mathematical techniques in economic research. Prereq: Permission of Instructor.</td>
</tr>
<tr>
<td>540</td>
<td>Seminar in American Economic History to 1865</td>
<td>(I) 3</td>
<td>(See History)</td>
</tr>
<tr>
<td>541</td>
<td>Seminar in American Economic History Since 1865</td>
<td>(II) 3</td>
<td>(See History)</td>
</tr>
<tr>
<td>545</td>
<td>Seminar in Money and Banking</td>
<td>(II) 3</td>
<td>Original research and writing of papers on basic problems in the area of money and banking. Required of all Economics majors. Prereq: Six hours in undergraduate monetary courses or permission of the instructor.</td>
</tr>
<tr>
<td>565</td>
<td>Seminar in International Economics</td>
<td>(I ae) 3</td>
<td>Original research and critique of current issues in international economic theory, policy, and institutions. Prereq: Econ 365 or 466, or Permission of Instructor.</td>
</tr>
<tr>
<td>580</td>
<td>Independent Study in Topics on Urbanism</td>
<td>1 hour per sem. to 3</td>
<td>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 in one of the social sciences. (Also listed under Geography, Political Science and Sociology.)</td>
</tr>
<tr>
<td>583-584</td>
<td>Interdisciplinary Seminar on the Urban Community</td>
<td>3 hours per sem. to 6</td>
<td>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 Geography, Political Science and Sociology.)</td>
</tr>
</tbody>
</table>
598-599 **Urban-Regional Research** (I, II, S) 3 hours each
Chiefly for Master of Science Degree candidates in Economics in lieu of thesis. Consists of a study in Urban Economic problems, employing research techniques. Students do independent research consulting with advisor, and submitting completed report to a departmental committee. Prereq: Permission of graduate advisor.

600-601 **Thesis** (I, II, S) 3 hours each
An independent research project, written under the supervision of a graduate advisor 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 advisor.

(ae) Alternate even years
(ao) Alternate odd years

**ENGLISH**

PROFESSORS WARDLE (Head), HARPER;
ASSOCIATE PROFESSORS LANE, NEWKIRK;
ASSISTANT PROFESSORS BAKER, BRESSLER, DUGGIN, FRANK,
SALTZMAN, TURNER, WALSH;
INSTRUCTORS CURTIS DUSTIN, FINE, FISHER, GRIESEL,
HALGARD, LEAVITT, McLellan, NICKLIN, QUERY, RAABE,
THOMPSON; ASSISTANT INSTRUCTOR ROSCH

Students who elect a major in English literature must pass, as prerequisites, English 231* and 232, History 261 and 262, and either English 245* and 246 or English 251 and 252. To complete the requirements for the major they must pass, with a grade of “C” or above, one course (or the equivalent) from each of the following groups:

(a) English 468  
(b) English 434 or 472  
(c) English 433, 448, or 450  
(d) English 460  
(e) English 440 or 465  
(f) English 481 or 482  
(g) English 283, 285, or 360

Students who elect a major in American literature must pass, as prerequisites, English 245* and 246, History 111 and 112, and either English 231* and 232 or English 251 and 252. To complete the requirements for the major, they must pass, with a grade of “C” or above, one course (or the equivalent) from each of the following groups:

(a) English 468  
(b) English 460  
(c) English 440 or 465  
(d) English 481 or 482  
(e) English 497  
(f) English 498  
(g) English 283, 285, or 360

Students who elect a major in Creative Writing must pass, as prerequisites, English 231* and 232, English 240, and English 246. To com-

* English 217 substitutes for English 231.
* English 219 substitutes for English 245.
Complete the major, they must pass, with a grade of “C” or above, one course (or the equivalent) from each of the following groups:

(a) English 331
(b) English 421
(c) English 434 or 472
(d) English 422
(e) English 460
(f) English 440, 465, or 497
(g) English 481 or 482
(h) English 283, 285 or 360

Students who choose English as their major field for secondary teaching may elect (1) either of the first two majors described above, in which case, they must satisfy the requirements for the Secondary Teaching Certificate, or (2) a major in the College of Education, in which case, they must pass, as prerequisites, English 231* and 232, History 261 and 262, English 245* and 246, and English 240. They must also pass, with a grade of “C” or above, one course (or the equivalent) from each of the following groups:

(a) English 468
(b) English 460
(c) English 481, 482, or 497
(d) English 225, 283, or 285
(e) English 353

Students who choose English as their minor field for secondary teaching must pass, as prerequisites, English 231* and 232, and English 245* and 246. In addition, they must pass with a grade of “C” or above, English 353, English 468, and nine hours in English courses above the freshman level (not more than three of which may be at the 200-level).

105 **Reading Improvement**
   (I, II, S) 1 hour
   Beginning course designed to help students improve comprehension, increase reading speeds, establish proper study techniques, and develop vocabulary.

†109 **English Fundamentals**
   (I, II) 3 hours
   Basic review of grammar, usage, sentence structure, paragraph building, punctuation, and spelling; plus work in vocabulary building.

110 **English for the Foreign Born**
   (I, II) 3 hours
   The study of pronunciation and phonetics; written composition, reading and vocabulary; and aural comprehension—designed to prepare the student of foreign birth for subsequent work in English. Prereq: Permission

111 **Elementary English Composition**
   (I, II, S) 3 hours
   The minimum essentials of correct writing. Prereq: English 109 or proficiency.

112 **Intermediate English Composition**
   (I, II, S) 3 hours
   The theory and practice of correct, clear, and effective writing and of intelligent reading. Prereq: English 111 or proficiency.

* English 217 substitutes for English 231.
* English 219 substitutes for English 245.
† Credit not allowable toward degrees in the College of Arts and Sciences.
Reading Improvement (I, II, S) 1 hour
An advanced course for students who have potential to improve their reading speeds without significant loss of comprehension.

English Literature to 1750 (I) 3 hours
A survey of the development of English literature before 1750 supplemented by frequent written exercises. Prereq: Proficiency. (Freshmen only)

American Literature to 1855 (I) 3 hours
A survey of the development of American literature before 1855 supplemented by frequent written exercises. Prereq: Proficiency. (Freshmen only)

The Short Story (I, II) 3 hours
Readings in the modern short story, with particular attention to literature as a reflection of life and to form as an outgrowth of content. Prereq: English 112 or proficiency.

Introduction to Poetry (II) 3 hours
An analysis of poetry from a great variety of periods in the Anglo-American tradition, proceeding from analysis of various poems and poetic techniques to critical judgment of many different types of poems.

Introduction to English Literature (I, II, S) 3 hours
Major contributions to English literature from Beowulf to Swift. Prereq: English 112 or proficiency.

Introduction to English Literature (I, II, S) 3 hours
Continuation of English 231, from Samuel Johnson to the present. Prereq: English 112 or proficiency.

Expository Writing (I, II) 3 hours
Discussion of and practice in the various types of expository writing. Prereq: English 112 or proficiency.

American Literature (I, II, S) 3 hours
A survey of American literature to the Civil War. Prereq: English 112 or proficiency.

American Literature (I, II) 3 hours
A survey of American literature since the Civil War. Prereq: English 112 or proficiency.

World Literature (I) 3 hours
A survey of European literature in translation from Homer to Cervantes. Prereq: English 112 or proficiency.

World Literature (II) 3 hours
A survey of European literature in translation from Rabelais to Camus. Prereq: English 112 or proficiency.

The Contemporary Novel (I) 3 hours
A study of some of the most important ideas, techniques, and authors of the British and American novels of the twentieth century. Prereq: English 112 or proficiency.
285 Contemporary British and American Drama (II) 3 hours
Readings in British and American plays written since 1900, with emphasis on problems of form and content rather than historical development. Prereq: English 112 or proficiency.

331 Narrative Writing (I, II) 3 hours
Basic course in fiction writing. Prereq: Permission of the instructor.

353 Modern English Grammar (I, II) 3 hours
An analytical study of the English language, stressing both traditional grammar and structural linguistics. Prereq: Upperclass standing, and major or minor in English.

360 Contemporary Poetry (II) 3 hours
British and American poetry since 1900. Prereq: English 232.

421 Creative Writing 3 hours
Advanced course in fiction writing. Prereq: English 331 or permission of the instructor.

422 Creative Writing (I) 3 hours
Advanced course in fiction writing. Prereq: English 331 or permission of the instructor.

433 Sixteenth Century Literature (I) 3 hours
Poetry and prose of the English Renaissance, from its continental origins to the end of the Elizabethan Age. Prereq: English 231.

434 Chaucer (I) 3 hours
A literary and linguistic study of the works of Chaucer, with emphasis on The Canterbury Tales. Prereq: English 232.

440 Eighteenth Century Literature (II, 68-69) 3 hours
Readings in the major authors of the Age of Pope and the Age of Johnson. Prereq: English 231 or 232.

448 Seventeenth Century Literature (I, 68-69) 3 hours
English poetry and prose of the seventeenth century—especially Donne and Milton—and the drama of the Restoration. Prereq: English 231.

450 English Drama Before 1642 (II) 3 hours
A study of the development of the English drama, exclusive of Shakespeare, from the beginnings to 1642. Prereq: English 231.

458 Structural Linguistics (S) 3 hours
An analysis of the English language as it is spoken, including word classes, sentence patterns, intonation with the end view of gaining a better understanding of the language and how to make it work most effectively. Primarily intended for those who will be teaching grammar and composition through the structural linguistic approach. Prereq: Permission of the instructor.
460 *Shakespeare* (II) 3 hours
A critical study of twelve major plays of Shakespeare. Prereq: English 231.

465 *The English Novel* (II) 3 hours

468 *History of the English Language* (I, II) 3 hours
A study of the structural development of the English language. Prereq: English 231.

472 *Medieval English Literature* (I, 68-69) 3 hours
A survey of the principal writings in English, excluding those of Chaucer, from 1100 to 1500. Prereq: English 231.

481 *Literature of the Romantic Period* (I, 68-69) 3 hours
Poetry and prose (excluding the novel) of England from 1798 to 1830. Prereq: English 232.

482 *Literature of the Victorian Period* (I) 3 hours
English poetry and prose (excluding the novel) from 1830 to 1900. Prereq: English 232.

497 *The American Novel* (II, 68-69) 3 hours
A critical and historical study of the work of twelve major American novelists of the nineteenth and twentieth centuries. Prereq: English 246.

498 *The American Drama* (II) 3 hours
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. Prereq: English 112 and permission of instructor.

501 *Introduction to Literary Research* (I) 3 hours
A survey of the techniques of literary research, history and interpretation, with a primary emphasis on methods of scholarship currently useful to the study of English and American literature.

504 *Seminar: Literary Criticism* 3 hours
A study of the history of literary criticism from the beginnings to the present time, with emphasis on the criticism of ancient Greece and Rome, nineteenth century England, and twentieth century America. Prereq: Graduate standing or permission of the head of the Department of English.

506 *Seminar: American Literature* 3 hours
Individual research and group discussion relating to a general topic in American literature. Prereq: Graduate standing or permission of the head of the Department of English.

508 *Seminar: The English Renaissance* (68-69) 3 hours
A seminar in a few significant literary figures of the English
Renaissance. Prereq: Graduate standing or permission of the head of the Department of English.

510 Seminar: Victorian Literature (68-69) 3 hours
An intensive study of selected Victorian authors and their works. Prereq: Graduate standing or permission of the head of the Department of English.

512 Seminar: Shakespeare 3 hours
Critical analysis of ten tragedies or ten comedies of Shakespeare. Prereq: Graduate standing or permission of the head of the Department of English.

515 Seminar: English Literature, 1750-1830 (68-69) 3 hours
Studies in the transitions between English literature of the Age of Johnson and that of the Age of Wordsworth. Prereq: Graduate standing.

520 Seminar: Medieval Literature 3 hours
A study of the rationale and techniques of medieval allegory. Prereq: Graduate standing.

601-602 Thesis Each 3 hours
Prereq: Graduate standing.

FOREIGN LANGUAGES AND LITERATURES

PROFESSOR MOST (Head); INSTRUCTORS BONNIN, DOSENOVICH, ELLER, GARCIA, GULLUM, MOORE, SOUKUP, THILL, THOMPSON; ASSISTANT INSTRUCTOR THORNDIKE

REQUIREMENTS FOR A MAJOR IN FOREIGN LANGUAGES

Twenty credit hours in one foreign language in the upper division courses (above 212) are required for a major in French, German or Spanish. The two conversation-composition courses, 313, and 335, are required for all majors; in addition, French 315 and 316 are required for all French majors, German 431 and 432 for all German majors, Spanish 315 and 316 for Spanish majors.

It is also strongly recommended that majors in foreign languages extend their language training by completing an additional 17 credit hours in the upper division courses of a second foreign language.

Students who plan to teach should elect all the courses required of majors, along with the specific courses in History recommended by the Department.

No student may major in a foreign language with less than a “C” average in all courses in the major field.

FRENCH

111-112 Elementary French (I, II, S) Each 4 hours
Pronunciation, listening comprehension, speaking and reading. Prereq: For 112: 111 or one year of high school.
211-212 Intermediate French (I, II, S) Each 4 hours
Continuation of 112 with grammar review, more advanced readings. Prereq: For 211: 112 or two years of high school and proficiency. For 212: 211 or three years of high school and proficiency.

313 Conversation and Composition (I) 4 hours
Oral practice, grammar review, composition. Prereq: 212 or permission of instructor.

315-316 Introduction to French Literature (I, II) Each 3 hours
Readings of French authors from the Middle Ages to 1800; lectures, reports, collateral readings. Prereq: 212 for either 315 or 316. For majors, this course is prerequisite to all other literature courses. Either 315 or 316 may be taken concurrently with another literature course.

335 Advanced Conversation and Composition (II) 4 hours
Further oral practice, grammar review, composition. Prereq: 313 or permission of instructor.

337 French Civilization (I) 3 hours
A study of contemporary modes of life and thought in France. Prereq: French 212 or permission of instructor.

340 Eighteenth Century French Literature (II) 3 hours
Study of the Enlightenment: Montesquieu, Voltaire, Rousseau and Diderot. Prereq: 212.

351-352 Nineteenth Century French Literature (I, II) Each 3 hours
351: 1789 to 1848, Lamartine to Michelet, Stendhal, Merimee, Balzac, Hugo. 352: 1850 to 1885, Realism, Naturalism, Parnasse, Symbolism. Prereq: 212 for either 351 or 352.

421 Sixteenth Century French Literature (II) 3 hours
Literature of the Renaissance, Rabelais, Ronsard, Montaigne. Prereq: Any 300 course in literature or permission of instructor.

431 Seventeenth Century French Literature (I) 3 hours
The Classical School: Descartes, Pascal, Corneille, Moliere, Racine, LaFontaine. Prereq: Any 300 course in literature or permission of instructor.

451-452 Twentieth Century French Literature (I, II) Each 3 hours
451: Main currents of twentieth century literature from the beginning to 1930. 452: Continuation to current literary production. Prereq: For either 451 or 452, any 300 course in literature or permission of instructor.

460 Seminar (II) 1-3 hours
Detailed study of narrower phases of French literature, language or culture. Prereq: Permission of instructor.
GERMAN

111-112 Elementary German  (I, II, S) Each 4 hours
Pronunciation, listening comprehension, speaking and reading.
Prereq: For 112: 111 or one year of high school.

211-212 Intermediate German  (I, II, S) Each 4 hours
Continuation of 112 with grammar review, more advanced readings. Prereq: For 211: 112 or two years of high school and proficiency. For 212: 211 or three years of high school and proficiency.

313 Conversation and Composition  (I) 4 hours
Idioms, patterns of conversation, composition. Prereq: 212 or permission of instructor.

335 Advanced Conversation and Composition  (II) 4 hours
Further training in speaking, writing, idioms and speech patterns. Prereq: 313 or permission of instructor.

431 Nineteenth Century German Literature  (I) 3 hours
Survey of the literature of the nineteenth century from Romanticism to Naturalism. Prereq: 313 or permission of instructor.

432 Twentieth Century German Literature  (II) 3 hours
Survey of literature of the twentieth century from Expressionism to the literature after World War II. Prereq: 313 or permission of instructor.

437 German Civilization  (II) 3 hours
German history, art, architecture, customs, philosophy, literature. Prereq: 313 or permission of instructor.

440 German Novelle  (II) 3 hours
Survey of the German short story, its historical origin, characteristics. Prereq: 313 or permission of instructor.

444 German Drama  (II) 3 hours
History of drama development, study of several of the more important dramas. Prereq: 313 or permission of instructor.

455 Goethe  (II) 3 hours
Goethe's life and works, discussion of his literary techniques, his importance and influence. Prereq: Permission of instructor.

RUSSIAN

111-112 Elementary Russian  (I, II) Each 4 hours
Pronunciation, listening comprehension, speaking and reading.
Prereq: For 112: 111 or one year of high school.

211-212 Intermediate Russian  (I, II) Each 4 hours
Continuation of 112 with grammar review, more advanced readings. Prereq: For 211: 112 or two years of high school and proficiency. For 212: 211 or three years of high school and proficiency.
SPANISH

111-112  **Elementary Spanish**  (I, II, S) Each 4 hours
Pronunciation, listening comprehension, speaking and reading.
Prereq: For 112: 111 or one year of high school.

211-212  **Intermediate Spanish**  (I, II, S) Each 4 hours
Continuation of 112 with grammar review, more advanced readings. Prereq: For 211: 112 or two years of high school and proficiency. For 212: 211 or three years of high school and proficiency.

313  **Conversation and Composition**  (I) 4 hours
Oral practice, grammar review, composition. Prereq: 212 or permission of instructor.

315  **Survey of Spanish Literature**

316  **Survey of Spanish American Literature**  (I, II) Each 3 hours
315: Introductory study of Spanish masterpieces beginning with El Cid to the Generation of '98. 316: Major Spanish American literary works beginning with the sixteenth century Colonial Period through nineteenth century Modernism and Realism. Prereq: 212 for either 315 or 316. For majors, these courses are prerequisites to all other literary courses. Either 315 or 316 may be taken concurrently with another literature course.

335  **Advanced Conversation and Composition**  (II) 4 hours
Further oral practice, grammar review, composition. Prereq: 313 or permission of instructor.

341  **Spanish Civilization**  (I) 3 hours
History, geography, national economy, education, art and literature of the Spanish people. Prereq: 212 or permission of instructor.

342  **Latin American Civilization**  (II) 3 hours
History, architecture, painting, music, education, religion, literature of Hispanic America. Prereq: 212 or permission of instructor.

355  **Modern Drama of Spain**  (II) 3 hours
Ideologies, techniques, trends and influences of modern dramatists of Spain. Prereq: 315 or permission of instructor.

356  **Modern Novel of Spain**  (II) 3 hours
Literary movements and influences of foremost modern novelists from Galdos to Blasco-Ibanez. Prereq: 315 or permission of instructor.

415  **Spanish-American Literature of the 19th Century**  (I) 3 hours
Detailed study of literature during period of struggle for independence to the beginning of Modernism. Prereq: 316 or permission of instructor.
416 **Spanish-American Literature of the 20th Century**  (I) 3 hours Study of the foremost Spanish-American writers and their influences during the period of Modernism and Realism to the present. Prereq: 316 or permission of instructor.

420 **Spanish-American Novel**  (II) 3 hours Study of the foremost Spanish-American novelists and their influences with special emphasis on the authors of the Revolutionary period. Prereq: 316 or permission of instructor.

421 **Spanish Writers of the Golden Age**  (II) 3 hours Outstanding classic writers and their influences of the sixteenth and early seventeenth centuries. Prereq: 315 or permission of instructor.

424 **Generation of '98**  (I) 3 hours Unamuno, Paroja, Valle-Inclan and Perez de Ayala and their examination of the Spanish status quo at the turn of the century. Prereq: 315 or permission of instructor.

430 **Cervantes**  (I) 3 hours Study of Don Quijote and/or the Exemplary Novels. Prereq: Permission of instructor.

460 **Seminar**  (II) 1-3 hours A detailed study of narrower phases of Spanish, or Spanish-American literature, language or culture. Prereq: Permission of instructor.

**GEOGRAPHY AND GEOLOGY**

PROFESSORS SCHILZ (Head), RETALLICK; ASSOCIATE PROFESSOR BARISS; ASSISTANT PROFESSOR GILDERSLEEVE; INSTRUCTORS SLORP, ZIPAY

The requirements for a major in Geography are as follows: (1) either course 100 or 200; (2) courses 104, 313, 353, 393, and two additional courses at the 300 level; and (3) three courses at the 400 level.

Courses 104, 117, 118, 203, 396, and 432 offer credit in the Natural Science Division. All other geography courses offer credit in the Social Science Division.

A major in urban studies consists of 36 semester hours selected from the courses listed below. At least 3 semester hours must be completed in each departmental area (economics, geography, political science, and sociology) plus 15 hours in one of the above fields. The remaining 9 hours of electives will be scheduled in consultation with the program director.

The following courses may be used to satisfy the urban studies major.

Economics: 312, 355, 456*.
Geography: 313, 353, 363, 412*, 443*.
Political Science: 216, 301*, 317*, 319, 440, 441.

* Courses marked with an asterisk are to be given priority by students majoring in urban studies.
100 **Fundamentals of Geography** (I, II, S) 3 hours
A basic course which combines the physical and human aspects of geography. Both the systematic and regional approach are used in presentation of the subject matter.

104 **Survey of Physical Geography** (I, II, S) 4 hours
An introduction to the landforms, climates, soils, waters, noting their world distribution, variety, process of change; all as a basis for man's habitat and use. Aspects of the earth as a globe are included. Prereq: None.

117 **Physical Geology** (I, II, S) 4 hours
Basic fundamentals of geology. The study of the internal geologic processes and external erosional processes which create the subsurface and surface features of the earth. Fundamentals of contour mapping and topographic map interpretation. Identification of the common minerals and rocks. One day field trip required. Prereq: None.

118 **Historical Geology** (II) 4 hours
Basic fundamentals for the interpretation of earth history. The deduction of the history of the earth through the interpretation of geologic phenomena, including stratigraphy, structure, and fossil content. Fundamentals of geologic map interpretation. Identification of the key fossils. Prereq: None.

200 **Human and Cultural Geography** (I, II, S) 3 hours
Differences between developed and underdeveloped countries with regard to culture, health and diet, business and production. Prereq: None.

203 **General Physiography** 3 hours
An introductory course in the study of landforms, with emphasis on interpretation of surface features of the earth as represented on topographic maps.

273 **Geography of Latin America** (I, II) 3 hours
Advantages and limitations of the natural environment and the cultural environment, population characteristics and economic developments are considered in Mexico, Central America, West Indies, and South America—special emphasis on South America. Prereq: Geog. 100 or 200.

283 **Asia** (I, II) 3 hours
A systematic approach to the geography of Asia with emphasis on landforms, climate and biogeography. Prereq: Geog. 100 or 200.

303 **Africa** (I, II) 3 hours
The geographic factors which set the stage for the economic and national revolution in countries and protectorates, emphasis upon east and northeast Africa. Prereq: Geog. 200 or 100 and Junior Standing.
313 Economic Geography (I, II, S) 3 hours
An intensive study of commercial production, exchange and consumption in agriculture, fishing, forestry, mining, and manufacturing as related to geography factors. Prereq: Junior Standing.

323 Europe (I, II) 3 hours
An intensive examination of major natural regions, climatic regions, resources, industrial development and current economic-political problems from a geographic point of view. Prereq: Geog. 100 or 200 and Junior Standing.

324 U.S.S.R. (I, II) 3 hours
This is a regional geography course intended for Arts and Sciences students who have had some previous geography study. Prereq: Geog. 100 or 200 and Junior Standing.

333 United States and Canada (I, II) 3 hours
A consideration by regions of the economic life from a geographic viewpoint. Prereq: Geog. 100 or 200 and Junior Standing.

353 Cartography and Graphics (I, II) 3 hours
Basic fundamentals for the cartographic representation of statistical information with emphasis upon the compilation of statistics and the variety of possible symbolization. Basic fundamentals of drafting and design. Prereq: Geog. 100, 104, or 200 or C. E. 200 and Junior Standing.

363 Map and Photo Interpretation 3 hours
Practical experience in the identification and interpretation of physical and cultural features through the use of topographic, geologic, hydrographic, and aeronautical charts and of selected aerial photographs. Prereq: Math 112 and Junior Standing.

393 Political Geography (I, II) 3 hours
Analysis of the geographic factors underlying international relations followed by detailed study of problem areas. Prereq: Junior Standing.

396 Land Form Studies and Geomorphology 3 hours
Land forms are classified and analyzed according to the landform-shaping forces such as streams, glaciers, volcanoes, etc. Study of the arid lands and land forms of the Nebraska-Western Iowa region are also included. Practical aspects of land form analysis with regard to man's activity constitute a part of the course. One field trip is required. Prereq: Geog. 104 or 203.

412 Urban Geography (I, II) 3 hours
A geography of the city from the viewpoint of history, site, and situation, external relations, internal relations, and the comparative study of cities. Prereq: Junior Standing.
92  COLLEGE OF ARTS AND SCIENCES

423  Great Plains and Nebraska  (II) 3 hours
This is a regional geography course intended for geography majors and Arts and Sciences students who may have an interest in this particular area. It is desirable to have had some previous study with regional geography. Prereq: 6 hours of Geog. and Junior Standing.

432  Climates of the World  (II) 3 hours
Climatic controls and elements of the continents are studied on the basis of regional subdivision according to the modified koppen system. Prereq: Geog. 104 (or a meteorology course).

443  Geography of Manufacturing (Same as Econ 443)  (II) 3 hours
A course which discusses methods of measurement and classification, as well as the function of manufacturing; major world manufacturing regions and industry analysis; location criteria and theory in the U.S.; and local community patterns. Prereq: Geog. 313 or Econ 201 and 202.

453  Historical Geography of the United States  (II) 3 hours
A course dealing with the geography of the past. Emphasis is placed on the sequent occupancy of regions in the United States or the geography of major divisions of the United States at selected times in the past. Prereq: Junior Standing and Hist. 111 and 112.

491  Internship in Local Government (Same as PS 491)  2 hours per sem. to max. of 6

All 500 and 600 Courses Require Departmental Permission

501-502  Geography Concepts  (I, II) Each 3 hours
Development of the systematic fields and regional approach to area inventory and planning; introduction to visualizing data and introduction to authorities in each field. Prereq: Permission. No previous geography.

503  Investigating the Earth  3 hours
A survey of earth science which provides a basic knowledge of the earth as a planet, the solar system, and the universe; and an introduction to the earth's atmosphere and hydrosphere. Prereq: Permission of the Head of the Secondary Education Department.

504  Investigating the Earth  3 hours
A survey of earth science which provides a basic knowledge of earth as a planet with emphasis on the lithosphere. Prereq: Permission of the Head of the Secondary Education Department.

506  Physical and Cultural Geography for Teachers  (II) 6 hours
Orientation through discussion and demonstration and projects to physical and cultural geography; involvement in professional geography journals and associated media suitable for geography presentations. Prereq: Less than 9 hours of geog-
raphy, have two or more years of teaching associated with geography, interest in M.S. in education with geography concentration.

521 Cultural Geography (II) 3 hours
The philosophical basis of human and cultural geography; interpretation of the cultural landscape. Prereq: Permission.

531 Geography of Agriculture (II) 3 hours
A systematic study of the characteristics of agriculture on a world-wide basis. Prereq: Permission and Geog. 313 or Econ. 313.

541 Seminar in Problems of Political Geography (I) 3 hours
Case studies in land boundaries, territorial waters, and in population aspects of boundary problems. Prereq: Permission and Geog. 393.

551 Geomorphology (I) 3 hours
Concentrates on significant topics, problems, and applied cases in landform studies. Prereq: Geog. 396 or 117 or 118.

555 Physiography of North America (I) 3 hours
A study of the landforms regions of North America as related to the whole study of geography by means of a systematic analysis of geomorphic patterns. Prereq: Geog. 104 or 117 or 118.

558 Soils (II) 3 hours
A synthesis of the concepts of the morphology, classification, and distribution of soils with some emphasis on environment and genesis. Prereq: Geog. 104.

561 Field Geography (S) 3 hours
A systematic discussion of techniques for studying and analyzing terrain features, land use characteristics, and the nature of their patterns as a part of the whole geographic environment. Prereq: Permission.

565 Land Use (S) 3 hours
A field course designed to investigate and understand through urban field work, land use patterns in urban and rural areas by studying the social, physical, and economic factors which tend to shape the land use of a given place. Prereq: Geog. 412.

567 Cartographic Methods (I, II) 3 hours
Teaches the student proper use of drawing instruments, effective map layout and exposure to the latest cartographic techniques, leading to a high level of competence in the design and interpretation of maps. Prereq: Geog. 353.

571 Population Seminar (S) 3 hours
The significance of differences from place to place in the number, kind, and qualities of human inhabitants and changes through time. Prereq: Permission.
Independent Study in Topics on Urbanism  
1 hour per sem. to 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 in one of the social sciences. (Also listed under Economics, Political Science, and Sociology.)

Urban Seminar in Metropolitan Planning and Development  
(II) 3 hours  
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: Geog. 412 or recommendation from Political Science, Sociology, or Economics Departments.

Interdisciplinary Seminar on the Urban Community  
3 hours per sem. to 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, Political Science, and Sociology.)

General Seminar  
Each 1 hour  
Review of current research by geographers including national and international associations and initial thesis proposal.

Thesis  
Each 3 hours  
Independent research project written under the supervision of an advisor.

HISTORY

PROFESSORS TRICKETT (Head), ADRIAN, BECK, ROBBINS;  
ASSOCIATE PROFESSORS DALSTROM, GUM;  
ASSISTANT PROFESSORS OVERFIELD, PETROWSKI, ST. JOHN;  
INSTRUCTORS BRITT, GAEDDERT, FOUT, NELSON

Students who elect a major in history must pass, with an average grade of "C" or above as prerequisites, either History 111 and 112 or History 151 and 152 and one of the following 200-level course sequences, or the equivalents:

- History 247-248, Latin America
- History 251-252, Ancient History
- History 257-258, German History
- History 261-262, English History
- History 271-272, Russian History
- History 281-282, The Far East

To complete the requirements for the major they must pass, with grades of "C" or above, 18 hours of history, or the equivalents, from courses in the 300 and 400 groups. (Students primarily interested in Eng-
lish history may present English 231 and 232 as credit towards the 18 hours normally required from courses in history at the 300 and 400 level provided that they present History 261-262 as their 200-level course sequence and complete at least six hours satisfactorily from among the following: History 364, 461, 462, 463, and 464). In addition they must pass, with a grade of "C" or above, one of the following courses, or the equivalent:

History 493, Historical Research
History 496, Great American Historians
History 497, Great European Historians

Students who wish to teach history in secondary schools must pass, with an average grade of "C" or above, History 111, 112, 151, 152, and one of the 200-level sequences in history (see above), or the equivalents. In addition they must pass, with grades of "C" or above, a specific number of hours of work in 300 and 400 numbered courses in history. Details of such requirements for the academic major or teaching field in history in the College of Education may be secured from Professor Adrian.

111 American History to 1865 (I, II, S) 3 hours
A history of the creation and development of the United States from the beginning of English colonization to the end of the American Civil War.

112 American History Since 1865 (I, II, S) 3 hours
A general survey of the basic forces shaping American life since the Civil War.

151 European History, 1500-1815 (I, II, S) 3 hours
A factual and interpretive treatment of the major political, economic, and cultural movements in Europe from the Reformation through the Scientific Revolution, terminating with the era of the French Revolution and Napoleon.

152 European History Since 1815 (I, II, S) 3 hours
A study of the forces shaping Modern Europe with particular emphasis on Republican, National, Anticlerical and Socialistic developments.

247 Latin American History: Mexico and The Caribbean (I) 3 hours
A history of Mexico and the Caribbean nations from the pre-Columbian Indian cultures to the present time. Prereq: Sophomore Standing.

248 Latin American History: South America (II) 3 hours
A history of the nations of South America from the pre-Columbian Indian cultures to the present time. Prereq: Hist. 247 or permission of instructor.

251 Ancient History: Greece (I) 3 hours
A study of ancient civilizations in the Near East, Mesopotamia and Greece with emphasis upon their contributions through Greece to the development of Western Civilization. Prereq: Sophomore Standing.
252 Ancient History: Rome (II) 3 hours
A study of the growth and development of the Roman Empire with emphasis on the unique contributions of Rome to the modern world. Prereq: Hist. 251 or permission of instructor.

257 History of Germany from the Reformation through Frederick the Great (I) 3 hours
A cultural history of the German States from the end of the Thirty Years' War to the beginning of the Revolutions of 1848. Prereq: Sophomore Standing.

258 History of Germany in the Nineteenth and Twentieth Centuries (II) 3 hours
A cultural history of Germany, including Austria, from the Revolutions of 1848 to the present. Emphasis will be placed upon Germany's dominant role in Europe since unification, the experiments (past and present) with democracy and the cataclysm of the Third Reich. Prereq: Sophomore Standing.

261 English History: England to 1688 (I, S) 3 hours

262 English History: The Expansion of England (II, S) 3 hours
The expansion of English society and the development and spread of British institutions. Prereq: Hist. 261 or permission of instructor.

271 Russian History: To 1855 (I, 68-69) 3 hours
An interpretive analysis of the unique development of Russian culture from its Kievan beginnings through the establishment of autocracy and serfdom to the end of the reign of Nicholas I. Prereq: Sophomore Standing.

272 Russian History: Imperial Russia and the Soviet Union Since 1855 (II, 68-69) 3 hours
An interpretive analysis of Russian culture and society under the last three tsars, the Bolshevik Revolution and a half-century of Communist domination. Prereq: Hist. 271 or permission of instructor.

281 The Far East: Traditional and Modern China (I) 3 hours
A study of traditional Chinese society with special emphasis upon those traits which in large part shaped China's response to the impact of the West in the nineteenth century and conditioned her search for a new political structure in the twentieth century. Prereq: Sophomore Standing.

282 The Far East: Modern Japan and Southeast Asia (II) 3 hours
A study of the evolution of traditional Japan to a modern national state and Japan's role as a major world power in the twentieth century. A survey of the development of colonialism and nationalism in southeast Asia. Prereq: Hist. 281 or permission of instructor.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Type</th>
<th>Hours</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>311</td>
<td><strong>American Economic History to 1865</strong> (Same as Econ 311)</td>
<td>(I)</td>
<td>3</td>
<td>A survey of American economic development from colonial times to the end of the Civil War. Prereq: Hist. 111-112 or Econ. 201-202.</td>
</tr>
<tr>
<td>312</td>
<td><strong>American Economic History Since 1865</strong> (Same as Econ 312)</td>
<td>(II)</td>
<td>3</td>
<td>A survey of American economic development from the Civil War to the present. Prereq: Hist. 111-112 or Econ. 201-202.</td>
</tr>
<tr>
<td>313</td>
<td><strong>American Colonial History</strong></td>
<td>(I)</td>
<td>3</td>
<td>A study of the background settlement, and development of the English colonies. Prereq: Hist. 111-112.</td>
</tr>
<tr>
<td>316</td>
<td><strong>The American Frontier: 1840-1900</strong></td>
<td>(II)</td>
<td>3</td>
<td>The Trans-Mississippi West from Spanish and French days to the disappearance of the frontier around 1900. Prereq: Hist. 315 or permission of instructor.</td>
</tr>
<tr>
<td>333</td>
<td><strong>Diplomatic History of the United States to 1900</strong></td>
<td>(I)</td>
<td>3</td>
<td>A study of the foreign relations of the United States before 1900. Prereq: Hist. 111-112.</td>
</tr>
<tr>
<td>334</td>
<td><strong>Diplomatic History of the United States Since 1900</strong></td>
<td>(II)</td>
<td>3</td>
<td>A study of the foreign relations of the United States since 1900. Prereq: Hist. 333 or permission of instructor.</td>
</tr>
<tr>
<td>341</td>
<td><strong>History of Nebraska</strong></td>
<td>(II)</td>
<td>3</td>
<td>From the earliest known records to the present. Prereq: Hist. 111-112.</td>
</tr>
<tr>
<td>344</td>
<td><strong>History of the South</strong></td>
<td>(II)</td>
<td>3</td>
<td>Economic, social, and political development of the South as a region. Prereq: Hist. 111-112.</td>
</tr>
<tr>
<td>351</td>
<td><strong>Economic History of Europe to 1760</strong> (Same as Econ 351)</td>
<td>(I)</td>
<td>3</td>
<td>A survey of European economic development to 1760. Prereq: Hist. 151-152 or Econ. 201-202.</td>
</tr>
<tr>
<td>352</td>
<td><strong>Economic History of Europe Since 1760</strong> (Same as Econ 352)</td>
<td>(II)</td>
<td>3</td>
<td>A survey of European economic development from 1760 to the present. Prereq: Hist. 151-152 or Econ. 201-202.</td>
</tr>
<tr>
<td>353</td>
<td><strong>Medieval Europe, 284-1095</strong></td>
<td>(I)</td>
<td>3</td>
<td>Establishment and development of the medieval church and of feudal society from the declining years of the Roman Empire to the beginning of the Crusades. Prereq: Hist. 151-152.</td>
</tr>
<tr>
<td>354</td>
<td><strong>Medieval Europe, 1095-1492</strong></td>
<td>(II)</td>
<td>3</td>
<td>Religious, social, economic, philosophic and institutional devel-</td>
</tr>
</tbody>
</table>
opments of the era extending from the Crusades and the investiture struggle through "the waning of the middle ages." Prereq: Hist. 353 or permission of instructor.

355 The Age of the Renaissance (I) 3 hours
An introduction to the economic, social, political, religious, and intellectual changes and to the principal thinkers, writers, and artists of the period extending roughly from 1300-1550. Prereq: Hist. 151-152.

364 History of the British Empire and Commonwealth (II, 68-69) 3 hours

401 History of Science to 1700 (I) 3 hours
A survey of the development of scientific ideas and techniques from antiquity to the beginning of modern science. Prerequisites: History 151-152 or a major in a department of science, mathematics, or general science.

402 History of Science Since 1700 (II) 3 hours
A survey of the historical and intellectual development of modern science and its relation to technology, society, and social thought. Prereq: History 151-152 or a major in a department of science, mathematics, or general science.

411 Representative Americans: 1600-1800 (I) 3 hours
A biographical and intellectual approach to American History. The outstanding leaders of each generation—every 40 to 50 years—are studied and their contributions analyzed. Prereq: Hist. 111-112.

412 Representative Americans: 1800 to the Present (II) 3 hours
A biographical and intellectual approach to American History. The outstanding leaders of each generation since 1800—every 40 to 50 years—are studied and their contributions analyzed. Prereq: Hist. 411 or permission of instructor.

413 The Revolutionary Era, 1763-1789 (I) 3 hours
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: Hist. 111-112.

414 The Early Federal Period, 1789-1815 (II) 3 hours
A study of the interworkings of politics, economics, and foreign affairs in molding government and society during the formative years of the United States. Prereq: Hist. 111-112.

416 The Jacksonian Era (I) 3 hours
418 Civil War and Reconstruction (II) 3 hours
A period study from 1845 to 1877. The backgrounds of the Civil War, the War Years, and the reshaping of the Union during Reconstruction. Prereq: Hist. 111-112.

424 The Emergence of Modern America: 1877-1901 (I) 3 hours
A study of a transitional period in American history, this course considers the importance of industrialization, urbanization, immigration, and the emergence of the United States as a significant world power. Prereq: History 111-112 or permission of instructor.

427 Twentieth Century America to 1932 (I) 3 hours

428 Twentieth Century America Since 1932 (II) 3 hours
A study of the history of the United States since the election of Franklin D. Roosevelt to the Presidency in 1932. Prereq: Hist. 427 or permission of instructor.

429 Ideas in Twentieth Century America (II) 3 hours
An analysis of some of the more important ideas which have had influence in recent America. Prereq: Hist. 111-112.

433 Constitutional History of the United States to 1860 (I) 3 hours

434 Constitutional History of the United States Since 1860 (II) 3 hours
A history of constitutional theory and practice since 1860. Prereq: Hist. 433 or permission of instructor.

442 History of American Science (II) 3 hours
A study of the origins, development, and nature of American science and its relations with technology, social thought, and government. Prereq: History 111-112 or a major in a department of science, mathematics, or general science.

451 Intellectual History of Modern Europe from the Renaissance to the French Revolution (I, 68-69) 3 hours
A study of historically potent political, religious, economic, scientific and philosophical ideas in the Western European culture from the Renaissance to the French Revolution as a basis for stimulating the spirit of philosophical inquiry in each student. Prereq: Hist. 151-152.

452 Intellectual History of Modern Europe from the Early Nineteenth Century to the Present (II, 68-69) 3 hours
A study of the historically potent scientific, economic, and philosophical ideas of the last century and a half. Emphasis will be upon the answers of Western European culture to life's great questions. Prereq: Hist. 451 or permission of instructor.
453 **The Age of the Reformation** (II) 3 hours
Study of an era characterized by the dissemination of Renaissance culture, the declining authority of the medieval church, nascent "nationalism," changing economic and social patterns, religious upheaval, and interrelated political rivalries and strife. Prereq: Hist. 151-152.

454 **The Age of Absolutism** (I) 3 hours
The emergence of new power relationships on the European Continent after the religious wars of the sixteenth century with an emphasis upon the political, military, and cultural factors that led to the French hegemony and the secularization of European politics. Prereq: Hist. 151-152.

455 **The Age of Enlightenment** (II) 3 hours
An examination of eighteenth century society and culture with the attendant rise of Prussia, the growing importance of Russia, "enlightened absolutism," and the causes of the French Revolution. Prereq: Hist. 151-152.

456 **The French Revolution and Napoleonic Era: 1789-1815** (I) 3 hours
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: Hist. 151-152.

457 **Nineteenth Century Europe: 1815-1848** (I) 3 hours
An advanced interpretive analysis of the political and cultural development of Europe from the Congress of Vienna through the Revolutions of 1848. Prereq: History 151-152.

458 **Nineteenth Century Europe: 1848-1890** (II) 3 hours
An advanced interpretive analysis of the political and cultural development of Europe from the Revolutions of 1848 to 1890. Prereq: History 151-152.

461 **Tudor and Stuart England** (II) 3 hours
A study of England under the Tudors when the English people rose magnificently and experienced a Golden Age, and the Stuarts then cast off the last remnants of medieval things and formed new institutions foreshadowing those of our world of today. Prereq: Hist. 261-262 or (with permission of instructor) Hist. 151-152.

462 **England in the Eighteenth and Nineteenth Centuries** (II) 3 hours
A study of the change and development in Great Britain from 1714 to 1914. Prereq: Hist. 261-262 or (with permission of instructor) Hist. 151-152.

463 **English Constitutional History to 1485** (I) 3 hours
The development of the legal and governmental institutions of the English-speaking people to 1485, including England's central and local governments. Prereq: Hist. 261-262 or (with permission of instructor) Hist. 151-152.
464 **English Constitutional History Since 1485** (II) 3 hours
The development of the legal and governmental institutions of the English-speaking people since 1485, including British central and local government and the governments of the member states of the Commonwealth and of the more important colonies. Prereq: Hist. 463 or permission of instructor.

477 **Europe in Crisis: 1890-1932** (I) 3 hours
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: History 151-152 & junior standing.

478 **Europe in the Global Age: 1933 to the Present** (II) 3 hours
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: History 151-152 and at least junior standing.

490 **Problems in History** (I, II, S) 1-5 hours
Independent original work on special problems with scheduled conferences and written reports. Prereq: Senior Standing and satisfactory completion of 12 hours of work in history from courses in the 300 and 400 groups and permission of the department head (not open for graduate credit).

491 **Internship in Local Government** (Same as PS 491)
2 hours to a max. of 6

493 **Historical Research** (I) 3 hours
The critical method in collecting, organizing and presenting historical material. Prereq: Senior Standing, acceptance as an undergraduate major in history or permission of the department head (not open for graduate credit).

496 **Great American Historians** (II) 3 hours
A survey of American historical writing from colonial days to the present. Prereq: Senior Standing, acceptance as an undergraduate major in history or permission of the department head (not open for graduate credit).

497 **Great European Historians** (I) 3 hours
A pro-seminar designed to acquaint the student with significant developments in the writing of European History from Homer to Toynbee. Prereq: Senior Standing and acceptance as an undergraduate major in history or permission of the department head (not open for graduate credit).

501 **Advanced Research Project in History** (I, II, S) 1-5 hours
Special problems in advanced work in history arranged individually with graduate students. Prereq: Acceptance as a graduate major or minor in history and permission of the department head and the instructor.
503 **Historical Research** (I) 3 hours

The critical method in collecting and organizing historical materials; the processes of verification, evaluation, and organization of facts; the problems of writing: documentation, styling and printing the product. Prereq: Acceptance as a graduate major or minor in history or permission of the department head and the instructor (not open for credit to students who have taken Hist. 493 or the equivalent).

506 **Great American Historians** (II) 3 hours

A survey of the history of American historical writing from colonial times to the present. Reports based on selected readings. Prereq: Acceptance as a graduate major or minor in history or permission of the department head and the instructor (not open for credit to students who have taken Hist. 496 or the equivalent).

507 **Great European Historians** (I) 3 hours

A survey of the history of European historical writing from the Renaissance to the present. Reports based on selected readings. Prereq: Acceptance as a graduate major or minor in history or permission of the department head and the instructor (not open for credit to students who have taken Hist. 497 or the equivalent).

The following seminars lay stress on individual research on significant problems as indicated by the titles. An introduction to bibliography and demonstration of the methods of historical research will be incorporated in each seminar. Prereq: Acceptance as a graduate major or minor in history and permission of the instructor and department head. Each 3 hours.

512 **Seminar in American History: The Jacksonian Era** (I)

517 **Seminar in American History: The Frontier** (II)

522 **Seminar in American History: Civil War and Reconstruction** (I)

532 **Seminar in Recent American History** (I)

535 **Seminar in Local History: Nebraska and the Great Plains** (II)

536 **Seminar in Twentieth Century Diplomatic History of the United States** (II)

540 (also Economics 540) **Seminar in American Economic History (To 1865)** (I)

541 (also Economics 541) **Seminar in American Economic History (Since 1865)** (II)

542 **Seminar in United States Public Land Policy and Conservation** (I)
UNIVERSITY OF NEBRASKA AT OMAHA

551 Seminar in Early Modern European History (II)
553 Seminar in European History: The Revolutionary Age (I)
554 Seminar in European History: The Napoleonic Era: 1800-1815 (II)
555 Seminar in Nineteenth Century European History (I)
556 Seminar in Twentieth Century European Diplomatic History (I)
558 Seminar in World History: Military History and Policy (II)
563 Seminar in Eighteenth Century British History (II)
565 Seminar in British History: The Era of Reform (II)
569 Seminar in Contemporary British History (II)
601 Thesis (II) Each 3 hours
602 Independent research project written under the supervision of an advisor.

The following 300-level courses in history are open to students for graduate credit with special assignments: 311, 312, 313, 315, 316, 333, 334, 341, 344, 351, 352, 355 and 364.

JOURNALISM

ASSOCIATE PROFESSOR COWDIN (Head); ASSISTANT PROFESSOR FRANCKE; INSTRUCTORS MCCARTNEY, SIMPSON, WITTEKIND

Students who elect a major in journalism must pass the following courses with a grade of "C" or above: Journalism 115, 116, 211, 227, 301, 311, 317, 340, 341, 490 or 491, three semesters of Applied Journalism, six hours of psychology including Psychology 101, Economics 201 and 202, History 111 and 112, and Political Science 110 and 111.

In addition, a student who holds a special area interest (such as radio and television news) is expected to pick electives from those areas which will aid him in rounding out his knowledge of that special field.

Students who wish to teach journalism in secondary schools may elect either (1) the major described above, in which case they must satisfy the requirements for a Secondary Teaching Certificate, or (2) a major in the College of Education, in which case they must pass with a grade of "C" or above 26 hours of journalism, including Journalism 115, 116, 227, 301, 311, 317, 341, and two semesters of Applied Journalism.

115 News Writing and Reporting (I) 3 hours
Theory and practice in writing and reporting for newspapers.
Prereq: Engl. 111 and typing ability, or permission.
116 **News Editing** (II, S) 3 hours
Evaluation, editing and production of news for print media.
Prereq: Journ. 115 or permission.

201 **Introduction to Mass Communications** (I, II, S) 3 hours
A brief introduction to mass media, including newspapers, radio, television, books, magazines and movies, surveying their roles and functions in American society.

211 **Radio and TV News Writing** (II) 3 hours
The theory, techniques and practices utilized in gathering, writing and editing news for broadcast journalism. Prereq: Journ. 115 or permission.

227 **Reporting of Public Affairs** (I) 3 hours
Proper and effective procedures used in covering such activities as trials, conventions, addresses, council meetings and other public affairs. Prereq: Journ. 115.

*230-231 **Applied Journalism** (I, II, S) Each 1 hour
Supervised experience in news editing, reporting, copy reading, proof reading, organization and direction of the editorial staff, selection of copy for placement, page makeup, headline writing, use of style sheets; also administrative procedures for editors and reporters. Includes work on the campus newspaper and/or yearbook. Prereq: Journ. and/or permission.

301 **American Journalism, 1690 to Date** (I) 3 hours
The American press from 1690 up to and including the newspapers of today, with emphasis on newspapers, personalities, and events that have contributed to American Journalism. A consideration of some of the reasons why the American press operates as it does today.

311 **Photography** (I, II, S) 3 hours
The theory, techniques and application of basic photographic operations of exposure, development and printing. Prereq: Sophomore Standing.

313 **Advanced Photography** (II, S) 3 hours
The creative aspects of photography, including advanced camera and darkroom theories and techniques. Prereq: Journ. 311 or permission.

315 **Newsfilm and Documentaries** (I, II) 3 hours
Theories and techniques for filming and producing television newfilm and documentaries. Prereq: Journ. 311 or permission.

317 **The Graphic Arts** (II) 3 hours
A study of the production side of newspaper and printing operations, including the history and development of type, type itself, the materials and processes of printing, and printing layout and design. Prereq: Sophomore Standing.

* Three semesters required for majors, but total credits may not exceed six hours.
322 Critical Writing for the Mass Media  (II, S) 3 hours
Theory and practice in writing criticisms of the arts, interpretative articles, editorials, columns and creative features. Prereq: Junior Standing.

323 Business and Industrial Publication Editing  (II) 3 hours
Planning, management, format organization, editing, and writing of business and industrial magazines and newspapers, from the editor's point of view. Prereq: Journ. 115 or permission.

330-331 Applied Journalism  (I, II) Each 1 hour
See entry listed under 230-231. Prereq: Journ. 115 or permission.

335 Journalism Internship Program  (I, II, S) 2 hours
Media experience under supervision. Prereq: Permission of department head.

340 Mass Communications Theories and Research  (I) 3 hours
A study of the definitions, relationships, and roles of the mass media in our society, based on discussions of historical and current theories and research. Prereq: Junior Standing.

341 Communications Law and Management  (II) 3 hours
Discussion of laws, judicial and administrative, which have special application to mass communications; principles of sound newspaper management practices. Prereq: Journ. 116 or permission.

362 Advertising Layout and Copywriting  (II) 3 hours
A course based on the premise that copy, layout and typography must combine to achieve a single effect in successful advertising. Prereq: BA 336 or permission.

423 Public Relations  (I, II, S) 3 hours
A survey of the philosophies, theories and techniques of the public relations function, the public relations counsel and the publicity expert, including past and current applications. Prereq: Junior Standing or permission.

424 Publicity Methods  (I) 3 hours
A survey of present utilization of publicity as a communications tool. Prereq: Journ. 423 or permission.

430-431 Applied Journalism  (I, II) Each 2 hours
See entry listed under 230-231. Permission of department head.

443 World Communications  (II, S) 3 hours
A descriptive survey of the mass communications systems of the world today. Prereq: Senior Standing or permission.

490-491 Seminar in Mass Communications  (I, II) Each 3 hours
A senior seminar applying historical and theoretical perspective to current developments in mass communications. Prereq: Senior Standing.
MATHEMATICS

PROFESSORS HAEDER (Head); STEVENSON;
ASSISTANT PROFESSORS BASMAJI, MALONEY, SMITH;
INSTRUCTORS BEUKEMA, DECKER, GIBBONS,
LARSEN, OBERLANDER, SHARIEFF

A major in mathematics for the Bachelor of Arts degree or a departmental major in mathematics for secondary school certification consists of 18 semester hours beyond 197, including at least one 400 level course. Students who contemplate graduate work in mathematics should include 411-412 or 423-424 or both in their programs.

A teaching field in mathematics for secondary school certification and a departmental major for elementary school certification is available from the department.

COMPUTER SCIENCES

170 Computer Language: Fortran (I, II) 1 hour
Prereq: One year each of high school algebra and geometry or placement.

171 Computer Language: Cobol (I, II) 1 hour
Prereq: One year each of high school algebra and geometry or placement.

230 Computer Concepts (I, II) 3 hours
Program writing in several languages. Problem solving, numerical and non-numerical. Programs are tested and run on an actual computer. Prereq: Math 101 or equivalent.

322 Advanced Programming Techniques (I) 3 hours
The analysis and composition of advanced programs used with contemporary computers. Prereq: C.S. 170, 230, Math 196, 211.

330 Numerical Methods (II) 3 hours

332 Introduction to the Theory of Information Storage and Retrieval (II) 3 hours
List processing languages, theories of file organization, theories of system design, information retrieval, applications. Prereq: Math 195, 211 and C.S. 230.

430 Linear Programming (I) 3 hours
An introduction to linear programming and applications. Prereq: Matrix or Linear Algebra.

432 Introduction to System Programming (II) 3 hours
Input-Output and storage systems, structures and transformations of data basis, assembly and executive systems. Prereq: Comp. Sci. 322 or equivalent.
470 **Introduction to the Theory of Compilers** (II) 3 hours
Assemblers, interpreters, compilers. Prereq: C.S. 322 or equivalent.

**MATHEMATICS**

*100 **Introduction to Mathematics** (I, II) 2 hours
A theory of arithmetic for elementary teachers. Prereq: Permission of instructor or by invitation.

101 **Logic, Sets and Functions** (I, II) 3 hours
An introduction to mathematical logic, set theory, the real numbers, relations and functions. Prereq: Two years of high school mathematics.

102 **Finite Probability and Statistics** (I, II) 3 hours
An elementary introduction to the mathematical theory of probability with applications to statistical inference. Prereq: Math 101 or equivalent.

*111 **Algebra** (I, II) 3 hours
Topics from third semester algebra and from introductory college algebra from a contemporary point of view. Prereq: One year each of high school algebra and geometry or placement examination.

*112 **Trigonometry** (I, II) 3 hours
The elements of plane trigonometry; applications to geometry and physics. Prereq: Math 111 or placement examination.

195 **Calculus I** (I, II) 5 hours

196 **Calculus II** (I, II) 4 hours

197 **Calculus III** (I, II) 3 hours
Differentiation and integration of algebraic, trigonometric, exponential, logarithmic and hyperbolic functions with analytic geometry and vectors. Prereq: Four years of high school mathematics including trigonometry or equivalent.

211 **Linear Algebra** (I, II) 3 hours
A first course in Linear Algebra to include vectors, vector spaces, determinants, matrices, linear transformations, and an introduction to linear programming. Prereq: One semester of calculus or permission of instructor.

225 **Calculus of Vector Functions** (II) 3 hours
Calculus of real and vector functions with linear algebra including gradient, divergence, curl, Green's Theorems and Stokes' Theorem. Prereq: Math 196 and 211 or equivalent.

235 **Advanced Mathematics for Engineers I** (I) 3 hours

* Credit not allowable toward degrees in the College of Arts and Sciences.
236 Advanced Mathematics for Engineers II (II) 3 hours

254 Mathematics of Finance (II) 3 hours
Simple and compound interest, annuities, amortization of debts, sinking funds, depreciation and capitalized cost, and bonds. Prereq: Math 111 or four semesters of high school algebra.

311 Differential Equations (I, II) 3 hours
Methods of solving ordinary differential equations with applications to geometry and physics. The linear equations are emphasized. Prereq: one year of calculus.

324 Elementary Topics (II) 3 hours
The course contains elementary topics of interest selected from geometry, analysis, number theory, point set topology and logic. Prereq: Math 193 or equivalent.

331 Introduction to the Theory of Games (II) 3 hours
Finite games, minimax, theorem, optimal strategies, methods of solution of finite games, infinite games, applications. Prereq: Math 196 and 211 or equivalent.

353 Probability and Statistics I

354 Probability and Statistics II (I, II) Each 3 hours
Events and probabilities, dependent and independent events, random variables, discrete distributions, absolutely continuous distributions, expectation and limit theorems, point estimation, the multivariate normal distribution, testing of statistical hypotheses, confidence intervals. Prereq: Math 196 and Junior Standing.

360 Elementary Topology (II) 3 hours

364 Projective Geometry (I) 3 hours
Duality, perspectivity, harmonic sets, double ratio, conics and projective coordinates, dependence and independence of sets of points and sets of lines, matrices and determinants, pole and polar, polar reciprocation in respect to a conic, classical theorems. Prereq: Math 195 or equivalent.

411-412 Abstract Algebra (I, II) Each 3 hours
An introduction to modern algebra, congruences, groups, fields, linear transformations and matrices. Prereq: Math 211 or equivalent.

423-424 Mathematical Analysis (I, II) Each 3 hours
Topology of Euclidean space, continuity, differentiation, Riemann-Stieltjes integration, sequences and series. Prereq: Math 311 or equivalent.
427 Complex Variables (I, II) 3 hours
Differentiation, integration and power series expansions of analytic functions, conformal mapping, residue calculus and applications, analytic continuation, singularities and representations of analytic functions. Prereq: Math 423-424 or Advanced Calculus.

429 Theory of Ordinary Differential Equations (II) 3 hours

433 Operational Mathematics (I) 3 hours

441 Introduction to the Foundation of Mathematics 3 hours
Logic, axiom systems, set theory, groups, the real number system, metamathematics. Prereq: Senior or Graduate Classification.

460 Tensor Analysis (II) 3 hours
E-systems, determinants, review of vector analysis, surface theory, tensor and extensor algebra, applications. Prereq: Math 311 or equivalent.

498 Seminar (I, II) 1-3 hours
A seminar in mathematics. Prereq: Permission of instructor.

499 Independent Studies (I, II) 1-3 hours, 4 max.
A variable credit course for the advanced junior or senior who will benefit from independent reading assignments and research type problems. Prereq: Permission of department head.

511 Linear Algebra I

512 Linear Algebra II (I, II) Each 3 hours

523-524 Theory of Functions of Real Variables Each 3 hours
Real number system, convergence, continuity, bounded variation, differentiation, Lebesgue-Stietjes integration, abstract measure theory, the Lp spaces. Prereq: Math 423-424 or Advanced Calculus.

525 Partial Differential Equations (II) 3 hours
560 **Differential Geometry** (I) 3 hours
Differential manifolds, integral calculus on manifolds, lie groups, differential geometry of Euclidean space. Prereq: Math 423.

598 **Graduate Seminar** (I, II) Each 3 hours
A graduate seminar in mathematics. Prereq: Permission of instructor.

601-602 **Thesis** (I, II) Each 3 hours
Prereq: Permission of department head.

**MUSIC**

PROFESSOR PETERSON (Head);
ASSOCIATE PROFESSORS MALIK, PETERS, RUETZ, TRENHOLM;
ASSISTANT PROFESSORS BOHRER, MULLEN, SHIVE;
INSTRUCTOR PAYNE

The Bachelor of Arts degree with a major in music may be secured by passing satisfactorily 18 hours of upper-division courses.

The Bachelor of Fine Arts degree requires a minimum of 40 and a maximum of 68 credit hours in music.

Students who wish to teach music in public schools may follow the major program and complete requirements for teacher certification.

Attendance at recitals and concerts as specified by the Department of Music is required. Failure to attend will delay graduation.

Areas of emphasis in the music major are applied music (vocal or instrumental), composition and music education.

111-112 **Diatonic Harmony** (I, II) Each 3 hours
The study of Diatonic Harmonic materials and their application in the writing of music.

121-122 **Ear Training and Sight Singing** (I, II) Each 1 hour
Thorough training in sight singing and the aural recognition of scales, intervals, melodic line and rhythmic patterns.

200-201-202 **Diction for Singers** Each 1 hour
The phonetics of diction for singing Italian (200), German (201), and French (202). Prereq: Sophomore level and Music 134.

211-212 **Chromatic Harmony** (I, II) Each 3 hours
Study of Chromatic Harmonic materials and their application to the composition of music. Prereq: Music 112.

221-222 **Ear Training and Sight Singing** (I, II) Each 1 hour
A thorough training in sight singing and the writing of music through aural dictation. Prereq: Music 122.

225 **Music of the People** (I, II, S) 3 hours
A listening course based on folk music; its influence on and use in art music; nationalism and program music. No previous musical training required.
226 Music Masterpieces (I, II, S) 3 hours
A listening course designed to guide the untrained listener in a better understanding of great works of music of various periods.

301 Fundamentals of Conducting (I) 1 hour
The elements of conducting and score reading.

303-304 Choral Techniques (I, II) Each 1 hour
A study of choral music; the organization and rehearsal techniques of various types of choruses, especially on the secondary level. Prereq: Music 112 or permission.

313-314 Keyboard Harmony (I, II) Each 2 hours

315 Music History (I, II) 3 hours
Primitive times through Bach and Handel. Prereq: Music major or permission.

316 Music History (I, II) 3 hours
Classic, Romantic and Contemporary periods; individual research. Prereq: Music major or permission.

321 Piano Literature—The Baroque Period (I) 1 hour
A detailed study of music literature of the Baroque Period for the piano; the evolution of forms and styles. Prereq: Music 232 or permission.

322 Piano Literature—The Classical Period (II) 1 hour
A detailed study of music literature of the Classical Period for the piano; the evolution of forms and styles. Prereq: Music 232 or permission.

323 Piano Literature—The Romantic Period (I) 1 hour
A detailed study of music literature of the Romantic Period for the piano; the evolution of forms and styles. Prereq: Music 232 or permission.

324 Piano Literature—Contemporary (II) 1 hour
A detailed study of music literature of Contemporary music for the piano; the evolution of forms and styles. Prereq: Music 232 or permission.

325-326-327-328 Vocal Literature Each 1 hour
Study of the style and performance of Baroque (325), Classical (326), Romantic (327), and Contemporary (328) vocal compositions. Prereq: Junior Standing and Music 234.

411-412 Counterpoint (I, II) Each 3 hours
Strict counterpoint in three and four voices; fugue exposition; double counterpoint and Canon. Prereq: Music 212 or permission.
112 COLLEGE OF ARTS AND SCIENCES

415 **Orchestration**  (I) 3 hours
The technique of writing for the orchestra; required of majors in public school instrumental music. Prereq: Music Major or permission.

416 **Bandstration**  (II) 2-3 hours
The technique of writing for the band; required of majors in public school instrumental music. Prereq: Music 415.

421-422 **Fundamentals of Composition**  (I, II) Each 2 hours
Techniques of musical composition; a study of the composers' materials and of form from the phrase through the sonatina. Prereq: Music Major or permission.

429-430 **Principles and Materials for Teaching Piano**  (I, II) Each 2 hours
The goals, principles, procedures, and materials for teaching piano from elementary through advanced levels. Prereq: Music 232 or permission.

491-492 **Projects in Music**  (I, II) Each 1-3 hours
Projects in research, composition and performance in music. Prereq: Permission.

**MUSIC EDUCATION**

151 **Fundamentals of Music for Teachers**  (I, II, S) 2-3 hours
Music fundamentals for elementary teachers who are unacquainted with the mechanics and language of music.

251 **Elementary School Music Materials and Methods**  (I, II, S) 3 hours
Materials and methods of teaching music in grades one through six. Prereq: ME 151 or proficiency.

352 **Secondary School Music Materials and Methods**  (I) 3 hours
Materials and methods of teaching music in grades seven through twelve; required of music majors or minors who expect to teach music in the junior and senior high school. Prereq: ME 251 or permission.

452 **Supervision and Administration of Music in the Public Schools**  (II) 3 hours
The nature, principles and procedures of music supervision with emphasis placed on the practical situation, materials and organization. Prereq: ME 352 or permission.

**LABORATORY COURSES**

A maximum of eight semester hours credit in laboratory courses (band, chorus, orchestra; singly or in any combination) may be applied toward the Bachelor of Arts or Bachelor of Fine Arts degrees.

Four credits in Music 360, 361, 362, may be taken in addition to the eight maximum above.
All music majors are required to participate each semester of enrollment in one or more of the Department's laboratory courses; i.e., band, chorus, orchestra, or other instrumental or vocal ensembles.

All music majors preparing to teach instrumental music in the public schools are required to participate in marching band.

260 **Chorus** (I, II) 1-2 hours
Study of best choral literature; public performances required. Membership, subject to director's approval, is open to any University student.

262 **Orchestra** (I, II) 1 hour
Study of best orchestral literature; public performances required. Open to any University student subject to approval of director.

263 **Band** (I, II) 1 hour
Stresses marching routines and band formations during the football season, after which the best concert band literature is studied. Public performances are required. Open to any University student subject to approval of director.

360 **Ensemble** (I, II) 1 hour
A course for the study and performance of music written for small groups in various combinations. Features: string, brass, woodwind, vocal, opera workshop, piano repertoire, piano accompaniment. Open to any University student subject to approval of director.

361-362 **Opera Theatre** (I, II) Each 2 hours
The preparation of complete operas in English, and arias, ensembles, and scenes, in the vernacular language, for public performance. Prereq: Permission.

**APPLIED MUSIC**

Courses in applied music may be taken only by permission of the Head of the Department of Music.

Lessons must be taken at the scheduled time. A jury examination will be given at the close of each semester. Absence from the examination at the time it is given will result in a failing grade.

All music majors must pass an examination in piano proficiency before graduation, and in the major performance area by the end of the sophomore year.

A full or partial recital is required of all music majors.

Minimum requirement in applied music for graduation is 16-24 hours.

All students registered for applied music, except those in preparatory courses, are required to participate in at least one student recital per semester.
The Department of Music offers private instruction for those who are not prepared to enter the major courses in applied music at the collegiate level.

101-102 Class Voice (I, II, S) Each 1 hour
103-104 Class Brass (I, II, S) Each 1 hour
105-106 Class Woodwinds (I, II, S) Each 1 hour
107-108 Class Strings (I, II, S) Each 1 hour
109 Class Percussion (I, II, S) 1 hour
113-114 Elementary Piano (I, II, S) Each 1 hour

Prereq: Music 104 or permission of instructor.

109-110 Intermediate Piano (I, II, S) Each 1 hour
Prereq: Music 114 or permission of instructor.

203-204 Intermediate Voice (I, II, S) Each 1 hour
Prereq: Music 104 or permission of instructor.

131-132 Piano (I, II, S) Each 1-2 hours
331-332
431-432

VOICE: to enter the four-year course in voice, the student should be able to sing standard art songs and simple classics in good English, on pitch, with correct phrasing, musical intelligence, and pleasing vocal quality. An elementary knowledge of piano is recommended.

133-134 Voice (I, II, S) Each 1-2 hours
333-334
433-434
REQUIREMENTS FOR THE BACHELOR OF FINE ARTS

The course of study below will be followed. Those wishing teacher certification will take the starred courses. Those not wishing teacher certification will take an equal number of credit hours as advised by the counselor.

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
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<tbody>
<tr>
<td>Music 111—Diatonic Harmony</td>
<td>3</td>
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<tr>
<td>Music 121—Ear Training and Sight Singing</td>
<td>1</td>
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<tr>
<td>English</td>
<td>3</td>
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<tr>
<td>Physics 101</td>
<td>5</td>
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<tr>
<td>Applied Music</td>
<td>2-3</td>
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<tr>
<td>Music Laboratory</td>
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<td><strong>15-16</strong></td>
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<th>SECOND YEAR</th>
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<tr>
<td>Music 211—Chromatic Harmony</td>
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<tr>
<td>Music 221—Ear Training and Sight Singing</td>
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<td>Music 225—Music Masterpieces</td>
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<tr>
<td>*Education 208—Intro. to Tchg.</td>
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<td>Applied Music</td>
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<td>Music Laboratory</td>
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<tr>
<td>Foreign Language</td>
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<td><strong>17-18</strong></td>
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<tr>
<th>THIRD YEAR</th>
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<tbody>
<tr>
<td>Music 315—Music History</td>
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<tr>
<td>*Mus. Ed. 352—Sec. Music Meth.</td>
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<tr>
<td>Psychology 101</td>
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<tr>
<td>*Ed. 207—Hum. Grwth. and Dev.</td>
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<td>Applied Music</td>
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<td>Music Laboratory</td>
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<td>Choral Techniques</td>
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<td><strong>16-17</strong></td>
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<th>FOUR YEAR</th>
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<tr>
<td>Music 415—Orchestration</td>
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<tr>
<td>*Student Teaching</td>
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<tr>
<td>Applied Music</td>
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<tr>
<td>Music Laboratory</td>
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<tr>
<td>Social Science elective</td>
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<td><strong>16-18</strong></td>
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Those preparing to teach vocal music only may omit Music 415 and Music 416 but must take at least four of Class Instrument courses in addition to Choral Techniques.

Students interested in teaching both vocal and instrumental music should consult their counselor for a specific program leading to teacher certification in both areas.

In order to complete the course work for the B.F.A. with teacher certification, it may be necessary to do work in addition to the eight semesters normally required.
A major may be secured in Philosophy by successfully completing Philosophy 201, 211 and 212, and eighteen credit hours in the 300 group. No major is offered in Religion.

**PHILOSOPHY**

101 *Introduction to Philosophy* (I, II, S) 3 hours
A first course in philosophy designed to introduce students to the major philosophic positions by way of a treatment of selected problems.

201 *Logic* (I, II, S) 3 hours
A study of the principles of correct reasoning; induction, deduction, formal and informal fallacies.

203 *Classical Ethical Theories* (I, S) 3 hours
A critical study of the moral philosophies of Plato, Aristotle, Christianity, Kant, Mill, and Neitzsche.

211 *History of Ancient Philosophy* (I) 3 hours
A broad survey of philosophy from its beginnings in Ancient Greece to the rise of Christianity with emphasis on the philosophies of Plato and Aristotle.

212 *History of Modern Philosophy* (II, S) 3 hours
An examination of the leading philosophic ideas of the 17th and 18th centuries; Locke, Berkeley, Hume, Descartes, and Kant.

304 *Contemporary Ethical Philosophy* (II) 3 hours
Examination of 20th century developments in moral philosophy; naturalism, emotivism, and self realization theory. Prereq: Phil. 203 or Junior Standing.

320 *Philosophy of Religion* (I, II, S) 3 hours
A study of the major arguments for and against the existence of God, religious knowledge, miracles, morality without religion, and immortality. Prereq: Junior Standing or 3 credits in Philosophy.

322 *Philosophy of Art* (I) 3 hours
A philosophical examination of art from the standpoint of the creative activity of the artist, the work of art, and the reception of art by the public. Prereq: Junior Standing or 3 credits in Philosophy.

325 *History of American Philosophy (18th and 19th centuries)* (I) 3 hours
A survey of the philosophy of the Colonial period, the Age of Reason, Transcendentalism, Absolute Idealism, and the Philosophy of Evolution. Prereq: Junior Standing or 3 credits in Philosophy.
326 History of American Philosophy (20th century) (II) 3 hours
A study of the men and movements in 20th century American thought; Pragmatism, Critical Realism, New Realism, along with selected readings from contemporary American thinkers. Prereq: Junior Standing or 3 credits in Philosophy.

330 Nineteenth Century Philosophy (II) 3 hours
Post-Kantian philosophical movements in Europe during the 19th century; Idealism, Religious Existentialism, Social Positivism, Communism, Evolutionary Philosophy, and Phenomenology. Prereq: Phil. 212 or permission.

341 Philosophy of Science (I) 3 hours
An examination of the history, method and presuppositions of scientific inquiry; concept formation, scientific laws and scientific theories. Prereq: Junior Standing.

342 Symbolic Logic (II) 3 hours
A first course in symbolic logic designed to introduce students to formal systems of propositional, predicate, and class logic. Prereq: Phil. 201 or permission.

350 Analytic Philosophy (I) 3 hours
An examination of the 20th century movement in philosophy called Philosophical Analysis. Prereq: 3 credits in Phil. or permission.

351 Philosophy and Language (II) 3 hours
A critical analysis of the theories of meaning and language represented in the literature of 20th century English speaking philosophers. Prereq: Junior Standing or 6 credits in Philosophy.

RELIGION

215 Old Testament (I) 3 hours
A literary and historical approach to the study of the Old Testament in the light of recent scholarship.

216 New Testament (II, S) 3 hours
An introduction to the literature of the New Testament from a historical perspective.

317 History of Christian Thought (I) 3 hours
The development of Christian thought from the beginnings of Christianity through the medieval period. Prereq: Junior Standing.

318 History of Christian Thought (II) 3 hours
Main trends in Christian thought in the Reformation and modern periods. Prereq: Junior Standing.

331 Contemporary Religious Thought (I) 3 hours
A survey of recent developments in religious thought, emphasizing central themes and basic issues in current discussion. Prereq: Junior Standing.
332 **Contemporary Religious Thinkers** (II) 3 hours
An examination of the thought of recent and contemporary theologians representing various religious traditions. Prereq: Junior Standing.

335 **Religions of the World** (I, S) 3 hours
An introduction to the comparative study of religions, followed by a descriptive account of the principal teachings and practices of Hinduism, Buddhism, and Islam. Prereq: Junior Standing.

336 **Religions of the World** (II) 3 hours
A study of the Judaeo-Christian tradition, with emphasis on Judaism, Catholicism, and Protestantism in the modern world. Prereq: Junior Standing.

341 **Religious Thought in America** (I) 3 hours
The role of religion in American culture as reflected in the development of American religious thought to 1865. Prereq: Junior Standing.

342 **Religious Thought in America** (II) 3 hours
A study of significant men and movements in the development of American religious thought since 1865. Prereq: Junior Standing.

**PHYSICS**

PROFESSOR McMILLAN (Head); ASSISTANT PROFESSOR SHULT; INSTRUCTORS EDER, KASHER, SCHMIDT

A major in physics consists of a minimum of 18 hours of advanced physics beyond the general courses (111, 112 or 211, 212). At least 12 hours of the advanced credit in physics must require mathematics through calculus as a prerequisite. Sufficient chemistry should be taken to acquire credit in a course in physical chemistry. This would normally be one year of general chemistry plus physical chemistry. Physics majors intending to go on for graduate work should include a course in differential equations. All physics majors are required to present a project paper before a scientific group.

*101 **Principles of Physical Science** (I, II, S) 5 hours
A selected sampling from the fields of geology, physics, chemistry, and astronomy, correlated with everyday problems in the application of physical science to the home, to the industrial city, and to a democracy, leading to an understanding of some of the basic principles and methods of physical science. Lecture, discussion, laboratory. Prereq: H.S. Algebra.

111-112 **General Physics** (I, II, S) Each 4 hours
Two-semester continuing course designed for students with no prior background in physics. Mechanics, Heat and Sound covered in first semester with Electricity and Magnetism, Light and

*Not open to students who have completed courses in both high school chemistry and physics with a grade of "C" or better.
a little Modern Physics—covered the second semester. Prereq: High school Algebra and Geometry.

211-212 General Physics Technical  (I, II) Each 5 hours
Two-semester continuing course designed for students majoring in some area of science, math, or engineering. Mechanics, Molecular Properties of Matter, Heat, and Wave Motion are covered in the first semester, whereas Electricity, Magnetism, Light, and Nuclear Energies are considered during the second semester. Prereq: High school Physics, and Calculus prior or concurrently.

301 Elements of Electronics  (II) 4 hours
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: Math thru Trig., and Physics 112 or 212.

302 Optics  (I) 4 hours
The nature of light energy as disclosed through studies of geometrical optics, physical optics and quantum optics. Prereq: Math thru Trig., and Physics 112 or 212.

335 Atmospheric Physics  (I or II) 3 hours
Solar and terrestrial radiation, energy transformations in planetary circulation, condensation and precipitation processes, the upper atmosphere, atmospheres of other planets. Prereq: Calculus and General Physics 112 or 212.

345 Physical Mechanics  (I) 3 hours
Statics and dynamics of particles and rigid bodies including the equations of LaGrange and Hamilton. Prereq: Calculus and General Physics 112 or 212.

375-376 Electricity and Magnetism  (I, II) Each 4 hours
Two-semester continuing course giving more complete and advanced treatment of electrical and magnetic principles from standpoint of both A.C. and D.C. phenomena. Prereq: Calculus and General Physics 112 or 212.

385 Heat and Thermodynamics  (II) 3-4 hours

405 Solid State  (I) 3 hours
Behavior of materials in the solid state as concerns Energy Levels, Wave Mechanics, Optical and Electrical Phenomena. Prereq: Calculus and Physics 112 or 212.

412 Modern Physics  (II) 4 hours
Recent developments concerning the nature of matter, radiation, and space including relativistic effects and the dualistic behav-
ior of particles and waves. Prereq: Calculus and Physics 112 or 212.

414 **Nuclear Physics**  
(I) 4 hours  
Methodology and principles of nuclear science, nuclear structure, artificial and natural radioactivity, isotopes, tracer techniques, radiation health physics, reactor theory. Prereq: Calculus and General Physics 112 or 212.

434 **Principles of Geology**  
(I or II) 3 hours  
Geology course designed primarily for Junior High School and Secondary High School teachers of science or for science majors desirous of broadening background. Includes minerals, rocks, volcanism, diatropism, gradational agents, geophysics, and a brief contact with historical and structural geology. Prereq: General Physics and/or General Chemistry.

435 **Descriptive Astronomy**  
(I or II) 3 hours  
Astronomy course designed primarily for Junior and Senior High School teachers of science or for science majors desiring to broaden their background. Includes historical highlights, Newtonian mechanics, solar system, meteors, physics of starlight, stars, star systems, and stellar evolution. Prereq: General Physics.

492-493 **Modern Developments in Physics**  
(I or II) Each 3 hours  
A resume of the most important discoveries, changes and new concepts gleaned from the last decade of research in physics. Superconductivity, lasers, masers, superfluidity, ultra large magnetic fields, space plasmas, nuclear fusion, power, etc. Designed for updating physical science concepts for science majors and for science teachers. Prereq: General Physics 112 or 212.

495-496 **Problems in Physics**  
(I, II, S) Each 1-3 hours  
Individual laboratory and/or library work in some field of energy. Prereq: General Physics and permission of instructor.  
For 496: 495 and permission of instructor.

Courses in other departments applicable toward physics major

- **Statics of Engineering** See Engineering 230
- **Meteorology** See Engineering 336
- **Mathematics Analysis** See Mathematics 423

**POLITICAL SCIENCE**

PROFESSORS SCOTT (Head), LAMBERT, SWAGERT, UTLEY;  
ASSOCIATE PROFESSORS MARVEL, MENARD, REYNOLDS;  
ASSISTANT PROFESSORS CAMP, KOLASA

A major in this field consists of 24 hours. Pol. Sci. 100 does not count as a part of the major, but majors are strongly urged to take it. For any area of concentration in Political Science, Pol. Sci. 110, 111, and 6 hours of Political Theory are required. In individual counseling, each major will have a pattern of courses in the department, as well as a social science
pattern outside of the department designed to suit his areas of concentration. Programs are carefully worked out for students having specific goals such as pre-law, Foreign Service, public administration, graduate school, secondary teaching certificates, etc. However, at least 6 hours of economics and a minimum of 3 hours of geography are required of all majors. The major must maintain at least a “C” average in all Political Science courses and courses at the 200, 300, and 400 level with less than a “C” grade may not be applied on the major.

**URBAN STUDIES**

A major in urban studies consists of 36 semester hours selected from the courses listed below. At least 3 semester hours must be completed in each departmental area (economics, geography, political science, and sociology) plus 15 hours in one of the above fields. The remaining 9 hours of electives will be scheduled in consultation with the program director. The following course may be used to satisfy the urban studies major.

- **Business Administration**: 344, 347*, 440.
- **Economics**: 312, 355, 456.
- **Geography**: 313, 353, 363, 412*, 443*.
- **Political Science**: 216, 301*, 317*, 319, 440, 441.
- **Sociology**: 210, 361, 402, 410*, 414*, 462, 475.

100 **Introduction to Political Science** (I, II) 3 hours
A basic course in Political Science dealing with the fundamentals of man politically organized. It seeks to introduce students to the fundamental language and concepts of the broad field of Political Science.

110 **American Government: Organization** (I, II) 3 hours
The first semester of a two semester American government course. The first semester covers the origins and organization of American Governments: National, State, and Local.

111 **American Government: Function** (I, II, S) 3 hours
A continuation of Pol. Sci. 110 in which the student studies Cooperative Federalism. This course examines what the various levels of governments do as opposed to structure. Prereq: Pol. Sci. 110.

216 **Political Parties** (I, S) 3 hours
A study of the organization and operation of the American party system. Prereq: Sophomore Standing.

217 **Pressure Groups and Public Opinion** (II, S) 3 hours
A study of the activities of the basic interests and their efforts to influence both the opinion and policy of the public sector of the government. Prereq: Sophomore Standing.

221 **International Relations** (I, S) 3 hours
The nature of the international political environment, in terms of the forces, influences, and problems involved in the relations

* Courses marked with an asterisk are to be given priority by students majoring in urban studies.
between nation-states and the means of conducting these relations. Prereq: Sophomore Standing.

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<th>Course Number</th>
<th>Course Title</th>
<th>Offered</th>
<th>Credits</th>
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<tbody>
<tr>
<td>301</td>
<td>Municipal Government</td>
<td>(I, S)</td>
<td>3</td>
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<td>A course concerned with the development of cities, their forms of government, powers, functions, and problems in an industrialized and urbanized society. Prereq: Junior Standing.</td>
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<tr>
<td>313</td>
<td>Comparative Government-Democracies</td>
<td>(I, S)</td>
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<td>A basic study of theory, practice and practitioners of political democracy, its roots, development, present application and problems, and future. Prereq: Junior Standing.</td>
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<tr>
<td>314</td>
<td>Comparative Government-Dictatorships</td>
<td>(II, S)</td>
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<td>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: Junior Standing.</td>
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<tr>
<td>315</td>
<td>Communism: Its Theory and Practice</td>
<td>(I, S)</td>
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<td>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: Junior Standing.</td>
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<td>317</td>
<td>Introduction to Public Administration</td>
<td>(I, II, S)</td>
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<td>A study of governmental administration and its involvement in the social and economic problems of American democracy. It includes but is not limited to the organizational, financial, personnel, and planning problems and administrative relations with legislatures, political parties, chief executives and the courts. Prereq: 110, 111, Junior Standing.</td>
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<tr>
<td>319</td>
<td>Municipal Administration</td>
<td>(II, S)</td>
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<td></td>
<td>The administrative structure and administrative practices of American cities covering such areas as finance, personnel, public works, public safety, health, utilities, and planning. Prereq: 301, Junior Standing.</td>
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<td>320</td>
<td>Jurisprudence</td>
<td>(II)</td>
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<td>A study of the theories of law. The Codified Law and British Common Law will be examined as well as the writings of the great legal theorists. Prereq: 110, 111, Junior Standing.</td>
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<td>322</td>
<td>International Organization</td>
<td>(II, S)</td>
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<td>The efforts made and the problems involved in providing international institutions capable of peacefully reconciling the differences and advancing the mutual interests of nation-states. Prereq: Junior Standing.</td>
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<tr>
<td>326</td>
<td>United States Foreign Policy</td>
<td>(II, S)</td>
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<td>The conduct and control of United States foreign policy in terms of the influences, processes and machinery of foreign policy formulation and the instruments of implementation. Prereq: Junior Standing.</td>
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342 **State Administration** (II) 3 hours
A study of the administrative organization and procedures of selected states in the Federal System. Application of the principles of public administration to the level of state governments is made on a comparative basis. Prereq: 110, 111, 317.

350 **Governments of Western Europe** (II, S) 3 hours
The government and politics of the states of Western Europe, including Great Britain, France, and West Germany. Prereq: Junior Standing.

352 **Latin American Governments** (I, S) 3 hours
The problems and political processes of the states of Latin America, including the structure and operations of their governments and the forces and dynamics of their political system. Prereq: Junior Standing.

354 **Governments of Asia** (II, S) 3 hours
The government and politics of the states of Asia, including China, Japan, and India, with special attention to the social, economic, and ideological setting. Prereq: Junior Standing.

403 **The Presidency** (I, S) 3 hours
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: 110, 111 and Junior Standing.

404 **The Legislative Process** (II, S) 3 hours
A comprehensive study of the legislative process of the Congress and state legislatures. The major emphasis is on legislative institutions, processes and behavior. Prereq: 110-111, Junior Standing.

405 **The Judicial Process** (I, S) 3 hours
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 the reform movements in the most basic of all of man's objectives, "The pursuit of justice."

413 **Comparative Governments: Emerging Areas** (II, S) 3 hours
An examination and comparative analysis of the problems, structure, and function of government in the emerging states with special attention given to the political environment of these states within which the institutions of government operate. Since certain areas will be covered on a semester basis, the course may be repeated for credit when the area of study changes. Prereq: Junior Standing.

418 **Constitutional Law I** (I, S) 3 hours
The first semester of a two-semester course in American Constitutional Law. It seeks to familiarize the student with the background of the American Constitutional system, the nature of the judicial process and the role of the United States Supreme
Court in the development of the institutions and powers of the American Federal System. Prereq: 110, 111, Junior Standing.

419 **Constitutional Law II** (II, S) 3 hours
The second semester of the American Constitutional Law course. It focuses on the role of the United States Supreme Court in delineating and defining the political and civil rights guaranteed in the United States Constitution. Prereq: 110, 111, Junior Standing.

423 **National Security Policy** (II, S) 3 hours
The processes and the machinery of formulating national security policy and the influences involved. Special emphasis is given to demonstrating the interrelationships among political, military, technological, domestic and international factors. Prereq: Junior Standing.

426 **International Law of Peace** (I, S) 3 hours
A basic course in the broad curriculum of international politics. It seeks to introduce the student to the continuing morality and law which is accepted by the international community and according to which it seeks to function in its relations as sovereign states. The aspects of the Law of War are excluded from this treatment. Prereq: Senior Standing.

428 **Inter-American Politics** (II, S) 3 hours
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: 352 or Senior Standing and permission of instructor.

431 **Political Theory I** (I, S) 3 hours
Reviews and analyzes the leading political theories of Western Man from the Hebrews and Greeks to the mid-17th Century. Prereq: Junior Standing.

580 **Independent Study in Topics on Urbanism** 1 hour per sem. to 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 in one of the social sciences. (Also listed under Economics Geography, and Sociology.)

583-584 **Interdisciplinary Seminar on the Urban Community** 3 hours per sem. to 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.)
An undergraduate major in psychology may be secured by completing the following courses: Psychology 101, 102 (with laboratory), 213, 301, 343, 421, and nine additional hours of upper division courses in psychology. Courses beyond Psychology 101 must be completed with a grade of "C" or better.

101 Introduction to Psychology (I, II, S) 3 hours
An introductory course and fundamental to all subsequent courses in the department.

102 Introduction to Psychology (I, II, S) 3-4 hours
A discussion of selected points of view within psychology usually emphasizing behaviorism and Freud, designed primarily as a second course for potential majors and Arts and Sciences students in related fields. A laboratory section may be taken (by permission of the instructor) for an extra one hour credit. The laboratory is coordinated with the discussion and includes operant conditioning techniques with laboratory animals. Prereq: Psych 101.

213 Basic Statistics (Same as Soc. 213) (I, II, S) 3 hours
An introduction to statistics, with particular emphasis on models and hypothesis testing. Coverage of single-factor analysis of variance, chi-square, F and t tests, first-order regression and correlation. Prereq: Math 101 or permission of instructor.

301 The Experimental Psychology of Learning (I, II) 3-4 hours
This course provides a comprehensive coverage of the experimental literature on human and animal learning. An optional laboratory is designed to acquaint the student with practical research methods. Prereq: Psych 102.

313 Research Design (II) 3 hours
A study of behavioral science research methodology with particular emphasis on psychological and sociological research including discussion of experimental design and scaling. Introduction to multi-factor analysis of variance, planned and post-hoc comparisons. Prereq: Psych 213.

341 Survey of Clinical Psychology (I) 3 hours
A broad survey of problems and practices in the diagnosis and treatment of behavioral disorders. Prereq: Psych 102 and 213.

343 Personality and Adjustment (I, II, S) 3 hours
The study of persons in a social context, and their resultant effective or ineffective behavior, with emphasis on types of adjustment. Prereq: Psych 102.
345 Social Psychology (I, II) 3 hours
A study of human interactions: the effects of the behavior of others on the behavior of the individual; the effects of group membership on behavior; an analysis of the social self; attitudes, motives, norms, and roles. Prereq: Psych 101.

351 Educational Psychology (I, II, S) 3 hours
The course presents a study of the capacities and interests of children and individual differences in their capacities. Factors that influence learning and an evaluation of learning and classroom procedure are included. Prereq: Psych 101.

362 Industrial Psychology (I, II) 3 hours
A broad survey of findings and principles related to business applications including discussion of personnel selection and classification, employee appraisal, training, human engineering, employee development, consumer analysis and advertising. Designed primarily for non-psychology majors. Prereq: Psych 101.

414 Nonparametric Statistics (I) 2 hours
A study of distribution-free statistics with particular emphasis on application of distribution-free tests to research problems in the social and behavioral sciences. Prereq: Basic Statistics.

415 Factor Analysis (I) 3 hours
A study of procedures that can be used to find lower rank approximations to data matrices. Prereq: Basic Statistics.

416 Analysis of Variance (II) 3 hours
Consideration is given in this course to descriptive and inferential procedures for use in analyzing individual differences expressed as variance. One-way and multifactor designs are discussed along with the models, purposes, assumptions and techniques appropriate to each. Prereq: Basic Statistics.

421 General Experimental Psychology (I, II) 4 hours
Advanced laboratory techniques and methods in the fields of sensation, perception, and learning are presented, and the student is given an opportunity to conduct supervised research on several laboratory projects. Prereq: Basic Statistics or permission of instructor.

423 Physiological Psychology (I, II) 3 hours
The relation of the structure and functions of the nervous system of the organism to its behavior. Research will be emphasized throughout the course. Prereq: Psych 101 and permission of instructor.

431 Psychological and Educational Testing (I, II, S) 3 hours
The purpose of this course is to acquaint students in Education and Psychology with the different kinds of standardized tests available to them for the evaluation of students' programs and for guidance. Emphasis will be placed on achievement tests and construction of teacher-made tests. Prereq: Psych 102 or 351.
443 **Personality Theory**  
(I) 3 hours  
An integrative course designed to acquaint the student with the Freudian and psychoanalytic viewpoints. Research in anxiety, defense mechanisms, sleep, and dreams is emphasized. Prereq: Basic Statistics and 343.

444 **Abnormal Psychology**  
(II) 3 hours  
The purpose is to become familiar with theories (psychological, psychiatric, psychoanalytic) of normalcy and abnormalcy. The symptoms, dynamics, therapy, and prognosis of individuals and groups in the syndromes will be considered. Prereq: Psych 343 and Basic Statistics.

447 **Counseling Theory**  
(I, S) 3 hours  
A course emphasizing the relation between diagnosis and treatment with a Jungian approach embracing psychology literature, philosophy and theology. Readings are emphasized. Prereq: Psych 343 or Ed 520.

452 **Child Psychology**  
(I, S) 3 hours  
A study of the physical growth, social and emotional behavior, and mental development of the child, including the pre-school period, primary, and elementary grades. Prereq: Psych 102 or 351.

454 **Adolescent Psychology**  
(II, S) 3 hours  
A study of the physical, social, emotional and intellectual adjustment of the young person from 12 to 19. Prereq: 102 or 351.

455 **Retardation**  
(II) 3 hours  
This course considers significantly sub-average intellectual functioning originating during the developmental period and associated with impairment in adaptive behavior. Prereq: Psych 431.

457 **Theories of Developmental Psychology**  
(I, II) 3 hours  
A review of theories of behavior and theoretical problems related to the biological, psychological and social development of man from conception to old age. Prereq: Basic Statistics and 343.

459 **Psychology of Exceptional Children**  
(I) 3 hours  
A study of the special problems of youngsters with visual, auditory or neurological impairments, orthopedic anomalies, intellectual retardation or superiority, speech disorders, emotional or social maladjustments, learning disabilities and cultural deprivation; and the characteristic relationships of parents, professionals, and others to these children. Prereq: 343 or 351.

461 **Human Engineering**  
(I) 3 hours  
The methods of experimental psychology are discussed as they relate to problems of designing machines for efficient human use. Prereq: Psych 101 and permission of instructor.
Techniques of Programmed Instruction (I, S) 3 hours
An introduction to methods and technology in construction and use of teaching machine programs, with special emphasis on computer assisted instruction. Prereq: Psych 101 and permission of instructor.

Problems in Psychology (I, II, S) 1-3 hours
A faculty supervised research project, involving empirical or library work and oral or written reports. Prereq: 15 hours of Psychology.

Research Problems in Physiological Psychology (I, II, S) 3-6 hours
An individualized introduction to the techniques and methodology used in the physiological psychology laboratory. Prereq: Psych 423 and permission of instructor.

History of Psychology (I) 3 hours
A study through reading and discussion of the significant individual contributors to the growth of psychology. Prereq: Permission of instructor.

Current Trends in Psychology (II) 3 hours
A study through reading and discussion of the most recent developments covering all specialties. Prereq: Permission of instructor.

Learning Theory (II) 3 hours
This course presents, at an advanced level, the work of the theorists who have most directly influenced the contemporary psychology of learning. Prereq: Psych 301 and 421 or permission of instructor.

Tests and Measurements (II) 3 hours
A study of the trait approach to personality theory through examination of standardized tests and theoretical concepts such as reliability and validity. Prereq: Psych 415.

Experimental Social Psychology (I, II) 4 hours
A study through lectures and laboratory work of group processes emphasizing information theory, game theory and graph theory. Prereq: Psych 421.

Advanced Educational Psychology (I, II, S) 3 hours
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: Psych 351.

Individual Tests: Children and Adolescents (I) 4 hours
Administration, scoring, standardization and interpretation of and research with the Revised Stanford-Binet (L-M), Vineland Social Maturity Scale, Wechsler Intelligence Scale for Children, Goodenough-Harris and House-Tree-Person Technique. Prereq: Basic Statistics and Psych 431 or Psych 532 or permission of instructor.
554 **Individual Tests: Adolescents and Adults**  (II) 4 hours
Administration, scoring, standardization and interpretation of and research with the Wechsler Adult Intelligence Scale, Wide Range Achievement Test, Bender Visual-Motor Gestalt Test, Children's Apperception Test, Sentence Completion and Thematic Apperception Technique. Prereq: Psych 553.

555 **Introduction to Therapeutic Techniques with Children**  (I) 3 hours
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.

561 **Seminar in Industrial Psychology**  (II) 3 hours
Intensive study of current problems and research in psychology in industry with particular emphasis on integration of research findings. Prereq: Basic Statistics.

591 **Topical Seminar in Psychology**  (I, II) 1-3 hours
A discussion of specific advanced topics which will be announced whenever the course is offered. Prereq: Permission of instructor.

595 **Practicum in Psychology**  (I, II, S) 1-6 hours
Faculty-supervised experience in a real life educational agency, clinic or institutional setting designed to bridge the gap between the classroom and a job by emphasizing use of previously acquired knowledge in dealing with practical problems. Prereq: Permission of instructor.

601-602 **Thesis**  (I, II, S) 1-3 hours each
Independent research project written under the supervision of a faculty committee.

**SOCIODY**

PROFESSORS HELLING (Head), VOGT, WHEELER;
ASSOCIATE PROFESSOR BARGER;
ASSISTANT PROFESSORS CLUTE, NYE, ROUSSEAU, SIMPSON;
INSTRUCTORS ROOT, ZELINSKY

The undergraduate major in sociology consists of the course Sociology 101 and twenty-four additional hours in the field including eighteen hours numbered 300 or above and one basic course in each of the areas of social problems, statistics, social psychology, social organization, research methods; and sociological theory. Departmental offerings which meet these requirements are, respectively, 210 or 413; 213; 301, 401, or 402; 361, 363, 410 or 462; 451; 471 or 472. Majors are strongly encouraged to familiarize themselves with the fundamentals of anthropology.

Students such as those in military service and others having special interests in foreign or preliterate cultures are directed toward courses 105, 363, 391, 421, 422, and 475.
A major in urban studies consists of 36 semester hours selected from the courses listed below. At least 3 semester hours must be completed in each departmental area (economics, geography, political science, and sociology) plus 15 hours in one of the above fields. The remaining 9 hours of electives will be scheduled in consultation with the program director.

The following courses may be used to satisfy the urban studies major.

**Business Administration:** 344, 347*, 440.

**Economics:** 312, 355, 456*.

**Geography:** 313, 353, 363, 412*, 443*.

**Political Science:** 216, 301*, 317*, 319, 441.

**Sociology:** 210, 361, 402, 410*, 414*, 462, 475.

101 **Introductory Sociology** (I, II) 3 hours

An introduction to the study of human social behavior, presenting the fundamental concepts and point of view of the field of sociology. Open only to freshmen and sophomores and persons under 25 years of age. Others should enroll in 403.

105 **Introduction to General Anthropology** (I, II) 3 hours

A survey of the principles and major findings of cultural and social anthropology.

210 **Social Problems** (I, II) 3 hours

A description of the major social problems in American society with some therapeutic considerations. Prereq: Soc. 110 or 403.

213 **Basic Statistics** (I, II) 3 hours

Descriptive statistics, an introduction to inductive statistical thinking, the basic statistical techniques employed in analyses of social data. Prereq: Mathematics 101 or permission of instructor.

215 **Marriage and the Family** (I, II) 3 hours

An inquiry into the historical, biological, and cultural foundations of the family. A description and analysis of the contemporary American family with special attention to changing norms and functions. Prereq: Soc. 101 or 403.

217 **Pressure Groups and Public Opinion** (Same as Political Science 217) (II, S) 3 hours

A study of the activities of the basic interests and their efforts to influence both the opinion and policy of the public sector of the government. Prereq: sophomore standing.

301 **Society and Self** (I, II) 3 hours

A sociological perspective on the nature and extent of group effects on the person and its development. Prereq: Soc. 101 or 403 or Psych. 101 and sophomore standing.

335 **Criminology** (I, II) 3 hours

A general survey of the history, nature, and causes of crime; criminal investigation and prosecution; punishment, correctional treatment, and crime prevention. Prereq: Soc. 101 or 403.

* Courses marked with an asterisk are to be given priority by students majoring in urban studies.
Juvenile Delinquency (I) 3 hours
The study of the extent, causation, and prevention of juvenile delinquency. Includes an analysis of juvenile courts, probation, institutional treatment, parole, and prevention programs. Prereq: Soc. 101 or 403.

Social Organization (I, II) 3 hours
The social structure of human groups. Patterns of communication and interaction, stratification, division of labor, and power in institutions, bureaucracies and informal groupings. Prereq: Soc. 101 or 403 and sophomore standing.

Comparative Social Institutions (I) 3 hours
An examination of the interlocking network of institutions in society with particular stress on social institutions not covered in other Department of Sociology courses e.g., political, economic, religious institutions, and science as an institution. A comparison among societies with differing institutional arrangements. Prereq: Soc. 101 or 403 and 105 or permission of the instructor and sophomore standing.

Social Stratification (I) 3 hours
Social classes and social mobility in America. Other systems of distributing rewards, honors, and power on the basis of hierarchical rank and the principles underlying their operation. Prereq: Soc. 101 or 403 and sophomore standing.

Occupational Sociology (II) 3 hours
The sociology of work, unions and other occupational associations, the professions. Sociological factors in industrial morale and productivity, occupational prestige and mobility, career patterns. Prereq: Soc. 101 or 403 and sophomore standing.

Sociology of Education (I) 3 hours
The study of education as a social institution and as a social process in modern society. The internal systems, problems, roles, and subcultures of educational organizations. Prereq: Soc. 101 or 403 and sophomore standing.

Population (II) 3 hours

Ethnic Group Relations (I, II) 3 hours
A description of various ethnic groups in the United States, their contributions, distinctive attributes and problems. Major attention is given the Negro minority and the effects of prejudice, segregation, civil rights as a legal and a social force, and other aspects of the current situation. Prereq: Soc. 101 or 403 and sophomore standing.
391 Introduction to Physical Anthropology (II) 3 hours
An introduction to physical anthropology through an examination of theories related to the origin and differentiation of races. The history of the concept of race is contrasted with findings in the field of population genetics and comparative anatomy. Prereq: Soc. 105.

401 Social Control of Behavior (I) 3 hours
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: 9 hours of sociology, including 101 or 403 and 301.

402 Collective Behavior (II) 3 hours
The study of the processes of growth and change within unstable and transitory groups including crowds and associated phenomena, diffuse collectivities, advertising and propaganda aggregates in mass society, publics, and social movements. Prereq: 9 hours sociology including 101 or 403 and 301.

403 Advanced General Sociology (I, II, S) 3 hours
A survey of the principles of sociology including interaction, groups, institutions, social organization, and change. Consideration is also given to sociological techniques, major specialties, and classes of data. Prereq: Junior/senior standing or permission. Not open to anyone who has recent credit in Sociology 101. Does not carry graduate credit in sociology.

410 The Community (I) 3 hours
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 scientific method is elaborated as it pertains to data derived from community investigation. Prereq: 9 hours sociology including 101 or 403.

412 Urban Geography (Same as Geography 412) (I, II) 3 hours
A geography of the city from the viewpoint of history, site, and situation, external relations, internal relations, and the comparative study of cities. Prereq: junior standing and 6 hours of geography or sociology.

413 Sociology of Deviant Behavior (I) 3 hours
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: 9 hours sociology including 101 or 403.

414 Urban Sociology (I, II) 3 hours
A course in the sociology of cities and the social characteristics of urban life, stressing its historical, demographic, ecological, social psychological, and institutional aspects. The unique problems of the modern metropolitan complex, both as to effective
functioning and as an environment for human beings, are discussed. Prereq: 9 hours sociology including 101 or 403.

415 **American Family Problems**  
(I) 3 hours  
(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 conflicts, multi-problem families, desertion, divorce, others. Prereq: 9 hours sociology, including 101 or 403 or permission of the instructor.

421 **Cultural Anthropology**  
(I) 3 hours  
Family, art, war, maintenance, prestige, religion approached as parts of an integrated whole, a way of life of preliterate human society. Illustrations from a number of simple societies, anthropological theories, methods of study. Prereq: Soc. 105 or permission of the instructor.

422 **North American Archaeology**  
3 hours  
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: Soc. 105 or 421.

451 **Methods of Social Research**  
(I, II) 3 hours  
Relationships of theory, method, and the data in sociological investigation. Major techniques and instruments employed in social research, how developed, and where appropriately used. Formulation of research problems, use of statistics in analysis. Practical problems and limitations. Prereq: 12 hours sociology including 101 or 403 and 213.

462 **Complex Social Organizations**  
(II) 3 hours  
Analysis of social structure in complex organizations. Processes involved in the integration and disintegration of complex social organizations. An introduction to organizational analysis in medical, military, governmental, educational, and business settings. Implications of large scale bureaucratization for social functioning. Prereq: 9 hours sociology including 361.

471 **Development of Sociological Theory**  
(I) 3 hours  
An intellectual history of sociology as an academic discipline surveying outstanding contributions to its body of theory. Stress is placed on the development of sociology as a science with illustrative materials drawn from the established works of recent decades although backgrounds to these are traced to their ancient and medieval antecedents where applicable. Prereq: 12 hours sociology and senior standing.
472 **Contemporary Sociological Theory** (II) 3 hours
A thorough and detailed presentation of a major theoretical integration of contemporary sociological research and theory with shorter descriptive presentations of alternative positions indicating similarities and differences. Principles of theory construction and a review of major sociological concepts and writers. Prereq: 12 hours sociology and senior standing.

475 **Social Change** (II) 3 hours
A discussion of the theories and the basic models of social change illustrated by use of examples from contemporary and historical data. Emphasis is placed upon understanding causes and effects of social processes current in American society and the response of the individual to these. Prereq: Soc. 101 or 403 and 6 hours sociology or history.

491 **Internship in Local Government** (Same as Political Science 491) (I, II, S) 2-6 hours
Internship in Local Government offices: Participation in the policy-making and administrative processes of Local Government; discussions and reports. Prereq: P.S. 110, 111, 301, 317, or their equivalents, and senior standing. (Also listed under Economics, Political Science, Geography, and History.)

499 **Independent Study** 1 to 3 hours
Guided reading in special topics under the supervision of a faculty member. Prereq: Senior standing and permission of the instructor.

**COURSES THAT REQUIRE GRADUATE STANDING***

Each graduate student in sociology is required to attend, without credit, the departmental colloquia as scheduled.

501-502 **General Seminar in Sociology** Each 3 hours
This seminar, required of departmental graduate students, gives a basic orientation to the profession, its leading figures, publications, organizations, and university departments. It emphasizes critical discussion of issues in the discipline and the substantive problems of sociology.

505 **Seminar in Social Psychology** 3-6 hours
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.

510 **Seminar in Applications of Sociology** 3-6 hours
Sociological theory and method applied to a problem of sociological relevance.

511 **Social Problems of the Disadvantaged** 3 hours
A survey of the social problems existing in disadvantaged

* As seminar topics change these course numbers may be repeated in a student's program without implying duplication.
communities. The effects upon individuals of such settings. The subculture of poverty.

550 **Seminar in Research Methods**
3-6 hours
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.

555 **Seminar in the Sociology of Religion**
3-6 hours
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.

560 **Seminar in Social Organization**
3-6 hours
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.

570 **Seminar in Sociological Theory**
3-6 hours
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.

571 **Population Seminar** (Same as Geography 571) (S) 3 hours
The significance of differences from place to place in the number, kind, and qualities of human inhabitants and changes through time. Prereq: Permission.

580 **Independent Study in Topics on Urbanism**
1-3 hours
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 in one of the social sciences. (Also listed under economics, geography, and political science.)

583-584 **Interdisciplinary Seminar on the Urban Community**
3-6 hours
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 political science.)

595-596 **Practicum in Applied Sociology**
Each 3 hours
A practical work experience under supervision which provides opportunity for applying principles from the student's academic area of concentration.

601-602 **Thesis**
Each 3 hours
SOCIAL WORK CERTIFICATION

Students preparing themselves for employment work, church social work programs, or community service agencies as either case or group workers may qualify for an undergraduate social work certificate by fulfilling the following requirements: Completion of the following three courses with a grade of "C" or higher:

(2) Sociology 445, Methods of Social Welfare Service.  
(3) Sociology 446, Field Experience in Social Welfare.

II. Completion of at least nine hours in a field other than the major field from the following courses with grade of "C" or higher and chosen from the following courses:

Sociology:
210 Social Problems  
215 Marriage and the Family  
301 Society and Self  
335 Criminology  
337 Juvenile Delinquency  
410 The Community  
415 American Family Problems

Psychology:
345 Social Psychology  
343 Personality and Adjustment  
444 Abnormal Psychology  
454 Adolescent Psychology

Political Science:
217 Pressure Groups and Public Opinion  
317 Introduction to Public Administration  
342 State Administration  
319 Municipal Administration

Economics:
355 Public Finance

Recreation Education:
318 Camping and Outdoor Recreation  
322 Recreation Education  
324 Recreation Leadership

III. Graduation with B.A., B.G.E., or B.S. in Education or any other bachelor's degree.

IV. Recommendation of the Social Work Teaching Staff.
   The courses in the Department of Sociology which constitute the offerings in social work are:

345 A Survey of Social Welfare Services (I, II) 3 hours  
The initial course of study in a social work sequence. The historical development of modern social services and the social
agencies in which these services are practiced. An analysis of social work practice in contemporary settings; the division of responsibilities and functions among the fields of social work. An introductory overview of the field of public and private welfare services and careers. Prereq: Soc. 101 or 403.

*445 Methods of Social Welfare Service
(II) 3 hours
The point of view and the principles underlying the social work processes, the techniques and skills employed by the social worker in job performance and the professional discipline expected in the social worker-client relationship. Students will have opportunity to observe selected social agencies in operation and will simulate social work activities in classroom practice sessions. Prereq: Soc. 345.

*446 Field Experience in Social Welfare
(I, II) 3 hours
Supervised field work experience in carefully selected social agencies which will provide the practical application of classroom theory acquired in the foundation courses. Sociology 345 and 445. Field work assignments will be arranged to provide the student a view of many phases of agency operation. There will be a weekly seminar to re-examine and evaluate agency experiences. Prereq: Soc. 445 and/or permission of the instructor.

SPEECH AND DRAMA
PROFESSORS BRILHART (Head), CARTER, CLARK;
ASSOCIATE PROFESSOR HILL;
ASSISTANT PROFESSORS ASCHENBRENNER, BORGE, CARLSON,
MANSON, WELK;
INSTRUCTORS FUS, HUTCHISON, MINARCINI,
SIMMONS, VESPER, WANZENRIED

To secure a Bachelor of Arts degree in Speech and Drama without teacher certification requires a minimum of 37 (not including Speech 101) and a maximum of 42 hours of credit in the department. Unless given a special waiver the student must successfully complete the following courses: 112 or 241, 171, 220, 230, 242 (1 credit), 351, 311 or 312, and 9 credit hours in an area of specialization (including one of the following: 411, 412, 426 or 450).

To secure a Bachelor of Arts degree with teacher certification with a major in Speech and Drama, the student is required to complete a minimum of 34 hours including: 112, 171, 220, 230, 241, 242 (1 credit), 311 or 312, 351, 461, plus 6 credit hours in an area of emphasis (including one of the following: 411, 412, 426 or 450). Speech 101 is required and counted toward the major if the student has not completed an equivalent course in high school. Details of requirements for the first and second teaching field may be obtained from the Department Head.

* Does not carry graduate credit in sociology.
All students majoring in Speech and Drama or securing certification must participate in a minimum of two different extracurricular activities in Speech. They are advised to enroll in Speech 100 at the earliest possible date.

A student should emphasize one of the following: General Speech, Public Address, Theatre, or Broadcasting.

Speech 361 may not be counted as credit toward a major or teaching field in Speech.

A student wishing to be exempted from Speech 101 should consult with the Department Head.

100 The Field of Speech and Drama (I, II) 1 hour
An introduction to the areas of specialization in Speech and Drama, library resources, departmental courses and activities, prominent personalities, graduate study, and career opportunities.

101 Fundamentals of Speech (I, II, S) 3 hours
The basic principles, components, and skills of effective speaking and listening; guided practice in informal speaking, public speaking, discussion and listening.

112 Argumentation and Debate (I, II) 3 hours
The analysis of argumentation and debate and application of these principles to platform debating.

171 Oral Interpretation of Literature (I, II, S) 3 hours
The basic principles of oral interpretation of different types of literature.

211 Speaking in Conference and in Public (I, II) 3 hours
Theory, techniques, and practice in many types of short speeches as appropriate to a wide variety of audiences and occasions. Prereq: Speech 101 or equivalent.

220 Introduction to the Theatre (I, II, S) 3 hours
A survey course designed to acquaint the student with the theatre. All phases and periods of theatre art will be explored and studied.

221 Stage Movement (II) 1 hour
Theories and exercises to help the actor communicate visually.

223 Stagecraft (I, II, S) 3 hours
Theories and techniques of the construction and painting of stage settings; organization and operation of production crews; care and handling of power and hand tools. Prereq: Speech 220.

225 Stage Make-up (II) 1 hour
The skills and techniques involved in the art of stage make-up.

227 Stage Costuming (I) 3 hours
The history of human adornment from pre-historic to Modern Man. Practicum in the theatrical costume design and execution. Prereq: Speech 220 or permission of department head.
230 Introduction to Radio and Television (I, II, S) 3 hours
A survey and basic study of the radio and television industry; its history, organization and social significance. Prereq: Speech 101.

231 Television and Radio News Presentation (II) 3 hours
The preparation, production, and delivery of news for both media. Prereq: Speech 230, or permission of department head.

241 Discussion (I, II) 3 hours
Discussion theory; preparation, participation, and leadership in small group discussion; discussion in business, school, and the community.

242 Parliamentary Procedure (I, II) 1 hour
Theory and practice of parliamentary procedure; forming organizations and drawing up constitutions and by-laws.

311 Advanced Platform Speaking (I, II, S) 3 hours
Practice in the preparation and delivery of the long speech. Prereq: 3 hours Speech.

312 Persuasion (I, II, S) 3 hours
Adaptation, motivation, personal influences, identification, evidence and reasoning, organization, and special techniques in persuasion; the application of persuasive speaking to various speaking situations. Prereq: 9 hours of Speech.

315-316 Intercollegiate Debate (I, II) Each 1-3 hours
A course for those who wish to participate in intercollegiate debate. Prereq: Permission of department head.

321 Acting, Theory and Techniques (I, S) 3 hours
Acting techniques in theory and practice; methods and procedure in building characterization for plays, individual and group rehearsal and performance. Prereq: Speech 220, 223.

322 Acting, Rehearsal and Performance (II, S) 3 hours
Application of acting theory and technique to the specific acting problems of selected plays. Prereq: Speech 220, 223.

323 Scene Design (I) 3 hours
Principles of composition, perspective and color for the stage; the designer's approach to the play, production of ground plans, elevations and sketches. Prereq: Speech 220, 223.

324 Stage and TV Lighting (II, S) 3 hours
Characteristics and control of light and color and their application to the theatre and television; elementary electricity; lens systems; reflectors; lamps; control systems. Prereq: Speech 220, 223.

331 Television Techniques I (I) 3 hours
The presentation of the fundamental skills of television production. Prereq: Speech 230 or permission of department head.
332 **Television Techniques II** (II) 3 hours
A continuation of Speech 331 with emphasis on advanced television production and performance techniques. Prereq: Speech 331 or permission of department head.

333 **Newsfilm and Documentaries** (I, II) 3 hours
(Crosslisted as Journalism 315)
Techniques for filming and producing television newsfilm and documentaries. Prereq: Journalism 311 or permission.

336 **Radio Technique & Production** (I, II) 3 hours
The basic skills, and techniques of contemporary Radio Broadcast production. This course places emphasis on guided practice in Radio speaking, writing, directing, and editing. Prereq: Speech 101 and 230.

351 **Voice and Phonetics** (I, II) 3 hours
Anatomy, physiology, and acoustics of speech and hearing; effective breathing, phonation, pitch, rate, quality, articulation and pronunciation; broad transcription in the International Phonetic Alphabet. Prereq: 3 hours Speech or permission of department head.

361 **Speech Techniques for Teachers** (I, II) 3 hours
A study of the use of speech oriented activities in elementary and secondary school classrooms.

401-402 **Advanced Projects in Speech** (I, II, S) Each 1-3 hours
Special projects in speech supplementing regular courses; individual research projects; combined study and practicum. Prereq: Junior or Senior Standing; at least 9 hours of work in the general area of Speech to be studied.

410 **Rhetorical Criticism** (I) 3 hours
Significant movements in the development of rhetorical criticism from antiquity to the present. Prereq: 6 hours of Speech and Junior Standing.

411 **Greek and Roman Rhetoric and Oratory** (I) 3 hours
The origin and development of rhetorical theory and practice in antiquity. Prereq: 6 hours Speech and Junior Standing.

412 **Studies in American Public Address** (II) 3 hours
Study of representative American speakers from the Eighteenth Century to the present. Prereq: 9 hours of Speech.

420 **History of the Theatre** (I) 3 hours
A survey of the great periods of theatrical history, and the playwrights, producers and actors who were responsible for this growth and development. Prereq: Speech 220 or Junior Standing.

421-422 **Acting: Historical Periods and Styles** (I, II) Each 3 hours
The fundamental theories and practices of major styles of acting from Ancient Greece to the present, including interpretation of outstanding dramatic literature. Prereq: Speech 321-322 or permission of department head.
426 **Play Direction** (II) 3 hours
A practicum in play selection, analysis, casting, directing and performing. Prereq: Speech 220, 223, 321, 322 or permission of department head.

434 **Television and Radio Programming and Sales** (I) 3 hours
A study of contemporary broadcast programming, sales, and advertising techniques. Prereq: Speech 230 or permission of department head.

435 **Broadcasting and the Public** (II) 3 hours
A study of the effects of broadcasting and its relationship to other mass media; emphasis on the sociological, economic, and legislative aspects of the medium. Prereq: Speech 230 or permission of department head.

450 **Introduction to General Semantics** (II, S) 3 hours
An introduction to the system of general semantics, considering both limitations and practical applications to perception, thinking, and communicating. Prereq: 6 hours of Speech and 3 hours of Psychology, or Senior Standing.

461 **History and Problems in Speech Education** (II) 3 hours
A study of the development of speech as an academic discipline. Recent movements in speech and the contribution of quantitative methodology to speech research and education. Prereq: 6 hours of Speech and Junior Standing.

471 **Advanced Oral Interpretation** (II) 3 hours
Theories and forms of interpretation from antiquity to the present. Preparation and presentation of a recital. Prereq: 6 hours of Speech, including Speech 171 and Junior Standing.

501 **Introduction to Research in Speech** (I) 3 hours
(2 credits if a 1 credit course in Introduction to Graduate Study is offered by the Dean of the Graduate College)
Basic components, functions, and spirit of research; research methods in the arts and sciences of oral communication; preparation of a thesis proposal. Prereq: Admission to Graduate Study.

511 **Seminar: Modern Public Address** (I) 3 hours
Studies in figures, movements and institutions prominent in modern public address. Prereq: Graduate standing and permission of the head of the Department of Speech and Drama.

520 **Dramatic Theory and Criticism** (II) 3 hours
For advanced students of dramatic literature. The course will explore the important dramatic theories and criticism from Aristotle to contemporary drama. Prereq: Admission to Graduate Study and Speech 220.

601- **Thesis** 1-3 hours each
Independent research project written under the supervision of an advisor.
The Bachelor of Science degrees in Civil, Industrial, and General Engineering require 136 credit hours; the Bachelor of Science in Industrial Technology degree requires 130 credit hours. Associate titles require 70 credit hours.

Students must:

(a) Meet entrance requirements.

(b) Complete a curriculum as outlined.

(c) Obtain a quality point grade average of "C" (2.00) or above. Grades below "C" do not count on a major field.

(d) Fulfill residence requirements of 30 of the last 36 hours at the University of Nebraska at Omaha.

All grades reported by the faculty to the Registrar at the end of each semester become a part of the student's permanent record and are included in the computation of his quality points earned and his grade point average.

Credit in the following courses may not be applied toward the degrees and titles offered by the College of Engineering and Technology: Chemistry 100; English 109; Mathematics 111 and 112; English 105.

Optional credit may be earned in Physical Education or Air Force ROTC.

A degree of Bachelor of Science in Civil Engineering is awarded upon completion of the four-year program outlined below. Civil Engineering occupies a prominent position in the field of professional engineering and at the present time nearly one-fourth of all engineers are engaged in this branch. Civil Engineering includes such fields as Transportation, Structural, Construction, and Sanitary and Hydraulic. The University and college facilities are used effectively to make this program flexible enough to meet the general requirements of the engineering profession and to create a wholesome attitude towards life.
# DEGREE REQUIREMENTS

Bachelor of Science in Civil Engineering
Requirements: 136 Semester Hours

## FIRST YEAR

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<td>Engl 111</td>
<td>Engr 112</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Engr 103</td>
<td>CE 201</td>
</tr>
<tr>
<td>Engr. Problems</td>
<td>CE Workshop</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>15</td>
</tr>
</tbody>
</table>

## SECOND YEAR

| Math 197       | Math 235       |
| 3              | 3               |
| Phys 211       | Phys 212       |
| General Physics | General Physics |
| 5              | 3               |
| Engr 230       | Engr 236       |
| 3              | 4               |
| CE 301         | Engr 342       |
| Surveying I    | Mechanics of Materials |
| 3              | 3               |
| Non-Tech. Elective | Non-Tech. Elective |
| 3              | 3               |
|                | 17              |

## THIRD YEAR

| Engr 303       | CE 443         |
| Engr. Analysis | Structural Analysis II |
| 3              | 3               |
| Engr 330       | Engr 431       |
| Dynamics       | Fluid Mechanics |
| 3              | 3               |
| Engr 454       | CE 360         |
| Fields & Circuits I | Structural Design |
| 3              | 5               |
| CE 343         | Technical Elective |
| Struc. Analysis I | 3               |
| 3              | 3               |
| Engr 460       | Non-Tech. Elective |
| Thermodynamics I | 3               |
| 3              | 3               |
| Non-Tech. Elective |                 |
| 3              |                 |
|                | 18              |

## FOURTH YEAR

| Engr 415   | Engr 445 |
| Tech. Writing | Engr. Syst. & Analogies |
| 3          | 3        |
| Engr 410  | Engr 416 |
| Seminar    | Contracts & Specs |
| 1          | 3        |
| CE 449    | Engr 414 |
| Soil Mechanics | Creative Engr. |
| 3          | 2        |
| Engr 441  | Technical Electives |
| Engr. Economy | 7       |
| 3          |          |
| Technical Electives | Non-Tech. Elective |
| 6          | 3        |
| Non-Tech. Elective |                 |
| 3          |          |
|            | 19       |

## Conditions

A minimum of nine non-technical elective credits must be taken in Humanities. The other non-technical electives may be in the areas of Economics, History, Political Science, Psychology, Government, or Sociology.

## Technical Electives

Each Civil Engineering student is required, before registering for his fifth semester, to select one of the groups of technical electives designated below. The selection of a group should be based upon the student's major interest, and the greater portion of his technical electives courses should be taken under the group selected. Primary consideration should
be given to those courses appearing at the head of each group listing. It is suggested that the student select one course in each of two groups other than the group of his major interest.

<table>
<thead>
<tr>
<th>TRANSPORTATION GROUP</th>
<th>STRUCTURAL GROUP</th>
</tr>
</thead>
<tbody>
<tr>
<td>CE 370 Engr. of Trans Systems .3</td>
<td>CE 447 Reinf. Concrete Design .3</td>
</tr>
<tr>
<td>CE 302 Engr. Surveying II ....... 3</td>
<td>CE 446 Struc. Des., Mtls. &amp; Tbr. .... 3</td>
</tr>
<tr>
<td>CE 469 Pvmnt Analysis &amp; Design .. 3</td>
<td>CE 448 Substructure Analysis ....... 3</td>
</tr>
<tr>
<td>CE 371 Airport Engineering ....... 3</td>
<td>CE 444 Structural Analysis III ...... 3</td>
</tr>
<tr>
<td>CE 468 Hwy. Gmtcs. &amp; Traf. Engr. 3</td>
<td>Chem 120 Gen. Chem. &amp; Qual. Anal. .4</td>
</tr>
<tr>
<td>CE 442 Construction Management 3</td>
<td>CE 482 Limit Analysis ............... 3</td>
</tr>
<tr>
<td>CE 432 Hydraulic Engineering ....... 3</td>
<td>CE 470 Prestressed Concrete Des. .3</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>CONSTRUCTION GROUP</th>
<th>SANITARY &amp; HYDRAULIC GROUP</th>
</tr>
</thead>
<tbody>
<tr>
<td>CE 442 Construction Management 3</td>
<td>Chem 120 Gen. Chem. &amp; Qual. Anal. .4</td>
</tr>
<tr>
<td>CE 465 Con. Cost &amp; Control ..... 3</td>
<td>CE 471 Sanitary Engineering I .... 3</td>
</tr>
<tr>
<td>CE 466 Construction Techniques .3</td>
<td>CE 472 Sanitary Engineering II .... 3</td>
</tr>
<tr>
<td>CE 467 Form Des. &amp; Steel Erec. .2</td>
<td>CE 432 Hydraulic Engineering .... 3</td>
</tr>
<tr>
<td>CE 302 Engr. Surveying II ........ 3</td>
<td>CE 474 Water Resources Engr. .... 3</td>
</tr>
<tr>
<td>Acct 101 Elem. Accounting ........ 3</td>
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</tr>
<tr>
<td>Acct 102 Accounting ............. 3</td>
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</tr>
</tbody>
</table>

**INDUSTRIAL ENGINEERING AND GENERAL ENGINEERING**

DEAN MARSTON; PROFESSORS ARNWINE (Head), BROWN; ASSOCIATE PROFESSOR EHLERS; ASSISTANT PROFESSORS MYERS, TITUS

A degree of Bachelor of Science in Industrial Engineering is awarded upon completion of the four-year program outlined below. Rapid mechanization of manufacturing industries has solved many problems of low cost mass production, but has created simultaneously many new problems involving huge capital investments, the men who operate the new machines, and the new techniques which make possible the abundance found in America. Industrial engineering is concerned with the development, design, installation, and operation of integrated systems of men and machines at the industrial level. The university and college facilities are used to make this program broad enough to meet the general requirements of American industry and to qualify the graduate, with this preparation, for professional engineering positions in production, distribution, or research in American industry.

**DEGREE REQUIREMENTS**

Bachelor of Science in Industrial Engineering

Requirements: 136 semester hours

Advisors: Professor Arnwine, Assistant Professor Titus
### First Semester

<table>
<thead>
<tr>
<th>Subject</th>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Math 195</td>
<td>Calculus I</td>
<td>5</td>
</tr>
<tr>
<td>Chem 110</td>
<td>General Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>Engr 100</td>
<td>Engr. Orientation</td>
<td>3</td>
</tr>
<tr>
<td>Engl 111</td>
<td>Elem. English Comp.</td>
<td>3</td>
</tr>
<tr>
<td>Engr 103</td>
<td>Engr. Problems</td>
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</table>

**Total Credits:** 15

### Second Semester

<table>
<thead>
<tr>
<th>Subject</th>
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</thead>
<tbody>
<tr>
<td>Math 196</td>
<td>Calculus II</td>
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</tr>
<tr>
<td>Chem 120</td>
<td>General Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>Engr 221</td>
<td>Engr. Graphics II</td>
<td>3</td>
</tr>
<tr>
<td>Engl 112</td>
<td>English Comp.</td>
<td>3</td>
</tr>
<tr>
<td>Engr 104</td>
<td>Engr. Computer Appl.</td>
<td>2</td>
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</table>

**Total Credits:** 16

### Second Year

<table>
<thead>
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<th>Credits</th>
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</thead>
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<tr>
<td>Math 197</td>
<td>Calculus III</td>
<td>3</td>
</tr>
<tr>
<td>Phys 211</td>
<td>General Physics, Tech.</td>
<td>5</td>
</tr>
<tr>
<td>Engr 230</td>
<td>Statics of Engr.</td>
<td>3</td>
</tr>
<tr>
<td>Spch 101</td>
<td>Fundamentals of Speech</td>
<td>3</td>
</tr>
<tr>
<td>I.E. 305</td>
<td>Motion &amp; Time Study</td>
<td>3</td>
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</table>

**Total Credits:** 18

### Third Year

<table>
<thead>
<tr>
<th>Subject</th>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Math 353</td>
<td>Prob. &amp; Stat. I</td>
<td>3</td>
</tr>
<tr>
<td>Engr 303</td>
<td>Engr. Analysis</td>
<td>3</td>
</tr>
<tr>
<td>Engr 330</td>
<td>Dynamics</td>
<td>3</td>
</tr>
<tr>
<td>Engr 454</td>
<td>Fields &amp; Cr. I</td>
<td>3</td>
</tr>
<tr>
<td>Engr 460</td>
<td>Thermodynamics I</td>
<td>3</td>
</tr>
<tr>
<td>Engr 441</td>
<td>Engr. Economy</td>
<td>3</td>
</tr>
<tr>
<td>I.E. 301</td>
<td>Quality Control</td>
<td>3</td>
</tr>
<tr>
<td>Engr 431</td>
<td>Fluid Mechanics</td>
<td>3</td>
</tr>
<tr>
<td>I.E. 306</td>
<td>Mfg. Processes</td>
<td>3</td>
</tr>
<tr>
<td>I.E. 307</td>
<td>Mfg. Processes Lab</td>
<td>1</td>
</tr>
<tr>
<td>Acct 101</td>
<td>Elem. Accounting</td>
<td>3</td>
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<tr>
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**Total Credits:** 18

### Fourth Year

<table>
<thead>
<tr>
<th>Subject</th>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>Engr 410</td>
<td>Seminar</td>
<td>1</td>
</tr>
<tr>
<td>Engr 415</td>
<td>Tech. Writing</td>
<td>3</td>
</tr>
<tr>
<td>I.E. 401</td>
<td>Ind. Planning I</td>
<td>3</td>
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<tr>
<td>Psych 101</td>
<td>Intro. to Psych.</td>
<td>3</td>
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<tr>
<td>Technical Elective</td>
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</tr>
<tr>
<td>Non-Tech Elective</td>
<td>4</td>
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</tr>
</tbody>
</table>

**Total Credits:** 17

### Technical Electives

#### Measurement-Methods
- I.E. 418 Methods-Time Measurement
- I.E. 491 Work Measurement Design

#### Metal Working Processes
- Engr 452 Metallurgy for Engineers
- I.E. 492 Tool Design

#### Management
- Econ 202 Principles of Economics
- Mgmt 349 Principles of Management
- Mgmt 405 Production Management
- Engr 416 Contracts & Specifications

#### Accounting
- Acct 102 Elementary Accounting
- Acct 305 Cost Accounting
- Acct 306 Administrative Accounting

#### Human Relations
- Psych 461 Human Engineering
- Psych 382 Industrial Psychology

#### General Technical Electives
- Engr 412 Engineering Special Prob.
- Engr 414 Creative Engineering
- I.E. 417 Industrial Plant Design
- Engr 455 Fields & Circuits II
- Engr 456 Electrical Lab
- I.E. 361 Industrial Safety

Or a choice of approved courses in: mathematics, physics, chemistry, psychology, business administration.
NON-TECHNICAL ELECTIVES

Non-technical electives must be selected from such fields as history, economics, government, literature, sociology, philosophy, or fine arts. Accounting, industrial management, finance, personnel administration, and ROTC are specifically excluded. A minimum of ten hours shall be taken in Humanities.

GENERAL ENGINEERING

DEGREE REQUIREMENTS

Bachelor of Science in General Engineering

Requirements: 136 semester hours

Advisors: Professor Brown and Associate Professor Ehlers

The degree Bachelor of Science in General Engineering is awarded upon completion of the four-year program outlined below. This curriculum allows the student a broad selection of courses upon which to build his degree program. It provides the courses in engineering and physical sciences, mathematics, and the humanities required to achieve acceptance as a professional engineer and development of a wholesome attitude toward life. Eight option areas are listed to assist the student in forming a pattern of technical elective courses that are in concert with his interests and abilities. Graduates of the general engineering program find satisfying careers in sales engineering, mechanical design, transportation, power production, environmental engineering, and administration.

<table>
<thead>
<tr>
<th>FIRST YEAR</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Semester</strong></td>
</tr>
<tr>
<td>Math 195</td>
</tr>
<tr>
<td>Chem 110</td>
</tr>
<tr>
<td>Engr 100</td>
</tr>
<tr>
<td>Engl 111</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>15</strong></td>
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</table>

<table>
<thead>
<tr>
<th>SECOND YEAR</th>
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</thead>
<tbody>
<tr>
<td><strong>First Semester</strong></td>
</tr>
<tr>
<td>Phys 211</td>
</tr>
<tr>
<td>Speh 101</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>17</strong></td>
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</table>

<table>
<thead>
<tr>
<th>THIRD YEAR</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Semester</strong></td>
</tr>
<tr>
<td>Engr 330</td>
</tr>
<tr>
<td>Engr 460</td>
</tr>
<tr>
<td>Engr 461</td>
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<tr>
<td>Engr 303</td>
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<td>Engr 441</td>
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<tr>
<td>*Technical Elective</td>
</tr>
<tr>
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<td><strong>17</strong></td>
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**FOURTH YEAR**

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>Engr 410</td>
<td>Seminar</td>
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<td>Engr 415</td>
<td>Tech. Writing</td>
</tr>
<tr>
<td>Engr 454</td>
<td>Fields &amp; Circuits I</td>
</tr>
<tr>
<td>Engr 454</td>
<td>Technical Electives</td>
</tr>
<tr>
<td>Engr 455</td>
<td>Fields &amp; Circuits II</td>
</tr>
<tr>
<td>Engr 416</td>
<td>Contracts &amp; Specs</td>
</tr>
<tr>
<td>Engr 414</td>
<td>Creative Engr.</td>
</tr>
<tr>
<td></td>
<td>Technical Electives</td>
</tr>
<tr>
<td></td>
<td>Non-Tech. Elective</td>
</tr>
</tbody>
</table>

**CONDITIONS:** A minimum of nine non-technical elective credits must be taken in one of the following areas: Economics, Fine Arts, Foreign Language, History, Humanities, Literature, Political Science, Philosophy, Psychology, or Sociology. **Note:** nine hours minimum in Humanities.

* Before the completion of 70 credits, the student should select one of the following options in which to concentrate a minimum of 15 credits. Upon consultation with his advisor, the student may make certain substitutions within each option field.

**OPTION FIELDS**

**Mechanical Option**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>Engr 445</td>
<td>Engr. Systems &amp; Anal.</td>
</tr>
<tr>
<td>Engr 464</td>
<td>Heat Transfer I</td>
</tr>
<tr>
<td>Engr 462</td>
<td>Thermodynamics II</td>
</tr>
<tr>
<td>Engr 463</td>
<td>Gas Dynamics</td>
</tr>
<tr>
<td>I.E. 492</td>
<td>Tool Design</td>
</tr>
<tr>
<td>Engr 495</td>
<td>Adv. Fluid Mechanics</td>
</tr>
</tbody>
</table>

**Engineering Mech. Option**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>Engr 445</td>
<td>Engr. Systems &amp; Anal.</td>
</tr>
<tr>
<td>Engr 494</td>
<td>Advanced Dynamics</td>
</tr>
<tr>
<td>Engr 495</td>
<td>Adv. Fluid Mechanics</td>
</tr>
<tr>
<td>Engr 493</td>
<td>Adv. Mechanics of Mat.</td>
</tr>
<tr>
<td>Engr 463</td>
<td>Gas Dynamics</td>
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</table>

**Computer Sciences Option**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>Math 230</td>
<td>Computer Concepts</td>
</tr>
<tr>
<td>Math 211</td>
<td>Linear Algebra</td>
</tr>
<tr>
<td>Math 322</td>
<td>Adv. Programming Tech.</td>
</tr>
<tr>
<td>Math 332</td>
<td>Theo. of Info. Retr.</td>
</tr>
<tr>
<td>Math 432</td>
<td>Systems Programming</td>
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**Mathematics Option**

<table>
<thead>
<tr>
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<th>Credits</th>
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<tbody>
<tr>
<td>Math 211</td>
<td>Linear Algebra</td>
</tr>
<tr>
<td>Math 225</td>
<td>Calc. of Vector Func.</td>
</tr>
<tr>
<td>Math 330</td>
<td>Numerical Analysis</td>
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<tr>
<td>Math 353</td>
<td>Prob. &amp; Statistics</td>
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<tr>
<td>Math 427</td>
<td>Complex Variables</td>
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**Physics Option**

<table>
<thead>
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<th>Credits</th>
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<tbody>
<tr>
<td>Phys 301</td>
<td>Elems. of Electronics</td>
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<tr>
<td>Phys 302</td>
<td>Optics</td>
</tr>
<tr>
<td>Phys 335</td>
<td>Atmospheric Physics</td>
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<tr>
<td>Phys 414</td>
<td>Nuclear Physics</td>
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**Chemistry Option**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>Chem 213</td>
<td>Organ. Chem./or 102</td>
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<tr>
<td>Chem 349</td>
<td>Physical Chemistry</td>
</tr>
<tr>
<td>Chem 350</td>
<td>Physical Chemistry</td>
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</tbody>
</table>

**Business Administration Option**

<table>
<thead>
<tr>
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<th>Credits</th>
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</thead>
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<tr>
<td>Econ 201</td>
<td>Economics</td>
</tr>
<tr>
<td>Econ 202</td>
<td>Economics</td>
</tr>
<tr>
<td>Mgmt 349</td>
<td>Prin. of Management</td>
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<tr>
<td>Mkt 331</td>
<td>Marketing</td>
</tr>
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<td>B.A. 323</td>
<td>Business Law</td>
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</table>

**Bio-Sciences Option**

<table>
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<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>Biol 145</td>
<td>General Botany</td>
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<tr>
<td>Biol 175</td>
<td>General Zoology</td>
</tr>
<tr>
<td>Biol 275</td>
<td>Phys. &amp; Anat. of Man</td>
</tr>
<tr>
<td>Biol 285</td>
<td>Comparative Anatomy</td>
</tr>
<tr>
<td>Biol 316</td>
<td>Genetics</td>
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</tbody>
</table>

**Total Credits:** 19
A degree of Bachelor of Science in Industrial Technology is awarded upon completion of the prescribed four-year program. This curriculum is designed with two options: one, with a major emphasis on Industry for those interested in the technical aspects of manufacturing and other Industrial occupations; second, with a major emphasis in technology for those who wish to make a career of industrial teaching.

Opportunities are available in industry for this type of training for such positions as technical selling, drafting and design, contracting and construction; maintenance and production methods. They work closely with engineers in the occupational area between the professional engineers and the skilled craftsman.

The teaching option major provides a strong background in technology for teaching careers in Industrial Technology (arts or education). The area vocational technical school provides a new area of opportunity and challenge for the technical teacher with a major in technology.

The teaching option major provides the courses required for the degree and the standard certificate to teach Industrial Technology (Arts) in the public schools. Students following the teaching option must be admitted to the teacher certification program by the beginning of the junior year. This requires using the electives to obtain a second teaching field. The industrial option provides a deeper penetration into mathematics, science, technology laboratory, business and economics courses. (See College of Education for specific requirements for admission to the teacher certification program.)

Admission to the Bachelor's degree program may be either at the freshman level or upon completion of any of the available two-year engineering technology programs.

**TECHNOLOGY AND ENGINEERING**

<table>
<thead>
<tr>
<th>Courses</th>
<th>Common Basic Sequence</th>
<th>Hours</th>
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<tr>
<td>Engineering Graphics I &amp; II</td>
<td>Engr 121, 221</td>
<td>6</td>
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<td>Wood Technology</td>
<td>IT 211</td>
<td>3</td>
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<tr>
<td>Metal Technology</td>
<td>IT 216</td>
<td>3</td>
</tr>
<tr>
<td>Electricity &amp; Electronics</td>
<td>TI 107, 108</td>
<td>6</td>
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<td>Industrial Safety</td>
<td>IT 361</td>
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</tr>
<tr>
<td>Statics &amp; Strength of Materials</td>
<td>TI 213</td>
<td>4</td>
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</tbody>
</table>

Additional common courses desirable
- IT 217 — Industrial Mfg. Processes
- IT 214 — and/or Engr. 415—Tech. Writ.
- IT 301 — Power Mechanics

**INDUSTRIAL TECHNOLOGY**

Industry Option

<table>
<thead>
<tr>
<th>Group</th>
<th>Drama, Language, Literature and Speech</th>
<th>12</th>
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<tbody>
<tr>
<td>Group I</td>
<td>English 111, 112</td>
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</tr>
<tr>
<td></td>
<td>Speech 101</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Humanities, Art, Drama, or Journalism Elective</td>
<td></td>
</tr>
</tbody>
</table>
**Group II**  Social Science  
- History  
- Government  
- Economics  
- Psychology, Sociology, other  

**Group III**  Science  
- Math 195—Calculus I, Math 196 (desirable)  
- Chemistry 110 (desirable)  
- Physics 111 or 211, 112 or 212  
- Electives  

**Group IV**  Technology and Engineering  
A. Basic sequence  
B. Area of concentration in Technology & Engineering  
1. Drafting & Design Technology  
2. Construction Technology  
3. Electronics Technology  
4. Ind. Engr. Technology  
5. Others  

**Group V**  Electives  
A. Business Adm. & Related  
B. Other  

* Qualified students may substitute Calculus.

**SUGGESTED ELECTIVES**

### Business and Related

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>B.A. 128</td>
<td>Introduction to Business</td>
</tr>
<tr>
<td>B.A. 101-102</td>
<td>Accounting</td>
</tr>
<tr>
<td>B.A. 371</td>
<td>General Real Estate</td>
</tr>
<tr>
<td>B.A. 344</td>
<td>Real Estate Principals &amp; Pract.</td>
</tr>
<tr>
<td>Econ 201</td>
<td>Principles of Economics</td>
</tr>
<tr>
<td>Econ 202</td>
<td>Principles of Economics</td>
</tr>
<tr>
<td>Mgmt. 349</td>
<td>Principles of Mgmt.</td>
</tr>
<tr>
<td>Econ 315</td>
<td>Labor Problems</td>
</tr>
<tr>
<td>B.A. 323</td>
<td>Business Law</td>
</tr>
<tr>
<td>B.A. 331</td>
<td>Marketing</td>
</tr>
<tr>
<td>B.A. 313</td>
<td>Intro to Statistics</td>
</tr>
<tr>
<td>Psych 362</td>
<td>Industrial Psych.</td>
</tr>
<tr>
<td>Econ 313</td>
<td>Economic Geography</td>
</tr>
<tr>
<td>Psych 461</td>
<td>Human Engineering</td>
</tr>
<tr>
<td>Econ 418</td>
<td>Collective Bargaining</td>
</tr>
</tbody>
</table>

### Mathematics

- 230—Computer Concepts  
- 211—Linear Algebra  
- 254—Math of Finance  
- 353—Prob. & Statistics  

### Engineering and Technology

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>C.E. 301</td>
<td>Surveying I</td>
</tr>
<tr>
<td>C.E. 201</td>
<td>Workshop</td>
</tr>
<tr>
<td>C.E. 302</td>
<td>Surveying II</td>
</tr>
<tr>
<td>Engr. 137-13</td>
<td>Arch. Des.</td>
</tr>
<tr>
<td>Engr. 230</td>
<td>Statics</td>
</tr>
<tr>
<td>Engr. 336</td>
<td>Meteorology</td>
</tr>
<tr>
<td>Engr. 414</td>
<td>Creative Engrg.</td>
</tr>
<tr>
<td>I.E. 301</td>
<td>Quality Control</td>
</tr>
<tr>
<td>I.E. 305</td>
<td>Motion &amp; Time</td>
</tr>
<tr>
<td>I.E. 401-402</td>
<td>Ind. Planning</td>
</tr>
</tbody>
</table>

**Technical Institute**  
choose from:  
- Construction Technology  
- Drafting & Design Tech.  
- Electronics Technology  
- Industrial Engineering Tech.  
- IT 255—Indus. Finish Matls.  
- IT 316—Ind. Ops. II  

See counselor for add’l. technical and non-technical electives.
**INDUSTRIAL TECHNOLOGY**

Teaching Option  
(Industrial Arts or Education)

**Group I** Drama, Language, Literature and Speech ........................................ 12  
English 111, 112  
Speech 101  
Humanities, Art, Drama, or Journalism Elective

**Group II** Social Science .................................................................................. 12  
History  
Government  
Economics  
Psychology, Sociology, or other

**Group III** Natural Science .............................................................................. 17  
1TI 101, 102, 201—Tech. Problem Analysis I, II & III  
Physics 111 and 112

**Group IV** Technology and Engineering .......................................................... 49  
A. Basic sequence ................................................................. 24  
B. Areas of concentration  
**1.** Must have at least 12 hours in one area  
and 6 hours in three other areas  
2. Professional: IT 401—Ind. Teach Methods  
IT 402—Ind. Tech. Adm.

**Group V** Professional Education .................................................................. 20  
Ed 208 Introduction to Teaching  
Ed 205 Human Growth & Learning (or 207 & Psych 351)  
Ed 351 Teaching in Secondary Schools  
Ed 357 Student Teaching  
Ed 358 Student Teaching  
Ed Special Methods in Teaching

**Group VI** Electives ...................................................................................... 20

1 Qualified students may sub. Calculus.  
2 Technology major for technical teachers (Tech Inst, Post High. Voc)  
a. Choose technology sequence from an Assoc. in Technology.  
b. Occupational experience in the technology is necessary.  
c. Suggest strengthening Natural Science background.  
* Students following the teaching option must be admitted to the teacher certification program before taking any Professional education courses necessary for Nebraska Certification.  
** Technology sequences for areas of concentration:

- **Drafting** 121, 221, 137, 138, TI 238, TI 246.  
- **Wood Technology** IT 211, 311.  
- **Metal Technology** IT 216, IT 217, IT 316.  
- **Graphic Arts**, Journ 311, 325; Art electives available for this area.
TECHNICAL INSTITUTE

ASSISTANT PROFESSORS KINNEY, Director, FAHRLANDER, SIRES; INSTRUCTORS HUNTER, RYAN

The Technical Institute program is unique. In line with the national trend for development of two-year college level programs preparing engineering technicians for work in the occupational area between the skilled craftsman and the professional engineer, the Technical Institute offers four programs leading to associate titles in engineering technology. These programs emphasize understanding and practical application of scientific and engineering knowledge and methods.

The two-year program outlined below leads to the title Associate in Construction Technology. It prepares students for a variety of important positions in the construction industry.

The two-year program outlined on page 152 leads to the title Associate in Drafting and Design Technology. It prepares students for positions of leadership in drafting offices throughout industry and in the offices of architects and consulting engineers.

The two-year program outlined on page 152 leads to the title Associate in Electronics Technology. It combines laboratory and lecture to prepare students for positions in the growing electronics area.

The two-year program outlined on page 153 leads to the title Associate in Industrial Engineering Technology. It prepares students for responsible positions in modern industrial plants and organizations.

The engineering technician has been described as the “first understudy of the engineer and scientist,” helping in a highly skilled way to convert their theories and ideas into workable, useful products and processes. His education, like that of engineers, must be professional and exacting, for with the increasing complexity of engineering technology, the cost of mistakes comes high.

REQUIREMENTS

Associate in Construction Technology

Requirements: 70 semester hours

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>TI 101</td>
<td>TI 102</td>
</tr>
<tr>
<td>Engl 111</td>
<td>Tech. Prob. Analysis II</td>
</tr>
<tr>
<td>TI 125</td>
<td>Constr. Surveying I</td>
</tr>
<tr>
<td>Physics 111</td>
<td>Physics 112</td>
</tr>
<tr>
<td>TI 127</td>
<td>Constr. Methods</td>
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<td></td>
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<tr>
<td>FIRST YEAR</td>
<td></td>
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<td></td>
<td>18</td>
</tr>
</tbody>
</table>

SECOND YEAR

| TI 202        | Constr. Surveying II | 3 |
| TI 211        | Constr. Management   | 3 |
| TI 213        | Statics & Strength   | 4 |
| TI 215        | Constr. Matls.       | 3 |
| TI 219        | Constr. Equipment    | 3 |
| Tech. Elective|                 |
|              | 18                |

| TI 212        | Constr. Specs.      |
| TI 214        | Technical Reporting |
| TI 216        | Constr. Estimating  |
| TI 218        | Soils Technology   |
| Spch 101      | Fund. of Speech    |
| Tech. Elective|                 |
|              | 17                |
### TECHNICAL ELECTIVES

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>TI 124</td>
<td>Architectural Drafting</td>
</tr>
<tr>
<td>TI 221</td>
<td>Hydraulics &amp; Pumping Applications</td>
</tr>
<tr>
<td>TI 235</td>
<td>Adv. Structural Drawing</td>
</tr>
<tr>
<td>TI 228</td>
<td>Power Applications</td>
</tr>
<tr>
<td>TI 229</td>
<td>Structural Design for Technicians</td>
</tr>
<tr>
<td>TI 280</td>
<td>Practical Foremanship</td>
</tr>
<tr>
<td>BA 128</td>
<td>Introduction to Business</td>
</tr>
<tr>
<td>TI 236</td>
<td>Special Technical Problems</td>
</tr>
</tbody>
</table>

### REQUIREMENTS

#### Associate in Drafting and Design Technology

Requirements: 70 semester hours

<table>
<thead>
<tr>
<th>First Year</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TI 101</strong></td>
<td>Tech. Prob. Analysis I ... 5 <strong>TI 102</strong></td>
</tr>
<tr>
<td><em>Engr 121</em></td>
<td>Engr. Graphics I ........... 3 <strong>TI 102</strong></td>
</tr>
<tr>
<td>TI 124</td>
<td>Arch. Design I ............. 3 <strong>TI 126</strong></td>
</tr>
<tr>
<td>Engl 111</td>
<td>Elem. Engl. Comp. ........... 3 <strong>TI 128</strong></td>
</tr>
<tr>
<td>TI 100</td>
<td>Orientation ................. 2 <strong>TI 129</strong></td>
</tr>
<tr>
<td>TI 129</td>
<td>Lettering &amp; Inking .......... 1 <strong>TI 130</strong></td>
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</table>

<table>
<thead>
<tr>
<th><strong>First Semester</strong></th>
<th><strong>Second Semester</strong></th>
</tr>
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<tbody>
<tr>
<td>17</td>
<td>18</td>
</tr>
</tbody>
</table>

* Qualified students may substitute TI 109, 225, or 231.

<table>
<thead>
<tr>
<th>Second Year</th>
<th><strong>TI 212</strong></th>
<th>Constr. Specs .......... 3 <strong>TI 214</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>TI 241</td>
<td>Bldg. &amp; Trades Draft .......... 3 <strong>TI 214</strong></td>
<td></td>
</tr>
<tr>
<td>Spch 101</td>
<td>Fund. of Speech ............. 3 <strong>TI 214</strong></td>
<td></td>
</tr>
<tr>
<td>TI 215</td>
<td>Constr. Materials ........... 3 <strong>TI 215</strong></td>
<td></td>
</tr>
<tr>
<td>TI 213</td>
<td>Statics &amp; Strength .......... 4 <strong>TI 216</strong></td>
<td></td>
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<tr>
<td>** Elective**</td>
<td>4 <strong>Electives</strong> .......... 6 <strong>TI 217</strong></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>First Semester</strong></th>
<th><strong>Second Semester</strong></th>
</tr>
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<tbody>
<tr>
<td>17</td>
<td>18</td>
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</table>

#### TECHNICAL ELECTIVES

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>TI 231</td>
<td>Arch Design III</td>
</tr>
<tr>
<td>TI 232</td>
<td>Arch Design IV</td>
</tr>
<tr>
<td>TI 236</td>
<td>Special Tech. Problems</td>
</tr>
<tr>
<td>TI 109</td>
<td>Electronic Drafting</td>
</tr>
<tr>
<td>TI 237</td>
<td>Drafting Room Management</td>
</tr>
<tr>
<td>TI 236</td>
<td>Special Tech. Problems</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>TI 101</td>
<td>Tech. Prob. Analysis I</td>
</tr>
<tr>
<td>TI 107</td>
<td>DC Circuits</td>
</tr>
<tr>
<td>TI 109</td>
<td>Electronic Drafting</td>
</tr>
<tr>
<td>TI 100</td>
<td>Orientation</td>
</tr>
</tbody>
</table>

#### REQUIREMENTS

#### Associate in Electronics Technology

Requirements: 70 semester hours

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TI 101</strong></td>
<td>Tech. Prob. Analysis I ... 5 <strong>TI 102</strong></td>
</tr>
<tr>
<td>Engl 111</td>
<td>Elem. Engl. Comp. ........... 3 <strong>TI 102</strong></td>
</tr>
<tr>
<td>TI 107</td>
<td>DC Circuits ................. 3 <strong>TI 108</strong></td>
</tr>
<tr>
<td>TI 109</td>
<td>Electronic Drafting .......... 3 <strong>TI 109</strong></td>
</tr>
<tr>
<td>TI 100</td>
<td>Orientation ................. 2 <strong>TI 110</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>First Semester</strong></th>
<th><strong>Second Semester</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>18</td>
</tr>
</tbody>
</table>
SECOND YEAR

B.A. 128 Intro. to Bus. ..........3
TI 205 Solid State Devices ..........3
TI 207 Circuit Design I ..........3
TI 209 Radio & Comm. ..........3
Electives ..........6

Total 18

TI 214 Technical Reporting ..........3
TI 206 Computer Circuits ..........3
TI 208 Circuit Design II ..........3
TI 210 TV Circuits ..........3
TI 220 Codes, Stds., & FCC Law ..........3
Spch 101 Fund. of Speech ..........3

TECHNICAL ELECTIVES

TI 213 Statics and Strength of Materials for Technicians
TI 222 Industrial Electronic Instrumentation
TI 223 Microwave
TI 226 Antennas and Transmission Lines
TI 227 Servomechanisms

REQUIREMENTS

Associate in Industrial Engineering Technology

Requirements: 70 semester hours

FIRST YEAR

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physics 111 General Physics ..........4</td>
<td>Physics 112 General Physics ..........4</td>
</tr>
<tr>
<td>TI 100 Orientation ..........2</td>
<td>TI 216 Industrial Metal Opers. ......3</td>
</tr>
<tr>
<td></td>
<td>17</td>
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<tr>
<td></td>
<td></td>
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<tr>
<td>SECOND YEAR</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>TI 213 Statics &amp; Strength ..........4</td>
<td>B.A. 128 Intro. to Business ..........3</td>
</tr>
<tr>
<td>IE 305 Motion &amp; Time Study ..........3</td>
<td>TI 280 Practical Foremanship ..........3</td>
</tr>
<tr>
<td>Econ 201 Principles of Econ. ..........3</td>
<td>Spch 101 Fund. of Speech ..........3</td>
</tr>
<tr>
<td>Non-Tech. Elective ..........3</td>
<td>Electives ..........4</td>
</tr>
<tr>
<td></td>
<td>18</td>
</tr>
</tbody>
</table>

TECHNICAL ELECTIVES

<table>
<thead>
<tr>
<th>Acc 101-102 Elementary Accounting</th>
<th>Econ 202 Principles of Economics</th>
</tr>
</thead>
<tbody>
<tr>
<td>TI 107 DC Circuits</td>
<td>TI 108 AC Circuits</td>
</tr>
<tr>
<td>TI 112 Basic Electrical Measurements</td>
<td>TI 246 Machine Drawing and Design</td>
</tr>
<tr>
<td>IT 361 Industrial Safety</td>
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</tr>
</tbody>
</table>

PRE-NURSING

MISS PATACH, Advisor

The University of Nebraska at Omaha cooperates with the University of Nebraska School of Nursing in offering a pre-nursing curriculum which satisfies the first year's requirements in the baccalaureate program on the College of Medicine campus.
 Registered nurses of accredited Diploma or Associate Degree nursing programs may supplement or enrich their general education, deepen their concept of nursing and increase their competency so that they can become professional nurses in all health fields, including Public Health by completing the pre-nursing curriculum for the University of Nebraska plus other courses selected. See the University of Nebraska School of Nursing Catalog.

Upon satisfactory completion of all requirements the R.N. student will apply for admission to the Baccalaureate Nursing program at the School of Nursing in the College of Medicine.

**Departments of Instruction**

**ENGINEERING**

**General Engineering Courses (Engr)**

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>Orientation</td>
<td>1 hour</td>
</tr>
<tr>
<td>103</td>
<td>Engineering Problems</td>
<td>2 hours</td>
</tr>
<tr>
<td>104</td>
<td>Engineering Computer Applications</td>
<td>2 hours</td>
</tr>
<tr>
<td>105</td>
<td>Slide Rule and Computing Methods</td>
<td>1 hour</td>
</tr>
</tbody>
</table>

* Electives may be substituted if proficiency is established by examination. English 240 recommended.

** Taught by School of Nursing.
121 **Engineering Graphics I**  3 hours
The care and use of drafting instruments, lettering, applied geometry, orthographic projections, free hand sketching in isometric, oblique, and orthographic; introduction to auxiliary projection; sectional views, basic dimensioning, tolerances, working drawings, and introduction to descriptive geometry.

137 **Architectural Design I**  3 hours
Basic principles of architectural drafting and lettering, orthographic projection, principles of one and two point perspectives. Freehand drawing and two dimensional design, development of the students' imagination.

138 **Architectural Design II**  3 hours
Continuation of architectural drafting and lettering, principles of one and two point perspectives; freehand drawing and two dimensional design. Beginning rendering, three dimensional design and the color wheel. Prereq: Engr. 137.

221 **Engineering Graphics II**  3 hours
Theory of projection drawing, primary and secondary auxiliary views, line and plane problems, surfaces, intersections and developments; engineering applications, plane and space vector geometry, functional scales, conceptual design and analysis. Prereq: One year High School drawing, Engr. 121, or permission.

227 **Architectural Design III**  3 hours
Continuation of Engineering 138 with emphasis on design and perspective. Prereq: Engr. 138.

228 **Architectural Design IV**  3 hours
Continuation of Engineering 227 with emphasis on use of all previous fundamentals. More advanced designing and rendering. Prereq: Engr. 227.

230 **Statics of Engineering**  3 hours
Fundamental concepts of forces, moments, vectors, couples, dimensional equations; equilibrium of force systems; analytical and graphical engineering applications. Prereq: Engr. 103, Math. 196 and Physics 211.

235 **Properties of Engineering Materials**  3 hours
Physical, mechanical and chemical properties and uses of engineering materials including metals, cementing materials, wood, stone, fuels, plastics and others. Manufacturing processes and treatments affecting properties and uses. Prereq: Chem. 110 or permission.

236 **Engineering Materials Science and Laboratory**  4 hours
Mechanical and physical behavior of engineering materials including the study of static tension, compression and bending, complex static stresses, dynamic and thermal effects, creep,
fatigue and hardness. Electrical and magnetic properties, thermal properties, corrosion, and radiation. Laboratory exercises. Prereq: Engr. 342 (previously or concurrently).

303 **Engineering Analysis** 3 hours

330 **Dynamics of Engineering** 3 hours

336 **Meteorology** 3 hours
An introduction to the weather elements, structure of the atmosphere, moisture and heat energy, stability, wind and pressure, air masses, fronts, general and local circulation, fog, thunderstorms, ice formations, weather map analysis, and flight planning.

340 **Refrigeration and Air-Conditioning** 3 hours
Elements of heat transfer and psychrometrics of air; calculation of cooling loads; air distribution systems; study of equipment used in air conditioning for comfort, and industrial refrigeration; compressors, pumps, water towers, heat pumps; design problems and visits to existing commercial installations. Prereq: Physics 212 or permission.

342 **Mechanics of Materials** 3 hours
Stress and strain in elastic solids subject to axial and eccentric loading, torsion, flexure, beam deflections. Statically indeterminate members; combined stresses and Mohr's circle. Column action. Inelastic action. Prereq: Engr. 230.

400 **Field Trip** 0 hours
This course involves a visit to several locations where work in the student's field is being carried on. A comprehensive report is required. Prereq: Senior standing.

410 **Engineering Seminar** 1 hour
Seminar discussions, with student leaders, on professional aspects of engineering and on problems encountered by new graduates. Topics based upon Engineers' Council for Professional Development kit, "The First Five Years." Prereq: Senior standing.

412 **Special Engineering Problems** 1, 2, or 3 hours
One, two, or three students may select a special engineering problem for experimenting, researching, and doing advanced
original thinking in finding the best solution to the problem. Prereq: Senior standing or permission.

414 Creative Engineering  
A synthesis of engineering fundamentals and advanced topics. The application of engineering knowledge to advanced, original problems, through methods of independent or joint study and research. Prereq: Senior standing in Engineering.

415 Technical Report Writing  
Discussion and practice of writing technical reports with emphasis on uses of such reports by practicing engineers. Prereq: Senior standing or equivalent engineering background.

416 Engineering Contracts and Specifications  

419 Legal Principles of Surveying  
Principles of property surveying, land description, and boundary location, restoration of lost boundaries, boundary evidence. Legal responsibilities of the property surveyor. Professional problems of the practicing surveyor. Prereq: CE 302 or permission.

431 Fluid Mechanics  
Properties of fluids, fluid statics, and dynamics. Dimensional analysis and dynamic similarity; equations of continuity; energy and momentum; fluid machines; applications. Prereq: Engr. 330, 460.

441 Engineering Economy  
Economic factors involved in the comparison of engineering alternatives and the techniques of equipment selection and replacement. Depreciation, break-even points, and minimum-cost points are other topics which are intensively examined. Prereq: Math 111 or permission.

445 Engineering Systems and Analogies  
The formulation and solution of the mathematical model and engineering analogies for applications to system analysis. Prereq: Math 235, Engr. 303.

452 Metallurgy for Engineers  
Engineering metals and alloys are studied to evaluate their crystalline structure and properties that can be established by controlled cooling rates during solidification, or while in the solid state. Processing of metals and alloys so that the desired engineering properties are acquired. Prereq: Engr. 236.

454 Fields and Circuits I  
Principles of DC, magnetic, AC, and polyphase circuits. Prereq: Physics 212 or equivalent; Math 196 or equivalent.
Fields and Circuits II  3 hours
Transformers, AC machinery, control equipment, and electronics. Prereq: Engr. 454.

Electrical Laboratory  1 hour
A series of experiments illustrating the principles of direct current, alternating current, magnetic, and polyphase circuits. Prereq: Registration in Engineering 454.

Automatic Control Systems  3 hours
Stability studies, design, synthesis, and analysis of servomechanisms and automatic control devices. Prereq: Math 235, Engr. 454.

Engineering Thermodynamics I  3 hours
Fundamental thermodynamic properties of gases and vapors; kinetic theory of heat; constant volume, constant pressure, isothermal and adiabatic, reversible and irreversible processes; energy relations; analysis of cycles; mixtures of ideal gases; introduction to heat transfer. Prereq: Math 196 and Physics 212.

Mechanical Laboratory  1 hour
An introduction to experimentation; instrumentation applied to experimental projects in the area of thermodynamics, dynamics, and mechanics-of-materials; random and systematic instrument errors; graphing of experimental data; formal and informal reports. Prereq: Credit or registration in Engineering 460.

Engineering Thermodynamics II  3 hours
Continuation of Engineering 460; application of fundamental principles to compressors, gas turbines, jet engines; generation of power from steam; cycles; heat transfer. Prereq: Engr. 460.

Heat Transfer  3 hours
Introduction to heat transfer; one and two-dimensional steady-state conduction; unsteady-state conduction; natural and forced convection; empirical and analytical relations; radiation heat transfer. Prereq: Engr. 431, 460.

Gas Dynamics  3 hours
The dynamics and thermodynamics of compressible fluid flow; one and two-dimensional flow; subsonic, sonic and supersonic flow; normal shock waves, isentropic and isothermal flow conditions. Prereq: Engr. 431, 460.

Advanced Mechanics of Materials  3 hours
Advanced Dynamics 3 hours

Advanced Fluid Mechanics 3 hours

Civil Engineering Courses (CE)

Civil Engineering Workshop 2 hours
Civil engineering orientation; introduction to engineering design. Prereq: Engr 100.

Surveying I 3 hours
Theory and practice of surveying for civil engineering projects, including measurement of lengths and distances; theory of leveling; differential and profile levels; measurement of angles; U.S. Public Land surveys, introduction to mapping, etc., Field problems. Prereq: Math 112 or Math 113, or permission.

Surveying II 3 hours
Advanced applications of theory and practices of engineering surveys, etc; surveying astronomy; property surveys and writing deed descriptions; intro. to the State Plane Coordinate System, etc., field problems assigned in selected areas. Prereq: CE 301 or permission of instructor.

Structural Analysis I 3 hours
Computation of stresses in girders, roof trusses, by algebraic and graphic methods. Influence line methods, uses of moment tables, and equivalent uniform loadings. Prereq: Engr. 342.

Concrete Materials 3 hours

Structural Design 5 hours
An introductory course involving the properties of structural steel, reinforced concrete, and timber; and the theories and methods necessary to design both structural members and systems. Prereq: Credit in or enrolled in CE 443.

Engineering of Transportation Systems 3 hours
Basic instruction in design and construction of roads and pavements, preparation of subgrade; design of pavement structures;
basic airport design; runway and apron construction; special
design problems; introduction to railroad engineering; introduc-
tion to engineering of water transportation facilities; pipeline
and conveyor engineering. Prereq: CE 347 or equivalent and
CE 302.

371 Airport Engineering 3 hours
Airport planning and design, site selection, geometrical consid-
erations for runways, taxiways, terminal and cargo areas, runway
length determination, clearance criteria and practices, naviga-
tional aids, utilities distribution systems, lighting, drainage,
Federal aid for airports, traffic control, and safety. Prereq:
Junior standing or permission.

432 Hydraulic Engineering 3 hours
A study of the control and utilization of the natural waters of
the earth from precipitation to evaporation. The application of
the basic mechanics of solids and fluids to the solution of hy-
draulic problems; hydrologic, legal and economic considerations;
hydraulic structures; hydraulic models; river and coastal engi-
eering; special problems encountered in various branches of
hydraulic engineering. Prereq: Engr. 431.

442 Construction Management 3 hours
Estimating and bidding, scheduling (including an introduction
to CPM and PERT), contracts, bonds and insurance, cost con-
trol systems, equipment utilization, codes and zoning. Prereq:
CE 446 or equivalent.

443 Structural Analysis II 3 hours
Theory and application of deflections of structures, least work,
slope-deflection, moment distribution with sidesway, column
analogy and matrix methods. Statically indeterminate theory.
Prereq: CE 343.

444 Structural Analysis III 3 hours
Theory and application of analytic methods in the considera-
tion and design of industrial buildings, tall buildings and space
frames. Prereq: CE 443.

446 Structural Design 3 hours
Designing and detailing of girders and trusses and mill build-
ings; examples of design in steel and timber; riveting and weld-
ing; specifications. Prereq: CE 443.

447 Reinforced Concrete 3 hours
Principles of reinforced concrete; rectangular and tee beams;
floor slabs; columns; footings and retaining walls; highway
bridge design. Prereq: CE 443 or equivalent.

448 Substructure Analysis 3 hours
A study of soil pressure theories and their applications; founda-
tion types and their design; piling and sheet piling structures;
bridge piers and abutments. Prereq: CE 447, CE 449.
449 Soil Mechanics 3 hours
Index properties and classification systems of soils, permeability, frost action, compaction, stress-strain characteristics, consolidation, shearing resistance, drainage and stabilization, bearing capacity and settlement, subsurface investigations, character of natural deposits. Prereq: Senior standing AND permission.

465 Construction Cost and Controls 3 hours
Construction estimating, accounting, cost control; construction scheduling, CPM, PERT. Prereq: Acct. 101 and CE 442.

466 Construction Techniques 3 hours
Job planning and management; construction equipment; construction materials; construction methods. Prereq: Credit or registration in CE 449.

467 Form Design and Steel Erection 2 hours
Design of concrete construction forms; design of temporary structures for steel erection. Prereq: CE 360.

468 Highway Geometrics and Traffic Engineering 3 hours
Studies of highway capacity, alignment, profiles, intersections, interchanges, and grade separations. Principles of highway traffic flow, traffic surveys and planning, analysis of presentation of data, traffic design. Prereq: CE 370.

469 Pavement Analysis and Design 3 hours
Thickness design of pavements and base courses for highways; flexible and rigid pavements; pavement behavior under load; reinforcement of rigid pavements; evaluation of pavement; airfield pavements; and design criteria for pavements. Prereq: CE 370.

470 Pre-Stress Concrete 3 hours

471 Sanitary Engineering I 3 hours
Theory and practice of sanitary engineering as applied to the design and construction of large scale water supply systems; water supply requirements; introduction to hydrology; ground water; collection systems; pumps and pumping; design of distribution systems; fundamentals of water purification and treatment; introduction to food plant sanitation; introduction to sewerage treatment systems. Prereq: Permission.

472 Sanitary Engineering II 3 hours
Theory and practice of sanitary engineering as applied to the design and construction of sewerage and waste disposal systems; design of storm water disposal networks; characteristics of sewerage; stream pollution and correction; treatment of municipal sewerage; and investigation of special problems in sanitary engineering. Prereq: CE 471.
474 Water Resources Engineering 3 hours
Integration of engineering concepts and value considerations in study of water as a resource; fundamental concepts of basin planning. Prereq: CE 471.

480 History of Technology and Civil Engineering 3 hours
History of the application of scientific principles to engineering and technological problems; development of modern civil engineering. This course is not a history of scientific development, but rather a history of the development of practical application of scientific theory in civil engineering and related disciplines. Prereq: Junior Standing.

481 Plastic Analysis 3 hours

482 Limit Analysis 3 hours
Criteria for the plastic collapse of structures, limit design applied to continuous beams, rigid frames, and components parts. Introduction to dynamic resistance of structures. Prereq: CE 481.

Industrial Engineering Courses (IE)

301 Quality Control 3 hours
The use of probability and statistics to interpret and manage industrial processes to maintain desired levels of quality. Prereq: Math 353 or permission.

305 Motion and Time Study 3 hours
Principles and techniques acknowledged both by management and labor as one of the ways to find the greatest economy for creating maximum productivity with greater pay for the producer and lower cost to the consumer in which all benefit. Prereq: Sophomore standing.

306 Manufacturing Processes 3 hours
Manufacturing characteristics of metals and plastics; metal casting, forming and machining operations; economics of process planning; characteristics of machine tools; fundamentals of automation. Prereq: Junior standing.

307 Manufacturing Processes Laboratory 1 hour
Laboratory for Manufacturing Processes and taken concurrently with it. Prereq: Concurrently with IE 306.

401 Industrial Planning I 3 hours
Choosing plant location, developing and planning a plant layout, necessary preliminary analysis, machine and manpower requirements and balance, materials handling equipment, handling times and services. Prereq: IE 306.
402 Industrial Planning II 3 hours
The development and application of inventory records, load charts, production orders, schedules, production reports, progress reports, and control reports to a manufacturing problem in such a manner as to keep a continuous comparison between planned and actual results. Prereq: IE 401.

417 Industrial Plant Design 3 hours
The theory of plant layout and material-handling design within the industrial engineering field. Included are preliminary broad techniques to provide initial or preliminary design and evaluation techniques. Prereq: IE 306.

418 Methods-Time Measurement 3 hours
Visualization of manual operations or methods into basic motions required to perform the processing and the establishment of time standards. Prereq: IE 305 or permission.

490 Operations Research 3 hours
The use of mathematical logic processes with the industrial engineering tools to arrive at optimum profit solutions for industrial operations in inventory control, business objectives, machine loading, and least cost labor utilization. Prereq: Math 196.

491 Work Measurement Design 3 hours
Studies of special cases in work measurement design where the available information in the literature is lacking. As a design course, the student is expected to carry on research in some phase of work measurement. Prereq: Permission.

492 Tool Design 3 hours
The fundamentals and theory of tool design for the manufacturing industries and tool and die shops. Prereq: Permission.

Industrial Technology Courses (IT)

211 Wood Processes 3 hours
Care and use of hand and machine tools, basic tool operations principles and practice applied to furniture manufacturing, mill and cabinet making and carpentry; mechanical and physical properties of wood in relation to use in construction and engineering application; strength moisture content, preservative treatments, wood products.

216 Industrial Metal Operations I 3 hours
Theory and application of metal cutting processes, namely: turning, threading, milling, drilling, boring, reaming, shaping, sawing, broaching, and grinding; surface finishing, modern industrial methods of process planning, precision machining, and measurement. Prereq: Engr. 121.

217 Industrial Manufacturing Processes 3 hours
An intensive study of manufacturing processes including pattern making, foundry materials and processes; smelting and
refining processes; hot working, cold working, powder metallurgy, plastics, wood and sheet metal fabricating processes; abrasives and adhesives, production exercise. Prereq: IT 216.

223 **Advanced Engineering Graphics** 3 hours
A study of important topics in engineering drawing that were not included in engineering 121 and 221; charts, graphs, and diagrams; precision dimensioning and surface quality specifications; welding, piping, and structural drawing, machine elements (cams, gears, etc.). Prereq: Engr. 221.

255 **Industrial Materials Finishing** 3 hours
Manufacture, characteristics, and methods of application of the more common wood finishes, such as paints, enamels, stains, varnishes; and lacquers. Metal finishes, and spray gun applications. Industrial methods. Prereq: IT 211 and 216.

301 **Power Mechanics Technology I** 3 hours
Theory, demonstrations, and practical experience in the individual and industrial usage of various power producing equipment such as internal and external combustion converters, direct mechanical converters, conventional and exotic electrical converters, and pneumatic systems and devices.

311 **Advanced Wood Processes** 3 hours
Design and construction of advanced projects in wood with emphasis on skill in machine operations, presentation of data on wood as a material of construction and for its use in data and specification, application of well-recognized principles of design to specific materials and problems encountered with wood usage. Prereq: IT 211 or equivalent.

316 **Industrial Metal Operations II** 3 hours
Design and manufacture of machine tools and fixtures which will give experience and training in applications of metals and welding. Prereq: IT 216.

351 **Industrial Techniques** 3 hours
Study of industrial techniques employed in the following industrial fields: electrical, plumbing and pipe fitting, forge and foundry, concrete and masonry, materials testing and power mechanics. Prereq: 9 hours IT, TI, Engineering.

361 **Industrial Safety** 2 hours

401 **Industrial Teaching Methods** 3 hours
A study of the methods, techniques and aids used in teaching industrial technology and technical education, including a study
of the instruction sheet with particular reference to the general technology (shop) laboratory. Prereq: 12 hours Lab and/or drafting.

402 **Industrial Technology Administration** 3 hours
Curriculum development, laboratory supplies and equipment specifications, shop plans and related items for use in teaching industrial technology. Prereq: Junior standing in Industrial Technology.

450 **Industrial Design** 3 hours
An introduction to design primarily for industrial teachers, although many portions will be of value to other students; includes design methodology; design for wood, metal and other mediums. Practice and procedures of the industrial designers. Prereq: Engr. 121 or equivalent.

**Technical Institute Courses (TI)**

**Construction Technology**

127 **Introduction to Construction** 3 hours
An introduction to construction technology with emphasis on the materials and types of construction used for buildings and other structures. Construction industry terminology, construction practices, and field trips to selected buildings and construction sites.

128 **Construction Methods** 3 hours
Methods used in planning operations of a project. Engineering analysis applied to construction, with examples presented to demonstrate the methods of analyzing problems to arrive at correct solutions. Prereq: TI 127 or permission.

200 **Construction Surveying I** 3 hours
Practical applications of surveying for construction projects, including basic procedures for measurement of distances; differences in elevation, introduction to both differential and profile level circuits, etc.; methods of establishing line and grade for construction, also general layouts for construction projects and topographic surveys, with a selection of field work to supplement the above. Prereq: TI 102, or permission of instr.

202 **Construction Surveying II** 3 hours
Introduction to triangulation for establishing horizontal control. Leveling for earthwork projects (slope staking, cross-sections, grade lines, volume calculations, contour lines, etc.), so as to be able to plot profiles and cross sections. Stadia surveying as applied to leveling and horizontal control. Construction planning from topographic maps. Construction surveys (alignments, bridges, culverts, streets and highways, etc.). Deed descriptions, boundary lines, etc. Advanced topics in route surveying. Prereq: TI 200, or permission of instructor.
211 **Construction Management** 3 hours
A course emphasizing the five basic functions of management (organization, planning, staffing, directing, controlling) as related to construction and contractor organizations. Relationship between field and office, owner-architect, and subcontractor-supplier relationship will be presented. Estimating and bidding, scheduling (including an introduction to CPM and PERT), contracts, bonds, and insurance will be discussed; cost control systems, equipment utilization and a review of building codes and zoning. Prereq: TI 128.

212 **Construction Specifications** 3 hours
Discussion and practice in writing of specifications for engineering projects in terms suitable for engineering technicians. Various types of specifications are studied; form and method; sources of information to produce good specifications are sought out. Prereq: TI 215.

215 **Construction Materials** 3 hours
To acquaint the student with basic building materials and their more recent development. Emphasis given to selection and application rather than developmental process, e.g., technical data arising from research. Prereq: TI 127 or permission.

216 **Construction Estimating** 3 hours
Comprehensive coverage of construction cost estimating and job preplanning-including format of preparation of estimate, measurement of quantities of unfinished work, indirect job costs, pricing, time-cost factors, equipment depreciation costs, operations scheduling and crew estimating. Prereq: TI 215 or concurrently.

218 **Soils Technology** 3 hours
Lecture, discussion and laboratory practice in the techniques of soils laboratory and field technology. Current engineering testing techniques of building and structure foundation materials emphasized, related interpretations, laboratory reports and equipment familiarization included. Prereq: TI 213, 215.

219 **Construction Equipment** 3 hours
A program of study designed to acquaint one with the equipment utilized in the construction field, emphasis being placed upon selection, owning and operating costs, and a comparison of theoretical implications with the practical approach. Prereq: TI 127 or permission.

**Electronics Technology**

107 **Direct Current Circuits** 3 hours
The first in a series devoted to a thorough elementary treatment of the fundamental principles of electricity and electronics; physical concepts and direct current with emphasis on application of knowledge acquired.
<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Name</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>108</td>
<td><strong>Alternating Current Circuits</strong></td>
<td>3 hours</td>
<td>Second in a series of three courses devoted to a treatment of the fundamentals of electricity and electronics. Prereq: TI 107, 101.</td>
</tr>
<tr>
<td>112</td>
<td><strong>Basic Electrical Measurements</strong></td>
<td>1 hour</td>
<td>Electronic test equipment and measurements.</td>
</tr>
<tr>
<td>114</td>
<td><strong>Electronic Fabrication</strong></td>
<td>3 hours</td>
<td>Instruction and practice to give possession of sufficient mechanical skill and knowledge to the technician to successfully install, repair, and construct electronic equipment.</td>
</tr>
<tr>
<td>118</td>
<td><strong>Wave Theory and Mechanics</strong></td>
<td>4 hours</td>
<td>The physics of the electron as it applies to electronics and the propagation of the electromagnetic waves. Prereq: TI 102.</td>
</tr>
<tr>
<td>205</td>
<td><strong>Solid State Devices</strong></td>
<td>3 hours</td>
<td>A presentation of the many semiconductor devices. The transistor is treated as only one of the many types of semiconductors. Prereq: TI 116.</td>
</tr>
<tr>
<td>206</td>
<td><strong>Computer Circuits</strong></td>
<td>3 hours</td>
<td>A complete treatment of the principles of digital computer circuits. Function of the computer is described, with application in business, and industrial and scientific organizations. Steps necessary to prepare a problem for a computer are covered. Emphasis on use of transistor in computer circuitry. Prereq: TI 116.</td>
</tr>
<tr>
<td>207</td>
<td><strong>Basic Electronic Circuits and Systems (Circuit Design I)</strong></td>
<td>3 hours</td>
<td>The Electronic Circuits and Systems course is designed to follow Electronic and Electrical Fundamentals and it is assumed that the fundamentals of electronics have been mastered before this course is offered. Prereq: TI 116.</td>
</tr>
<tr>
<td>208</td>
<td><strong>Advanced Electronics Circuit Technology (Circuit Design II)</strong></td>
<td>3 hours</td>
<td>Designed to follow the basic circuits of communications receivers and transmitters with a study of the circuits used to process nonsinusoidal waveshapes. Prereq: TI 207.</td>
</tr>
<tr>
<td>209</td>
<td><strong>Radio and Communications Technology</strong></td>
<td>3 hours</td>
<td>Covers the entire broadcasting system including discussion of all equipment necessary to transmit radio and television programs from the studio. Consideration given to antennas and transmission lines. Prereq: TI 116.</td>
</tr>
</tbody>
</table>
210 **Television Circuits** 3 hours
Basic television receiver circuits including theory of high voltage and deflection circuits and test equipment applications. Television studio and transmitting equipment used by the University station will be viewed and discussed. Prereq: TI 116.

220 **FCC Laws and Codes** 3 hours
Present specific information on radio law, operating practice, and theory for those studying to pass the Federal Communications Commission commercial radio operator exams of the various licensed grades. Prereq: TI 207.

222 **Instrumentation** 3 hours
A comprehensive, introductory presentation of the basic theory and principles of the construction and operation of instruments most often used by industrial process companies. Prereq: TI 208.

223 **Microwave** 3 hours
An introductory course in microwave theory and measurements for technicians whose work is related to microwave measurements, systems and components. Prereq: TI 209, or parallel.

226 **Antennas & Transmission Lines** 3 hours
A comprehensive, introductory presentation of the basic theory and principles of antennas and transmission lines. Prereq: TI 116.

227 **Industrial Electronics and Servomechanisms** 3 hours
A presentation of electricity as applied to industry. This course emphasizes control, regulation and feedback as used in industrial processes. Prereq TI 207.

**Applied Graphics**

109 **Electronic Drawing** 3 hours
Introducing various drafting techniques and types of drawing used in the design and construction of electronic equipment, maintaining a close relationship between graphical methods, basic electronics principles and construction practices.

124 **Architectural Drafting I** 3 hours
Introduction to architectural drafting, use of standard symbols, lettering and line work, orthographic techniques, foundations, floor plans, elevations sections; details culminating in working drawings for small, light, wood-framed structure.

125 **Construction Drawing** 3 hours
Introduction to engineering drawing with emphasis on graphic techniques applicable to the construction industry.

126 **Structural and Building Drawing** 3 hours
Considers in detail the structural frames of structures and buildings with emphasis on shop drawings and placing drawings.
related to structural steel, reinforced concrete and wood. Prereq: TI 125 or permission.

129 Lettering and Inking 1 hour
Instruction and practice in the acceptable method of lettering and inking engineering and architectural drawings.

130 Reproduction Techniques 2 hours
Investigation of various methods of reproducing engineering and architectural drawings two dimensionally and three dimensionally.

224 Architectural Drafting and Design II 3 hours
Continuation of TI 124 with particular emphasis on light-commercial construction, and consideration of heating, wiring and plumbing as related to both residential and light-commercial structures. Prereq: TI 124 or permission.

225 Transportation and Municipal Utilities Drafting 3 hours
Deals with special methods and conventions used in highways and utility drafting. Particular attention given to highway and airport, gas and water main systems, sewer systems, and railroads. Prereq: TI 126 or permission.

231 Architectural Design III 3 hours
Study of architectural design and theory using practical problems and projects. Includes creative design of space models, and use of various media. Prereq: TI 224.

232 Architectural Design IV 3 hours
Advanced study of architectural theory and design using practical projects. Includes the application of flow diagrams, space diagrams and systems applications. Prereq: TI 231.

234 Advanced Structural Drafting 3 hours
Detailing of complex beams, columns, trusses, skewed connections, plate girders and complete bolted or welded systems. Prereq: TI 126 or permission.

237 Drafting Room Management 2 hours
To familiarize the student with the problems of drafting room management. Prereq: Sophomore standing, permission of instructor.

238 Technical Sketching and Illustration 3 hours
Covers the methods of graphic presentation of engineered projects. Includes perspective drawings and various other artistic techniques—charcoal, pencil, water color, chalk, ink; also highlighting, shading, and blending. Yields total graphic presentation from preliminary design sketch to formal presentation portfolio. Prereq: Sophomore standing.
239 **Topographical Drafting** 3 hours
Complete coverage of conventions and techniques used to indicate three dimensional relationships existing in terrain of a given area. Topographical drawing combines freehand and instrument methods; also includes use of maps. Prereq: TI 200.

241 **Building and Trades Drafting** 3 hours
Emphasis on preparation of design and working drawings for commercial and heavy structures. Includes structural member drawings, reinforced concrete drawings, electrical systems and mechanical systems drawings. Prereq: Engr. 121 or permission.

246 **Machine Drawing and Design** 3 hours
Comprehensive treatment of design and drawing of many types of machine elements, with emphasis on exercise of judgment in design. Attention given to materials, tolerances, types of fasteners, power transmission devices, brakes and clutches. Prereq: Engr. 221.

**General Technology**

100 **Orientation** 2 hours
Required of each first-year Technology student to aid in adjusting to his studies and requirements of university life. Covers nature of the work—basic considerations in selecting a career in engineering technology, and relationship of the technician to the professional engineer and to skilled craftsmen.

214 **Technical Report Writing** 3 hours
Discussion of techniques and practical experience in writing technical reports with emphasis on preparation and use of reports by engineering technicians. Prereq: Engl. 111.

236 **Special Technical Problems** 1-4 hours
To help the student improve his ability to write reports which present the results of research and study in a form useful to engineering management.

280 **Practical Foremanship** 3 hours
Deals with many functions of a foreman's job and how they can best be carried out. Major phases covered are work planning and scheduling, merit ratings of employees, safety programs, industrial organization, labor-management relationships, executive development for foreman. Prereq: Sophomore standing.

**Applied Mathematics**

101 **Technical Problem Analysis I** 5 hours
Review of arithmetic, fundamental concepts and operations of algebra, dimensional analysis, metric system, functions and graphs, linear equations, factoring and fractions, exponents and radicals, quadratic equations, the j-operator variation.
102 **Technical Problem Analysis II** 4 hours
Fundamental concepts, functions and graphs, trigonometric functions, linear equations and determinants, factoring and fractions, vectors and triangles, exponents and radicals, logarithms, elements of analytic geometry, slide rule. Prereq: TI 101.

**Applied Mechanics**

213 **Statics and Strength of Materials** 4 hours
Study of the equilibrium and section properties necessary to allow an understanding of the mechanical, structural and strength characteristics of systems and their components. Involves basic understanding of statics covering general principles, resultants, equilibrium, etc., then use of these basics to study stresses, fastenings, torsion beam design and deflections. Work supported with laboratory studies. Prereq: TI 102.

221 **Hydraulics and Pumping Applications** 3 hours
Application of hydraulic power to industrial equipment. Pressure, orifices, tubes, wires and piping, fluid couplings and torque converters. Prereq: TI 213.

228 **Power Applications** 3 hours
Application of pumps, fans, refrigeration, compressors, gas turbine, internal combustion engines, heat exchangers, and nozzles and fluid flow.

229 **Structural Design for Technicians** 3 hours
Covers varied aspects of structural design, maintenance of structural integrity from design through construction to final release by contractor. Includes analysis and design of frames, connections, columns, beams, girders, trusses, footing, retaining walls; also includes coverages of forming and construction sequences. Prereq: TI 213.
COLLEGE OF EDUCATION

GENERAL REQUIREMENTS

1. Admission to the College—Students will be admitted to the College on making a satisfactory score on the School and College Ability Test or with a minimum of 2.00 cumulative grade point average in college.

2. Admission to and continuation in the professional education sequence. All students seeking recommendations for certification and/or endorsement(s) by the College of Education must be approved by the Professional Education Committee as follows:

A. For admission to the Professional Education Sequence, the student must have attained sophomore standing with a minimum grade average of 2.0; obtained the recommendation of his academic advisor and one full-time faculty member; made satisfactory scores on standardized measures of academic achievement and scholastic aptitude; taken a personality inventory administered by the University; and made formal application to the Dean of the College of Education.

B. For permission to enroll in a program of professional specialization (elementary education, secondary education, special education) the student must have satisfactorily completed at least two courses in the Foundations and General Education Department; passed proficiency tests in voice, speech, oral English usage, and library usage; have recommendation of a faculty member who has had the student in class, the student's education advisor, and the Dean of the College of Education; and met any additional requirements determined by the Department(s).

C. For recommendation for certification and/or endorsement(s), the student's request to the Committee must be supported by the recommendations of the appropriate Department Heads.

3. Eligibility for student teaching or practicum—determined by the Department(s) involved. See individual departmental regulations elsewhere.

DEGREE REQUIREMENTS

Bachelor of Science in Education

1. General Requirements—Each candidate must meet the general requirements of the College.

Degree requirements—For the degree of Bachelor of Science in Education a minimum of 125 credit hours is required.

Residence—Thirty of the last 36 hours required for the degree must be registered for and carried in residence at the University.

2. General Education—The required general education includes the following areas: English, humanities, natural sciences and mathematics, social sciences and physical education.

(a) English: Students must earn credit in English 111 and 112; or, if performance on the English proficiency examination warrants,

* For description of professional education programs and courses, see pp. 183-185.
English 112 and any other three-hour English course. Students who are excused from both English 111 and 112 shall take any other six hours in English. Literature courses taken may also be used to fulfill the requirements in humanities.

(b) Humanities: Music (except laboratory and applied music courses), art, English (except 105, 109, 111, 112, 205, 240), foreign language, philosophy, religion and speech.

Students may take the two survey courses; or one survey course and six hours of departmental courses; or 12 hours of departmental courses (not more than 8 credit hours in one department).

(c) Natural Sciences and Mathematics: Biology, chemistry, geography 254, mathematics, and physics.

Students may take the two survey courses; or one survey course and six hours of departmental courses; or 12 hours of departmental courses (not more than 8 credit hours in one department.)

(d) Social Sciences: Economics, geography (except Geography 254), history, political science, psychology, sociology.

Students in elementary education must present 12 semester hours from the division including one course in geography and one course in Political Science or American History. Students must present 12 semester hours from the division, of which not more than 8 semester hours may be from one department.

(e) Physical Education—At least four semester hours in general physical education are required of each student who is under the age of 21 at the time of matriculation into the University of Nebraska at Omaha and not yet over the age of 24 on graduation. Eight semester hours in physical education activities may be accepted toward the degree, except for students specializing in physical education. Up to eight semester hours of credit in physical education may be allowed for military service when such credit appears on the student’s transcript on entrance to the University.

3. Professional Education—The required courses in *professional education include the basic courses required of all candidates and the courses required according to the specialization of the candidate.

(a) Basic courses—Each candidate must present credit in the basic courses, Education 205 and 208 (Education 207 and Psychology 351 may be substituted for Education 205). These courses must be taken prior to the courses listed in paragraph 2 below.

(b) Major fields in Education—The candidate must complete a major as indicated below:

(1) Elementary Major—Education 209, 420, 430, 431, 432, 433, 434, 435, 436, or 437, and two courses selected from: Art Education 336 Education 418, Education 425 or 426, Music Education 251, Physical Education 335, Special Education 462.

(2) Secondary Major—Education 351 or 361, 457, 458, and a special methods course is required for each teaching field. Vocational Business Education will include Education 480, 485.

(3) Special Services Major—Education 468 or 351, plus: Educ. 418, Library Science 457, Special Education 462 and 425, 451, 452, or 475 as appropriate. Teaching fields under special services major include Art K-12, Health and Physical Education for Men K-12, Health and Physical Education for Women K-12, Library Science K-12, Music K-12, Recreation Education K-12, Special Education K-12. For the K-12 programs, both 468 and 351 must be taken and one semester of student teaching each at the elementary and secondary school levels.

4. Academic or Teaching Majors and Fields—All candidates for the degree or teaching certificate must complete an **academic major. Students who wish to qualify for secondary school certification must have ***two teaching fields, one of which may be an academic major.

(a) Divisional Majors—Candidates in elementary education must present either a departmental major approved by the head of the Department of Elementary Education and the head of the academic department concerned, or a divisional major of 24 semester hours above freshman level (with no grade lower than “C”) in one of the divisions—Humanities, Natural Sciences and Mathematics, or Social Science. These 24 hours are in addition to the 12 hours required for general education in that division. Of the total 36 hours, 15 semester hours must be junior or senior level; there must be three subject fields within the 36 hours; and a minimum of 15 semester hours must be in one subject field.

(b) Teaching fields or subjects include: Art, biology, business administration, chemistry, *core program, economics, English, French, geography, German, history, home economics, industrial education, journalism, library science, mathematics, music, health and physical education for men, health and physical education for women, physics, political science, recreation education, social studies, Spanish, speech, speech correction, teaching the hearing handicapped, teaching the deaf, teaching the educable mentally retarded, teaching the trainable mentally retarded, vocational business education.

5. Special requirements and limitations—The College of Education specifies certain requirements and limitations with respect to quality of work, progress toward the degree, certain proficiencies, maximum credit allowed and correspondence and extension credit.

(a) Quality of work—Each candidate for the degree or certification must attain a grade point average of at least “C” in all professional courses.

*A combination of language arts and social studies, or science and mathematics. **An academic major consists of a group of courses completed in accordance with the requirements of the faculties of the respective departments concerned. ***Exceptions are K-12 Health and Physical Education for Men and Women, K-12 Music, K-12 Art, K-12 Library Science, K-12 Recreation Education, and K-12 Special Education.
Each secondary education major student must have a grade point average of 2.50 in his major teaching field or subject, and no grade below "C" for the minimum number of credit hours required for his teaching major and second teaching field. All recorded grades are included in the computation of the cumulative grade point average, including grades of courses enrolled for in excess of the 125 credit hours required for the degree. A grade point average of at least 2.0 is required for graduation.

(b) Progress toward the degree—Students are expected to progress regularly toward the degree. Those who pursue their program intermittently are subject to the changes in requirements.

(c) Special proficiencies and competencies—Students who plan to graduate in teacher education or who seek an initial certificate must demonstrate proficiency in the use of audio-visual aids. These students must also demonstrate competence in reading, mathematics, library usage, and oral English. Information concerning the tests may be obtained from the Dean of the College of Education.

(d) Maximum credit hour limits—A candidate may not count toward graduation a total of more than 40 semester hours of credit in professional education.

(e) Correspondence and extension credit—A candidate may not count toward graduation a total of more than 15 semester hours of credit taken by correspondence, television, and/or extension.

(f) Elective credit will be granted for courses taken in the Department of Aerospace Studies.

SPECIAL REGULATIONS FOR STUDENT TEACHING

Students in elementary education must take at least two methods courses prior to student teaching.

Students in secondary education must take Education 351 or 361 prior to student teaching.

A student may not take student teaching while employed in a regular teaching position. Student teaching must be taken on the basis of a full semester assignment in order to receive credit. Experienced teachers may take In-Service Supervised Teaching while employed, when given written permission by the head of the department.

All students taking or holding the baccalaureate degree and seeking certification are required to take two semesters of student teaching.

All students seeking certification at the secondary level (grades 7-12) must complete two semesters of student teaching, Education 457 and 458. Student Teaching will be done in two different schools, one semester in the major or first teaching field, and one semester in the minor field or second teaching field. Exceptions to this are students majoring in Art, Music, Physical Education, Recreation, in the K-12 program, Library Science or Special Education.
Students in elementary education must take a minimum of eight semester hours in student teaching. Each credit hour requires one-half day of student teaching per week per semester.

Students in secondary education must take a minimum of seven semester hours in student teaching. A minimum of forty clock hours is required for one semester hour credit in student teaching.

Only one course in student teaching may be taken in any one semester.

Requirements for student teaching: (1) cumulative grade point average of 2.00; (2) grade of at least "C" in each professional course taken. In addition, students in secondary education must have a 2.50 average in the major teaching field and a 2.00 in the second teaching field.

The College of Education reserves the right to require students with teaching experience to take at least one semester of student teaching in order to be approved for certification.

Students in secondary education must also be approved by the heads of the academic departments in which they are taking their teaching fields.

A student must have at least 12 semester hours of credit in a teaching field before he may do student teaching in any subject included therein.

Students who are earning a degree at the University of Nebraska at Omaha may qualify for a secondary school certificate by meeting the General Requirements, page 172, paragraph No. 1, 2, and 3, and by meeting Degree Requirements, pages 172-174, No. 1, 2, 3, and 4.

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**Educational Foundations**

PROFESSORS DUNN (Chairman), ACKERMAN, KENNEDY, WATERMAN;
ASSOCIATE PROFESSORS PULLEN, SELEE;
ASSISTANT PROFESSORS BENNING, FREUND, GILREATH, KUCER, SADLER

**FED 100 Freshman Orientation** (I, II) 0 hours
A non-credit course intended to acquaint freshmen students with the College of Education policies and procedures, and the various academic programs available.

**FED 205 Human Growth and Learning** (I, II) 6 hours
Designed for teachers at both the elementary and secondary levels, this course deals with the growth and learning processes of the individual, with emphasis on the school age child.

**FED 207 Human Growth and Development** (I, II, S) 3 hours
The problems of the child through adolescence and his adjustment to life situations; mental, physical, emotional and social development.

**FED 208 Introduction to Teaching** (I, II, S) 3 hours
An examination of the nature and task of the American School System, with particular emphasis on the role of the teacher. Laboratory experiences are devoted primarily to observation of schools in the metropolitan area.
FED 418  **Mental Health in the School**  (I, S) 3 hours
This course is 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 a learning environment that will foster desirable mental health. Common mental health problems are surveyed and the teacher's role in aiding the individual considered. Prereq: ED 205 or Psych. 281, and ED 207.

FED 481  **Principles of Adult Education**  (I) 3 hours
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.

FED 482  **Adult Group Leadership**  (II) 3 hours
A study of adult groups in modern society and the characteristics of effective leadership in all types of groups.

FED 486  **Audio-Visual Materials in Education**  (I, II, S) 3 hours
The selection, care, organization and utilization of audio-visual materials and equipment for instruction.

FED 487  **Preparation of Instructional Materials**  3 hours
A basic course in the production of inexpensive audio-visual materials for the classroom—graphical, photographic and auditory; and including such instructional materials as slides, transparencies, graphics, electronic tapes, and motion pictures.

FED 488  **Administration of the Instructional Materials Center**  (I, II, S) 3 hours
Designed for students who wish to prepare themselves for the administration of an educational media program within an elementary and/or secondary school.

FED 498  **Special Studies**  1-3 hours
Scheduled as needed and conducted as a regular class, short course, seminar, workshop, or special project, according to purpose. Credit limited to 6 hours.

FED 500  **Special Studies**  (I, II, S) 3 hours
A series of intensive courses especially for teachers in service—scheduled as regular seminars, or workshops, according to purpose.

FED 501  **Introduction to Research**  (I, II, S) 3 hours
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.

FED 502  **History and Philosophy of Education**  (I, II, S) 3 hours
A survey of the rise of educational practice as it has been inter-
related with changes in social and educational philosophy, research, and economic, industrial and cultural conditions, especially in the United States.

FED 504 Comparative Education (I, S) 3 hours
To acquaint students with education philosophies and programs in selected countries; to identify changes in programs of countries; to compare programs in education of other countries with the situation in the United States.

FED 505 Seminar in Education (I, II, S) 3 hours
Research of problems in education which are of current significance (or of historical, philosophical or psychological backgrounds in education).

FED 506 Education and Society (II) 3 hours
To provide an opportunity for teachers to develop an understanding of certain selected contemporary affairs which have an influence upon society.

FED 507 Statistical Methods (III, S) 3 hours
This course was designed for first year graduate students in education who have not had a previous course in statistics or whose background is such that a refresher course is desired.

FED 508 Topics in Audio-Visual Education (II, S) 3 hours
A study of selected topics involving principles, problems, trends and materials in audio-visual education.

FED 510 Research Project 3 hours
Individual or group study and analysis of specific problems in schools. Typical problems may include surveys, school finances, transportation, school building construction, maintenance and operation, curriculum, pupil personnel.

FED 552 Foundation of Business Education (S) 3 hours
To identify and define business education and to study its past, present, and future role in the total education pattern of our country in today's world.

FED 601, 602 Thesis 3 hours
Required of all students taking Master of Arts degree, see major advisor for information.

ELEMENTARY EDUCATION

PROFESSORS BETHEL (Chairman), ACKERMAN, ACKERSON;
ASSISTANT PROFESSORS BUNSEN, GRANDGENETT,
HOWELL, WILCOX;
INSTRUCTORS HOOVER, LICKTEIG

EED 209 Health and Safety in the Elementary School (I, II, S) 2 hours
This course is designed to help future elementary teachers understand and appreciate the elements, content, and purposes,
characteristics and the teacher's role in an adequate school health program.

EED 420 Literature for Children and Youth (I, II, S) 3 hours
Selection, evaluation and guidance in various types of literature for elementary and junior high school levels with emphasis upon developing a broad acquaintance with authors and works, and including the development of a better understanding of the significance of literature in meeting children's needs and interests.

EED 425 The Nature and Guidance of the Young Child 3 hours
Study of the nature and guidance of the preschool-kindergarten child; designed for students specifically interested in teaching children in that age range.

EED 426 Curriculum for Early Childhood Education 3-5 hours
Designed for students who are preparing to teach the child from three to five years of age with particular emphasis on the appropriate curriculum.

EED 427 Current Trends in Early Childhood Education 3 hours
A survey of the problems involved in setting up and implementing a program for the child from birth to eight years of age. Recent trends will be investigated as they apply to the above activity.

EED 430 Teaching of Reading (I, II, S) 2-3 hours
This course is designed to assist the teacher in understanding the process of developmental reading and to acquaint the teacher with the newest as well as the traditional tools for teaching reading.

EED 431 Teaching of Language Arts (I, II, S) 2-3 hours
A survey of the contents of the language arts areas in the elementary school and a study of the methods and techniques of teaching language arts.

EED 432 Teaching of Social Studies (I, II, S) 2-3 hours
A study of the content and methods of teaching social studies in the modern elementary school with emphasis on the development of work-study skills, knowledges, and values.

EED 433 Teaching of Mathematics (I, II, S) 2-3 hours
A survey of the content of mathematics in the elementary school and a study of the methods and techniques of teaching mathematics. Prereq: Math 100.

EED 434 Teaching of Science (I, II, S) 2-3 hours
A survey of the contents of science in the elementary school and a study of the methods and techniques of teaching science.

EED 435 Beginning Student Teaching and Seminar (I, II) 5 hours
Guided experience in public school teaching at the elementary
level. Needs and readiness of the student teacher determine the proportion of the time devoted to observation, participation, and actual teaching. One session per week is given to study and discussion of the teaching experience.

EED 436 Advanced Student Teaching and Seminar (I, II) 5 hours (436)  
437  (I, II) 3 hours (437)  
A second semester of guided experiences in public school at the elementary level. With increased proportion of time spent in actual teaching, the amount depending upon the readiness of the student as determined by the cooperating teacher and the University supervisor. One session per week is given to study and discussion of the teaching experience.

EED 440 In-Service Supervised Teaching (I, II) 3 hours  
This course is designed for selected experienced teachers. Supervised experiences are provided in the teacher's public school classroom, and weekly seminar sessions are held on campus.

EED 468 Elementary School Curriculum 3 hours  
A study of the foundations, organization, content and evaluation of the curriculum of the elementary school designed for prospective teachers who plan to work in the elementary school in such areas as library science, early childhood education, music, physical education, art, and special education.

EED 519 Diagnostic and Remedial Instruction 3 hours  
A study of methods of diagnosing children's difficulties in all subject areas of the educational program of the elementary school and remedial techniques for overcoming such problems.

EED 540 Innovations and Trends in Elementary Education 3 hours  
Designed as an advanced study for the purpose of exploring current trends and developments within the various subject matter areas of the elementary school.

EED 543 Introduction to Curriculum Planning 3 hours  
A study of the history, philosophy and current developments in the elementary curriculum with an emphasis on appropriate content and methods of curriculum reorganization.

EED 544 Seminar in Elementary Education 3 hours  
A study of educational problems as they relate to the elementary school, to be taken in the last nine hours in the program for the Master of Science degree.

EED 545 Seminar in Supervision of Student Teachers 3 hours  
Designed for experienced teachers who are or may be serving as cooperating teachers, and who desire to study student teaching, its aims, procedures, objectives, trends and developments. Prereq: Two years teaching experience.
SECONDARY EDUCATION

PROFESSORS ZIEBARTH (Chairman), ACKERSON, GLIDDEN, HOLLEY;
ASSOCIATE PROFESSOR KELLAMS;
ASSISTANT PROFESSORS BRESSLER, BUNSEN, CLAUSSEN, GRANDGENETT, RAY, SADLER, TRENHOLM, WATCHORN;
INSTRUCTOR JORGENSEN

SED 351 Teaching in Secondary Schools—Senior High School
(I, II, S) 3 hours
An orientation to the high school, giving attention to goals, curriculum, teaching procedures, professional associations and to the social setting of the secondary school.

SED 361 Teaching in Secondary Schools—Junior High School
(I, II, S) 3 hours
A study of the junior high school program to acquaint students with its history and function, the content, methods, techniques, and materials in each of the subject matter areas with which the student is concerned.

SED 401 Special Methods in Teaching Business
(I, II) 3 hours
The content, methods, techniques, and materials in each subject matter area taught in high school business departments.

SED 402 Special Methods in Teaching Foreign Languages
(I, II) 3 hours
To help the student to acquire the understandings, skills and attitudes necessary for successful language teaching brought about by the constant changes in methodology and programming of modern languages.

SED 403 Special Methods in Teaching Home Economics
(I, II) 3 hours
The content, methods, techniques and materials in each subject matter unit on the secondary level.

SED 404 Special Methods in Teaching Language Arts & Reading
(I, II) 3 hours
A practical course in the methods of teaching language arts and reading in high school, with practice in applying same.

SED 405 Special Methods in Teaching Mathematics
(I, II) 3 hours
Designed to provide the potential mathematics teacher with those skills, concepts, understandings, and techniques which will enable him to combine his knowledge of mathematics with his understanding of how children grow, develop, and learn in such a manner that combined with classroom experience, he will become an effective teacher.

SED 406 Special Methods in Teaching Science
(I, II) 3 hours
Designed for students in education who plan to become junior and senior high school science teachers. A study is made of methods and materials, classroom and laboratory management,
and evaluation. Emphasis is given to the philosophy and content of recently developed courses.

SED 407 Special Methods in Teaching the Social Studies (I, II) 3 hours
Designed to prepare teachers in any one of the social studies subjects at the junior or senior high level. Emphasis is placed on the study of content selection, skill development, methods, materials, and evaluative procedures. Study of new social studies programs and professional literature is also included.

SED 408 Special Methods in Teaching Speech (I, II) 3 hours
Philosophy, methods, and resources for the teaching of speech and directing of speech activities in the secondary school.

SED 409 Special Methods in Teaching Core Program (I, II) 3 hours
Designed for students who plan to teach in junior or senior high school core classroom.

SED 457 Beginning Student Teaching in the Secondary School (I, II) 4-5 hours
Actual field experience in the metropolitan area schools under supervision of a university supervisor and classroom teacher. Course extends through an entire semester of teaching, one to two hours daily, in the student's major or minor teaching fields. Time arranged.

SED 458 Advanced Student Teaching in the Secondary School (I, II) 3-5 hours
Continuation of field experience in the metropolitan area schools. Course extends through an entire semester, one to two hours daily, in the student's major or minor field. Time arranged.

SED 480 Principles of Vocational Education 3 hours
A study of the basic philosophy underlying vocational education and the principles and practices in the various fields.

SED 485 Coordination Techniques in Vocational Education 3 hours
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.

SED 530 The Secondary School Curriculum (II, S) 3 hours
Designed to provide the student with understanding of the nature and trends in secondary school curriculum development and the principles and practices in curriculum planning.

SED 532 The Junior High School (I, S) 3 hours
This course is designed to acquaint the graduate student with the philosophy, objectives and functions of the junior high school program.
SED 534 Co-operating Teachers Seminar (I, II) 3 hours
Selected co-operating teachers from the public schools study with the University Director of Secondary Student Teaching the problems involved in making the practical experience of student teaching as valuable as possible, evaluate present practices, develop a better understanding of the philosophy of the University regarding student teaching and make definite plans for improvement of the program.

The following courses are concerned with the secondary school in light of the nature and needs of the adolescent child and in relation to the goals of education, with implications for teachers, counselors and administrators. Emphasis will be placed on instructional procedure, curriculum, and classroom management.

SED 535 Improvement of Instruction of Secondary School Speech
SED 540 Improvement of Instruction of Secondary School English
SED 545 Improvement of Instruction of Secondary School Social Studies
SED 550 Improvement of Instruction of Secondary School Mathematics
SED 555 Improvement of Instruction of Secondary School Science
SED 556 Improvement of Instruction of Secondary School BSCS Biology (yellow)
SED 557 Improvement of Instruction of Secondary School BSCS Biology (green)
SED 559 Improvement of Instruction of Secondary School PSSC Physics
SED 575 Improvement of Instruction of Secondary School Business Education
SED 576 Problems of Vocational Business Education (S) 3 hours
Designed for teachers of business education to develop a better understanding of the purposes, philosophy, current practices and trends in business education.

SED 554 Vocational Curriculum Construction 3 hours
Designed for teachers, supervisors, coordinators, and administrators of vocational education. Includes principles, needs, factors, and trends that should be considered in developing a vocational education curriculum.

COURSE REQUIREMENTS FOR BUSINESS EDUCATION MAJORS

PROFESSOR HOLLEY (Chairman);
ASSOCIATE PROFESSOR RAUCH

Business education majors must take a minimum of 45 hours in the major field distributed as follows:
20 semester hours or equivalent from the following courses:
Sec. 108, 110, 111, 117, 118, 212, 229, 335, 336, 353*. 
20 semester hours from the following business administration courses:
Acct. 101, 102, Mrkt. 331, Mgt. 349, 351, BA 128, 319, 320, 323, 324,
325, 344, 371.

*Occupational Experience*

Two years of full-time employment or the equivalent of two years in
part-time employment in an office occupation are required in the voca­
tional program. Students working at the same time they are enrolled in
353—**Cooperative Work Experience** for one semester (3 credit hours)
receive credit for two semesters of occupational experience.

Minimum course requirements for a teaching field in Business Admin­
istration:

Lower division requirements: BA 128, Acct. 101, 102, Econ. 101, 102,
Sec. 118 or 229.

On approval of advisor, student will select 18 hours of upper division
courses in business administration.

**SECRETARIAL SCIENCE AND VOCATIONAL BUSINESS**

**EDUCATION**

**PROFESSOR HOLLEY (Chairman);**
**ASSOCIATE PROFESSOR RAUCH**

**VBED 108 Office Machines**
(I, II) 3 hours
Basic operations of calculators, adding and voice-writing ma­
chines, duplicators. Prereq: One year of typewriting or profi­
ciency.

**VBED 110 Record Management**
(II) 1 hour
Filing systems, record management and control. Prereq: None.

**VBED 111 Elementary Shorthand**
(1, S) 3 hours
Basic principles, vocabulary, beginning dictation for students
with no previous training. Prereq: None.

**VBED 117 Elementary Typewriting**
(I, II, S) 3 hours
Keyboard mastery; building speed and accuracy; application to
typewriting problems. Prereq: None.

**VBED 118 Intermediate Typewriting**
(I, II) 3 hours
Improvement of speed and accuracy; arrangement of business
letters, tabulation, and manuscripts; production typewriting.
Prereq: Sec. 117, one year of high school typewriting, or in­
structor’s permission.

**VBED 212 Intermediate Shorthand**
(II) 3 hours
Continue basic principles and vocabulary; new matter dictation
and transcription. Prereq: Sec. 111 or one year high school shorthand, typewriting proficiency.

**VBED 229 Advanced Typewriting**
(II) 3 hours
Specialized typewriting problems to develop high-level compe­
tency. Prereq: Sec. 118 or two years of high school typewriting.
VBED 335 **Advanced Shorthand**  (I) 3 hours
High speed writing from dictation; techniques of handling office dictation. Prereq: Sec. 112 or two years of high school shorthand, Sec. 118 or one year of high school typewriting.

VBED 336 **Secretarial Practices**  (II) 3 hours
Practical secretarial problems including business etiquette, handling mail, banking procedures, transportation, office forms and supplies, and office reference books. Prereq: Sec. 229 and 335.

VBED 353 **Cooperative Work Experience in Business Education**  (I) 3 hours
Coordinates and relates basic skills, backgrounds, technical knowledge and related occupational information through practical application of classroom theories. Prereq: Sophomore Standing.

**TWO-YEAR PROGRAM IN SECRETARIAL SCIENCE**

**PROFESSOR HOLLEY (Chairman); ASSOCIATE PROFESSOR RAUCH**

Students who wish to prepare for work in an office should register in the Two-Year Program in Secretarial Science. This program is sufficiently flexible to enable students to continue work toward a degree in Vocational Business Education.

**General Requirements**

Students must present a minimum of 64 credit hours with an average grade of "C" (two quality points) or above.

Minimum course requirements for the two year program in Secretarial Science:

- Typewriting ........................................... 9 semester hours or equivalent
- Shorthand .............................................. 9 semester hours or equivalent
- Secretarial Practices .............................. 3 semester hours
- Office Machines ..................................... 3 semester hours
- Record Management ................................. 1 semester hour
- Introduction to Business ......................... 3 semester hours
- Accounting .......................................... 3 semester hours
- Business Communications and Reports .......... 2 semester hours
- Economics ............................................ 6 semester hours
- Freshman English (111, 112) ...................... 6 semester hours
- Speech .................................................. 3 semester hours
- Psychology ........................................... 3 semester hours
- Humanities, Social Sciences or Natural Sciences 6 semester hours
- Physical Education ................................... 4 semester hours
LIBRARY SCIENCE

ASSISTANT PROFESSORS HAZELWOOD (Chairman), KUCER; ASSOCIATE PROFESSORS McCAULLEY, MEANS, PULLEN; INSTRUCTORS DOUGHERTY, LICKTEIG, PLAYFOOT

Students majoring in Library Science must take 24 hours of work, which includes all courses except LS 499.

LS 371 Introduction to Reference Work (I, S) 3 hours
A basic course in the most commonly used language dictionaries, encyclopedias, indexes, catalogs, bibliographies, and biographical dictionaries. Bibliographical form is also emphasized. Prereq: Junior Standing.

LS 374 Cataloging and Classification I (I, S) 3 hours
Elementary cataloging and classification. Book selection and ordering, preparation, and mending; the basic library records. Prereq: Junior Standing.

LS 375 Selection of Materials for the Adolescent (I, II, S) 3 hours
Selection of learning resources to satisfy the interests and needs of the junior and senior high student; principles, evaluation, and aids. Prereq: Junior Standing. Ed. 205 or Psych. 351.

LS 376 Cataloging and Classification II (II, S) 3 hours
Designed to give basic understanding of descriptive and subject cataloging and the role played by a catalog in the total library program. Laboratory work with the basic cataloging tools. Prereq: LS 374.

LS 377 Reference and Bibliography (II, S) 3 hours

LS 410 Special Methods in Teaching Library-Media Skills (I, II) 2 hours
Designed to provide the potential school librarian-media specialist with a knowledge which will enhance his effectiveness in teaching skills needed by elementary and/or secondary students. Prereq: 12 hours of Library Science and/or permission.

LS 420 Literature for Children and Youth
(Also offered as Ed. 420—same course description.)

LS 457 Practice Work in the Library (I, II) 3 hours
Observation and participation in a library situation with experience in both public and technical services. Prereq: Completion of 12 hours in library science and permission.

LS 486 Audio-Visual Materials in Education
(Also offered as Ed. 461—same course description.)

LS 487 Preparation of Instructional Materials
(Also offered as Education 487—same course description.)
LS 488 **Administration of the Instructional Materials Center**
(I, II, S) 3 hours
(Also offered as Ed 488—same course description.)

LS 499 **Special Problems**
(I, II, S) 3 hours
Concentrated study involving practical work and a research project in an area related to a student's needs or interests. Pre-req: Completion of 12 hours in library science and permission.

**HOME ECONOMICS**

PROFESSOR KILLIAN (Chairman);
ASSISTANT PROFESSOR RAY;
INSTRUCTOR MOORE

**Major in Home Economics Education**

Students must meet all requirements of the College of Education. The natural science requirements should be satisfied by taking two courses in sequence in Chemistry and any two of the following: Biology, Physiology and Anatomy, and Microbiology; Social Science requirements should be met by taking two courses in sequence in Psychology and two in Sociology.

Courses required for the Home Economics major: 101, 102, 104 or 303 or 304, 201, 202, 204, 205, 214, 301, 306, 309, 310.

This major may also be used to satisfy dietetics requirements if all the remaining America Dnietetic Association requirements are taken as electives.

Students in Home Economics may meet requirements for American Dietetic Association. Interested students should see Miss Killian, chairman, Department of Home Economics.

**Major in Dietetics**

Students must meet the academic requirements of the College of Arts and Sciences, and the requirements for membership in the American Dietetic Association by including the following courses: Home Economics 101, 102, 201, 301, 302, 307, 308, 310, 311.

Related area requirements are Physiology and Anatomy, Bacteriology or Microbiology, Chemistry 101 and 102 or the equivalent, Biochemistry, Personnel Management or Industrial Psychology, Principles of Learning or Educational Psychology.

**Major in Interior Design**

Students must meet the requirements of the College of Arts and Sciences. The major consists of 39 hours in Art plus the following courses in Home Economics: 202, 204, 211, 212, 213, 306, 406.

**Course Listings**

HEC 101 **Elementary Nutrition and Food Preparation** 3 hours
Basic principles of nutrition, food principles with emphasis on food quality and characteristics.
HEC 102 Advanced Food Preparation  3 hours
Advanced food preparation techniques and gourmet cookery.
Prereq: 101 or permission.

HEC 103 Clothing Construction  3 hours
Fundamental processes of garment construction and selection of
Clothing suited to the individual.

HEC 104 Clothing Construction  3 hours
The socio-economic approach to the study of clothing and tex-
tiles and advanced construction techniques. Prereq: 103 or per-
mission.

HEC 201 Meal Planning and Service  (I) 3 hours
The planning, purchasing, preparation and service of all types
of meals. Prereq: 102 or permission.

HEC 202 Textiles  (I) 3 hours
Consumer information about the manufacture, properties, and
selection of textile fibers.

HEC 203 Non-Textiles or Merchandise Information  (II) 3 hours
Consumer information about synthetic fabrics and non-textiles
merchandise; plastics, furs, leather goods and jewelry.

HEC 204 Home Management  3 hours
Efficient use of resources for the achievement of family goals.
Budgeting, consumer information, installment purchasing.

HEC 205 Costume Design  (II) 3 hours
Historical sources of dress; creative design.

HEC 209 Personality and Style  3 hours
Assessment of individual potential and values. Good grooming,
good taste, good manners.

HEC 211 Upholstering  3 hours
Styling, conditioning and covering of furniture.

HEC 212 Furniture Repair and Refinishing  3 hours
Reconstruction, stripping and finishing of furniture.

HEC 213 Home Planning  3 hours
Planning space for area of the home for beauty and efficiency.
Interpreting and constructing floor plans.

HEC 214 Household Equipment  3 hours
Working principles of small and large appliances for the home
in terms of mechanics, application of heat and other consumer
information. Performance testing and field trips.

HEC 301 Advanced Nutrition and Dietetics  (I) 3 hours
Comprehensive study of human nutrition.

HEC 302 Diet in Disease  (II) 3 hours
Nutrition as related to therapeutic practices.
HEC 303 **Advanced Clothing**  
3 hours  
Construction of a foundation pattern and flat pattern designing.  
Prereq: 104.

HEC 304 **Tailoring**  
3 hours  
Application of tailoring techniques in the making of suits and coats. Prereq: 103 or 104.

HEC 305 **Child Care and Development**  
3 hours  
How children grow and develop physically, mentally and emotionally. Includes their care and feeding.

HEC 306 **Interior Design**  
3 hours  
Application of basic principles and elements of art in the selection and arrangement of the furnishings for the home.

HEC 307 **Quantity Cookery**  
(S) 3 hours  
Quantity food production including food service experience in the University Food Service Department.

HEC 308 **Institutional Management**  
(S) 3 hours  
Problems in organization and management of food service in an institution. Prereq: 102 and 201 or permission.

HEC 309 **Demonstration Techniques (1968-1969)**  
3 hours  
Techniques of presenting Home Economics materials visually and audibly to a selected group of people. Prereq: Junior Standing.

HEC 310 **Experimental Cookery**  
3 hours  
The chemical and physical basis of food preparation and technology. Prereq: HEC 102 and Chem 101 and 102.

HEC 311 **Institutional Equipment**  
3 hours  
Evaluation of equipment for institutional use. Field trips to wholesale centers, hospitals, and restaurants.

HEC 404 **Advanced Tailoring**  
3 hours  
Couturier techniques in custom tailoring.

HEC 406 **Advanced Interior Design**  
3 hours  
Comprehensive study of the history of furniture styles and interiors with practical laboratory application.

**HEALTH, PHYSICAL EDUCATION AND RECREATION**

*Programs for Men*

ASSISTANT PROFESSOR WATCHORN (Chairman);  
ASSOCIATE PROFESSORS GORR, YELKIN;  
ASSISTANT PROFESSORS BENNING, BORSHEIM, CANIGLIA,  
CARDWELL, KURTH;  
INSTRUCTORS CAMPBELL, MEYERS, WAGNER

**Physical Education Majors**

Physical Education majors may not take less than 35 hours or more than 40 hours in physical education courses. Eighteen hours must be in the upper division. Majors must complete specific courses as follows:
PE 143, 250, 251, 303, 335, 363, 422, 493; RED 322 or 324; Nat. Sci. 101, 102; Biol. 275. The major must complete satisfactorily at least two coaching theory courses. He must qualify in one additional teaching field. A student majoring in physical education must have a health rating of A.

Health and Physical Education (K-12)

Majors must complete the following courses: PE 143, 250, 251, 303, 315, 321, 335, 348, 363, 422, 493; HED 231, 306; RED 322 or 324; and two elective coaching theory courses.

Programs for Women

ASSISTANT PROFESSORS CLAUSSEN (Chairman), GREEN, LUNDAHL

Physical Education Majors

All physical education majors must complete 39 credit hours in physical education courses of which 18 hours must be in courses number 300 and above. Biology 275 is a prerequisite for PE 315 and 363. The following courses are required of all women majors: four hours of 111 or 112 (one of which must be gymnastics), PE 143, 201, 202, 223, 227, 303 or 304, 312, 315, 321, 335, 349, 350, 363, 422, and 493.

Health and Physical Education Majors (K-12)

Majors must complete all of the above courses plus: HED 231 and 306, and RED 322 or 324.

In both programs, PE 349, 350, and a course in Water Safety Instruction (W.S.I.) is required before student teaching. Since physical education emphasizes the importance of physical fitness, a student who is overweight will not be allowed to student teach. The student must also have a health rating of A.

Recreation

ASSISTANT PROFESSORS GORR, CLAUSSEN; INSTRUCTOR MYERS

All recreation majors must complete the following courses: PE 143, RED 318, 322, 324, 424, 455, 456. In addition: 60 hours of guided courses from physical activities, arts and crafts, dramatics, and music.

General Physical Education Courses for All Students

For Men:

PE 112 Individual—Dual Sports (I, II) 1 hour
PE 113 Restricted Physical Education (I, II) 1 hour
PE 114
PE 211 Beginning Swimming (I, II) 1 hour
PE 212 Team Sports (I, II) 1 hour
For Women:

PE 111 Team and Individual Sports (I, II) 1 hour
PE 112 Team and Individual Sports (I, II) 1 hour
PE 223 Beginning Modern Dance (I, II) 1 hour
PE 224 Intermediate Modern Dance (I, II) 1 hour
PE 225 Advanced Modern Dance (II) 1 hour
PE 227 Beginning Ballroom Dance (I) 1 hour

Health Education

HED 231 Personal and Community Health (I, II) 3 hours
Designed to present facts and understanding of basic personal health and ways of developing and maintaining good health; the health of people as a group, and the governmental and social activities responsible for controlling the environment and promoting health.

HED 306 School Health Program (II) 3 hours
A study of school health services and environment with laboratory experiences in methods and materials of Health Education. Prereq: PE 231.

Physical Education

PE 143 Introduction to Health, Physical Education and Recreation (I, II) 3 hours
A survey of the history of physical education and related areas, and an introduction to the fields of health, physical education, and recreation as professions.

PE 177 Football Coaching Theory and Practice (I) 2 hours
Offers the basic fundamentals involved in coaching football. Lecture 2 hours, laboratory 2 hours.

PE 179 Basketball Coaching Theory and Practice (I) 2 hours
Offers the basic fundamentals involved in coaching basketball. Involves study of the history, rules, and the basic fundamentals of individual and team play. Lecture 2 hours, laboratory 2 hours.

PE 201 Sports Officiating I (I) 1 hour
Designed to give women interested in teaching physical education an opportunity to attain knowledge, skill, and practical experience necessary for the teaching and officiating of individual and team sports.

PE 202 Sports Officiating II (II) 1 hour

PE 213 Intermediate Swimming (II) 1 hour
To give students an opportunity to learn all the swimming strokes, to improve their skills, to increase their endurance in
swimming, and to learn the beginning synchronized swimming skill. Prereq: Ability to swim in deep water.

**PE 214 Senior Life Saving and Water Safety**  (II) 1 hour
An activity course open to men and women of fundamental life saving techniques and instruction in teaching water safety and life saving skills. Red Cross certification will be given upon satisfactory completion of the course in Senior Life Saving and Instruction. Prereq: PE 213 or ability to swim 16 laps of 60-foot pool.

**PE 217 Wrestling Coaching Theory and Practice**  (II) 2 hours
History, fundamentals, methods of instruction, rules and officiating training methods, care and prevention of injuries, equipment, and preparation for competition. Lecture 2 hours, laboratory 2 hours.

**PE 223 Beginning Modern Dance**  (I, II) 1 hour
For men and women students and designed for the purpose of introducing basic modern dance techniques and acquiring a brief knowledge, understanding, and appreciation of modern dance history, theory, accompaniment and composition.

**PE 224 Intermediate Modern Dance**  (I, II) 1 hour
Designed for men and women students to help them attain a moderate degree of skill in advanced modern dance techniques, understanding of modern dance history, theory, accompaniment and composition. Prereq: PE 223.

**PE 225 Advanced Modern Dance**  (II) 1 hour
Designed to develop additional skill in modern dance techniques and to further knowledge and experience in dance accompaniment, history, theory and composition. Prereq: PE 223, 224.

**PE 227 Beginning Ballroom Dancing**  (I, II) 1 hour
Designed for men and women for the purpose of developing skill in all phases of ballroom dancing.

**PE 228 Square and Folk Dancing**  (II) 1 hour
Designed for men and women for the purpose of developing skill in selected folk and square dances.

**PE 229 Advanced Ballroom Dancing**  (II) 1 hour
Designed for men and women for the purpose of developing additional skill in all phases of ballroom dancing, and experience in teaching classes of ballroom dancing. Prereq: PE 227.

**PE 250 Physical Education Activities**  (I, II) 3 hours
Participation, supervision, and officiating team and individual sports and other related activities. Prereq: Permission.

**PE 251 Physical Education Activities**  (I, II) 3 hours
Same as PE 250.

*May be used by PE majors to meet requirements for Special Methods in High School Subjects with an industrial combination.
PE 252  **Methods in Gymnastics**  (I) 3 hours
Fundamental methods and stunts. Open to both men and women students and offers instruction in such activities as the side horse, parallel bars, and horizontal bar.

PE 276  **Baseball Coaching Theory and Practice**  (II) 2 hours
Devised to prepare students to instruct in the history, rules, skills and techniques in every phase of individual and team baseball. Lecture 2 hours, laboratory 2 hours.

PE 278  **Track and Field Coaching Theory and Practice**  (II) 2 hours
A study of the history, rules, training methods and techniques of the various track and field events for coaching track and field athletics. Lecture 2 hours, laboratory 2 hours.

PE 303  **Care and Prevention of Athletic Injuries**  (II) 3 hours
Designed to give first aid techniques and basic training room techniques. Prereq: Biol 275.

PE 304  **First Aid**  (I, II, S) 3 hours
Designed to give students knowledge and skill in administrating immediate, temporary treatment in case of accident or sudden illness before the services of a physician. Prereq: Junior Standing or permission.

PE 312  **Teaching Dance (Modern and Social)**  (II) 2 hours
Designed to give women interested in teaching dance an opportunity to attain knowledge, skill, and practical experience necessary for the teaching of modern and social dancing. Prereq: PE 223, 227.

PE 314  **Sports Officiating**  (I) 3 hours
The general principles, guiding philosophy, techniques and mechanics of sports officiating. Prereq: For PE majors of Junior Standing.

PE 315  **Adapted Physical Education**  (II) 3 hours
Offers a study of faulty posture, the application of exercise to posture problems, techniques of physical examinations and the study of physical abnormalities and orthopedic conditions which are amendable to treatment through exercise. Prereq: Biology 275.

PE 321  **Teaching Rhythmic Activities**  (I) 3 hours
Designed to cover the fundamentals of a variety of rhythmic and creative activities, folk and social dances, and the teaching methods for these activities.

PE 331  **General Safety Education**  (S) 3 hours
An introductory course in school safety education, primarily designed for university students, teachers and administrators so they may intelligently participate in a school safety program.

PE 335  **Physical Education in the Elementary School**  (I, II) 3 hours
Includes the studying of the physical activities of children in
grades K-6; practice in the selection and presentation of the desired types of activities and materials. Prereq: Students must be admitted to the Teacher Education program.

PE 342 Driver and Traffic Safety Education I (S) 3 hours
Critical analysis of traffic accidents, attitude factors, essential knowledge of automobile operations and traffic laws and regulations. Includes laboratory experiences for developing driving skills.

PE 343 Driver and Traffic Safety Education II (S) 3 hours
This course is primarily devoted to methods of teaching, and the administration of high school driver and traffic safety. The participant must acquire, through supervised teaching experience, competence in developing and projecting his skills and techniques, as well as transferring the necessary knowledge and inspiring satisfactory attitudes in students.

PE 348 Organization and Administration of Athletics (II) 3 hours
A study of the organization and administration of athletics in the secondary schools. Prereq: Junior or Senior Standing.

PE 349 Teaching Physical Education Activities I* (I) 3 hours
Designed to give women interested in teaching physical education an opportunity to attain knowledge, skill, and practical experience necessary for the teaching of individual and team sports. Prereq: Four hours of PE 111 and/or 112.

PE 350 Teaching Physical Education Activities II (II) 3 hours
Same as PE 349.

PE 363 Kinesiology (I) 3 hours
The science of bodily movements, mechanics and muscular exercises in relation to sports, posture, corrective movements, and everyday activity. Prereq: Biol. 275.

PE 422 Organization and Administration of Physical Education and Intramurals (II) 3 hours
Offers the student preparation in planning and conducting classes in physical education. Much attention given to instruction in the direction, supervision, and conduct of school intramurals. Prereq: Junior or Senior Standing.

PE 493 Measurement and Evaluation in Physical Education (II) 3 hours
Designed to acquaint the student with the place and importance of measurement in Physical Education and to give practical knowledge with the tools of measurements. Prereq: Permission of instructor.

PE 497 Problems in Physical Education (S) 1-3 hours
To provide an opportunity for students to participate in special conferences on problems in the fields of Health, Physical Educa-

* May be used with PE by PE majors to meet requirements for special methods in high school subjects.
tion and Recreation and to further professional improvement and growth beyond the normal four year undergraduate program. Prereq: Permission of the Dean.

**Recreation Education**

**RED 318 Camp Counseling and Outdoor Education** (II) 3 hours
Designed for men and women students to provide theoretical aspects of training in camping through class, lecture, and discussion sessions and to provide opportunities for actual training in the skills associated with camp life.

**RED 322 Recreation Education** (I) 3 hours
A study of recreation from the Greeks to the present time, including new trends, new methods of teaching, and the use of up-to-date equipment.

**RED 324 Recreational Leadership** (II) 3 hours
A practical course in leadership training. Presents club, community, youth, and adult recreation activities for recreation workers.

**RED 424 Organization and Administration of Recreation** (II) 3 hours
Designed to provide a background of information on community recreation with special attention to organization, promotion, and development from the administrative aspect.

**RED 455 Beginning Recreation Field Work and Seminar** (I, II) 3-5 hours
Practical experience in recreation field work in public, private, or voluntary agency.

**RED 456 Advanced Recreation Field Work and Seminar** (I, II) 3-5 hours
Practical experience in recreation field work in public, private, or voluntary agency. Prereq: ED 455, PE 424.

**GUIDANCE AND COUNSELING**

PROFESSOR OLESON (Chairman);
ASSOCIATE PROFESSOR PFLASTERER;
INSTRUCTORS BUTLER, HARSH, KAFKA, RHODUS, SHELTON

Programs in guidance and counseling are arranged on an individual basis for graduate students.

**Coun 490 Principles of Guidance** (I, II, S) 3 hours
Basic principles underlying guidance and counseling practices in the United States. This course is a prerequisite for all other courses in the Guidance and Counseling Department. It is the recommended course for students in other departments who wish to have some understanding of professional guidance and counseling.

**Coun 520 Introduction to Counseling Theories** (I, S) 3 hours
Study of contemporary theories of counseling, the counseling process and methods. Prereq: Coun. 490 or department permission.
Coun 521 Organization and Administration of Guidance Services (II) 3 hours
Selection and training of guidance personnel; organization and administration of the guidance program; adjustment to changing conditions. Prereq: Coun. 490.

Coun 522 Occupational and Educational Information (I, S) 3 hours
The nature and use of occupational and educational information. The process of vocational choice. Prerequisite: Coun. 490.

Coun 523 Individual Analysis (I, S) 3 hours
A study of the principles and techniques of analyzing the aptitudes, achievements and personal characteristics of the school child. Prereq: Coun. 490.

Coun 524 Counseling Practices (I, II, S) 3 hours
The initiation and development of practices designed to provide information and techniques for individual, group and classroom counseling. Prereq: Coun. 522 and 523.

Coun 525 Counseling Practicum (I, II, S) 2-3 hours
Counseling in an approved program under the supervision of a qualified counselor and a guidance professor of the University. Prereq: Coun. 524 and permission.

Coun 526 Guidance Internship (I, II) 2-3 hours
Field experiences in an approved guidance program under the supervision of a qualified counselor and a guidance professor of the University. Prereq: Coun. 524 and permission.

Coun 527 Group Techniques in Guidance 3 hours
A study of the functions, theories, techniques and limitations of group guidance. Prereq: Coun. 524.

Coun 528 Seminar in Guidance 3 hours
Designed for the advanced graduate students in Guidance to provide seminary type instruction on current readings, research, and developments.

Coun 530 Guidance in the Elementary School 3 hours
A study of the principles, practices and dimensions of elementary school guidance.

EDUCATIONAL ADMINISTRATION AND SUPERVISION

ASSOCIATE PROFESSOR KELLAMS (Chairman);
PROFESSORS GORMAN, BURKHOLDER, KENNEDY, (DEAN),
O'REILLY, RACHFORD

All courses in the Department of Educational Administration and Supervision are offered for graduate credit only.

EdAd 562 Principles of School Administration (II, S) 3 hours
A study of the principles and activities of modern school administration as they relate to the superintendency.
EdAd 563 **School Plant Planning and Operation** (II, S) 3 hours
Includes steps in planning the modern school building; site selection, building construction and design; school furniture and equipment; maintenance and operation; rehabilitation; scheduling of work; and custodial care.

EdAd 564 **School Law** (I, II) 3 hours
Considers legal principles and practices which are applicable to public education for public school teachers and administrators.

EdAd 565 **School Business Management** (I, II) 3 hours
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.

EdAd 566 **Administration and Supervision in Elementary Schools** (II, S) 3 hours
The nature, principles and functions of modern administrative and supervisory practices as they relate to the elementary school.

EdAd 567 **Administration and Supervision in Secondary Schools** (I, S) 33 hours
The nature, principles and functions of modern administrative and supervisory practices as they relate to the secondary school.

EdAd 568 **School Finance** (I, S) 3 hours
A study of the sources of school financing; local, state and national. In addition to covering this area from a historical point of view, emphasis is placed on current problems in school finance.

EdAd 570 **Practicum in School Administration** (I, II) 3 hours
Designed to provide guided study and practice in elementary, secondary or general administration and supervision as the interests and needs of the student require.

EdAd 575 **Administration of Higher Education** (S) 3 hours
A study of the major functions of higher education, with emphasis on the principles involved in organizing and directing the academic program, the activities of the student body, the faculty and staff, personnel policies, financing the program, operating the buildings and grounds and conducting the public relations program.

EdAd 576 **College Business Management** (S) 2 hours
Designed as an intensive study of problems of college business management, including such phases as: financing, budgeting, purchasing, managing student loans, organizational funds, selecting and directing personnel, conducting auxiliary services and administrative organization.
EdAd 580  Administration and Supervision of Vocational Education  
(II) 3 hours
Designed to give the vocational teacher and administrators information regarding the fundamentals and trends in administration and supervision of vocational programs.

EdAd 611  Field Project in School Administration  
(II) 3 hours
An independent study in the area of school administration which must be approved by a faculty committee.

EdAd 660  Seminar in School Administration  
(I) 3 hours
Participation in the seminar is limited to individuals who have a Master's degree with a major in school administration and will include current educational problems and procedures.

EdAd 661  Advanced Seminar in School Administration  
(II, S) 3 hours
Participation is limited to individuals who have been admitted to candidacy for the Specialist in Education degree with a major in school administration. Emphasis will be placed upon the theory and techniques of administration.

SPECIAL EDUCATION

PROFESSORS BEAUPRE (Chairman, leave of absence), GORMAN (Acting Chairman), CUSHENBERY;
ASSISTANT PROFESSORS GILREATH, LARSEN, MCKENNEY

SPED 420  History: Education and Guidance of the Deaf  
(I) 2 hours
History of trends in deaf education culminating in current problems, practices and attitudes; survey of teaching and guidance opportunities; psychological problems of the deaf child. Prereq: Junior Standing.

SPED 421  Teaching of Speech to the Deaf  
(I) 2 hours
Methods and practicum in teaching speech to the deaf child; special emphasis on tactual, visual and auditory techniques. Prereq: Junior Standing.

SPED 422  Teaching of Speech to the Deaf II  
(II) 2 hours
Continuation of SPED 421; focus on various types of speech learning problems found in a population of deaf children. Prereq: SPED 421.

SPED 423  Teaching of Language to the Deaf I  
(I) 3 hours
Philosophy of development of functional language for the deaf child; methods and materials for developing English language skills and comprehension. Prereq: Junior Standing.

SPED 424  Teaching of Language to the Deaf II  
(II) 2 hours
Continuation of SPED 423 with further consideration of criteria for selection and utilization of teaching materials; special emphasis on reading problems. Prereq: SPED 423.
SPED 425 Observations and Student Teaching (I, II) 3-6 hours
Arrangements with schools and classes for the deaf for qualified students to complete student teaching during the school year; co-curriculars as well as classroom experiences encouraged. Prereq: Permission of head of the department.

SPED 433 Methods of Teaching Speech Reading to the Deaf (II) 2 hours
History of development of speech (lip) reading; methods and practicum in teaching speech reading for various ages and degrees of hearing impairment. Prereq: Junior Standing.

SPED 434 Teaching Elementary Subjects to the Deaf I (I) 2 hours
Philosophy underlying formal education of the deaf; methods and special adaptations used in presenting school subjects, preparing lesson plans for deaf classes. Prereq: Junior Standing.

SPED 435 Teaching Elementary Subjects to the Deaf II (II) 2 hours
Consideration of problems in deaf education; approaches to elementary school subjects considered in detail. Prereq: SPED 434.

SPED 437 Hearing Tests and Auditory Training (II) 2 hours
Brief history of hearing evaluation techniques; methods and practicum in basic audiological assessment; types of hearing losses; auditory training techniques. Prereq: Junior Standing.

SPED 438 Auditory and Speech Mechanisms (I) 2 hours
Basic structure and function of organs of hearing and speech; theories of cortical involvements; central and peripheral nervous systems. Prereq: Junior Standing.

SPED 440 Language Development (S) 3 hours
Study of developmental patterns in speech and language; causal factors of delayed speech and language development; evaluative techniques for identification of problem; therapy techniques for habilitation and/or rehabilitation of children with deviant language development.

SPED 441 Speech Development and Correction (I, II, S) 3 hours
Development of voice and speech proficiencies; common problems of articulation, voice, rhythm and symbolization found in the classroom; demonstrations of individual and group correction procedures and materials. Prereq; Junior Standing.

SPED 442 Psychology of Speech (I) 3 hours
Psychological processes basic to speech; theories of language learning; semantics; psychology of hearing and deafness; inter-relationships between speech and personality. Prereq: Junior Standing.

SPED 443 Speech Pathology I: Voice and Articulation (I) 3 hours
Types and causes of voice and articulation disorders; classroom demonstrations; special emphasis on rehabilitation procedures and methods associated with individual involvements. Prereq: Junior Standing.
SPED 444 **Speech Pathology II: Rhythm and Symbolization** (II) 3 hours
Types and causes of rhythm and language symbolization disorders; classroom demonstrations; special emphasis on rehabilitation procedures and methods associated with stuttering, aphasial delayed language development. Prereq: Junior Standing.

SPED 445 **Phonetics of American Speech** (I) 3 hours
Introduction to International Phonetic Alphabet; analysis of phonetic and phonetic elements in major American English dialects; practice in transcription of standard and defective speech. Prereq: Junior Standing.

SPED 446 **Speech Evaluation: Methods and Practicum** (II) 3 hours
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. Prereq: Junior Standing and 6 hours of Speech Pathology.

SPED 447 **Neurephysiology of the Speech Handicapped** (I) 3 hours
Basic structure and function of the organs of hearing and speech; theories of cortical involvements, central and peripheral nervous systems as they affect communication: individual projects. Prereq: Junior Standing.

SPED 448 **Measurement of Hearing** (I) 3 hours
Brief history of hearing evaluation techniques; methods and practicum in basic audiological assessment; types of hearing losses; auditory training techniques; individual reports. Prereq: Junior Standing.

SPED 449 **Advanced Measurement of Hearing** (II) 3 hours
Hearing evaluation problems associated with pre-school children, recruitment, functional hearing losses, etc.; education and rehabilitation problems associated with electronically assisted hearing. Prereq: SPED 448 or equivalent.

SPED 450 **Methods and Materials in Speech Therapy** (I) 2 hours
Speech correction programs as related to goals of public education for school age children; role and responsibilities of the speech clinician; current practices in evaluation, case load selection and scheduling; special emphasis on methods and materials appropriate to a variety of facilities. Prereq: Junior Standing and 6 hours of Speech Pathology.

SPED 451 **Basic Practicum in Speech Correction** (I, II, S) 1-2 hours
Minimum of 45-60 clock hours per credit hour; supervised observation and practice in speech and hearing center; diagnostic interviews, therapy sessions, lesson plans, weekly practicum summaries. Prereq: Permission of department head.

SPED 452 **Advanced Practicum in Speech Correction** (I, II, S) 1-2-hours
Continuation of SPED 451; student is expected to participate
more actively in corrective and diagnostic programs, and initiate and follow through correction programs with selected individual and/or groups. Prereq: Permission and SPED 451.

SPED 460 Introduction to the Mentally Subnormal Child (I) 3 hours
Nature and educational needs of children and youth who are mentally subnormal; definitions of mental subnormality; prevalence and types of children in educational programs; history and development of education for children and youth who are mentally subnormal; trends in educational practices and counseling procedures. Prereq: Junior Standing.

SPED 462 Teaching the Exceptional Child (II, S) 3 hours
Identification of exceptional children with respect to educational opportunities; current concepts and goals of special education; specific consideration of educational programs for children who are gifted, mentally retarded, speech handicapped, acoustically handicapped, orthopedically handicapped, visually handicapped, or motivationally disadvantaged; survey of trends and professional opportunities. Required course for all Special Education Majors. Prereq: Junior Standing.

SPED 463 Curriculum for Mentally Retarded Children (I) 3 hours
The mentally retarded child as an educable or trainable individual; an investigation of the practices and problems in curriculum development for the mentally subnormal child: preschool through vocational; identification of needs and goals and determination of content. Prereq: Junior Standing.

SPED 464 Methods and Materials for Teaching Mentally Retarded Children (II) 3 hours
The retarded child as he relates to a variety of educational processes designed for his learning needs; methodology and teaching materials; practice in the design and implementation of curriculum units, pre-school through vocational; consideration of programs for the trainable, "Track I" and "Track II" educational programs. Prereq: Junior Standing.

SPED 470 Introduction to Teaching the Gifted (S) 3 hours
Introduction to techniques and materials for identifying and helping to understand the specific developmental needs of gifted pupils and guidance services appropriate for them; understand types of learning tasks and how to evaluate achievement with them; analysis of filmed demonstration lessons appropriate to the specific needs of gifted pupils.

SPED 475 Observation and Student Teaching of the Mentally Retarded (I, II) 2-4 hours
Minimum total of 180 clock hours of supervised practice teaching is required. Student teachers are placed in two separate classes and on different levels for the educably retarded wherever possible. Weekly seminar required of all students concur-
rent with practice teaching experiences. Prereq: SPED 460, 463, 464 and permission.

SPED 511 Problems in Teaching Reading—Elementary (I, II, S) 3 hours
An advanced course for elementary and secondary teachers in the principles, practices, and use of instructional materials in the area of reading at the elementary level. Prereq: Graduate Standing.

SPED 512 Problems in Teaching Reading—Secondary (II) 3 hours
An advanced course in reading for elementary or secondary teachers. Major emphasis will be given to the administration, organization, evaluation, methods, and materials for the teaching of reading in each of the content subjects at junior and senior high school levels. Prereq: Graduate Standing.

SPED 513 Diagnostic and Remedial Instruction in Reading (I, S) 3 hours
A course for advanced students in reading which will provide the student with the essential information for the diagnosis and remediation of reading disabilities. Prereq: SPED 511 or 512 or equivalent. Graduate Standing.

SPED 514 Individual Analysis of Reading Difficulties (I) 3 hours
A course for advanced students in reading which will provide the student with the necessary training for establishing and operating a reading clinic (i.e., initiating and accepting referrals, forming evaluation schedules, administering appropriate evaluative devices, writing case reports, and establishing follow-up sessions). Prereq: SPED 513, Permission of Instructor and Graduate Standing.

SPED 515 Clinical Practicum in Reading (I, II, S) 2-3 hours
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 specialists in remedial reading. Prereq: SPED 514 and Permission of Instructor and Graduate Standing.

SPED 517 Seminar in Organization and Administration of Reading Programs (I) 3 hours
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.

SPED 553 Advanced Problems in Speech Pathology (II) 3 hours
Student selects and investigates three different areas of current concern in Speech Pathology: initial survey, annotated bibliography, presentation of observations 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. Prereq: Graduate Standing with 6 hours in Speech Pathology or Correction.

SPED 555 **Alaryngeal Speech Rehabilitation** (II) 2-3 hours
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.

SPED 556 **Speech Problems of Cerebral Palsied Children** (S) 2-3 hours
Identification of types of Cerebral Palsy by a location of lesion, motor symptomology, and additional handicaps; the roll 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.

SPED 570 **Seminar in Special Education** (II) 3 hours
Graduate course primarily for Special Education majors and professional workers in the fields of Speech and Hearing, Teaching the Deaf, Teaching the Mentally Retarded, Remedial Reading, and Teaching the Physically Handicapped. Familiarity with philosophy, major literature, and practices in each area; student will research and present a paper reflecting his personal professional interests. Discussions, forums, and panels; visiting experts.
Certain scholarships and awards are available specifically to students registered in the College of Business Administration. Detailed information concerning the requirements of these scholarships and awards may be secured from the chairman of the Scholarships and Grants Committee or from the Dean of the College of Business Administration.

**Accounting:** The Wilbur R. Irwin Memorial Scholarship Fund provides one scholarship of $200 each year. The recipient must be a junior or senior student who is specializing in accounting.

**Accounting:** A scholarship of $150 has been provided by the Nebraska Society of Certified Public Accountants which is awarded to a junior student specializing in accounting.

**Accounting:** The Chriss-McKay Memorial Scholarship in the amount of $200 is available to a qualified junior or senior student who is specializing in accounting.

**Business Administration:** The Robert H. Kooper Scholarship of $300 has been established for a junior or senior student who is following a degree program in the College of Business Administration. Preference will be given to a student specializing in the area of real estate.

**General:** The Paul T. Crossman Memorial Scholarship provides $300 for one year for a junior or senior student enrolled in one of the approved curricula of the College of Business Administration.

**General:** The Murray Longworth Memorial Scholarship of $500 is available to students in the College of Business Administration who have performed academically at a high level of scholarship and give potential of continuing such performance. Preference is given to students who are specializing in the area of Insurance.

**Insurance:** The Omaha Association of Insurance Agents has established a scholarship of $200 for a male junior or senior specializing in insurance. He must be a Nebraska resident and meet all other requirements prescribed in the scholarship agreement.

**Real Estate:** The Nebraska Chapter No. 23 of the American Institute of Real Estate Appraisers has established a scholarship of $100 to be awarded to outstanding juniors or seniors specializing in the field of real estate.

**Real Estate:** The Omaha Real Estate Board has established two scholarships of $200 each to be awarded to outstanding juniors specializing in the field of real estate.

**Real Estate:** The Nebraska Real Estate Association provides two scholarships of $200 each. These scholarships are available to junior and senior students who are specializing in real estate.

**Real Estate:** C. Glenn Lewis Scholarship of $100 provided by Michael T. Blacker for a student concentrating in the area of Real Estate.
Real Estate Finance: The Nebraska Mortgage Association has established a scholarship of $200. This scholarship is available to the student majoring in real estate whose work in the Real Estate Finance course is of superior quality.

Real Estate: A. A. Allwine Scholarship in Real Estate. An annual scholarship of $100 available to a junior or senior specializing in real estate.

Real Estate: The United-Mutual of Omaha Scholarship in Real Estate in the amount of $100 is available to a junior or senior specializing in real estate.

Real Estate: The Building Owners and Managers of Omaha Scholarship of $100 for students specializing in real estate.

Retailing: The Associated Retailers of Omaha have provided ten scholarships of $300 each. Entering freshmen with good high school records and an interest in retailing, as well as sophomores, juniors, and seniors enrolled in the Department of Marketing, may apply. These scholarships are renewable.

Retailing: Four Arthur Brandeis Scholarships in Retailing of $250 each are available to students enrolled in the College of Business Administration. These scholarships are renewable.

Retailing: The Hinky-Dinky Stores Company has established four scholarships of $250 each for students interested in food distribution who are enrolled in the College of Business Administration. These scholarships are renewable.

AWARDS

Accounting: The Paul T. Crossman Memorial Award of a plaque is given to a senior accounting student who is outstanding in citizenship and scholarship. The plaque is provided by Gamma Eta Chapter of Delta Sigma Pi.

General: The Wall Street Journal Award of a medallion and subscription to the Wall Street Journal is available to an outstanding senior.

Real Estate Management: The Omaha Chapter No. 12 of the Institute for Real Estate Management has established an award of $50 to be given to the junior student majoring in real estate who displays an exceptional interest and performance in the course Real Estate Management.

Urban Land Uses: The Eastern Nebraska Chapter No. 111, Society of Real Estate Appraisers has established an award of $50 to be given to the student majoring in real estate who does superior work in the course Urban Land Uses.

Delta Sigma Pi Scholarship Key: Gamma Eta Chapter of Delta Sigma Pi makes available to the faculty of the College of Business Administration a gold key for presentation to the male senior in the College of Business Administration who upon graduation ranks highest in scholarship for his entire course of study.
DEGREES AND CURRICULUM REQUIREMENTS

Degrees are granted, upon application, to students who successfully complete the prescribed requirements for one of the four-year curricula offered by the College of Business Administration. The degree Bachelor of Science in Business Administration is offered with a choice of an area of specialization.

All students must meet the University and College entrance requirements (see pages 7-8); must earn a minimum of 125 credit hours in courses acceptable to the College with an average grade of "C" (two quality points) or above; and must complete the curricula requirements for the degree as outlined or otherwise stated.

Grades of "C" or above must be earned in required upper division courses including the minimum required credits for specialization electives. For such courses in which a "D" is earned, the student must arrange with the Dean of the College for a suitable substitute. Courses selected as substitutes for "D" grades may not be used as specialization electives.

Upon the recommendation of the appropriate chairman of a department, the Curriculum Committee of the College of Business Administration may grant exemption from the 125-hour requirement for graduation to the extent of 24 hours. Such recommendation will be based on a student's performance in the advanced placement examinations of the College Entrance Examination Board as stated in the 1962-63 publication prepared by a committee of this organization.

All grades reported by the faculty to the Registrar at the end of each semester become a part of the student's permanent record and are included in the computation of his quality points earned and his grade point average.

- Sixty of the credit hours presented for the degree must be earned in Upper Division courses in the 300 and 400 series.
- The last 34 hours required for the degree must be registered for and carried in residence in the College of Business Administration at the University of Nebraska at Omaha.
- Registration in courses more than one number removed from the student's class standing requires permission of the Dean.
- Students must earn credit in English 112 or pass a proficiency test in English equivalent to English 112. English 109 will be required if the score on the English placement test indicates a need for training in elementary English.
- English 109, any skills development, reading improvement, or orientation courses may not be counted as a part of the minimum 125 hours in the degree programs.
- Students who elect to take the proficiency examination in English must do so during the first year of residence.
- Deficiencies in High School Algebra and/or Geometry must be removed during the first year of residence.
A maximum of eight semester hours credit in music laboratory courses such as band, chorus, madrigal singers or orchestra, either singly or in any combination, may be applied toward the degree.

A maximum of four semester credit hours of physical education, limited to general physical education courses for men and women, may be applied toward the degree.

A maximum of 12 semester credit hours of approved courses taken in any one department outside the College of Business Administration, except economics, may be applied toward the degree.

Humanities: This requirement may be fulfilled by courses from the 100 and 200 level in art, English (other than 109, 111, 112, and 240), foreign languages (beyond the first year), music (other than laboratory courses), philosophy, religion, humanities 101 and 102, and not more than three hours in speech. Skill and technique courses may not be used to meet the Humanities requirement.

Natural Science and Social Science: This requirement may be fulfilled by courses from the 100 and 200 level in biology, chemistry, mathematics (beyond basic requirements), physics, geography, history, political science, the introductory courses in the natural sciences, and not more than three hours in psychology or sociology. Skill and technique courses may not be used to meet the Natural Science and Social Science requirement.

Professional courses in the College of Education will be accepted only if the student qualifies for a teaching certificate.

At least 40 percent (50 credit hours) of the total hours required for the Bachelor of Science degree must be taken in business and economics with a major portion of these courses in Business Administration.

At least 40 percent (50 credit hours) of the total hours required for the Bachelor of Science degree must be taken in subjects other than business and economics; however, economic principles and economic history (to a maximum of 9 hours) may be included in either business or non-business hours required.

Non-business elective credit hours which will be accepted toward the Bachelor of Science degree will be determined by the faculty of the College. The student, in conference with his advisor, will select the courses in this category most suitable for his program.

**DEGREE REQUIREMENTS**

**Bachelor of Science in Business Administration**

For advisor see area of specialization

**FIRST YEAR**

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acc. 101, Prin. of Acc.</td>
<td>Acc. 102, Prin. of Acc.</td>
</tr>
<tr>
<td>Engl. 111, Composition</td>
<td>Engl. 112, Composition</td>
</tr>
<tr>
<td>Non-Bus. Requirement</td>
<td>Elective Requirement</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
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<tr>
<td>3</td>
<td>3</td>
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</tbody>
</table>

15
15
SECOND YEAR

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Econ 201, Prin. Econ</td>
<td>3</td>
</tr>
<tr>
<td>Humanities</td>
<td>3</td>
</tr>
<tr>
<td>*Humanities</td>
<td>3</td>
</tr>
<tr>
<td>*Soc. Sci. or Nat. Sci.</td>
<td>3</td>
</tr>
<tr>
<td>Speech 101, Fund. Speech</td>
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</tr>
<tr>
<td>Non-Bus. Requirement</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>16</td>
</tr>
</tbody>
</table>

* With the assistance of his advisor, the student will select appropriate courses from these divisions.

THIRD YEAR

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>B.A. 323, Bus. Law I</td>
<td>3</td>
</tr>
<tr>
<td>B.A. 325, Corp. Finance</td>
<td>3</td>
</tr>
<tr>
<td>Mgmt. 349, Prin. of Mgmt.</td>
<td>3</td>
</tr>
<tr>
<td>B.A. 319, Bus. Comm &amp; Rpts.</td>
<td>2</td>
</tr>
<tr>
<td>Mkt. 331, Marketing</td>
<td>3</td>
</tr>
<tr>
<td>Elective</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>17</td>
</tr>
</tbody>
</table>

**Specialization Elective                      | 3       |
Non-Bus. Requirement                           | 3       |
Elective                                       | 2       |

FOURTH YEAR

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>B.A. 446, Govt. and Bus.</td>
<td>3</td>
</tr>
<tr>
<td>Econ. 345, Money &amp; Banking</td>
<td>3</td>
</tr>
<tr>
<td>**Specialization Electives</td>
<td>6</td>
</tr>
<tr>
<td>Elective</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>15</td>
</tr>
</tbody>
</table>

**Specialization Electives                      | 6       |
Elective                                       | 3       |

** The student will consult with his major advisor in the planning of an area of professional specialization.

AREAS OF PROFESSIONAL SPECIALIZATION

In addition to the courses prescribed in the core program for the degree Bachelor of Science in Business Administration, the student must select an area of specialization of 15 or more credit hours. The student will then be assigned by the Dean of the College to an advisor in the area of specialization selected.

ACCOUNTING

MR. HOCKETT, MR. BEAMAN, MR. BENECKE, MR. HIGLEY, MR. STONE, Advisors

Accounting data are widely used in all types of businesses and by the government. Students who have a broad training in the field of business supplemented by intensive preparation in the field of accounting will find professional opportunities in public and private accounting, or in governmental or non-profit institutional services.

The student who is interested in public accounting may prepare for the C.P.A. examination which is given twice each year by the State Board of Examiners of Certified Public Accountants. The requirements for taking this examination are established by the State Board, therefore, the student should make inquiry regarding the specific requirements well in advance of the examination dates.
The following courses in accounting are required of all students specializing in this area:

**SECOND YEAR**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acc. 303, Intermediate Acc.</td>
<td>3</td>
</tr>
<tr>
<td>Acc. 304, Intermediate Acc.</td>
<td>3</td>
</tr>
</tbody>
</table>

**THIRD YEAR**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acc. 305, Cost Acc.</td>
<td>3</td>
</tr>
<tr>
<td>Acc. 306, Administrative Acc.</td>
<td>3</td>
</tr>
</tbody>
</table>

**FOURTH YEAR**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acc. 401, Advanced Acc.</td>
<td>3</td>
</tr>
<tr>
<td>Acc. 403, Income Tax Acc.</td>
<td>3</td>
</tr>
<tr>
<td>Acc. 408, Auditing</td>
<td>3</td>
</tr>
</tbody>
</table>

**RECOMMENDED ELECTIVES IN ACCOUNTING**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acc. 307, Governmental Acc.</td>
<td></td>
</tr>
<tr>
<td>Acc. 404, Advanced Tax Acc.</td>
<td></td>
</tr>
<tr>
<td>Acc. 412, Advanced Acc. Problems</td>
<td></td>
</tr>
<tr>
<td>Acc. 451, Acc. Internship</td>
<td></td>
</tr>
</tbody>
</table>

**FINANCE**

MR. HARRIS, Advisor

The extensive and complex financial problems resulting from the rapid increase in the size of business units has presented a demand for persons who are qualified to devise solutions. Institutions interested in employment of persons with a sound background education in finance include banks, insurance companies, savings institutions, security dealers and brokers, and the treasury departments of many large business corporations.

All students in the Finance area are required to register for:

- B.A. 340, Investment Principles and Practices
- B.A. 300, Managerial Accounting
- B.A. 415, Management of Business Finance

On the advice of his advisor, the student will select a minimum of nine credit hours from the following recommended electives:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acc. 403, Income Tax Accounting</td>
<td></td>
</tr>
<tr>
<td>B.A. 344, Real Estate Principles and Practices</td>
<td></td>
</tr>
<tr>
<td>B.A. 371, General Insurance</td>
<td></td>
</tr>
<tr>
<td>B.A. 372, Life and Health Insurance</td>
<td></td>
</tr>
<tr>
<td>B.A. 440, Real Estate Finance or</td>
<td></td>
</tr>
<tr>
<td>B.A. 439, Real Estate Investments</td>
<td></td>
</tr>
<tr>
<td>Econ. 445, Monetary Theory and Policy</td>
<td></td>
</tr>
<tr>
<td>Econ. 446, Economics of Commercial Banking</td>
<td></td>
</tr>
<tr>
<td>Econ. 456, State and Local Finance</td>
<td></td>
</tr>
<tr>
<td>Mkt. 334, Credit Management</td>
<td></td>
</tr>
<tr>
<td>Econ. 355, Public Finance</td>
<td></td>
</tr>
</tbody>
</table>

**INSURANCE**

MR. ROKES, Advisor

Specialization in the field of Insurance gives the student the necessary background for one of many careers in the industry including: underwriting, claims handling, auditing, actuarial, agency or field work, branch or home office management. Students are encouraged to take courses which are helpful in passing examinations for the professional designations, Chartered Life Underwriter (CLU) or Chartered Property and Casualty Underwriter (CPCU).
The following insurance courses are required of all students specializing in this area:

**THIRD YEAR**

B.A. 371, Gen. Ins. .......................... 3  
B.A. 376, Social Ins. .......................... 3

**FOURTH YEAR**

B.A. 372, Life and Health Ins. .......... 3  
B.A. 374, Property and Casualty Ins... 3  

Insurance Elective .............................. 3

**RECOMMENDED ELECTIVES**

Math 254, Math of Finance  
B.A. 344, Real Estate Principles and Practices

**MANAGEMENT**

MR. HILL, MR. NEWPORT, Advisors

Managers perform the function of combining and coordinating human and material resources to attain organizational goals efficiently. The management program contains planned options which enable the student to select courses emphasizing either the industrial or personnel aspects of the discipline.

The following courses are required of all students specializing in this area:

**THIRD YEAR**

Econ. 315, Labor Prob. ....................... 3  
Mgmt. 351, Pers. Org. & Management 3

**FOURTH YEAR**

Mgmt. 404, Human Resources and Management .......................... 3  
Spec. Elective .................................................................. 3

Specialization electives are to be selected from the following courses:

Psych. 362, Ind. Psych.  
Mgmt. 402, Supervisory Management

**RECOMMENDED ELECTIVES**

Acc. 403, Income Tax Accounting  
Mkt. 432, Sales Management  
B.A. 441, Real Estate Appraisal  
Mgmt. 404, Human Resources and Management

**MARKETING**

MR. BULL, MR. BROWN, MR. PRESTWICH, Advisors

One of the more important problems in business today is the conception, promotion, exchange and physical distribution of economic goods and services. Businessmen are becoming increasingly aware that all activities of the firm must be geared to maximizing the chances of success at
the point of sale. Therefore, there is a growing demand for men and women who have the knowledge and management ability to marshal the human and material resources necessary to effectively market the ever-increasing supply of goods and services.

Students selecting the field of Marketing can elect to specialize in either General Marketing or Retail Management.

**GENERAL MARKETING**

**MR. BULL, MR. BROWN, Advisors**

Employment opportunities for students who complete the program in General Marketing are found primarily at the manufacturing and wholesale levels in both industrial and consumer goods companies. Managerial positions in sales, procurement, credit, advertising, product planning, marketing research, and top level marketing management are among those available. In addition, employment opportunities exist in advertising agencies, trade associations and certain agencies of the Federal Government.

The marketing courses required for students electing an area in General Marketing are:

- Mkt. 430, Marketing Problems
- Mkt. 434, Marketing Research

On advice of his advisor, students in the General Marketing area will select a minimum of nine credit hours from the following recommended electives:

- Mkt. 333, Retailing
- Mkt. 334, Credit Management
- Mkt. 336, Advertising
- Mkt. 360, Transportation and Physical Distribution
- Mkt. 401, Retail Merchandising
- Mkt. 407, International Marketing
- Mkt. 414, Retail Management
- Mkt. 432, Sales Management
- Mkt. 438, Industrial Purchasing and Material Control

**RETAIL MANAGEMENT**

**MR. PRESTWICH, Advisor**

The objective of the Retail Management Program is to help prepare college students for executive careers in the Retail field. The field offers excellent opportunities in a wide variety of executive positions including buyer, department manager, merchandise manager, fashion coordinator, credit manager, personnel manager, controller, sales promotion manager, operations manager, personnel manager, and proprietor or partner in one's own business. The rapidly expanding retail facilities throughout the country are registering an increased demand for men and women to fill these positions.

The program has the active cooperation and financial support of the Associated Retailers of Omaha, who offer ten scholarships of $300 each to students who enroll in the Marketing Department. The scholarships are awarded to freshmen, sophomores, juniors, and seniors, in proportion to the number of qualified applicants from each class.
Students who complete the program satisfactorily, earn the degree Bachelor of Science in Business Administration with an area of specialization in Retail Management.

The marketing courses required for students electing an area in Retail Management are:

- Mkt. 333, Retailing
- Mkt. 401, Retail Merchandising
- Marketing Elective
- Mkt. 430, Marketing Problems
- Mkt. 434, Marketing Research

REAL ESTATE

MR. LEWIS, Advisor

Professional training in real estate prepares the student for a wide variety of real estate activities, such as brokerage, management, appraisal, investment, finance, operations in equities, building construction, and government service such as Federal Housing Administration and taxation boards.

Upon completion of B.A. 345, Real Estate Management, a student may request the Institute of Real Estate Management Comprehensive Examination 1 for credit toward the C.P.M. designation.

Upon completion of B.A. 441, Real Estate Appraisal, a student may request the Appraisal Institute Comprehensive Examination 1 for credit toward the M.A.I. designation.

The following real estate courses are required of all students specializing in this area:

**THIRD YEAR**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>B.A. 344, Real Estate Principles and Practices</td>
<td>3</td>
</tr>
<tr>
<td>B.A. 346, Real Estate Law</td>
<td>3</td>
</tr>
</tbody>
</table>

**FOURTH YEAR**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>B.A. 440, Real Estate Finance</td>
<td>3</td>
</tr>
<tr>
<td>B.A. 441, Real Estate Appraisal</td>
<td>3</td>
</tr>
<tr>
<td>Real Estate Elective</td>
<td>3</td>
</tr>
</tbody>
</table>

**RECOMMENDED ELECTIVES**

- B.A. 345, Real Estate Management
- B.A. 347, Urban Land Uses
- Acc. 403, Income Tax Acc.
- Mkt. 432, Sales Management
- Mkt. 336, Advertising
- B.A. 371, Gen. Insurance
- B.A. 374, Property and Casualty Insurance

BUSINESS ADMINISTRATION AND LAW

MR. LEWIS, Advisor

There is a growing recognition of the importance of a business administration background in preparation for the practice of law. Lawyers today are called upon to advise the businessman on his problems concerning taxation, fair trade practices, labor relations, government contracts, and other matters requiring legal counsel. Such a combination program would be especially useful for those students who desire to affiliate with a corporation.
By following the prescribed program and conditions stipulated, a student may receive the degree Bachelor of Science in Business Administration with an area of specialization in law.

- Successful completion of 96 hours in the Business Administration and Law program of the College of Business Administration with an average of "C" or better. The last 66 of these credit hours must be carried in residence in the College of Business Administration, University of Nebraska at Omaha. All requirements of this program must be completed prior to registration in law school.
- B.A. 323 and 324 may not be presented for degree credit in this program.
- Successful completion of the first full year's requirements of not less than 29 semester credit hours with a grade of "C" or better in each course in any law school recognized and accredited by the American Bar Association.
- A student must advise the Dean of the College of Business Administration of the name of the law school in which he matriculates and report to his counselor the grades earned in each course at the close of each semester. It will be the responsibility of the student to have certified to the Registrar of the University of Nebraska at Omaha the completion of the required credits in law school by providing an official transcript.
- A student must meet such other requirements for the degree Bachelor of Science in Business Administration as are prescribed.

**FIRST YEAR**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acc. 101, Prin. of Acc.</td>
<td>3</td>
</tr>
<tr>
<td>B.A. 128, Intro. to Bus.</td>
<td>3</td>
</tr>
<tr>
<td>Psych. 101, Intro. to Psych.</td>
<td>3</td>
</tr>
<tr>
<td>Engl. 111, Composition</td>
<td>3</td>
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<tr>
<td>Non-business Requirement</td>
<td>3</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>15</strong></td>
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**SECOND YEAR**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Econ. 201, Prin. of Econ.</td>
<td>3</td>
</tr>
<tr>
<td>*Humanities</td>
<td>3</td>
</tr>
<tr>
<td>*Nat. Sci. or Soc. Sci.</td>
<td>3</td>
</tr>
<tr>
<td>Speech 101, Fund. of Speech</td>
<td>3</td>
</tr>
<tr>
<td>Non-business Requirement</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

**THIRD YEAR**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>B.A. 319, Bus. Comm. &amp; Reports</td>
<td>2</td>
</tr>
<tr>
<td>Mkt. 331, Marketing</td>
<td>3</td>
</tr>
<tr>
<td>Mgmt. 349, Prin. of Mgmt.</td>
<td>3</td>
</tr>
<tr>
<td>B.A. 325, Corp. Finance</td>
<td>3</td>
</tr>
<tr>
<td>Econ. 345, Money and Banking</td>
<td>3</td>
</tr>
<tr>
<td>Elective</td>
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</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>17</strong></td>
</tr>
</tbody>
</table>

* With the assistance of his advisor, the student will select appropriate courses from these divisions.
FOURTH YEAR

Successful completion of the first full year's requirements of not less than 29 semester credit hours with a grade of "C" or better in each course in any law school recognized and accredited by the American Bar Association.

RECOMMENDED ELECTIVES

Acc. 300, Managerial Accounting
Acc. 303-304, Interm. Acc.
B.A. 344, Real Estate Principles and Practices
B.A. 371, General Insurance
B.A. 446, Government and Business
Hist. 433-434, American Constitutional History
Hist. 463-464, Engl. Constitutional History

GENERAL BUSINESS

MISS MINTEER, MR. FORBES, MR. PIBAL, Advisors

Occasionally, students are interested in giving greater breadth to their education in Business Administration rather than emphasizing an area of specialization. Such students would be interested in taking basic courses in the respective areas of specialization for their useful value and as a means of developing interest in specialized fields. A minimum of 15 credits selected from each of five subject areas is required. These areas are Marketing, Management, Finance, Accounting, Real Estate, and Insurance.

TEACHER EDUCATION—SECONDARY

MISS MINTEER, MISS HOLLEY, Advisors

Students desiring to qualify for a secondary teaching certificate in connection with the degree Bachelor of Science in Business Administration, may do so by meeting the certification requirements on page 181. Students transferring to this program must earn six credit hours or more in Upper Division courses as prescribed by the academic advisor.

Those students who are candidates for the degree Bachelor of Science in Education but plan to use business administration as their subject major or teaching field should consult with the advisor of this program for specific recommendations.

The minimum course requirements for a major or a teaching field in Business Administration are as follows:

The lower division requirements are:

B.A. 128, Intro. to Bus. ...................... 3  
Acc. 101, Prin. of Acc. ...................... 3  
Acc. 102, Prin. of Acc. ...................... 3  
Econ. 201, Prin. of Econ ...................... 3  
Econ. 202, Prin. of Econ ...................... 3  
Typewriting or equivalent .................. 6

The upper division requirements are:

Eighteen credit hours selected from upper division courses offered by the College of Business Administration and approved by the advisor.

DEPARTMENT OF INSTRUCTION

The system of course numbers is arranged to indicate the level of instruction.

100-99—Courses open primarily to freshmen
200-99—Courses open primarily to sophomores
300-99—Courses open primarily to juniors
400-99—Courses open primarily to seniors
ACCOUNTING

PROFESSORS HOCKETT (Head), HELMSTADTER, HIGLEY; ASSOCIATE PROFESSOR BENECKE; ASSISTANT PROFESSORS BEAMAN, STONE; INSTRUCTORS CAMPBELL, PIBAL

Acc. 101 Principles of Accounting
Accounting cycle; accrual basis of accounting; negotiable instruments; taxes; corporate accounting; analysis and appraisal of the firm.

Acc. 102 Principles of Accounting
Concepts applied to develop the financial statements; departmental operations; accumulation and use of cost data; funds flow and cash flow; management control. Prerequisite: Acc. 101.

Acc. 300 Managerial Accounting
Accounting information available to management and other interested parties as a guide to decisions about an enterprise; relates accounting to topics from finance, economics, mathematics, and statistics. Not included in area of specialization. Prerequisite: Acc. 102.

Acc. 303 Intermediate Accounting
A more intensive study of basic accounting theory, corporate accounting problems, accounting statements and ratios. Prerequisite: Acc. 102.

Acc. 304 Intermediate Accounting
A continuation of the study of balance sheet items: current assets, tangible and intangible fixed assets, investments, liabilities, funds and reserves, determination of net income, statement of application of funds. Prerequisite: Acc. 303.

Acc. 305 Cost Accounting
Cost accounting records; principles and practices used in accounting for production management; job order and process cost accumulation methods. Prerequisite: Acc. 102.

Acc. 306 Administrative Accounting
Accounting as a guide for management. Consideration of controversial problems of accounting practice. Prerequisite: Acc. 305.

Acc. 307 Governmental Accounting
A study of accounting techniques as applied to the accounting systems for a governmental unit; emphasis is placed upon fund accounting as distinguished from profit motive accounting. Prerequisite: Acc. 102.

Acc. 401 Advanced Accounting
A detailed study of partnerships, joint ventures, consignment and installment sales, insolvency and receivership, branch, parent and subsidiary relationships. Prerequisite: Acc. 304.
Acc. 403 **Income Tax Accounting**  
A familiarization with the federal income tax as it applies to individuals, partnerships, corporations, estates and trusts. Prerequisite: Acc. 102.

Acc. 404 **Advanced Tax Accounting**  
Specialized areas in income tax accounting, social security, federal estate and gift taxes are covered to prepare the accountant for tax planning, research and solution of problems encountered in tax practice. Prerequisite: Acc. 403.

Acc. 408 **Auditing**  
Auditing standards, principles, procedures, and techniques; internal control; audit programs, working papers, and reports; professional ethics and legal responsibility. Prerequisite: Acc. 401.

Acc. 412 **Advanced Accounting Problems**  
Discussion and problems are used to develop and refine problem-solving techniques for areas frequently recurring in the C.P.A. examination and in accounting practice. Prerequisites: Acc. 306 and 401.

Acc. 451 **Accounting Internship**  
A course for the senior student in accounting which permits him to apply his professional knowledge in a part-time employment situation with a public accounting firm. Supplemental reading and reporting from book and periodical materials will be a requirement for the course. Prerequisites: Senior standing; permission of major advisor and department head.

**BUSINESS ADMINISTRATION**

PROFESSORS LUCAS (Head), HARRIS, LEWIS, MINTEER, ROKES; ASSOCIATE PROFESSOR FORBES; ASSISTANT PROFESSOR VonSEGGERN

**B.A. 128 Introduction to Business**  
A survey and operational analysis of business administration and organization. Consideration is given to such topics as: legal forms of business, management, marketing, risk, accounting, statistics, and governmental regulation.

**B.A. 228 Personal Finance**  
A practical study of methods of solving financial problems which people encounter in managing their individual and family affairs; among topics covered are: insurance, home buying, use of credit, personal taxes, savings, investment in securities, and estate planning.

**B.A. 313 Introduction to Statistics**  
Methods of collection, presentation, analysis, and interpretation of quantitative business data; frequency distributions, averages, dispersion, statistical inference, index numbers, business fluc-
tuations, simple correlation, and quality control. Prerequisites: Math 111 and Econ. 201 and 202.

B.A. 319 Business Communications and Reports
Study of the business letter and its role in communication and human relations, problems faced by the letter writer, practice in writing various types of letters with emphasis on planning, organization, and presentation based on the reader's viewpoint. Prerequisites: Engl. 112 and Junior standing.

B.A. 320 Business Communications and Reports
Study of business reports from the very formal to the memorandum, and practice in writing them with emphasis on planning, patterns or organization, adaptation to various readers, and mechanics. Some letter writing with primary attention given to the letter of application and resume. Prerequisites: B.A. 319 and Junior standing.

B.A. 322 The Nature of the Law
The structure of our legal system; considering the economic, social and political implications as they influence the development of a rule of law. Historical and present legal controversies will be examined. Prerequisites: Junior standing.

B.A. 323 Business Law I
Introduction to law, the court system, unfair competition, trade regulation, contracts, agency, bailments, carriers, sales. Major emphasis on Uniform Commercial Code when applicable. Prerequisites: Econ. 201 and 202.

B.A. 324 Business Law II
Commercial paper, partnerships, corporations, bankruptcy, personal property, real property, trusts, mortgages, transfer by will, interstate succession, administration of estates. Major emphasis on Uniform Commercial Code when applicable. Prerequisite: B.A. 323.

B.A. 325 Corporation Finance
The financial process from the viewpoint of management in planning, directing, evaluating, and taking remedial action in providing management of money capital for the business firm. Prerequisites: Econ. 201 and 202; Acc. 101 and 102; and Junior standing.

B.A. 340 Investment Principles and Practices
A study of a systematic way of thinking about problems of investment policy, management of a securities portfolio, and an introduction to the field of security analysis. Prerequisites: B.A. 325 and Junior standing.

B.A. 344 Real Estate Principles and Practices
Character of land, real estate markets, ownership, interests; legal instruments, contracts, closing transfers; financing, brokerage; management; appraising; development and ownership. Prerequisites: Econ. 201 and 202.
B.A. 345  **Real Estate Management**
Management residential, cooperatives, office, commercial, shopping, special purpose properties; merchandising space, tenant selection and relations; maintenance; owner relations; farm management. Prerequisite: B.A. 344.

B.A. 346  **Real Estate Law**
Estates in land, deeds, leases, mortgages, easements, zoning ordinances, covenants, trespass, nuisance, trespassers, licensees, invitees, real estate brokers, descendant’s estates. Prerequisite: B.A. 344.

B.A. 347  **Urban Land Uses**
Cities of the past, city of today, analysis of the urban economy, employment and population with projections, urban activity systems, transportation, location and space requirements for industrial, commercial, civic, housing uses; the master plan; rebuilding cities. Prerequisites: Econ. 201 and 202.

B.A. 371  **General Insurance**
Basic risk analysis; introduction to fire, casualty, life and health coverages; business and personal insurance needs; company organizations and industry practices; the liability peril; automobile insurance laws; claims procedure; government regulation. Prerequisites: Econ. 201 and 202.

B.A. 372  **Life and Health Insurance**
Analysis of individual and group contracts; human life values and insurance needs; estate planning and the impact of taxation; business continuation agreements and insurance; pensions and annuities for business and individual retirement programs. Prerequisites: Econ. 201 and 202.

B.A. 374  **Property and Casualty Insurance**
Concentrated analysis of coverages; insurance management problems facing specific types of business and personal risks; multiple-line policies; legal interpretation and analysis; practical case problems in liability and direct loss situations. Prerequisites: Econ. 201 and 202.

B.A. 376  **Social Insurance**
Public measures against economic insecurity; analysis of political issues; social security and public assistance; workmen’s compensation; problems of unemployment; fair labor standards. Prerequisites: Econ. 201 and 202.

B.A. 415  **Management of Business Finance**
This course develops ability to analyze and solve problems in the management of business finance, including current financing, long-run financial needs, reserve and dividend policies, promotion and the financing of expansion and combination, through the use of case studies. Prerequisites: B.A. 325 and Senior standing.
B.A. 425 Business Cycles
A study of business fluctuations in the aggregate economy, their causes as seen by economic theorists, measures which aid in stabilization of fluctuations, and macroeconomic forecasting. Prerequisites: Econ. 345 and Senior standing.

B.A. 440 Real Estate Finance
Methods of financing various types of real estate, funds sources, analysis of mortgage risks. F.H.A. underwriting, influences of governmental agencies. Prerequisite: B.A. 344.

B.A. 441 Real Estate Appraisal
Valuation theories applied to land, residential, commercial and leasehold real estate; three approaches to value; depreciation, capitalization; a residential appraisal required. Prerequisite: B.A. 344.

B.A. 446 Government and Business
National policy in controlling economic concentration by maintaining competition or providing regulatory legislation. Changing relationships between government and industry, contemporary developments, the role of the administrative agencies. Prerequisite: Senior standing.

B.A. 448 Business Policy and Administration
Problems of business policy making. The course emphasizes current business topics, cases, lectures by prominent business leaders, and computer simulation exercises. Prerequisites: B.A. 325, Mkt. 331 and Mgmt. 349. Senior standing, College of Business Administration.

B.A. 450 Special Problems in Business Administration
Maximum of six hours. Two to three hours in any one semester.

Individual investigation of specific problems in the fields of accounting, finance, insurance, management, marketing, real estate, and retail management. Prerequisites: Senior standing and permission of the instructor.

B.A. 451-452 Business Administration Internship
Maximum of four hours. One or two hours in each semester.

Correlation of theory and practice in the student's area of specialization through part-time employment and weekly seminars; required readings. Prerequisite: Permission of major advisor.
### MANAGEMENT

**PROFESSORS J. HILL (Head), NEWPORT**

**INSTRUCTORS CHAPMAN and ETTKIN**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mgmt. 349</td>
<td>Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>A systematic analysis of the managerial functions; planning, organizing, staffing, directing, and controlling. Prerequisites: Econ. 201 and 202.</td>
<td></td>
</tr>
<tr>
<td>Mgmt. 351</td>
<td>Personnel Organization and Management</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Manpower management theory and practice are studied through an analysis of the employment setting in business. Prerequisite: Mgmt. 349.</td>
<td></td>
</tr>
<tr>
<td>Mgmt. 402</td>
<td>Supervisory Management</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>A student project course which emphasizes the development and application of supervisory management methods. Prerequisite: Mgmt. 351.</td>
<td></td>
</tr>
<tr>
<td>Mgmt. 404</td>
<td>Human Resources and Management</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>A comprehensive study of the behavior of industrial man and the management processes used to develop better worker and employer relationships. Prerequisite: Senior standing.</td>
<td></td>
</tr>
<tr>
<td>Mgmt. 405</td>
<td>Production Management</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Operations analysis is presented through construction and study of basic production models. Prerequisites: Mgmt. 349 and B.A. 313.</td>
<td></td>
</tr>
<tr>
<td>Mgmt. 438</td>
<td>Industrial Purchasing and Materials Control</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>A case course which emphasizes the functional analysis of purchasing systems, their development and operation. May not also have credit for Mkt. 438. Prerequisite: Mgmt. 349.</td>
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</tbody>
</table>

### MARKETING

**PROFESSORS BULL (Head), BROWN, LUCAS, PRESTWICH**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mkt. 105</td>
<td>Retail Selling</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Role of selling in our society; retail sales promotion mix; requirements for successful selling; analysis of customers, buying motives, communicative skills, and selling principles and techniques.</td>
<td></td>
</tr>
<tr>
<td>Mkt. 331</td>
<td>Marketing</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Survey of the field of marketing: functions, methods, policies and problems of manufacturers and middlemen; emphasis on principles and policies in relation to marketing efficiency. Prerequisites: Econ. 201 and 202.</td>
<td></td>
</tr>
<tr>
<td>Mkt. 333</td>
<td>Retailing</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>An introductory, management-oriented course which considers the basic decision areas in the retailing mix such as initial requirements and facilities, merchandise planning and control,</td>
<td></td>
</tr>
</tbody>
</table>
pricing, physical distribution, sales promotion, and expense management. Prerequisite: Mkt. 331.

Mkt. 334 **Credit Management**
A study of credit functions, instruments, risk, organization and management, sources of information, adjustments, bankruptcy, credit limits and credit and collection control. Prerequisite: Mkt. 331.

Mkt. 336 **Advertising**
Social and economic aspects of advertising; planning of advertising programs including research, budgets, organizing and managing advertising activities. Prerequisite: Mkt. 331.

Mkt. 360 **Transportation and Physical Distribution**
Economic aspects of the modes of domestic transport. Physical distribution including channel selection, plant location, inventory control, material handling, and cost analysis. Prerequisites: Econ. 201 and 202.

Mkt. 401 **Retail Merchandising**
Merchandising objectives, policies, and strategy; demand analysis, merchandise budgets, pricing methods, inventory management methods, profit and loss statement analysis, and other tools necessary to select, maintain, and effectively promote a stock of merchandise suited to consumer demand. Prerequisite: Mkt. 333.

Mkt. 407 **International Marketing**
Principles and practices in foreign trade including foreign exchange, documentation, organization, foreign market surveys and foreign marketing service. Prerequisite: Mkt. 331.

Mkt. 414 **Retail Management**
A case course requiring student decisions in the various areas of retail management such as location, store operations, personnel management, merchandise management, pricing, and sales promotion. Prerequisite: Mkt. 333.

Mkt. 430 **Marketing Problems**
Analysis of a variety of marketing problems including consumer motivation, selection of channels, product development, promotion and pricing. Prerequisite: Mkt. 331.

Mkt. 432 **Sales Management**
Organization and management of sales departments. Sales planning, forecasting, and analysis. Selection, training, motivation, compensation, and control of salesmen Prerequisite: Mkt. 331.

Mkt. 434 **Marketing Research**
Application of analytical tools to marketing problems including markets, products, distribution channels, sales effort, and advertising. Emphasis on planning, investigation, collections,
interpretation of data and presentation of results. Prerequisites: B.A. 313 and Mkt. 331.

Mkt. 438 Industrial Purchasing and Materials Control
A case course which emphasizes the functional analysis of purchasing systems, their development and operation. May not also have credit for Mgmt. 438. Prerequisite: Mkt. 331.

PART-TIME FACULTY

ACCOUNTING
KENNETH FORD .................................................. Accounting
B.S., University of Omaha, 1956; C.P.A.; Instructor part-time

ZEPH TELPNER .................................................. Accounting
B.S., Creighton University, 1958; C.P.A.; Instructor part-time

BUSINESS ADMINISTRATION
HOWARD CHRISTENSEN ................................. Business Administration
M.A., University of Nebraska, 1967; Instructor part-time

ARTHUR J. NEVINS ........................................ Business Administration
A.B. & LL.B., University of Nebraska, 1932; Instructor part-time

MALCOLM D. YOUNG ........................................ Business Administration
LL.B., Duke Law School, 1948; Instructor part-time

MANAGEMENT
PAUL J. DUCHARME .......................................... Management
M.B.A., Harvard University, 1947; Instructor part-time
The Academic Studies Division of the College of Continuing Studies concerns itself primarily with adults who are taking undergraduate college courses for credit. In order to provide a full range of services to its varied clientele, "CCS-Credit" performs two major functions. On the one hand it provides general administrative or "housekeeping" services for many categories of the University's students. On the other it provides specific academic and "degree college" services for its own students.

As an administrative service unit, CCS-Credit coordinates the credit courses offered by all colleges of the University during late afternoon, evening, and Saturday morning hours, primarily for the benefit of adult, part-time students. Any degree granted by the University may be pursued through these "extended hours" offerings.

In the same capacity, CCS-Credit "houses" and provides basic program advisement for all part-time evening students, regardless of their age or ultimate academic objective who have not yet earned the 58 credits required for acceptance by the college of their choice. Similarly, CCS-Credit serves all part-time, adult students, whether in day or evening attendance, who are not (or at least not as yet) acknowledged degree candidates. Groups served include the typical "evening college" population of full-time workers who are part-time students, usually in the evening, but frequently in the daytime if housewives or shift workers. Also included is the "special student," the adult who already has a degree, but who returns to take more courses for personal or professional reasons.

As a degree college, CCS-Credit administers two degrees. These are the Bachelor of General Studies degree, especially developed for and restricted to adults; and the Bachelor of Science degree in Law Enforcement and Corrections, open to the college-age population as well as to adults. Detailed specifications of these degrees appear at the end of this section. Associate titles are also available in both areas.

Special Features

Four programs of the Academic Studies Division deserve special mention.

1. **Bachelor of General Studies Degree Program.** This degree program is open only to adults. That is, only men and women who have
found a place in the social and economic structure of the community are accepted as candidates. The BGS degree has been developed in keeping with a philosophy which holds that, as students, adults differ in many respects from college-age youths, and that, therefore, a degree program for adults not only could, but should, be different. These differences appear in its liberal provisions for translating the general knowledge acquired by adults through informal education experiences into college degree credit, and in its flexibility, whereby any useful combination of liberal arts and professional courses is acceptable.

2. Bootstrap Program. This degree-completion program serving both active duty and retired military personnel, is the largest such operation in the nation. Each year it brings to this campus, from virtually every branch of the service, hundreds of men and women for the final semester, or final year, in their pursuit of a college degree. Interested military personnel may obtain preliminary information from their Education Officer, or by writing to the Director of the program at this University.

3. Offutt Air Force Base Program. Since 1952 the College of Continuing Studies has provided courses during off-duty hours for military personnel, their dependents, and civilian employees at Offutt Air Force Base, Headquarters of the Strategic Air Command. This operation has been cited by the Air Force as a model program. In fact, officials from a number of other schools have visited the Base and this campus to learn how they might set up similar activities.

4. TV Classroom. The College of Continuing Studies pioneered in the development of instructional television. TV Classroom began in 1952 as a joint venture with station KMTV in Omaha, and has since continued uninterrupted. Today, courses are produced and videotaped in the University’s campus studios. Since the completion of KYNE-TV, the education television station located on campus, each TV Classroom program is broadcast twice for viewers in the Omaha area, once on KMTV (Channel 3), and once on KYNE-TV (Channel 26).

ENTRANCE REQUIREMENTS

Any adult who can profit from college-level work may enroll in the College of Continuing Studies. Entrance into the College is arranged by first contacting the Director of Admissions and supplying that office with evidence of high school completion and any previous college work.

Persons at least 21 years of age who have not completed high school, but who wish to work toward a degree, should take high school equivalency examinations (high school level GED). These tests are administered by the University’s Department of Academic Testing.

ACADEMIC COUNSELING

Counseling, as it affords a vital sense of direction, is the key to a satisfying experience for the college student. CCS counselors are prepared (1) to discuss University course offerings and degree programs as they relate to an individual’s personal and vocational objectives, (2) to
UNIVERSITY OF NEBRASKA ATOMAHA

inventory a student's past record and experience in connection with the College's own degrees, and (3) to provide program advisement to all students in the college who have accumulated less than 58 credits, as well as all students, regardless of credits earned, who have been accepted as candidates for CCS degrees.

The timing of counseling sessions is critical. It is impossible for the counselors to provide full-dress record reviews and assist with long-range planning during September, January, and June when involved with the heavy demands of registration.

The wise student realizes that long-range planning is one thing, and that course selection for a given semester is another. He does not wait for the next term's schedule to appear before he requests a complete program evaluation. Instead, he comes in during the middle of the semester when counselors are readily available. He knows that once he has had a thorough evaluation, course selection is usually a routine do-it-yourself matter. The simple question or two he might have at registration time will then be viewed as a reasonable request.

Students who fit into one of the categories served by CCS faculty and staff counselors need only to locate the proper counselor. Prof. Kuchel counsels all Law Enforcement students. Mr. Kaeser and Mr. Peterson counsel Bootstrappers.

Civilian students-at-large and BGS degree candidates are counseled by Mr. Russell or Mr. Thompson, whose offices are in Room 182 of the Administration Building. Appointments, which are required, are available both day and evening. To schedule an appointment call 553-4700, extension 347, during regular business hours. Students currently enrolled in CCS should call approximately a week in advance of the desired counseling session so there will be time to make sure their file is complete and current. Prospective students must bring their own personal (unofficial) transcripts covering all previous college work.

While nearly all part-time, lower division, evening students are assigned to the College of Continuing Studies as a matter of University policy, many such students are working toward degrees which are under the jurisdiction of other colleges. The first responsibility of such students is to familiarize themselves with the requirements of their desired degree program as published in the University catalog. If assistance is still needed, the CCS staff in Adm. 182 will help with the relatively uncomplicated issues of the first half of the degree program. But upon attaining upper division standing (58 or more credits and at least a 2.0 cumulative quality point average), a formal transfer of colleges should be made. Then the specialized advisement needed can be secured from the faculty of the college which administers the degree.

SPECIAL COUNSELING

Services of the University Counseling and Testing Center, Room 213 Administration Building, are available to CCS students by appointment during evening hours. No fee is charged. These services are designed to help students or prospective students evaluate their academic potential
and to help them achieve maximum benefits from their University experience. Counselors also may be consulted for assistance in formulating educational or vocational plans. Aptitude tests and vocational interest inventories are available and are frequently helpful. CCS students are encouraged to take advantage of these services and to inform other prospective students of their availability.

Appointments may be made in person at Adm. 213 or by telephoning 553-4700, extension 509, during regular business hours.

**CREDIT BY EXAMINATION**

College of Continuing Studies students can earn credits toward the Bachelor of General Studies degree by achieving acceptable scores on two types of examinations. The intention of these examinations is to provide adults with a means of translating knowledge they have acquired informally into college degree credit. By earning advanced standing credit, the adult may qualify to receive his degree in a shorter period of time.

One avenue is the University of Nebraska at Omaha’s Special Examination procedure. Essentially this involves “challenging” one of the subjects taught at this University by attempting an end-of-course examination. Details of this procedure appear in the General Academic Regulations section elsewhere in this catalog.

The other avenue is the General Examination battery of the College-Level Examination Program. Subject areas covered are English Composition, Social Sciences, Natural Sciences, Humanities, and Mathematics. The UNO Testing Center, 213 Administration Building, is currently the only authorized test administration center in Nebraska. These tests are given on the third Saturday of each month to those whose applications are on file by the first of the month. The fee is $15.00 for the entire battery or any part thereof. CCS students are required to secure a statement of credit eligibility from their CCS counselor before applying for the CLEP General Examinations battery.

To insure that credits earned by examination will count toward BGS degree requirements, students should consult their CCS counselor in advance. Note that credits earned by examination may constitute no part of a BGS candidate’s 24 semester hour terminal residency. Furthermore, since the granting of credit by examination does not by itself guarantee that all prerequisites for advanced study have been met, students who earn such credit should consult the appropriate department head before registering for advanced work in the same subject.

**STUDY LOAD**

Students holding full-time jobs while pursuing their college work will not have sufficient study time, ordinarily, to maintain satisfactory scholastic standing in more than seven hours of credit work at a time. Therefore, seven credits is considered the maximum standard study load for College of Continuing Studies students in a regular semester.
OVERLOAD APPROVAL

Any student in the College of Continuing Studies who wishes to take more than seven semester hours of credit in a regular semester must obtain WRITTEN PERMISSION from the Dean, Assistant Dean, or one of the Program Directors of the College IN ADVANCE OF REGISTRATION. Such permission will be based on demonstrated academic competence in courses taken at this University. Transfer students are cautioned not to expect to be allowed to carry in excess of seven credits until they have completed at least one semester in residence.

A special “Overload Request” procedure has been established. Students applying for overload approval for the first time are urged to see their CCS counselor so this can be done as part of an over-all program evaluation. After that, the procedure provides for “remote” servicing by the simple expedient of making out an Overload Request Card at the CCS reception desk in Adm. 182 at any time up to one week before registration begins.

PROBATION AND SUSPENSION

While it is the intention of the College to provide the adult with every opportunity to pursue academic work, it is our opinion that, should a student demonstrate his inability or unwillingness to maintain a satisfactory level of performance, it is no favor to that student, his fellow students, or the University to permit him to continue indefinitely.

It is the policy of the College to review a student’s work upon the accumulation of 12 semester hours. All students in the College of Continuing Studies must meet the same standard for “normal progress” as shown in the Academic Standing section of this catalogue.

DEGREE REQUIREMENTS

Bachelor of General Studies

1. Core Requirements
   a. English Composition ........................................... 6
   b. Social Sciences ............................................ 12
      (Economics, Geography, History, Political Science, Psychology,
      and Sociology)
   c. Natural Sciences ........................................... 9
      (Biology, Chemistry, Geology, Mathematics, and Physics)
   d. Humanities .................................................. 12
      (Art, English Literature, Foreign Languages, Music, Philo-
      sophy, Religion, and Speech)

2. Area of Concentration ........................................... 30
   a. Primary Concentration: 21 (minimum) to 30
   b. Allied Field (optional): 0 to 9 (maximum)

3. First Subject Field ............................................. 12
4. Second Subject Field ........................................... 12
5. Electives ....................................................... 32

Total .......................................................... 125
Commentary

The following explanatory notes are keyed to the Bachelor of General Studies degree requirements in the tabulation above by the corresponding outline designations.

1a. The English Composition requirement is satisfied by English 111 and 112 at this University or by a full year of Freshman English from another school. The English Composition test of the CCT/CLEP General Examination battery may be used instead of academic credit to fulfill this requirement (see the “Credit By Examination” section above).

Students with no previous background in college English who plan to take English Composition in the evening must register in English 111. A placement test, given at the first class meeting, determines whether the student will stay in 111, go back to 109, or go on to 112 or beyond. Any student planning to take English Composition in the daytime must take the placement test (a part of the group-administered Guidance Examination battery, but also available on an individual basis at the University Testing Center, Adm. 213) before registration. CCS students who test into 112 or beyond should check their standing in respect to the degree requirement with their CCS counselor.

1b. Not more than six credits from a single department (for example, History) may be applied toward the Social Sciences requirement. The CCT/CLEP Social Sciences test may be used for six credits toward this requirement.

1c. Certain Geography courses, specified in that Department’s listing in the College of Arts and Sciences section of this catalog, may also be counted toward the Natural Sciences requirements, as may Engineering 336, Meteorology. For the purpose of satisfying this requirement the five-credit Biological Science Survey and Physical Science Survey courses given at this University are considered as the equivalent of six credits, and in combination with any other three-credit science or mathematics course will fulfill the requirement. Either the CCT/CLEP Natural Sciences test or the Mathematics test (but not both) may be used for six credits toward this requirement. (Students eligible for credit for both parts may count the six credits for Mathematics as electives.)

1d. Not more than six credits from a single department may be applied toward the Humanities requirement. The five-credit Introduction to the Humanities courses given at UNO are considered as the equivalent of six credits (12 for both) toward satisfying the Humanities requirement. The CCT/CLEP Humanities test may be used for six credits toward this requirement.

2. The term “Area of Concentration” is used in recognition of the fact that adults, as the best judges of their own personal and vocational requirements, are left free (in most instances) to select for themselves the courses which will comprise the main thrust of their BGS degree program. By contrast, the traditional term “major” is reserved for the “professionally packaged” BA and BS programs put together by the faculty in a given department or college as the optimum preparation for young people.
Only in the technically sensitive areas of Biology, Chemistry, Engineering, Mathematics, and Physics, where a sequence of specific courses is required for adequate performance as a professional in the field, is the Area of Concentration for BGS candidates fully prescribed. For similar reasons, all students with a concentration in Business must include a full year of Principles of Economics and at least one semester of Accounting in their programs. In most other areas, the choosing of courses in the Area of Concentration is a do-it-yourself project.

Many BGS candidates, however, very wisely check out the catalog statement defining course requirements for BA or BS majors in their same field. Specifications of entrance requirements for graduate programs are another fruitful source of guidance for Area of Concentration (and Subject Field) course content. The list of undergraduate courses required for acceptance into the Master of Business Administration degree program at the University of Nebraska at Omaha (published in the UNO Graduate College Bulletin) is an excellent example.

2a and 2b. All BGS candidates must select some discipline as an Area of Concentration. In recognition of the fact that work in a closely related subject sometimes may be at least equally as valuable as further specialization in the original subject, “Allied Fields” have been authorized for some Concentrations. For example, Economics is acceptable as an Allied Field when Business is the “Primary Concentration,” and up to nine hours of Economics credits may be counted toward the thirty hour total.

There is no requirement that a student must use the Allied Field option. For some Concentrations (for example, Mathematics) no Allied Field is even authorized. Where Allied Fields are authorized, this simply increases the student's options in the interest of enabling him to put together the strongest possible program.

3 and 4. The 12 credits given for six months of active duty military service may be used to fulfill one Subject Field. The discipline chosen for the Primary Concentration cannot be used as a Subject Field. An Allied Field discipline, however, may also be elected as a Subject Field.

5. If the total credit value of courses used to satisfy any of the previous requirements happens to exceed the minimum specification (does not come out to an even 12, for example), any excess is considered elective credit, regardless of where the credit appears on the student’s Worksheet.

RESIDENCY REQUIREMENTS

Of the 125 semester hours of credit with an average grade of “C”, required for the Bachelor of General Studies degree, a minimum of 24 of the last 30 credits must be earned in residence in the College of Continuing Studies as an accepted candidate for the Bachelor of General Studies degree. At least nine hours in the Area of Concentration must be taken in University of Nebraska at Omaha courses. No less than 30 hours must be earned in courses numbered 300 or above (upper division, junior-senior level courses).
DEGREE CANDIDACY

College of Continuing Studies students who wish to earn the Bachelor of General Studies degree must apply for and be formally admitted to candidacy as a specific prerequisite for the degree. Students apply by securing, on a form provided for this purpose, the recommendation of their CCS counselor and the approval of the Dean. Note that acceptance as a Bootstrap student automatically fulfills this requirement.

Application should be made before the student completes 101 credits, since the last 24 semester hours of credit toward the Bachelor of General Studies degree must be earned as an accepted BGS degree candidate. Specific eligibility requirements are:

1. Functional adult status. (Counselors, in making this determination, will look for sustained experience as a contributing member of society in a full-time job, in military service, or as a home-maker. Normally, a minimum period of two consecutive calendar years when not a full-time student will be required.

2. A minimum of 58 credits applicable to the Bachelor of General Studies degree.

3. A 2.0 cumulative quality point index ("C" average).

4. As an alternative to the 2.0 accumulative average requirement, the student must have qualified for academic amnesty as a "returning adult" under the College of Continuing Studies' "second chance" policy.

PROGRAMMING SUGGESTIONS

The entering student is strongly urged to take English 111, English Composition, as his first course. This required course, with its emphasis upon ability to express one's own ideas and to interpret the writing of others, supplies basic communications skills which each student should have working for him throughout his college career.

If an entering student wishes to take two courses, the second can be almost any course for which the word "none" appears in the Prerequisite column of the semester Class Schedule. Usually students choose the introductory course in the discipline in which they would like to major.

An entering student should avoid four and five credit courses, as found in foreign languages and sciences, unless assured by an advisor that his particular circumstances qualify him. These more demanding experiences are best reserved until after the initial adjustment to college-level study has been made.

BACHELOR OF SCIENCE IN LAW ENFORCEMENT AND CORRECTIONS

MR. KUCHEL, Advisor

1. Core Requirements

(a) English Composition (as determined by placement test) .............. 9

(b) Humanities*# ..................................................................... 12

(Art, Foreign Languages, Literature, Music, Philosophy, Religion, and Speech, including specifically Speech 111)
(c) Social Sciences*# ................................................................. 12
  (Economics, Geography, History, Political Science, Psychology,
  and Sociology)
(d) Mathematics or Science# .................................................. 12
  (Biology, Chemistry, Geology, Mathematics, and Physics)
2. Area of Concentration (Law Enforcement and Corrections) ........ 30
   (nine hours of which may be in an allied field)
3. Electives* ........................................................................... 50
   (which will include 12 hours in each of two subject fields to be
determined in consultation with the Chairman of the Dept.)

Total .................................................................................. 125

At least 30 hours of the 125 hours must be earned in courses num-
bered 300 or above.

Courses are not allowable toward the Bachelor of Science or Associate
title in Law Enforcement and Corrections: English 109; Chemistry 100;
Mathematics 100, 111 and 112.

COMMENTARY

This degree is planned to prepare persons for careers in administrative
positions in law enforcement, corrections and rehabilitation. Provision is
made for an interdisciplinary approach to sociology, psychology and
political science as they relate to law enforcement and correctional
administration.

Individuals proposing to major in Law Enforcement and Corrections
must meet all the requirements for admission to the University of Ne-
braska at Omaha. Applicants must possess the physical qualifications
necessary in their chosen field. Students are advised to investigate the
physical requirements of law enforcement agencies so that they may
determine, in advance, their capacity to meet these requirements.

All applicants must be of excellent moral character. Letters of recom-
mendation from the chief law enforcement officer and the high school
principal of the applicant's community will be required. High standards
of personal and professional conduct will be expected at all times; devia-
tion from these standards may result in dismissal from the program.
Applicants must possess the personality and adaptability deemed neces-
sary for professional law enforcement or the specific field in which they
plan to concentrate their studies. This will be determined by applicant's
history, references and through the medium of a personal interview.

RESIDENCY REQUIREMENTS

The residency requirement for the BSLEC is 30 semester hours at the
University, 24 of these to be in the College of Continuing Studies. All
grades reported by the faculty to the Registrar at the end of each

# Six semester hours of credit toward this requirement may be acquired via the
appropriate College Level Examination Program test.
* Not more than (6) hours from a single department within the division may be
used.
semester become a part of the student's permanent record and are included in the computation of his quality points earned and his grade point average. (See the Academic Standing section of this catalog.) This is subject to review by the Curriculum and Advisory Committee of the College of Continuing Studies.

DEGREE REQUIREMENTS

Bachelor of Science in Medical Technology

MR. BORGMAN, Advisor

The University of Nebraska at Omaha, through the College of Continuing Studies, cooperates with The University of Nebraska College of Medicine. The degree of Bachelor of Science in Medical Technology (BSMT) is granted to students who have successfully completed the regular twelve-month course in Medical Technology at the College of Medicine required by the Registry, and a three-year program of subjects as outlined below. Work done as part of the training in technology does not substitute for any part of this three-year program. All students must meet the University's entrance requirements and must maintain an average grade of "C" or above, in a minimum of 90 college hours. Thirty of the last 36 academic hours must be taken at the University of Nebraska at Omaha, depending on time Registry work is completed. The suggested three-year program is as follows:

<table>
<thead>
<tr>
<th>FIRST YEAR</th>
<th>Second Semester</th>
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<tbody>
<tr>
<td><strong>Chem. 101</strong></td>
<td><strong>Chem. 102</strong></td>
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<tr>
<td><strong>Biol. 175, Zoology</strong></td>
<td><strong>Biol. 145, Botony</strong></td>
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<tr>
<td><strong>Engl. 109 or 111</strong></td>
<td><strong>Engl. 111 or 112</strong></td>
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<td><strong>Math 111</strong></td>
<td><strong>Psych. 101</strong></td>
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<td><strong>Biol. 101, Intro. Med. Tech.</strong></td>
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<tr>
<th>SECOND YEAR</th>
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<tr>
<td><strong>Chem. 202</strong></td>
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<td><strong>Soc. Sci.</strong></td>
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<tr>
<td><strong>Biol. 244, Microbiology</strong></td>
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<td><strong>Humanities</strong></td>
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<tr>
<td><em>Elective</em>*</td>
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<th>THIRD YEAR</th>
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<tr>
<td><strong>Humanities</strong></td>
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<td><em>Electives</em>*</td>
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*Physics 111, 112 strongly recommended.

THE ASSOCIATE TITLES

For the adult who is pursuing his academic career on a part-time basis, the Baccalaureate Degree may well seem distant. The Associate Title is designed to:

1. help the student keep a positive goal not only in sight, but within reasonable grasp. A "half-way house", one might say.
(2) assist in planning a program of study as contrasted with indiscriminate gleaning of the academic fields.

For those for whom circumstances will not permit the accomplishment of a degree, the Associate Title is tangible evidence of a program completed.

**General Requirements**

Sixty-four (64) semester hours of credit must be completed at the college level with an average grade of “C” for all work taken. Eighteen of the last 21 semester hours must be earned in residence at the University of Nebraska at Omaha as a matriculant in the College of Continuing Studies.

Eight semester hours of credit in military science and 12 additional hours in military credits may be accepted as electives in meeting the total credit requirements for the title.

**Specific Requirements**

**Associate in General Studies**

The program for the title of Associate in General Studies will include the following:

1. Core Requirements
   (a) English Composition (as determined by placement test) .......... 6
   (b) Humanities ........................................ 6
       (Art, Foreign Languages, English Literature, Music, Philosophy, Religion, and Speech)
   (c) Social Sciences .................................. 6
       (Economics, Geography, History, Political Science, Psychology, and Sociology)
   (d) Mathematics or Science .................................. 4
       (Biology, Chemistry, Geology, Mathematics, and Physics)

2. Area of Concentration (departmental) .................................. 12
   The student will, with the advice of his counselor, select an area of concentration consisting of 12 semester hours in a subject field.

3. Electives ........................................................................... 30

**Associate in Law Enforcement and Corrections**

The program for the title Associate in Law Enforcement and Correction will include the following:

1. Core Requirements
   (a) English Composition (as determined by placement test) .......... 6
   (b) Humanities ........................................ 6
       (Art, Foreign Languages, English Literature, Music, Philosophy, Religion, and Speech)
   (c) Social Sciences .................................. 6
       (Economics, Geography, History, Political Science, Psychology, and Sociology)
(d) Mathematics or Science ........................................... 4
(Biology, Chemistry, Geology, Mathematics, and Physics)

2. Area of Concentration .................................................. 18

3. Electives* ....................................................................... 24

* Not more than (6) hours from a single department may be used

LAW ENFORCEMENT AND CORRECTIONS

Program Courses

The semester that these courses are offered—as shown by I, II, S—is subject to change. Students should refer to the schedule of classes for each semester for information on courses to be offered.

LEC 101 Elements of Criminal Justice (I, II, S) 3 hours
This course is designed to provide general knowledge about the causes of crime; an understanding of the underlying purpose of law enforcement; and the role of the police officer, courts, penal institutions, probation, and parole in present day life.

LEC 201 Principles of Investigation (II) 3 hours
This is a technique course dealing with investigative methodology in the field of crime. It is designed to acquaint the student with the methods employed in criminal investigation from the time the report is received to the ultimate conviction of the perpetrator.

LEC 211 Police Patrol (I) 3 hours
Responsibilities, powers, and duties of the uniformed patrolman; patrol procedures; mechanics of arrest; and all other functions of the officer on patrol.

LEC 231 Police Report Writing (I, II) 3 hours
Designed to instruct students in determining report content as a result of interpreting and evaluating information. Emphasis placed on the collection of information, accurate description, analysis of information, and concise writing.

LEC 251 Law Enforcement Organization and Administration (II) 3 hours
This course covers the organization and administration of a police department; the personnel development program; patrol duties; public relations; records and communications; traffic administration; and auxiliary services.

LEC 291 Traffic and Accident Investigation (II) 3 hours
The enforcement of law as it relates to traffic; accident prevention and investigation; safety education; selective enforcement; traffic engineering; reporting; records; prosecuting; and the traffic court.
LEC 331 Criminal Law  
This course is concerned with the elements and proof in crimes of frequent concern in law enforcement with reference to principal rules of criminal liability. Importance of criminal law at the enforcement level is considered from crime prevention to courtroom appearance.

LEC 335* Criminology  
General survey of the nature and causes of crime; criminal investigation and prosecution; punishment, correctional treatment, and crime prevention.

LEC 337* Juvenile Delinquency  
Delinquency as an individual, and a social, problem; theories of delinquency causation; law enforcement and the juvenile court; methods of correction and prevention.

LEC 351 Law of Arrest, Search, and Seizure  
The course deals with the kinds of evidence and rules governing the admissibility of evidence in court. It also includes such areas as arrest, force and search, and seizure.

LEC 352 Rules of Evidence  
Kinds of evidence and rules governing the admissibility of evidence in court. Effect of court decisions on acquisition and admissibility of evidence.

LEC 371 Police Public Relations  
This course outlines a general program of public relations that must be undertaken for any department to build a good public image. Emphasis is placed on the conduct of the individual officer as the primary factor in producing such an image. Community resources as well as police-press relations are discussed.

LEC 391 Interrogation and Lie Detection  
A survey of modern methods of handling witnesses, informants, and suspects; evaluation of lie detection methods and techniques; psychological and physiological considerations in interrogation. Emphasis is placed upon the techniques of the interview and the interrogation of various types of subjects.

LEC 397 Internship in Law Enforcement  
Practical experience on the Omaha Police Department while employed as a police cadet. May be taken for credit no more than four times. Open only to Jr. and Sr. Law Enforcement majors.

LEC 45 Probation and Parole  
A course for advanced students with a special interest in the correctional process as applied in a correctional setting.

LEC 436 Psychology of Criminal Behavior  
An examination of individual and group criminal identities and the formative processes of criminal behavior.
LEC 438* Penology and Corrections (II, S) 3 hours
Origins of theories of punishment and of the prison system; principles and programs of institutional correction and problems of administration.

II DIVISION OF NON-CREDIT COMMUNITY SERVICES

MR. MOORE, Assistant Dean
MR. ERIXON, Director, Conferences and Workshops

Providing an unlimited variety of college-level learning experiences for the general public or specific groups, this Division offers no formal college credit work. Some programs do, however, lead to certificates of completion for a prescribed sequence. Drawing upon the resources of the University and community for programming and staffing, the activities of the Division are carried out largely in the specially designed Gene Eppley Conference Center. With special arrangement, programs may be scheduled in off-campus facilities.

Areas of activity developed and encouraged by this Division include:

A. Community Service Courses: These are announced at regular intervals and cover any subject area for which a need and adequate public response is anticipated. These courses meet daytimes or evenings and once weekly, as a general rule. Most courses extend a period of eight weeks, while a few are designed for a full semester or for the full academic year. Inquiries and suggestions are welcomed.

B. Conferences, Workshops and Contract Programs: These are concerned with training, professional growth and the educational needs of every segment of the social-economic structure of the community. Here, too, the Division works in close cooperation with all elements of the University and the community in providing specially constructed programs for specific groups, as well as for the general public. There is particular (but not exclusive) concern for business, industry and labor.

We invite interested groups to discuss with us their educational problems and needs. Such inquiries should be directed to:

Director, Conferences and Workshops
Phone: 553-4700, ext. 391-392

CERTIFICATION PROGRAMS

Two programs have been designed for students desiring to qualify for special certification:

Real Estate Certification
MR. LEWIS, Advisor

The College of Continuing Studies, with the cooperation of the College of Business Administration, offers an 18-credit semester hour certificate program in real estate.

* These courses carry the same number and credit in the Department of Sociology.
A non-credit Advanced Real Estate Appraisal course (beyond the certificate) will prepare the student to take the Appraisal Institute's Comprehensive Examination II, for credit toward a Member of Appraisal Institute (M.A.I.) designation.

Insurance Certification

MR. ROKES, Advisor

The program of insurance offerings, also in cooperation with the College of Business Administration, includes the courses of the Insurance Institute of America, the Chartered Life Underwriters and the Chartered Property Casualty Underwriters. The C.L.U. and C.P.C.U. courses lead to the professional designation awarded by the American College of Life Underwriters and the American Institute for Property and Liability Underwriters.

SUMMER SESSIONS

MR. UTLEY, Director

Contemporary society has brought a fundamental change in the public attitude toward, the philosophy of, and the purpose of Summer School. Today it is an integral part of what has become the continuous process of education. With the growing number of young people going to professional and graduate schools, accelerating the undergraduate program is often desired. Competition in the "labor market" motivates some, while still others want merely to broaden their educational experience. Further, an increasing number of June high school graduates are electing to begin their college careers with the summer.

Whatever your individual interest, the University of Nebraska at Omaha presents a summer program in complete air-conditioned comfort, and with course offerings scheduled in all colleges of the University, including the Graduate College.

Twelve hours is the maximum that may be taken during the summer. Six hours is the maximum that may be taken in progress at one time.

Courses are offered both day and evening according to the following schedule:

First Session: 5 weeks beginning in early June. Classes meet five days a week, Monday through Friday, allowing a normal weekend. Six semester hours of work may be taken.

Second Session: Also five 5-day weeks, beginning in mid-July. Six semester hours may be taken.

Evening Session: Evening courses meet two nights a week (Mon. and Thurs.) for eight weeks. Three semester hours may be earned. This session begins the same week of the FIRST SESSION and overlaps the SECOND SESSION.
Extended Courses: The nature of some subject matter is such that some courses need an extended time period for most effective handling. A limited number of such courses is scheduled for eight to ten weeks duration. Enrollment in these courses does not alter the twelve-hour maximum that may be obtained during the summer. These courses begin with the first five-week term.

Special Summer Conferences, Workshops and Unit Courses

A variety of special programs are scheduled for the summer months. Some of these are on an annual basis—such as the College Business Management Workshop, the School for Presbyterian Pastors, etc. Workshops and unit courses are designed to meet special situations and are normally of short duration and intense study. Special announcements and mailings are made for these, in addition to inclusion in the general bulletin.

Admission to Summer Session

Admission to the summer program does not constitute admission to The University unless the full admission procedure is accomplished. See the admissions section of this catalog for specific information.

High School Seniors contemplating enrolling for summer classes immediately upon graduation should make application for admission and take the guidance and placement exams during the Spring. For full information call the Director of Admissions.

Tuition and Fees: All University fees are listed on pages 34-36.

Registration: Registration details, course offerings and other specific information are published in a special supplement of the local press early in May. Reprints are available upon request.
AEROSPACE STUDIES

Professor, Colonel Connell; Assistant Professors, Major Mathews, Captain Floyd, Captain Hall.

THE GENERAL MILITARY COURSE (GMC)

The GMC curriculum is designed to give cadets an understanding of the role of air power in the aerospace age. GMC is voluntary and open to physically and mentally qualified freshmen and sophomores. Textbooks and uniforms are furnished at government expense. GMC cadets are not in the military service and assume no military obligation.

101 Corps Training (I) 1 hour
*102 World Military Systems I (II) 2 hours
*201 World Military Systems II (I) 2 hours
  Prereq: AS 101-102, or permission of PAS
202 Corps Training (II) 1 hour

THE PROFESSIONAL OFFICER COURSE (POC)

The POC program includes a well-rounded educational and leadership training curriculum that prepares cadets to serve as officers in the USAF. POC cadets are selected from basic cadets or FT course graduates who desire to enter the program and who meet rigid academic and physical requirements. POC cadets enlist in the Air Force Reserve and receive approximately $1,000 for their two-year participation. Cadets who qualify for pilot training receive, at government expense, 36 hours of flight instruction at a civilian facility during their senior year. POC cadets who do not attend the six-week Field Training are required to attend a four-week summer FT between their junior-senior year.

*301 Growth and Development of Aerospace Power I (I) 3 hours
  Prereq: permission of PAS
*302 Growth and Development of Aerospace Power II (II) 3 hours
  Prereq: AS 301 or permission of PAS
*401 The Professional Officer I (I) 3 hours
  Prereq: AS 302, or permission of PAS
*402 The Professional Officer II (II) 3 hours
  Prereq: AS 401, or permission of PAS
403 Flight Instruction Program (FIP) (I) 1 hour
  Prereq: POC standing and permission of PAS

*Plus 1 hour of Cadet Corps Training—Arranged
UNIVERSITY OF NEBRASKA AT OMAHA

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