4-1969


University of Nebraska at Omaha

Follow this and additional works at: https://digitalcommons.unomaha.edu/gradcatalogs

Part of the Higher Education Administration Commons

Please take our feedback survey at: https://unomaha.az1.qualtrics.com/jfe/form/SV_8cchtFmpDyGfBLE

Recommended Citation
https://digitalcommons.unomaha.edu/gradcatalogs/54

This Report is brought to you for free and open access by the UNO Academic Catalogs at DigitalCommons@UNO. It has been accepted for inclusion in Graduate Catalogs by an authorized administrator of DigitalCommons@UNO. For more information, please contact unodigitalcommons@unomaha.edu.
THE UNIVERSITY OF NEBRASKA
AT OMAHA

1969-70

CATALOG
Bulletin of the

UNIVERSITY OF NEBRASKA
AT OMAHA

VOLUME XXVI, NUMBER 1
APRIL, 1969

GENERAL CATALOG

for the academic year
1969-1970

UNIVERSITY OF OMAHA 1908-1931
MUNICIPAL UNIVERSITY OF OMAHA 1931-1968
UNIVERSITY OF NEBRASKA AT OMAHA

The Board of Regents
Richard E. Adkins, Osmond
President

B. N. Greenberg, M.D., York
Richard L. Herman, Omaha

Robert L. Raun, Minden
J. G. Elliott, Scottsbluff

Edward Schwartzkopf, Lincoln

G. Robert Ross, Ph.D., Corporation Secretary

ADMINISTRATION

Merk Hobson, Ph.D., Acting Chancellor*

* Chancellor Clifford M. Hardin on leave to serve as Secretary of Agriculture in the Cabinet of the President of the United States

Kirk E. Naylor, Ed.D., President
University of Nebraska at Omaha

Philip Milo Bail, Ph.D., LL.D., President Emeritus

George R. Rachford, Ed.D., Vice President, Campus Development

Donald J. Pflasterer, M.Ed.
Dean of Student Personnel

Virgil V. Sharpe, B.A.
Registrar

James A. Scriven, Ed.D.
Director of Admissions

Harold D. Keefover, B.S.
Director of Business & Finance

THE UNDERGRADUATE COLLEGES

Robert D. Harper, Ph.D.
Dean, The College of Arts and Sciences

Anson D. Marston, M.S.C.E., D.Sc.
Dean, The College of Engineering and Technology

Paul C. Kennedy, Ed.D.
Dean, The College of Education

George G. Heather, Ph.D.
Dean, The College of Business Administration

William T. Utley, M.A.
Dean, The College of Continuing Studies
Director, Summer Sessions

THE GRADUATE COLLEGE

Elton S. Carter, Ph.D.
Dean and Chairman of the Graduate Faculty
<table>
<thead>
<tr>
<th>TABLE OF CONTENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Historical Sketch ............................................. 1</td>
</tr>
<tr>
<td>The University at a Glance .................................... 2</td>
</tr>
<tr>
<td>Accredited Standing ............................................ 3</td>
</tr>
<tr>
<td>Calendar for 1969-70 ........................................... 4</td>
</tr>
<tr>
<td>Admission ....................................................... 7</td>
</tr>
<tr>
<td>Advanced Standing ............................................... 8</td>
</tr>
<tr>
<td>Guidance Services .............................................. 8</td>
</tr>
<tr>
<td>University Division ............................................. 11</td>
</tr>
<tr>
<td>Counseling Center ............................................... 12</td>
</tr>
<tr>
<td>Audio-Visual Aids ............................................... 14</td>
</tr>
<tr>
<td>The Gene Eppley Library ........................................ 14</td>
</tr>
<tr>
<td>College Resumes ............................................... 16</td>
</tr>
<tr>
<td>Air Force ROTC .................................................. 18</td>
</tr>
<tr>
<td>Food Service .................................................... 19</td>
</tr>
<tr>
<td>Urban Affairs Center ........................................... 20</td>
</tr>
<tr>
<td>Book Store ...................................................... 20</td>
</tr>
<tr>
<td>Computer Center ................................................ 20</td>
</tr>
<tr>
<td>Placement Service ............................................... 21</td>
</tr>
<tr>
<td>Athletics ......................................................... 21</td>
</tr>
<tr>
<td>Reading Laboratory ............................................... 22</td>
</tr>
<tr>
<td>Alumni Association .............................................. 22</td>
</tr>
<tr>
<td>Clinical Services Division ...................................... 24</td>
</tr>
<tr>
<td>Scholarships and Awards ....................................... 24</td>
</tr>
<tr>
<td>Academic Standing ............................................... 28</td>
</tr>
<tr>
<td>Student Study Load .............................................. 28</td>
</tr>
<tr>
<td>Grades, Classification ......................................... 29</td>
</tr>
<tr>
<td>Withdrawal ....................................................... 30</td>
</tr>
<tr>
<td>Probation ......................................................... 30</td>
</tr>
<tr>
<td>Suspension ....................................................... 30</td>
</tr>
<tr>
<td>Class Attendance ................................................. 31</td>
</tr>
<tr>
<td>General Regulations ............................................ 31</td>
</tr>
<tr>
<td>Residency ......................................................... 33</td>
</tr>
<tr>
<td>Tuition and Fees ................................................. 34</td>
</tr>
<tr>
<td>Student Organizations and Activities ......................... 37</td>
</tr>
<tr>
<td>University Regulations ......................................... 41</td>
</tr>
<tr>
<td>Graduate College ............................................... 42</td>
</tr>
<tr>
<td>Faculty .......................................................... 43</td>
</tr>
<tr>
<td>College of Arts and Sciences ................................ 61</td>
</tr>
<tr>
<td>College of Business Administration .......................... 150</td>
</tr>
<tr>
<td>College of Continuing Studies ................................ 169</td>
</tr>
<tr>
<td>Non-Credit Courses ............................................. 184</td>
</tr>
<tr>
<td>Summer Sessions ............................................... 185</td>
</tr>
<tr>
<td>College of Engineering and Technology ....................... 187</td>
</tr>
<tr>
<td>College of Education .......................................... 219</td>
</tr>
<tr>
<td>Index ............................................................ 241</td>
</tr>
</tbody>
</table>
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, laboratory, and library facilities adequately equipped to produce an environment 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 11,000 (6,500 day—4,500 evening), the University attempts to treat each student as an individual; 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 training 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 conferences, 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.
OFFICIAL CALENDAR
1969 - 70

FIRST SEMESTER 1969-70

August 15  Last day for submitting all admission credentials for admission to first semester.

Sept. 8-12  Registration and changes.

Sept. 15  Official beginning of first semester at 7:30 A.M. Day and evening classes begin.

Sept. 15  Late registration begins.

Sept. 19  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".)

Sept. 20  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  Founder's Day.

October 11  Homecoming.

October 29  Six-week reports on first-semester freshmen due in Academic Deans' Offices by 4:00 P.M.

November 7  Last day a class may be dropped in order to receive a "W" or an "X."

November 25  Thanksgiving recess begins at 9:40 P.M.

December 1  Classes resume at 7:30 A.M.

December 8  Last day for filing applications for degrees to be conferred in Jan. 1970.

December 19  Christmas Convocation.

December 20  Christmas Vacation begins at noon.

January 5, '70  Classes resume at 7:30 A.M.

January 2  Last day for submitting all admission credentials for admission to second semester.

January 13  "Dead" Day.

January 14-21  Final Examinations.

January 22  All grades due in Registrar's Office by 3:30 P.M.

January 24  Mid-year Commencement (Saturday).
SECOND SEMESTER 1969-70

January 26-30  Registration and changes.

February 2    Official beginning of second semester at 7:30 A.M. Day and evening classes begin.

February 2    Late registration begins.

February 6    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”.)

February 7    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”.)

March 27      Last day a class may be dropped in order to receive a “W” or an “X.”

March 28      Spring Vacation begins at Noon.

April 6       Classes resume at 7:30 A.M.

April 10      Last day for filing applications for degrees to be conferred in June 1970.

May 8         Ma-ie Day—Student holiday.

May 8         Last day for submitting all admission credentials for admission to first summer session.

May 19        “Dead” Day.

May 20-27     Final Examinations.

May 28        All grades due in Registrar's Office by 3:30 P.M.

May 29        Alumni Achievement Day.

May 30        Sixty-first Commencement. Saturday (Memorial Day).

SUMMER 1970

June 5-6      Registration.

June 8-July 10 First Session.

June 8-July 30 Evening Session.

June 13       Last day for submitting all admission credentials for admission to second summer session.

July 4        Holiday (University closed)

July 17       Last day for filing applications for degrees to be conferred Aug. 31, 1970.

ADMISSION TO THE UNIVERSITY

I. PROCEDURES FOR SECURING ADMISSION

1. Obtain an application blank and a medical history questionnaire from the Admissions Director, Adm. Room 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 schools in Nebraska 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, Ele-
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

GEORGE G. HEATHER, 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.

COLLEGE OF CONTINUING STUDIES

WM. T. UTLEY, Dean

It is now obvious that one's education is never complete. The pace of change in all facets of our society requires/demands that each of us be in a constant state of development—of re-education. This continuing pursuit may be "formal" in the sense of working for academic credit, or "informal," in which the acquisition of knowledge is the goal.

Serving the adult community in this twin quest is the role of the College of Continuing Studies. The program of the College is broad and varied, providing for the intellectual development, vocational and professional growth, cultural enrichment, and enlightenment on problems of the community, the nation and the world.

Established in 1931, as the Extension Department, it has grown to full college status, acquiring—along the way—national recognition through its innovations in 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.

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 AFFAIRS CENTER

The Urban Affairs 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.

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

GENERAL INFORMATION

Students who are children of veterans who died or were totally disabled as a result of service in World War I, World War II, or the Korean conflict should contact the Director of Veterans Affairs, State Capitol Building, to determine their eligibility for free tuition under the laws of the State of Nebraska.

Students from foreign countries and students who are non-residents of the State of Nebraska are usually not eligible for scholarships, fellowships, or grants during their first year on the campus.

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

A limited number of 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
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
Martin M. Staenberg Memorial Scholarship (Real Estate)
United-Mutual of Omaha Scholarship (Real Estate)
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
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  
Louis I. Pentzien Engineering Scholarship  
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. Wakely (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
UNIVERSITY OF NEBRASKA AT OMAHA

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 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—Application 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 3.75 or above, but below 3.87; the degree *magna 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 resi­
dence in fact exists; or

(7) Such person is a dependent of a staff member of the Univer­
sity 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 registra­
tion 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 re­
quired 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 nonresi­
dent. (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. Registra­
tion 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 Adm. room 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
Transcript Evaluation (transfer students and graduate college) ........ 5.00
Transcript of Academic Record—per copy ...................................... 1.00
Teacher Placement Registration .................................................... 6.00
Thesis Binding (additional copy—$4.00) ...................................... 12.00
Bad Check (insufficient or no-fund check) minimum ......................... 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 Adm. Room 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 (Adm. Room 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 through the 8th week ................................ 25%
Withdrawal after 8th week ....................................................... 0%
SUMMER SESSION (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 Senate
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

Interpep 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
Orchesis
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 adviser, 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
1969-70

ROBERT L. ACKERMAN
Ed.D., University of Nebraska, 1966; Professor
Education

PAUL B. ACKERSON
Ed.D., Oklahoma State University, 1965; Professor
Education

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

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

JOHN R. ANSTEY
M.B.A., University of Arkansas, 1967; Assistant Professor
Management

WILLIAM L. ANTHES
M.B.A., University of Missouri, 1966; Assistant Professor
Economics

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

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

BRUCE P. BAKER II
Ph.D., Texas Christian University, 1968; Associate Professor and Head of Department
English

LYLE E. BALL
Associate Professor of Business Administration
M.S., University of Illinois, 1950; J.D., University of North Dakota, 1956
Business Administration

GEORGE BARGER
Ph.D., University of Missouri, 1964; Professor
Sociology

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

LARRY R. BASSI
M.A., Washington State University, 1968; Assistant Professor
Law Enforcement and Correction

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

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

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

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

ROBERT W. BENECKE
D.B.A., University of Colorado, 1966; Associate Professor
Accounting

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

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

JOHN V. BLACKWELL
Ph.D., State University of Iowa, 1957; Professor and Head of Department
Art
RICHARD H. BLAKE ............................................. Counseling and Guidance  
Ed.D., University of Missouri, 1966; Associate Professor,

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

EDWARD C. BOGARD ........................................... Technical Institute  
No degree; Instructor

JOHN L. BOHRER ............................................... Music  
M.A., University of Michigan, 1969; Assistant Professor

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

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

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

BARBARA BRILHART ........................................... Education  
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 (I.a., 1st semester 69-70)

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

EVAN L. BROWN ................................................ Psychology  
B.S., University of California, Psychology 1963; Assistant Professor

JAMES H. BROWN .............................................. Industrial, General Engineering  
M.A., University of Minnesota, 1954, 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; Assistant Professor

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

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

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

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

H. CARL CAMP ................................................ Political Science  
Ph.D., Washington University, 1965; Associate Professor
<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLARK W. CAMPBELL</td>
<td>M.S., University of Illinois, 1968; Instructor</td>
<td>Accounting</td>
</tr>
<tr>
<td>MICHAEL H. CAMPBELL</td>
<td>M.P.E., University of Nebraska, 1966; Instructor</td>
<td>Physical Education for Men</td>
</tr>
<tr>
<td>AL F. CANIGLIA</td>
<td>M.S., University of Omaha, 1956; Assistant Professor, Football Coach</td>
<td>Physical Education for Men</td>
</tr>
<tr>
<td>LLOYD R. CARDWELL</td>
<td>B.S., University of Nebraska, 1953; Assistant Professor, Track Coach</td>
<td>Physical Education for Men</td>
</tr>
<tr>
<td>J. RICHARD CARLSON</td>
<td>M.A., Northwestern University, 1954; Assistant Professor</td>
<td>Speech</td>
</tr>
<tr>
<td>JOHN CARROLL</td>
<td>M.A., University of New Mexico, 1967; Assistant Professor</td>
<td>English</td>
</tr>
<tr>
<td>ELTON S. CARTER</td>
<td>Ph.D., Northwestern University, 1950; Professor and Dean of Graduate College</td>
<td>Speech</td>
</tr>
<tr>
<td>*PERRY P. CHANG</td>
<td>Ph.D., University of Washington, 1958; Professor</td>
<td>Economics</td>
</tr>
<tr>
<td>JOHN B. CHAPMAN</td>
<td>M.S.B.A., University of Denver, 1968; Instructor</td>
<td>Management</td>
</tr>
<tr>
<td>JEAN-CLAUDE CHERICA</td>
<td>French License, 1967, University of Marseille; Instructor</td>
<td>Foreign Languages</td>
</tr>
<tr>
<td>EDWIN L. CLARK</td>
<td>Ph.D., State University of Iowa, 1951; Professor; Director, University Theater</td>
<td>Speech</td>
</tr>
<tr>
<td>CONSTANCE L. CLAUSSEN</td>
<td>M.A., Adams State College, 1963; Assistant Professor and Head of Department</td>
<td>Physical Education for Women</td>
</tr>
<tr>
<td>WILLIAM T. CLUTE</td>
<td>M.A., University of Maryland, 1965; Instructor</td>
<td>Sociology</td>
</tr>
<tr>
<td>WALTER H. COMBS</td>
<td>M.A., Michigan State University, 1968; Instructor</td>
<td>Speech</td>
</tr>
<tr>
<td>DONALD R. CONNELL</td>
<td>M.S., Fort Hays State College, 1958; Assistant Professor</td>
<td>Economics</td>
</tr>
<tr>
<td>NILA CORKILL</td>
<td>M.A., University of Denver, 1963; Instructor; Cataloger</td>
<td>Library Science</td>
</tr>
<tr>
<td>HUGH P. COWDIN</td>
<td>Ph.D., University of Iowa, 1968; Associate Professor and Head of Department</td>
<td>Journalism</td>
</tr>
<tr>
<td>JAY W. COX</td>
<td>M.A., University of Denver, 1959; Instructor; Counselor, University Division</td>
<td>Counseling &amp; Guidance</td>
</tr>
<tr>
<td>STEVEN G. COX</td>
<td>Ph.D., University of Iowa, 1968; Assistant Professor; Director of Testing</td>
<td>Counseling &amp; Guidance</td>
</tr>
<tr>
<td>DANA L. CRAIG</td>
<td>M.A., University of Missouri, 1965; Instructor</td>
<td>Mathematics</td>
</tr>
<tr>
<td>EMMETT CRIBBS</td>
<td>M.A., University of Nebraska at Omaha, 1969; Instructor</td>
<td>English</td>
</tr>
<tr>
<td>MARY JEAN CURTIS</td>
<td>M.A., University of Kansas, 1967; Instructor</td>
<td>English</td>
</tr>
<tr>
<td>DONALD C. CUSHENBERY</td>
<td>Ed.D., University of Missouri, 1964; Professor</td>
<td>Education</td>
</tr>
<tr>
<td>HARL DALSTROM</td>
<td>Ph.D., University of Nebraska, 1965; Associate Professor</td>
<td>History</td>
</tr>
</tbody>
</table>
HAROLD L. DAVIS .................................................. Industrial Technology
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

J. SCOTT DOWNING .......................................... Mathematics
Ph.D., Michigan State University, 1969; Assistant Professor

LOISJEAN DRAKE ............................................. Economics
M.A., University of Nebraska, 1968; Assistant Professor

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

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

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

LAWRENCE E. EHLERS ...................................... Civil Engineering
M.S., Kansas State University, 1960; Associate Professor

KENNETH ELLER ........................................... Foreign Languages
M.A., University of Kansas, 1965; Assistant Professor

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

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

JOHN T. FARR ............................................. Political Science
Ph.D., University of Texas, 1969; Assistant Professor

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

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

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

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

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

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

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

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

GERALD GARRETT ........................................... Industrial Technology
M.S., Kearney State, 1965; Instructor
KENNETH J. GARRY .............................. Speech and Drama
M.S., Indiana State University, 1966; Instructor

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

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

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

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

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

ERNEST F. GORR ............................... Physical Education for Men
M.S., University of Omaha, 1954; Associate Professor

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

SONIA R. GREEN ................................ Physical Education for Women
M.S., University of Omaha, 1965; Assistant Professor

CATHERINE M. GRIESEL ....................... English
M.A., Northwestern University, 1947; Instructor

RAYMOND A. GUENTHER ........................ Physics
Ph.D., Illinois Institute of Technology, 1969; Associate Professor

ERT J. GUM ..................................... History
Ph.D., Louisiana State University, 1963; Associate Professor

PAUL HAEDER .................................. Mathematics
Ph.D., Iowa State University, 1968; Professor and Head of Department

MARY N. HALGARD ............................. English
M.A., Creighton University, 1962; Instructor

NORMAN H. HAMM .............................. Psychology
Ph.D., Kent State University 1968; Assistant Professor

GORDON D. HANSEN ............................ Psychology
M.A., University of Omaha, 1965; Assistant Professor, Assistant Dean, College of Arts and Sciences

ROBERT D. HARPER ............................. English
Ph.D., University of Chicago, 1949; Professor; Dean of College of Arts and Sciences

WILLIAM A. HARRIMAN, III ................. Industrial Technology
M.S., University of Omaha, 1962; Assistant Professor

GEORGE T. HARRIS ............................. Business Administration
Ph.D., State University of Iowa, 1953; The Frederick W. Kayser Professor of Finance; Professor

YVONNE H. HARSH ............................. Education
M.A., University of Omaha, 1964; Instructor; Director, Placement

E. LA VERNE HASELWOOD ..................... Library Science
M.S., University of Denver, 1963; Assistant Professor and Head of Department

GEORGE G. HEATHER .......................... Business Administration
Ph.D., State University of Iowa, 1946; Professor; Dean of the College of Business Administration
<table>
<thead>
<tr>
<th>Name</th>
<th>Degree/Institution/Year</th>
<th>Field</th>
</tr>
</thead>
<tbody>
<tr>
<td>BARBARA HELLING</td>
<td>Ph.D., University of Nebraska, 1966; Assistant Professor</td>
<td>Psychology</td>
</tr>
<tr>
<td>GEORGE C. HELLING</td>
<td>Ph.D., University of Minnesota, 1959; Professor and Head of Department</td>
<td>Sociology</td>
</tr>
<tr>
<td>DONALD W. HIGBY</td>
<td>M.F.A., University of Michigan, 1968; Instructor</td>
<td>Art</td>
</tr>
<tr>
<td>WAYNE HIGLEY</td>
<td>Ph.D., University of Illinois, 1962; Professor</td>
<td>Accounting</td>
</tr>
<tr>
<td>ELIZABETH L. HILL</td>
<td>M.Ed., University of Missouri, 1955; Associate Professor; Associate Dean of Student Personnel</td>
<td>Speech</td>
</tr>
<tr>
<td>JACK A. HILL</td>
<td>Ph.D., University of Texas, 1964; Professor and Head of Department</td>
<td>Management</td>
</tr>
<tr>
<td>PETER W. HILL</td>
<td>M.F.A., Cranbrook Academy of Art, 1958; Associate Professor</td>
<td>Art</td>
</tr>
<tr>
<td>ROGER HOBURG</td>
<td>Ph.D., University of Nebraska, 1967; Assistant Professor</td>
<td>Chemistry</td>
</tr>
<tr>
<td>WILLIAM C. HOCKETT</td>
<td>M.B.A., University of Denver, 1949; C.P.A.; Professor and Head of Department</td>
<td>Accounting</td>
</tr>
<tr>
<td>LETA F. HOLLEY</td>
<td>Ed.D., University of Colorado, 1960; Professor and Head of Department</td>
<td>Business Education</td>
</tr>
<tr>
<td>IRENE HOOVER</td>
<td>M.S., University of Omaha, 1966; Instructor</td>
<td>Education</td>
</tr>
<tr>
<td>JAMES Q. HOSSACK</td>
<td>M.S.C.E., University of Nebraska, 1959; Registered Professional Engineer; Professor and Head of Department</td>
<td>Civil Engineering</td>
</tr>
<tr>
<td>HELEN HOWELL</td>
<td>M.S., University of Omaha, 1962; Assistant Professor</td>
<td>Education</td>
</tr>
<tr>
<td>JO ANN D. HUNDTOFTE</td>
<td>M.A., University of Washington, 1961; Instructor</td>
<td>English</td>
</tr>
<tr>
<td>ROBERT E. HUNTER</td>
<td>M.S., University of Omaha, 1965; Assistant Professor</td>
<td>Technical Institute</td>
</tr>
<tr>
<td>MARJORIE HUNSTLEY</td>
<td>M.A., University of Nebraska at Omaha, 1969; Instructor</td>
<td>Psychology</td>
</tr>
<tr>
<td>FRANCIS M. HURST</td>
<td>Ed.D., Indiana University, 1954; Professor</td>
<td>Psychology</td>
</tr>
<tr>
<td>CHARLES O. INGHAM</td>
<td>Ph.D., University of Utah, 1963; Associate Professor</td>
<td>Biology</td>
</tr>
<tr>
<td>JAMES B. JOHNSON</td>
<td>M.A., Northwestern University, 1965; Assistant Professor</td>
<td>Political Science</td>
</tr>
<tr>
<td>SHIRLEY JOHNSON</td>
<td>M.S., Iowa State University, 1966; Instructor</td>
<td>Home Economics</td>
</tr>
<tr>
<td>ANTHONY JUNG</td>
<td>M.A., University of Illinois, 1967; Assistant Professor</td>
<td>Foreign Languages</td>
</tr>
<tr>
<td>GENE F. KAFKA</td>
<td>M.S., University of Omaha, 1966; Instructor; Counselor</td>
<td>Counseling and Guidance</td>
</tr>
<tr>
<td>JUDITH A. KUHAGEN</td>
<td>M.A., University of Denver, 1968; Cataloguing Librarian, Instructor</td>
<td>Library Science</td>
</tr>
<tr>
<td>JOHN C. KASHER</td>
<td>M.S., Boston College, 1967; Instructor</td>
<td>Physics</td>
</tr>
</tbody>
</table>
DARRELL F. KELLAMS ................................................................. Education
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; Assistant Professor

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; 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
Ph.D., University of Nebraska, 1969; Assistant Professor

JOHN KUCER ............................................................................. Education
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)

JUDITH KUHAGEN ............................................................... Library Science
M.A., University of Denver, 1968; Instructor; Cataloging Librarian

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

JOHN T. LANGAN ................................................................. Education
M.S., University of Nebraska at Omaha, 1969; Instructor

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

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

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

JOHN T. LEWIS ....................................................................... Education
M.Ed., Miami University, 1964; Instructor; Assistant Director, Teacher Corp/Urban Projects
*MARY JANE LICKTEIG ............................................... Education  
M.S., University of Omaha, 1967; Instructor

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

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

NORMAN J. LUNA ......................................................... Foreign Languages  
M.A., University of Colorado, 1967; Instructor

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

STELE R. LUNT .......................................................... Biology

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

JOHN P. MALONEY ...................................................... Mathematics  
Ph.D., Georgetown University, 1965; Associate Professor

BARBARA MANNING .................................................... Psychology  
M.S., University of Omaha, 1966; Instructor

DONALD D. MANSON ..................................................... Speech  
Ph.D., Pennsylvania State University, 1966; Associate Professor

D. N. MARQUARDT ....................................................... Chemistry

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 ................................................ Education  
M.S., University of Wisconsin, 1965; Assistant Professor

MAE McKERNAN ........................................................ Library Science  
M.A., University of Denver, 1963; Instructor; Catalog Librarian

RICHARD A. McLELLAN ............................................... English  
M.A., University of Nebraska, 1962; Assistant Professor

JOHN G. McMillan ..................................................... Physics  
M.A., University of Nebraska, 1942; Professor and Head of Department

RAYMOND B. MEANS ................................................ Library Science  
M.A., University of Denver, 1961; Associate Professor; Associate Librarian

ORVILLE D. MENARD .................................................. Political Science  
Ph.D., University of Nebraska, 1964; Associate Professor

CARL L. MEYERS ....................................................... Physical Education for Men  
M.S., University of Omaha, 1967; Instructor; Assistant Coach

C. RAYMOND MILLIMET ............................................ Psychology  
Ph.D., Oklahoma State University, 1968; Assistant Professor
JOANNE MINARCINI  .................................................. Speech  
M.A., University of Omaha, 1967; Instructor

JOYCE MINTEE  ........................................................ Business Administration  
Ph.D., Indiana University, 1967; Professor

PAUL G. MOLOFF ..................................................... Philosophy and Religion  
M.A., New York University, 1967; Instructor

DIANE M. MOORE ..................................................... Foreign Languages  
M.A., University of Kansas, 1964; Instructor

JANICE S. MORENO ..................................................... Foreign Languages  
M.A., University of Missouri, 1962; Instructor

W. EARL MORRISON .................................................. Education  
Ph.D., East Texas State University, 1968; Associate Professor

WOODROW L. MOST .................................................... Foreign Languages  
Ph.D., Laval University, 1953; Professor and Head of Department

R. CLARKE MULLEN .................................................. Music  
M.S., Juilliard School of Music, 1959; Associate Professor

THOMAS MURRAY .................................................... Engineering  
M.S.C.E., Lehigh University, 1966; Instructor

HARRY J. MYERS ..................................................... Industrial, General Engineering  
M.S.E., University of Nebraska, 1967; Assistant Professor

MARIAN P. NELSON ................................................... History  
M.A., University of Omaha, 1967; Instructor

GLEN A. NEWKIRK .................................................... English  
Ph.D., University of Denver, 1966; Associate Professor

M. GENE NEWPORT .................................................... Management  
Ph.D., University of Illinois, 1963; Professor

JOHN M. NEWTON ...................................................... Psychology  
Ph.D., Ohio State University, 1955; Professor and Head of Department

DAVID LEE NICKLIN .................................................. English  
M.A., University of Omaha, 1965; Instructor

CARL E. NORDAHL ................................................... Biology  
Ph.D., University of Iowa, 1969; Assistant Professor

JOHN R. NYE .......................................................... Sociology  
Ph.D., Iowa State University, 1968; Assistant Professor

B. GALE OLESON ..................................................... Counseling and Guidance  
Ph.D., University of Wyoming, 1953; Professor, Director, Counseling and Guidance

ROBERT C. O’REILLY ................................................ Education  
Ed.D., University of Kansas, 1962; Professor; Associate Dean, Graduate College

RICHARD F. ORTMAN ................................................ Education  
M.B.A., University of Wisconsin, 1966; Assistant Professor

RICHARD A. OVERFIELD ............................................. History  
Ph.D., University of Maryland, 1968; Assistant Professor

RUSSELL W. PALMER ................................................ Philosophy and Religion  
Ph.D., University of Iowa, 1966; Associate Professor

RICHARD PARSONS ................................................... Mathematics  
M.S., University of Nebraska, 1968; Instructor

DOROTHY PATACH .................................................. Nursing Education  
M.S., University of Omaha, 1961; Assistant Professor; 
Director, Nursing Education
HAROLD W. PAYNE..............................Music
M.M., U.S.C.L.A., 1955; Assistant Professor

D. T. PEDRINI.................................Psychology
Ph.D., University of Texas, 1958; Professor

KERMIT C. PETERS.............................Music
M.M., Eastman School of Music, 1958; Associate Professor

JAMES B. PETERSON...........................Music
Ph.D., State University of Iowa, 1953; Professor and Head of Department

WILLIAM PETROWSKI.........................History
Ph.D., University of Wisconsin, 1966; Associate Professor

DONALD J. PFLASTERER.......................Education
M.Ed., University of Nebraska, 1952; Associate Professor;
Dean of Student Personnel

EUGENE R. PIBAL..............................Accounting
M.B.A., University of Denver, 1965; Instructor

ROSS A. PILKINGTON.........................Counseling and Guidance
M.S., University of Omaha, 1964; Instructor and Counselor

MARION PLAYFOOT..............................Library Science
M.S., State University of New York, Geneseo, 1962;
Instructor; Public Services Librarian; Reader's Assistant

LEONARD PRESTWICH.........................Marketing
Ph.D., Ohio State University, 1957; Professor; Director, Retail Management

CHERYL H. PREWETT.........................Industrial, General Engineering
M.S., Oklahoma State University, 1939; Professor and Head of Department

RONALD L. PULLEN............................Education
M.S., University of Omaha, 1955; Associate Professor;
Director, Audio Visual Department

JOHN H. QUERY...............................English
M.S., University of Bridgeport, 1965; Instructor; Director, Reading Clinic

GEORGE R. RACHFORD.........................Education
Ed.D., Indiana University, 1955; Professor; Vice President,
Campus Development

VERDA RAUCH.................................Business Education
M.B.Ed., University of Colorado, 1955; Associate Professor

DELORES RAY.................................Home Economics
M.S., Kansas State University, 1966; Assistant Professor

HAROLD J. RETALLICK.......................Geography
Ph.D., Clark University, 1950; Professor

M. N. REDDY.................................Civil Engineering
Ph.D., Oklahoma State University; Associate Professor

HARRY W. REYNOLDS, JR.....................Political Science
Ph.D., University of Pennsylvania, 1954; Professor

KENNETH RHODUS..............................Counseling and Guidance
M.S., University of Omaha, 1967; Assistant Professor; Counselor

ROY M. ROBBINS.............................History
Ph.D., University of Wisconsin, 1929; Professor

ROBERT ROBINSON............................Mathematics
M.S., Marquette University, 1964; Assistant Professor and Director,
Computer Center

LEE ROBERT ROGERS.........................Biology
M.S., University of Nebraska at Omaha; 1969; Instructor
<table>
<thead>
<tr>
<th>Name</th>
<th>Degree</th>
<th>Field</th>
</tr>
</thead>
<tbody>
<tr>
<td>WILLIS P. ROKES</td>
<td>LL.B., University of Utah, 1951; Ph.D., Ohio State University, 1959; C.L.U.; C.P.C.U.; Professor and Head of Department; J.D.</td>
<td>Insurance</td>
</tr>
<tr>
<td>KENNETH A. ROOT</td>
<td>M.A., University of Iowa, 1966; Assistant Professor</td>
<td>Sociology</td>
</tr>
<tr>
<td>DONALD D. ROSS</td>
<td>M.S., Chadron State College, 1962; Instructor</td>
<td>Education</td>
</tr>
<tr>
<td>MARK O. ROUSSEAU</td>
<td>M.A., Indiana University, 1965; Instructor</td>
<td>Sociology</td>
</tr>
<tr>
<td>ROBERT G. RUETZ</td>
<td>D.Mus., Indiana University, 1964; Professor</td>
<td>Music</td>
</tr>
<tr>
<td>FRANKLIN RUSSELL</td>
<td>M.A., Michigan State University, 1951; Instructor; Director of Off campus Military Programs</td>
<td>Political Science</td>
</tr>
<tr>
<td>DANIEL L. RYAN</td>
<td>B.A., State College of Iowa, Cedar Falls, 1963; Assistant Professor</td>
<td>Technical Institute</td>
</tr>
<tr>
<td>JACQUELINE D. ST. JOHN</td>
<td>M.A., University of Oklahoma, 1964; Instructor</td>
<td>History</td>
</tr>
<tr>
<td>EDWARD J. SADLER</td>
<td>M.S., University of Omaha, 1964; Assistant Professor</td>
<td>Education</td>
</tr>
<tr>
<td>ROSALIE SALTZMAN</td>
<td>M.A., University of Iowa, 1964; Assistant Professor</td>
<td>English</td>
</tr>
<tr>
<td>GORDON SCHILZ</td>
<td>Ph.D., Clark University, 1948; Professor and Head of Department</td>
<td>Geography</td>
</tr>
<tr>
<td>REGINALD R. SCHIVE</td>
<td>M.M.E., University of Colorado, 1967; Assistant Professor and Director of Band</td>
<td>Music</td>
</tr>
<tr>
<td>ROBERT D. SCHMIDT</td>
<td>M.A., University of Omaha, 1964; Instructor</td>
<td>Physics</td>
</tr>
<tr>
<td>DAVID C. SCOTT</td>
<td>Ph.D., State University of Iowa, 1948; Professor and Head of Department</td>
<td>Political Science</td>
</tr>
<tr>
<td>JAMES A. SCRIVEN</td>
<td>Ed.D., University of Oklahoma, 1961; Associate Professor; Director of Admissions</td>
<td>Education</td>
</tr>
<tr>
<td>CHARLES SEDLACEK</td>
<td>M.S., University of Omaha, 1967; Assistant Professor</td>
<td>Technical Institute</td>
</tr>
<tr>
<td>JAMES W. SELEE</td>
<td>Ed.D., University of Colorado, 1964; Associate Professor; Associate Director, Teacher Corps</td>
<td>Education</td>
</tr>
<tr>
<td>MOHAMED V. SHARIEFF</td>
<td>M.S., University of Colorado, 1968; Instructor</td>
<td>Mathematics</td>
</tr>
<tr>
<td>ROGER S. SHARPE</td>
<td>Ph.D., University of Nebraska, 1968; Assistant Professor</td>
<td>Biology</td>
</tr>
<tr>
<td>JUDITH E. SHELTON</td>
<td>M.S., University of Omaha, 1967; Instructor; Counselor</td>
<td>Counseling and Guidance</td>
</tr>
<tr>
<td>ANDRIS SKREIJA</td>
<td>M.A., University of Kentucky, 1964; Instructor</td>
<td>Sociology</td>
</tr>
<tr>
<td>V. J. SHUKLA</td>
<td>B.E.M., 1967, B.V. M. Engineering College; Instructor</td>
<td>Industrial Engineering</td>
</tr>
<tr>
<td>DONALD E. SHULT</td>
<td>M.S., Western Illinois University, 1957; Assistant Professor</td>
<td>Physics</td>
</tr>
</tbody>
</table>
SUE E. SIMMONS .................................................. Speech
M.A., Western Illinois University, 1967; Instructor

DOREEN C. SIMPSON ............................................... Journalism
B.S., Kansas State University, 1956; Instructor

ROBERT B. SIMPSON ............................................... Sociology
M.A., University of California at Berkeley, 1966; Assistant Professor

THOMAS SIRES .................................................. Engineering
M.S., University of Omaha, 1967, Assistant Professor

ANNE H. SMITH .................................................. English
M.A., University of Nebraska, 1965, Instructor

KEITH SMITH ...................................................... Mathematics
Ph.D., Iowa State University, 1968; Associate Professor

PHILLIP C. SMITH ................................................ English
M.A., Creighton University, 1967; Instructor

T. T. SOKOL ...................................................... Engineering
B.S.C.E., University of Omaha, 1964; Assistant Professor

KAREN PORTER SOUKUP ........................................ Foreign Languages
M.A., University of Wisconsin, 1967; Instructor

PAUL J. STAGEMEN ............................................... Chemistry
Ph.D., University of Nebraska, 1963; Professor

ELROY J. STEELE ................................................ Economics
Ph.D., State University of Iowa, 1957; The Frederick W. Kayser Professor and Head of Department

JUSTIN D. STOLEN ............................................... Economics
M.A., University of Illinois, 1965; Assistant Professor

EARL STORMO .................................................... Education
M.Ed., University of North Dakota, 1963; Assistant Professor

DALE A. STOVER ................................................ Philosophy and Religion
Ph.D., McGill University, 1967; Assistant Professor

DANIEL SULLIVAN ................................................ Chemistry
M.A., University of Omaha, 1966; Instructor

R. DANIEL SULLIVAN ........................................... Music
M.M., Northwestern University, 1965; Instructor

DAVID M. SUTHERLAND .......................................... Biology
Ph.D., University of Washington, 1967; Assistant Professor

*S. LAIRD SWAGERT ............................................. Political Science
Ph.D., State University of Iowa, 1948; Professor

RICHARD S. THILL ............................................... Foreign Languages
M.A., University of California at Los Angeles, 1965; Assistant Professor

JAMES M. THOMAS ............................................... Psychology
M.S., Iowa State University, 1963; Instructor

JOHNN LEE THOMPSON .......................................... English
M.A., University of Nebraska, 1957; Instructor

KAREN THOMPSON ............................................... Foreign Languages
M.A., University of Iowa, 1967; Instructor

JACK C. TITUS .................................................. Industrial, General Engineering
M.S., Purdue University, 1964; Assistant Professor

RAYMOND W. TRENHOLM ........................................ Music
M.M., University of Michigan, 1942; Associate Professor
<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. STANLEY TRICKETT</td>
<td>History</td>
<td></td>
</tr>
<tr>
<td>Ph.D., The Victoria University of Manchester, England, 1933; Professor and Head of Department</td>
<td></td>
<td></td>
</tr>
<tr>
<td>JOHN TUECKE</td>
<td>Mathematics</td>
<td></td>
</tr>
<tr>
<td>M.S., Kansas State University, 1962; Instructor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>KEITH K. TURNER</td>
<td>Economics</td>
<td></td>
</tr>
<tr>
<td>Ph.D., University of Nebraska, 1968; Associate Professor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MARGERY B. TURNER</td>
<td>English</td>
<td></td>
</tr>
<tr>
<td>M.A., University of Omaha, 1961; Assistant Professor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GORDON R. TUSH</td>
<td>Economics</td>
<td></td>
</tr>
<tr>
<td>M.A., University of Missouri, 1968; Instructor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WILLIAM T. UTLEY</td>
<td>Political Science</td>
<td></td>
</tr>
<tr>
<td>M.A., University of Arkansas, 1936; Professor; Director, Public Affairs Institute; Dean, College of Continuing Studies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>J. FREDERICK VESPER</td>
<td>Speech and Drama</td>
<td></td>
</tr>
<tr>
<td>M.A., Pepperdine College, 1967; Instructor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PHILLIP E. VOGEL</td>
<td>Geography</td>
<td></td>
</tr>
<tr>
<td>Ph.D., University of Nebraska, 1960; Professor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WAYNE F. WAGNER</td>
<td>Physical Education for Men</td>
<td></td>
</tr>
<tr>
<td>M.S., University of Omaha, 1955; Assistant Professor, Athletic Trainer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>THOMAS P. WALSH</td>
<td>English</td>
<td></td>
</tr>
<tr>
<td>M.A., Oklahoma University, 1963; Assistant Professor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>JOHN WANZENRIED</td>
<td>Speech</td>
<td></td>
</tr>
<tr>
<td>M.A., Bowling Green University, 1966; Instructor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RALPH M. WARDLE</td>
<td>English</td>
<td></td>
</tr>
<tr>
<td>Ph.D., Harvard University, 1940; The Albert W. Jefferis Professor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DONALD C. WATCHORN</td>
<td>Physical Education for Men</td>
<td></td>
</tr>
<tr>
<td>M.S., University of Omaha, 1961; Assistant Professor and Head of Department</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FLOYD WATERMAN</td>
<td>Education</td>
<td></td>
</tr>
<tr>
<td>Ed.D., Columbia University, 1965; Professor; Director, Teacher Corps</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROBERT WELK</td>
<td>Speech</td>
<td></td>
</tr>
<tr>
<td>M.A., Kent State University, 1962; Assistant Professor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>JANET WEST</td>
<td>Economics</td>
<td></td>
</tr>
<tr>
<td>M.A., Michigan State University, 1964; Instructor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WAYNE WHEELER</td>
<td>Sociology, Urban Studies</td>
<td></td>
</tr>
<tr>
<td>Ph.D., University of Missouri, 1959; Professor; Coordinator, Urban Studies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RICHARD L. WICKOFF</td>
<td>Psychology</td>
<td></td>
</tr>
<tr>
<td>Ph.D., Oklahoma University, 1965; Associate Professor;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PAULINE WILCOX</td>
<td>Education</td>
<td></td>
</tr>
<tr>
<td>M.S., University of Omaha, 1966; Assistant Professor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>L. D. WILLARD</td>
<td>Philosophy and Religion</td>
<td></td>
</tr>
<tr>
<td>M.S., University of Wisconsin, 1964; Assistant Professor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BARBARA J. WILLSON</td>
<td>Psychology</td>
<td></td>
</tr>
<tr>
<td>M.A., University of Nebraska at Omaha, 1968; Instructor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WARREN WITTEKIND</td>
<td>Journalism</td>
<td></td>
</tr>
<tr>
<td>B.S., University of Omaha, 1949; Instructor; Executive Secretary Alumni Association</td>
<td></td>
<td></td>
</tr>
<tr>
<td>JAMES K. WOOD</td>
<td>Chemistry</td>
<td></td>
</tr>
<tr>
<td>M.S., Kansas State College, 1965; Instructor</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
JAMES M. WOOD .................................................. Education
Ph.D., University of Utah, 1966; Associate Professor

VIRGIL V. YELKIN .............................................. Physical Education for Men
M.S., University of Omaha, 1957; Associate Professor;
Director of Athletics; Baseball Coach

LUCILLE ZELINSKY ............................................. Sociology
M.S.W., Wayne University, Detroit, 1947; Instructor

RAYMOND A. ZIEBARTH ....................................... Education
Ph.D., University of Minnesota, 1963; Professor;
Head of Department of Secondary Education

JOHN M. ZIPAY .................................................. Geography
M.A., Southern Illinois University, 1968; Instructor

THEODORE M. ZORICH ......................................... Civil Engineering
Ph.D., Colorado State University, 1966; Assistant Professor

* Leave of Absence

EMERITUS FACULTY

MARTIN BUSH .................................................. Music
F.A.G.O., Professor and head of Department, 1933-1953

RODERIC B. CRANE ........................................... Economics
M.B.A., University of Chicago, 1941; Professor and Head of Department,
1936-1964; The Frederick W. Kayser Professor of Economics, 1961-1967

HURFORD H. DAVISON ......................................... Retailing
M.B.A., Harvard Graduate School of Business Administration, 1924;
Professor and Head of Department, 1948-1963

RUSSEL C. DERBYSHIRE ...................................... Zoology
Ph.D., Iowa State College, 1938; Assistant Professor, 1931-1961

NELL WARD DOAN ............................................... Chemistry
Ph.D., University of Iowa, 1939; Professor and Head of Department, 1918-1955

JAMES M. EARL .................................................. Mathematics
Ph.D., University of Minnesota, 1928; Professor and Head of Department, 1931-1962

CHRISTOPHER S. ESPINOSA .................................. Foreign Languages
Ph.D., University of Rome, Italy, 1924; Professor and Head of Department,
1932-1964

MILDRED GEARHART .......................................... English
M.A., State University of Iowa, 1928; Associate Professor, 1931-1955

FRANK H. GORMAN ............................................. Education
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

CARL W. HELMSTADTER ..................................... Accounting
Ph.D., State University of Iowa, 1938; 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

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; 1948-1968

ELLEN LORD ................................................................. Library Science
B.A.L.S., University of Michigan, 1968; Professor; Librarian

JOHN W. LUCAS .............................................................. Business Administration
M.B.A., Ohio State University, 1935; LL.D., University of Omaha, 1968;
Professor and Head of Department; Dean of College of Business Administration; 1948-1968

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

R. J. MAXWELL .............................................................. Foreign Languages
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
M.A., Middlebury College, 1942; Associate Professor, 1946-1967

WILFRED PAYNE .......................................................... Philosophy
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 .......................................................... Sociology
Ph.D., University of Missouri, 1930; Professor and Head of Department, 1923-1958

LESLIE O. TAYLOR ........................................................ Education
Ph.D., University of Minnesota, 1932; Associate Professor, 1944-1955

SARAH TIRRELL ............................................................ History
Ph.D., Columbia University, 1946; Assistant Professor, 1946-1958

WILLIAM H. THOMPSON .................................................. Psychology
Ph.D., Ohio State University, 1930; Professor and Head of Department of Philosophy and Psychology; Director, Child Study Services in cooperation with Omaha Public Schools; Dean of the College of Liberal Arts, 1931-1960

PHILIP H. VOGT .......................................................... Sociology
M.S., Washington University, 1936; Professor; 1960-1968

S. V. WILLIAMS ........................................................... Engineering
M.E., Carnegie Institute of Technology, 1927; Professor and Head of Department, 1953-1962
COLLEGE OF CONTINUING STUDIES

WILLIAM T. UTLEY, M.A. ................................................................. Dean
GEORGE G. THOMPSON, B.A. .................................................. Assistant Dean
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
EDWIN KINNEY, B.C.E. ................................................................. Director, Technical Institute
FRANKLIN J. RUSSELL, M.A. ................................................................. Director, Off-Campus Military Programs

AIR FORCE ROTC DETACHMENT 470

COLONEL JAMES S. CONNELL ................................................................. Aerospace Studies
M.S., George Washington University, 1964; Professor
MAJOR DONALD H. KELLIHER ................................................................. Aerospace Studies
B.A., University of New Hampshire, 1954; Assistant Professor
CAPTAIN SAMUEL L. HALL ................................................................. Aerospace Studies
B.A., University of Nebraska, 1961; Assistant Professor
CAPTAIN DONALD L. NAGLEY ................................................................. Aerospace Studies
B.A., Washington State University, 1963; Assistant Professor
TSGT. JIMMY D. BAUM ................................................................. Aerospace Studies
Sergeant Major
SSGT. LAWRENCE LEWIS ................................................................. Aerospace Studies
Cadet Records Clerk
SSGT. ARTHUR L. TOWNSEND, JR. ................................................................. Aerospace Studies
Cadet Records NCO
ADMINISTRATIVE STAFF

1969-1970

Philip Milo Bail, Ph.D., LL.D. .................................................. President Emeritus
Paul D. Borge, M.A. .............................................................. Director, Radio-TV Dept.
Ralph H. Bradley, B.S. ............................................................ Director, Office of Information
Buford Byars ................................................................. Coordinator, Data Processing
Elton S. Carter, Ph.D. ............................................................ Dean, The Graduate College
Steven G. Cox, Ph.D. ............................................................. Director of Testing
Archie Dalton, B.G.S. ............................................................ Program Coordinator Division of Community Services
Ralph H. Bradley, B.S. ............................................................ University Nurse
Buford Byars ................................................................. University Social Director
Elton S. Carter, Ph.D. ............................................................ Director, Conferences and Workshops
William Gerbracht, B.A. ....................................................... Director, Student Aid
Fred S. Gerardi, B.A. ............................................................. Assistant Dean of Student Personnel
Carol Graham ................................................................. Manager, Food Services
Gordon D. Hansen, M.A. ....................................................... Assistant Dean, College of Arts and Sciences
Robert D. Harper, Ph.D. ........................................................ Dean, The College of Arts and Sciences
Yvonne Harsh, M.A. ............................................................... Director, Placement
Roger Hildreth, B.A. ............................................................. Chief Accountant
Elizabeth L. Hill, M.Ed. ......................................................... Associate Dean of Student Personnel
William Kaeser, B.A. ............................................................. Director, On-Campus Military Program
Harold Keefover, B.S. ............................................................ Director of Business and Finance
Paul C. Kennedy, Ed.D. ......................................................... Dean, The College of Education
Edwin E. Kinney, B.C.E. ......................................................... Director, Technical Institute
Bernard L. Koenig ............................................................. Manager, University Bookstore
Leroy Kozeny, B.S. .............................................................. Assistant Director of Business and Finance
John Allan Kreck, M.B.A. ....................................................... Assistant Registrar
Robert Krenzer ............................................................... Superintendent, Physical Plant
Anson D. Marston, D.Sc. ....................................................... Dean, The College of Engineering and Technology
Raymond B. Means, M.A. ...................................................... Associate Librarian
Thomas E. Moore, B.S. ......................................................... Assistant Dean of College of Continuing Studies, Division of Community Services
Kirk E. Naylor, Ed.D. ........................................................... President
James D. Ochsner, M.S. ......................................................... Purchasing Agent
B. Gale Oleson, Ph.D. .......................................................... Director of Counseling
Robert C. O'Reilly, Ed.D. ........................................... Associate Dean, Graduate College
John E. Pearson, A.B.A. ........................................... Manager, Stenographic Bureau
Larry R. Peterson, B.S. ........................................... Counselor, B.G.S.
Donald J. Pflasterer, M.Ed. ...................................... Dean of Student Personnel
Ronald L. Pullen, M.S. ........................................... Director, Audio-Visual Department
George R. Rachford, 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
Franklin V. Russell, M.A. ....................................... Director, Off-Campus Military Programs
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
.................................................. Director, Summer Sessions
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 offers work toward the degrees of Bachelor of Arts, 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-
mined by the Department of Foreign Languages and Literatures. 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.

(b) Two or two and one-half years of foreign language in high school, plus two semesters of college work in the same language.

(c) Three or three and one-half years of foreign language in high school, plus one semester of college work in the same language.

(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.

A student who presents more than 1 and less than 3 years of previous high school language study (or equivalent) and who places by the Placement Tests in an elementary (111) course will receive 2 rather than 4 hours credit toward graduation for that course only if in same language. A student who presents 3 or more years and places in a 111 or 112 course will receive 2 rather than 4 hours credit for both 111 and 112 courses. Succeeding courses will receive full credit. If the time lapse between the previous language study and the semester in which he will continue the language in college is 5 years or more, he will receive full credit for all language courses taken.

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, 205, 206, 335, 407, 445, 455, 465, 475, and 495. Journalism 215, 216, 101, 303, 327.

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 AND BACHELOR OF MUSIC DEGREES**

Candidates for the degrees of Bachelor of Fine Arts or Bachelor of Music 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 or Bachelor of Music 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, Adviser

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, Adviser

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**

<table>
<thead>
<tr>
<th>First Semester</th>
<th>First Year</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Math. 195 (Calculus I)</em></td>
<td>5</td>
<td>Math. 196 (Calculus II)</td>
</tr>
<tr>
<td>Chem. 110 (General)</td>
<td>4</td>
<td>Chem. 120 (General)</td>
</tr>
<tr>
<td>English Composition</td>
<td>3</td>
<td>English Composition</td>
</tr>
<tr>
<td>Electives</td>
<td>3-5</td>
<td>Electives</td>
</tr>
<tr>
<td><strong>15-17</strong></td>
<td></td>
<td><strong>15-16</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SECOND YEAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biol. 175 (Zoology)</td>
</tr>
<tr>
<td>Chem. 213 (Organic)</td>
</tr>
<tr>
<td>English</td>
</tr>
<tr>
<td>Electives</td>
</tr>
<tr>
<td><strong>15-17</strong></td>
</tr>
</tbody>
</table>

* Students with insufficient background in high school mathematics must precede calculus with college algebra and/or trigonometry (Math. 111, 112).
### THIRD YEAR

<table>
<thead>
<tr>
<th>Subject</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physics 211 (General)</td>
<td>5</td>
</tr>
<tr>
<td><strong>Chem. 230 (Analytical)</strong></td>
<td>4</td>
</tr>
<tr>
<td>Electives</td>
<td>6-8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>15-17</td>
</tr>
</tbody>
</table>

### FOURTH YEAR

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

### MEDICAL TECHNOLOGY PROGRAM

**MR. BORGMAN, Adviser**

The University of Nebraska at Omaha, through the College of Arts and Sciences 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:

#### FIRST YEAR

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chem. 110</td>
<td>4</td>
</tr>
<tr>
<td>Biol. 102, Biology</td>
<td>5</td>
</tr>
<tr>
<td>Engl. 109 or 111</td>
<td>3</td>
</tr>
<tr>
<td>Math 111</td>
<td>3</td>
</tr>
<tr>
<td>Med. Tech. 101, Intro. to Med. Tech.</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>16</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second Semester</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chem. 120</td>
<td>4</td>
</tr>
<tr>
<td>Biol. 175, Zoology</td>
<td>5</td>
</tr>
<tr>
<td>Engl. 111 or 112</td>
<td>3</td>
</tr>
<tr>
<td>Psych. 101</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>15</td>
</tr>
</tbody>
</table>

#### SECOND YEAR

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chem. 102</td>
<td>5</td>
</tr>
<tr>
<td>Soc. Sci. (Elective)</td>
<td>3</td>
</tr>
<tr>
<td>Biol. 244, Microbiology</td>
<td>4</td>
</tr>
<tr>
<td>Biol. 145, Botany</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>17</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second Semester</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chem. 202</td>
<td>4</td>
</tr>
<tr>
<td>Soc. Sci.</td>
<td>3</td>
</tr>
<tr>
<td>Biol. 275, Phys. &amp; Anat.</td>
<td>5</td>
</tr>
<tr>
<td>Biol. Sci. (Elective)</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>15</td>
</tr>
</tbody>
</table>

#### THIRD YEAR

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Humanities</td>
<td>3</td>
</tr>
<tr>
<td>Biol. Sci. (Elective)</td>
<td>4</td>
</tr>
<tr>
<td>*Electives</td>
<td>9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>16</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second Semester</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Humanities</td>
<td>3</td>
</tr>
<tr>
<td>Biol. Sci. (Elective)</td>
<td>4</td>
</tr>
<tr>
<td>*Electives</td>
<td>9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>16</td>
</tr>
</tbody>
</table>

** Required by many medical colleges.

* Physics 111, 112 strongly recommended.
MEDICAL TECHNOLOGY PROGRAM

101 Introduction to Medical Technology  (I) 1 hour
Aims and career opportunities in Medical Technology.

GENERAL SCIENCE
Advisers: BUSCH, MARQUARDT, McMILLAN

A major in general science consists of Chemistry 110-120, Physics 111-112 or 211-212, Mathematics 143-153 or Calculus I; Biology 102 and 145 or 175, Geology 117, plus 12-14 credit hours of advanced courses to attain a total of 42-44 hours of credit in the natural sciences.

A teaching field consists of Chemistry 110-120, Physics 111-112 or 211-212, Geology 117, Biology 102 and Biology 145 or 175.

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 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, GARTE, HIGBY

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

A Departmental major in art will lead to the Bachelor of Fine Arts Degree. The degree requires a total of 130 hours, with 66 hours in Art. Eighteen credit hours in the area of Art History and 48 hours in Studio. Freshman-Sophomore requirements are: Art 110, 111, 121, 122, 205, 206,
210, 211, 231, 241, 251, and 261. The junior-senior requirements are individually oriented in terms of the students interests and abilities. Students who wish to teach Art in Public Schools are required to complete a departmental major of 66 hours in Art which includes 18 hours in Art History, 9 hours in Art Education and 39 hours in Studio. The student must also complete the requirements for teacher certification.

HISTORY AND THEORY OF ART

201 Introduction to Art (I, II, S) 3 hours
A basic introduction to studio work with concentration in drawing, watercolor, and oil painting. Prereq: Non-Art Major.

205 Survey of Art History (I, II, S) 3 hours
A survey of the major developments in painting, sculpture, and architecture from Paleolithic cave paintings through the Middle Ages. Prereq: None.

206 Survey of Art History (I, II, S) 3 hours
A survey of the major developments in painting, sculpture, and architecture from the Renaissance to the 20th century. Prereq: 205.

325 Oriental Art History (I, II, S) 3 hours
A study of the major developments in the arts of India, China, and Japan, and the styles and objects of material culture which fell under their influence. Prereq: None.

335 Ancient Art History (I, S) 3 hours
A study of the art of ancient civilizations from 3000 B.C. to about 300 A.D. The course includes ancient Egypt, the Mesopotamian peoples, Pre-Greek and Greek Cultures, Etruscan, and The Romans. Prereq: 206 or Permission.

445 Medieval Art History (I) 3 hours
A study of painting, sculpture, and architecture of the Western World from 300 A.D. to about 1500 A.D. Prereq: 206 or Permission.

455 Renaissance Art History (I, S) 3 hours
A study of painting, sculpture, and architecture in the 15th and 16th centuries in Italy and the Northern countries. Prereq: 206 or Permission.

465 Baroque and Rococo Art History (I) 3 hours
A study of painting, sculpture, and architecture in the Western World during the 17th and 18th centuries. Prereq: 206 or Permission.

475 Modern Art History (II) 3 hours
A study of the art of the Western World in the 19th and 20th centuries. The course includes all of the major developments in painting, sculpture, and architecture in Europe and America. Prereq: 206 or Permission.
Senior Seminar (II) 3 hours
Individualized problems and discussion related to the history and theory of art. Prereq: Permission.

ART EDUCATION

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.

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

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

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

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

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

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

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

Watercolor Painting 3 hours
Covers watercolor techniques, beginning and advanced.

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.

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

Elementary Sculpture (I, II) 3 hours
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Time</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>241</td>
<td>Elementary Painting</td>
<td>(I, II, S) 3 hrs</td>
<td>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.</td>
</tr>
<tr>
<td>251</td>
<td>Elementary Printmaking</td>
<td>(I, II, S) 3 hrs</td>
<td>Fundamentals of relief and intaglio techniques. Prereq: 122 or Permission.</td>
</tr>
<tr>
<td>261</td>
<td>Elementary Ceramics</td>
<td>(I, II) 3 hrs</td>
<td>Basic methods of forming and decorating pottery, introduction to glaze composition, kiln loading, and firing. Prereq: 122 or Permission.</td>
</tr>
<tr>
<td>271</td>
<td>Lettering</td>
<td>(I, II) 3 hrs</td>
<td>Speedball, brush, and mechanical, working with many different kinds of materials to create letter forms. Prereq: 122 or Permission.</td>
</tr>
<tr>
<td>272</td>
<td>Layout</td>
<td>(I, II) 3 hrs</td>
<td>Working with design and lettering for commercial advertising. Prereq: 122 or Permission.</td>
</tr>
<tr>
<td>281</td>
<td>Jewelry</td>
<td>(I, II) 3 hrs</td>
<td>An introduction to basic jewelry making techniques in copper, enameling, brass, wood, and sterling silver with emphasis on creative design.</td>
</tr>
<tr>
<td>331</td>
<td>Intermediate Sculpture</td>
<td>(I, II) 3 hrs</td>
<td>Exploration and continuation of sculpture 231 with additional work in mold making, drip lead casting, and oxyacetylene welding. Prereq: 231.</td>
</tr>
<tr>
<td>341</td>
<td>Intermediate Painting</td>
<td>(I, II, S) 3 hrs</td>
<td>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.</td>
</tr>
<tr>
<td>361</td>
<td>Intermediate Ceramics</td>
<td>(I, II) 3 hrs</td>
<td>Basic methods of forming pottery on the potter's wheel. Continuation of glaze composition, further development in design and decoration of pottery. Prereq: 261.</td>
</tr>
<tr>
<td>371</td>
<td>Illustration I</td>
<td>(I) 3 hrs</td>
<td>Work in Black and White with techniques covering Commercial Illustration. Prereq: 272.</td>
</tr>
</tbody>
</table>
431 **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.

441 **Advanced Painting** (I, II, S) 3 hours
Practical instruction in oil painting and related media. 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.

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

461 **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.

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

481-482 **Technical Problems** (I, II, S) Each 3 hours
Advanced and individual problems related to the student's area of studio concentration. Prereq: Permission.

491 **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, LUNT, INGHAM;
ASSISTANT PROFESSORS SHARPE, SUTHERLAND;
INSTRUCTOR ROGERS

A departmental or education major in biology requires credit in: Biology 102, 145, 175, 214, 334, 414, 423, and 12-14 hours of biology electives. Chemistry 110-120 and 213-214 or 101, 102 and 202; Physics 102, or 111-112, or 211-212. Mathematics 195 and Psychology 213 are strongly recommended.

A teaching field consists of Biology 102, 145, 175, and 9 hours of biology electives. Chemistry 110-120 or 101, 102.

For the requirements of the General Science major see page 00.

*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: Biology 102 or advanced placement.

* A student may be exempted from Biology 102 by achieving a suitable examination score as determined by the Department of Biology.
**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: Biology 102 or advanced placement.

**Genetics**

(I, II) 4 hours
Facts and theories of heredity and laboratory practice in interpretation. Prereq: Biology 102, 145, or 175.

**The Biology of Microorganisms**

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

**Physiology and Anatomy of Man**

(I, II, S) 5 hours

**Comparative Anatomy of Vertebrates**

(I, II) 5 hours
The skeletal, muscular, digestive, respiratory, circulatory, endocrine, urogenital, nervous systems and reproductive. Prereq: Biology 175.

**Undergraduate Seminar in Biology**

(I, II) 1 hour
A study of current and past research in any of the divisions of biology as determined by current interest and desirability. Prereq: Biology major or minor.

**Biological Materials and Laboratory Procedures**

(I, II) 2 hours
Experiences in assembling materials and equipment necessary to conduct laboratory exercises in biology. Special emphasis is given to the use of materials and equipment to be used in biology projects and research. Prereq: Biology major or permission. Biology 145, 175.

**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.

**Ecology**

(I, S) 4 hours
The study of the behavior of whole organisms and groups of organisms in relation to their total living and non-living environment. Prereq: Biology 145, 175; Junior-Senior.

**Morphology of Lower Plants**

(I) 4 hours
A lecture and laboratory course which covers the ecology, morphology, and evolutionary trends of algae, fungi, and bryophytes. Prereq: Biology 145; Junior-Senior.

**Flora of the Great Plains**

(I, S) 3 hours
The classification, identification, and recognition of common vascular plants, including weeds, ornamentals, and indigenous plants, found in the Great Plains. Prereq: Biology 145; Jr.-Sr.
354 Morphology of Higher Plants (II) 4 hours
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.

363 Plant Anatomy (I) 3 hours
A study of cells, tissues, and organs of vascular plants with particular emphasis on internal structure of seed plants. Prereq: Biology 145; Junior-Senior.

373 Fauna of the Great Plains (II, S) 3 hours
A survey of the common animal groups found in the Great Plains, including their evolution, ecology, distribution and specific adaptations to the environment of the temperate North American grasslands. Prereq: Biology 145, Biology 175. Junior-Senior.

374 Histology (I) 4 hours
The microscopic anatomy of tissues and organs, their adaptations, and functional significance. Prereq: Biology 175, and a course in vertebrate anatomy. Junior-Senior.

384 Embryology (II) 4 hours
An intensive study of the embryology and development of the vertebrate animal, particularly the human, from gametogenesis through organogenesis as revealed by a study of selected vertebrate embryos and fetuses. Prereq: Biology 175 and a course in vertebrate anatomy; Junior-Senior.

402 Problems and Projects in Biology (I, II, S) 2 hours
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.

413 Limology (II, S) 3 hours
A study of the physical, chemical, and biotic relationships that serve to establish and maintain plant and animal communities in a fresh water environment. Prereq: Biol. 145, 175, and organic chemistry. Junior-Senior.

414 Cellular Biology (I) 4 hours
This course is a comprehensive study of the structure and function of plant and animal cells. Prereq: Biology 145, 175 and 214; organic chemistry and physics. Junior-Senior.

423 Organic Evolution (II) 3 hours
A study of organic evolution in terms of evidences which support the theory and the mechanisms involved in the process. Prereq: Biology 214. Junior-Senior.

444 Plant Physiology (II) 4 hours
A study of plant processes and functions with particular emphasis on photosynthesis, respiration, mineral nutrition, and morphogenesis. Prereq: One year of botany; chemistry 214 or 102; and physics. Junior-Senior.
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) 3 hours
The nature of microorganisms, their life processes, their biological and economical significance. Prereq: Biology 145; Chemistry 214 or 102. Junior-Senior.

474 **Animal Physiology** (II) 4 hours
This course is a comprehensive study of the functions of the animal body systems. Prereq: Biology 175, vertebrate anatomy, organic chemistry, and physics. Junior-Senior.

478 **Vertebrate Zoology** (I) 4 hours
A study of the general biology of the subphylum Vertebrata including the morphology, anatomy, physiology and ecology of vertebrate representatives. Prereq: Biol. 175; 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.

488 **Invertebrate Zoology** (II) 4 hours
A field-oriented course emphasizing the taxonomy and natural history of the invertebrate animals. Prereq: Biology 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.

498 **Ornithology** (II, S) 4 hours
An introduction to the general biology of birds, including their anatomy, physiology, behavior, ecology, classification and identification with emphasis on North American groups. Prereq: Biology 175. Junior-Senior.

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.

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.

516 **Experimental Genetics** (II) 3 hours
Lecture and laboratory involving experimentation with organisms such as *Drosophila* spp., *Neurospora* spp., *E. Coli* and T. phage. Prereq: Biology 214.
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.

For the requirements of the General Science major see page 00.

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

503 **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 PROFESSORS TURNER, AND SNYDER;  
ASSISTANT PROFESSORS CONNELL AND STOLEN;  
INSTRUCTORS KIRBY, TUSH AND WEST

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

- **201-2**  
  Principles of Economics  
  6 hours credit

- **320**  
  Economic Theory—Micro  
  3 hours credit

- **322**  
  Economic Theory—Macro  
  3 hours credit

- **345**  
  Money and Banking  
  3 hours credit

- **313**  
  Statistics (See Bus. Adm.)  
  3 hours credit

- **300 or 400-level**  
  Economic Electives  
  6 hours credit

- **400-level**  
  Economic Electives  
  6 hours credit

**Total**  
30

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.

- **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.

*Courses marked with an asterisk are to be given priority by students majoring in urban studies.
<table>
<thead>
<tr>
<th>Course Title</th>
<th>(I, II, S)</th>
<th>Hours</th>
<th>Description</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>201 Principles of Economics</strong></td>
<td></td>
<td>3</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>
<td></td>
</tr>
<tr>
<td><strong>202 Principles of Economics</strong></td>
<td></td>
<td>3</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>
<td></td>
</tr>
<tr>
<td><strong>311 American Economic History to 1865</strong> (same as Hist. 311)</td>
<td>(I)</td>
<td>3</td>
<td>A study of our agricultural, commercial, financial, and industrial society, from Colonial times through the Civil War. Prereq: Econ 201, 202.</td>
<td></td>
</tr>
<tr>
<td><strong>312 American Economic History Since 1865</strong> (same as Hist. 312)</td>
<td>(II)</td>
<td>3</td>
<td>A continuation of Econ 311 from the Civil War to the present. Prereq: Econ 201, 202.</td>
<td></td>
</tr>
<tr>
<td><strong>313 Economic Geography</strong> (same as Geog. 313)</td>
<td></td>
<td>3</td>
<td>An intensive study of commercial production in agriculture, fishing, forestry, mining, and manufacturing as related to geographic factors. Prereq: Econ 201, 202.</td>
<td></td>
</tr>
<tr>
<td><strong>322 Economic Theory: Macro</strong></td>
<td></td>
<td>3</td>
<td>Macroeconomics concerns itself with the output, income and growth of the U.S. Economy as a totality. Prereq: Econ 201, 202.</td>
<td></td>
</tr>
<tr>
<td><strong>335 Economic Systems</strong></td>
<td>(II)</td>
<td>3</td>
<td>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>
<td></td>
</tr>
<tr>
<td><strong>345 Money and Banking</strong></td>
<td></td>
<td>3</td>
<td>A banking approach to the fundamentals of the monetary and banking system. Prereq: Econ 201, 202.</td>
<td></td>
</tr>
<tr>
<td><strong>351 Economic History of Europe to 1760</strong> (same as Hist. 351)</td>
<td>(I)</td>
<td>3</td>
<td>A survey of agricultural, commercial, financial, and industrial European society, from ancient Crete to 1760. Prereq: Econ 201, 202.</td>
<td></td>
</tr>
<tr>
<td><strong>352 Economic History of Europe Since 1760</strong> (same as Hist. 352)</td>
<td>(II)</td>
<td>3</td>
<td>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>
<td></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.

412 **Urban Geography (Same as Geography 412)**  
3 hours

418 **Collective Bargaining**  
(I, II) 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: Elementary statistics, Econ 201 and 202, Math 195, 196, 211 or equivalent.

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. The emphasis is prior to the twentieth century. Prereq: Econ 320.

437 **Contemporary Economic Philosophy**  
(II) 3 hours  
A continuation of Economics 436 with emphasis upon contemporary writers and thinkers. Prereq: Econ 322.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Crs.</th>
<th>Description</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>443</td>
<td>Geography of Manufacturing (same as Geog. 443)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>445</td>
<td>Monetary Theory and Policy</td>
<td>(I) 3</td>
<td>The role of money in the stabilization at high levels, production, employment, income and prices. Emphasis is on contemporary problems. Prereq: Econ 345.</td>
<td></td>
</tr>
<tr>
<td>446</td>
<td>Economics of Commercial Banking</td>
<td>(II ao) 3</td>
<td>The economics of the individual commercial bank; banking laws; organization; management of reserve; lending and investing procedures and policies. Prereq: Econ 345.</td>
<td></td>
</tr>
<tr>
<td>446</td>
<td>State and Local Finance</td>
<td>(II ao) 3</td>
<td>Economic resource allocation problems of state and local government, with particular reference to Nebraska and Omaha. Prereq: Econ 201 and 202.</td>
<td></td>
</tr>
<tr>
<td>456</td>
<td>Economic Development</td>
<td>(II) 3</td>
<td>Problems relating to early stages of economic development; investment priorities, mobilizing savings and policies and programs are studied. Prereq: Econ 201-202.</td>
<td></td>
</tr>
<tr>
<td>466</td>
<td>Managerial Economics</td>
<td>(II) 3</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>491</td>
<td>Internship in Local Government</td>
<td>(same as Pol. Sci. 491)</td>
<td>Credit 2 hours per sem, to a max. of 6</td>
<td></td>
</tr>
<tr>
<td>495</td>
<td>Special Topics</td>
<td>(I, II, S) 1-3</td>
<td>Individual investigations of special problems in economics for majors. Prereq: Permission of Department Head.</td>
<td></td>
</tr>
<tr>
<td>496</td>
<td>Special Topics (same as Econ 495)</td>
<td>(I, II, S) 1-3</td>
<td>Prereq: Permission of Department Head.</td>
<td></td>
</tr>
<tr>
<td>505</td>
<td>Economic Education</td>
<td>(I) 3</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>506</td>
<td>Economic Education</td>
<td>(II) 3</td>
<td>A continuation of Econ. 505.</td>
<td></td>
</tr>
<tr>
<td>507</td>
<td>Economic Education Institute</td>
<td>(S) 3</td>
<td>A study and an in depth examination of selected economic topics and their relation to citizens, students, teachers, community and society. Prereq: Permission by Director of the Institute.</td>
<td></td>
</tr>
</tbody>
</table>
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.

Seminar in Micro Theory (I, II, S) 3 hours
This course is required of graduate Economics and Business students. Familiarization with quantitative tools in micro economic analysis, including the recent development in the theory of the firm and operations research, will be investigated. Prereq: Econ 320.

Macroeconomic Theory (I, II, S) 3 hours
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.

Econometrics (II) 3 hours
The study and application of statistical and mathematical techniques in economic research. Prereq: Econ 430 or consent of Instructor.

Seminar in American Economic History to 1865 (I) 3 hours
(See History)

Seminar in American Economic History Since 1865 (II) 3 hours
(See History)

Seminar in Money and Banking (II) 3 hours
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.

Seminar in International Economics (I ae) 3 hours
Original research and critique of current issues in international economic theory, policy, and institutions. Prereq: Econ 365 or 466, or Permission of Instructor.

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: Under-
graduate 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.)

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 Geography, Political Science and Sociology.)

585-586 **Urban Economics**  
(I, II) 3 hours each

An examination of the theoretical basis for the analysis of urban economic problems with emphasis upon the policy alternatives applicable toward their possible solution. Separate credit may be received for each course. Prereq: At least 6 hours of upper division course work in economics or permission of the Instructor.

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, FISHER, GRIESEL,  
HALGARD, HUNDTOFTE, LEAVITT, McLellan, NICKLIN,  
QUERY, SMITH, THOMPSON;  
ASSISTANT INSTRUCTORS RAABE, 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

* English 217 substitutes for English 231.  
* English 219 substitutes for English 245.
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  
(h) English 353

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  
(h) English 353

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

* English 217 substitutes for English 231.  
* English 219 substitutes for English 245.
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.

205 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.

217 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)

219 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)

225 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.

227 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.

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

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

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

†Credit not allowable toward degrees in the College of Arts and Sciences.
245 **American Literature**  (I, II, S) 3 hours
A survey of American literature to the Civil War. Prereq: English 112 or proficiency.

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

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

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

283 **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 structural and transformational grammar in comparison with traditional grammar. 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**  (I) 3 hours
Advanced course in fiction writing. Prereq: English 331 or permission of the instructor.

422 **Creative Writing**  (II) 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.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>440</td>
<td>Eighteenth Century Literature</td>
<td>3 hours</td>
<td>Readings in the major authors of the Age of Pope and the Age of Johnson. Prereq: English 231 or 232.</td>
</tr>
<tr>
<td>448</td>
<td>Seventeenth Century Literature</td>
<td>3 hours</td>
<td>English poetry and prose of the seventeenth century—especially Donne and Milton—and the drama of the Restoration. Prereq: English 231.</td>
</tr>
<tr>
<td>450</td>
<td>English Drama Before 1642</td>
<td>(II) 3 hours</td>
<td>A study of the development of the English drama, exclusive of Shakespeare, from the beginnings to 1642. Prereq: English 231.</td>
</tr>
<tr>
<td>458</td>
<td>Linguistics</td>
<td>(S) 3 hours</td>
<td>A study of the phonology, morphology, and syntax of modern English, with particular emphasis on current research in the theory of grammars. Prereq: Permission of instructor.</td>
</tr>
<tr>
<td>460</td>
<td>Shakespeare</td>
<td>(I, II) 3 hours</td>
<td>A critical study of twelve major plays of Shakespeare. Prereq: English 231.</td>
</tr>
<tr>
<td>468</td>
<td>History of the English Language</td>
<td>(I, II) 3 hours</td>
<td>A study of the structural development of the English language. Prereq: English 231.</td>
</tr>
<tr>
<td>472</td>
<td>Medieval English Literature</td>
<td>3 hours</td>
<td>A survey of the principal writings in English, excluding those of Chaucer, from 1100 to 1500. Prereq: English 231.</td>
</tr>
<tr>
<td>481</td>
<td>Literature of the Romantic Period</td>
<td>3 hours</td>
<td>Poetry and prose (excluding the novel) of England from 1798 to 1830. Prereq: English 232.</td>
</tr>
<tr>
<td>482</td>
<td>Literature of the Victorian Period</td>
<td>(I) 3 hours</td>
<td>English poetry and prose (excluding the novel) from 1830 to 1900. Prereq: English 232.</td>
</tr>
<tr>
<td>497</td>
<td>The American Novel</td>
<td>(II) 3 hours</td>
<td>A critical and historical study of the work of twelve major American novelists of the nineteenth and twentieth centuries. Prereq: English 246.</td>
</tr>
<tr>
<td>498</td>
<td>The American Drama</td>
<td>(I) 3 hours</td>
<td>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.</td>
</tr>
<tr>
<td>501</td>
<td>Introduction to Literary Research</td>
<td>(I) 3 hours</td>
<td>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.</td>
</tr>
</tbody>
</table>
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.

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.

Seminar: The English Renaissance 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.

Seminar: Victorian Literature 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.

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.

Seminar: Medieval Literature 3 hours
Studies in the transitions between English literature of the Age of Johnson and that of the Age of Wordsworth. Prereq: Graduate standing.

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

Seminar: Chaucer 3 hours
An analysis of the selected works of Chaucer, his sources, and analogues. Prereq: Graduate standing.

Thesis Each 3 hours
Prereq: Graduate standing.

FOREIGN LANGUAGES AND LITERATURES
PROFESSOR MOST (Head);
INSTRUCTORS BONNIN, CHERICA, DOSENOVICH, ELLER, GARCIA, HERMANN, MOORE, MORENO, SOUKUP, THILL, THOMPSON, VOGT;
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, and German 431 and 432 for all German majors. Spanish majors may choose a concentration in the Spanish area or the Spanish-American area. For concentration in the Spanish area, Spanish 317, 318 and 341 are required; for concentration in the Spanish-American area, Spanish 321, 322 and 342 are required. Students contemplating graduate studies are advised, however, that competence in both areas is generally required for admission to graduate study.

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. A second teaching field is required by the College of Education for teacher certification and a minor field is always required for graduate study.

Students who plan to enter the teacher certification program are required to take all the courses required of majors, along with the specific courses in History recommended by the Department.

In the last semester of the Senior year, all majors are required to take the MLA Foreign Language Proficiency Tests for Advanced Students and Teachers.

All courses in the major program (above 212) must be passed with a grade of “C” or better.

**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, Mérimée, 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, Molière, 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 **Pro-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.

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

400 **Independent Study** (I, II) 1-3 hours
Guided independent study and research under tutorial supervision. Prereq: 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.

439 **German Novel** (I) 3 hours
Survey of the German novel from its beginning to the twentieth century. Prereq: 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.

450 **German Literature of the Eighteenth Century** (I) 3 hours
A study of representative authors of the Enlightenment, Storm and Stress, and German Classicism: Lessing, Herder, Schiller, and Goethe. Prereq: Permission of instructor.

458 **Bibliography and Methodology** (II) 1-2 hours
An introduction to the basic bibliography and methodology of German literature and language. Prereq: Permission of instructor.

460 **Pro-Seminar in German Literature** (II) 1-3 hours
A detailed study of narrower phases of German literature, language or culture. 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.

317-318 **Survey of Spanish Literature** (I, II) Each 3 hours
317: Introduction to the principal authors and works of Spanish literature from El Cid to the eighteenth century. 318: Major Spanish writers and works of the eighteenth, nineteenth, and twentieth centuries. Prereq: 317: 212 or permission of instructor. 318: 317 or permission of instructor.

321-322 **Survey of Spanish American Literature** (I, II) Each 3 hours
321: Spanish American literature from the Colonial Period to Modernism. 322: From Modernism to contemporary works and writers. Prereq: 321: 212 or permission of instructor. 322: 321 or permission of instructor.

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** (I) 3 hours
Ideologies, techniques, trends, and influences of the major Spanish dramatists of the nineteenth and twentieth centuries. Prereq: 318 or permission of instructor.

356 **Modern Novel of Spain** (II) 3 hours
Analytical study of the representative Spanish novelists of the nineteenth and twentieth centuries from P.A. de Alarcón to Cela. Prereq: 318 or permission of instructor.

410 **Theater of the Golden Age** (I) 3 hours
Foremost Spanish dramatists and plays of the sixteenth and seventeenth centuries, with emphasis on Lope de Vega, Tirso de Molina, and Calderón de la Barca. Prereq: 317 or permission of instructor.

411 **Novel of the Golden Age** (II) 3 hours
Study of the prose masterpieces of the sixteen and seventeenth centuries, including such works as Lazarillo de Tormes, La Celestina, and Don Quixote. Prereq: 317 or permission of instructor.
416 **Spanish American Literature of the Twentieth Century**  (I) 3 hours
Critical and analytical study of the foremost Spanish American
dramatists, poets, and essayists from Modernism to the present.
Prereq: 322 or permission of instructor.

420 **Spanish American Novel**  (II) 3 hours
Study of representative novels and novelists of the nineteenth
and twentieth centuries, with emphasis on contemporary auth-
ors. Prereq: 322 or permission of instructor.

424 **Generation of 1898**  (II) 3 hours
Examination of the ideology, philosophy, and literary techniques
of Unamuno, Martinez Ruiz, Valle-Inclán, Baroja, and Antonio
Machado. Prereq: 318 or permission of instructor.

435 **Spanish American Short Story**  (II) 3 hours
Representative stories of the nineteenth and twentieth centuries,
from Romanticism to current production. Prereq: 321 and 322,
or permission of instructor.

460 **Pro-Seminar**  (I) 1-3 hours
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, VOGEL; 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.

- **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.

For the requirements of the General Science major see page 00.

* 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>Description</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>Fundamentals of Geography</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>104</td>
<td>Survey of Physical Geography</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>117</td>
<td>Physical Geology</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>118</td>
<td>Historical Geology</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>200</td>
<td>Human and Cultural Geography</td>
<td>Differences between developed and underdeveloped countries with regard to culture, health and diet, business and production. Prereq: None.</td>
<td></td>
</tr>
<tr>
<td>203</td>
<td>General Physiography</td>
<td>An introductory course in the study of landforms, with emphasis on interpretation of surface features of the earth as represented on topographic maps.</td>
<td></td>
</tr>
<tr>
<td>273</td>
<td>Geography of Latin America</td>
<td>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: None.</td>
<td></td>
</tr>
<tr>
<td>283</td>
<td>Asia</td>
<td>A systematic approach to the geography of Asia with emphasis on landforms, climate and biogeography. Prereq: None.</td>
<td></td>
</tr>
<tr>
<td>303</td>
<td>Africa</td>
<td>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.</td>
<td></td>
</tr>
</tbody>
</table>
313 Economic Geography (Same as Econ 313) (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 or Geog. 313 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 (Same as Econ. 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.
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.

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).

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.

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.

Independent Regional Research 1 hour
(May be repeated to a maximum of 3 hours.) Prereq: Permission of Department Head.

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

All 500 and 600 Courses Require Departmental Permission

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.

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.

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.

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 geography, 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.
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, Political Science, and Sociology.)

581 *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.

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, Political Science, and Sociology.)

585-586 *Urban Economics* Each 3 hours
An examination of the theoretical basis for the analysis of urban economic problems with emphasis upon the policy alternatives applicable toward their possible solution. Separate credit may be received for each course. Prereq: At least 6 hours of upper division course work in economics or permission.

591-592 *General Seminar* Each 1 hour
Review of current research by geographers including national and international associations and initial thesis proposal.

598-599 *Urban-Regional Research* Each 3 hours
Used in candidates for the Master of Science Degree in economics in lieu of a Master's thesis. A study consisting of urban economic problems, employing research techniques. Students do independent research, consulting with adviser, and submitting completed report to a departmental committee. Prereq: Graduate enrollment in the Master of Science in economics program and acceptance by a graduate adviser.

601-602 *Thesis* Each 3 hours
Independent research project written under the supervision of an adviser.

* Cross listed in economics.
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 English history may present English 231 (or 217) 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.

241 Ethnic Groups in American History to 1865 (I) 3 hours
A history of the arrival, association, conflict and development of the American Indian, the African, peoples of the Spanish Borderlands, the Asian and the new Immigrant in American society to 1865.

242 Ethnic Groups in American History Since 1865 (II) 3 hours
A history of the association, conflict and development of the American Indian, the African, the peoples of the Spanish Borderlands, the Asian, and the new Immigrant in American society since 1865.

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
<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>262</td>
<td>English History: The Expansion of England</td>
<td>(II, S)</td>
<td>3</td>
<td>The expansion of English society and the development and spread of British institutions. Prereq: Hist. 261 or permission of instructor.</td>
</tr>
<tr>
<td>271</td>
<td>Russian History: To 1855</td>
<td>(I, 68-69)</td>
<td>3</td>
<td>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.</td>
</tr>
<tr>
<td>272</td>
<td>Russian History: Imperial Russia and the Soviet Union Since 1855</td>
<td>(II, 68-69)</td>
<td>3</td>
<td>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.</td>
</tr>
<tr>
<td>281</td>
<td>The Far East: Traditional and Modern China</td>
<td>(I)</td>
<td>3</td>
<td>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.</td>
</tr>
<tr>
<td>282</td>
<td>The Far East: Modern Japan and Southeast Asia</td>
<td>(II)</td>
<td>3</td>
<td>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.</td>
</tr>
<tr>
<td>311</td>
<td>American Economic History to 1865 (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>American Economic History Since 1865 (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>American Colonial History</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>The American Frontier: 1840-1900</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>
</tbody>
</table>
333 Diplomatic History of the United States to 1900 (I) 3 hours

334 Diplomatic History of the United States Since 1900 (II) 3 hours
A study of the foreign relations of the United States since 1900. Prereq: Hist. 333 or permission of instructor.

341 History of Nebraska (II) 3 hours
From the earliest known records to the present. Prereq: Hist. 111-112.

344 History of the South (II) 3 hours
Economic, social, and political development of the South as a region. Prereq: Hist. 111-112.

351 Economic History of Europe to 1760 (Same as Econ 351) (I) 3 hours
A survey of European economic development to 1760. Prereq: Hist. 151-152 or Econ. 201-202.

352 Economic History of Europe Since 1760 (Same as Econ 352) (II) 3 hours
A survey of European economic development from 1760 to the present. Prereq: Hist. 151-152 or Econ. 201-202.

353 Medieval Europe, 284-1095 (I) 3 hours
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.

354 Medieval Europe, 1095-1492 (II) 3 hours
Religious, social, economic, philosophic and institutional developments 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.
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.

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.

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.

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.

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.

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.

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.

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.

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.
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).

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

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).

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).

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).

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.

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).

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)

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)
Seminar in Contemporary British History (II)

Thesis (II) Each 3 hours

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, 353, 354, 355 and 364.

JOURNALISM

ASSOCIATE PROFESSOR COWDIN (Head); ASSISTANT PROFESSOR FRANCKE; INSTRUCTORS McCARTNEY, SIMPSON, WITTEKIND

A major in the Department of Journalism consists of a minimum of 30 hours, including the following courses with a grade of "C" or above: Journalism 215, 216, 301, 303, 327, 341, 420, and 490 or 491. Also required are 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 101, 215, 216, 301, 311, 341, and two semesters of Applied Journalism.

101 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.

215 News Writing and Reporting (I) 3 hours
Theory and practice in writing and reporting for newspapers. Prereq: Engl. 111 and typing ability, or permission.

216 News Editing (II, S) 3 hours
Evaluation, editing and production of news for print media. Also headline writing, layout, and typography.

*230-231 Applied Journalism (I, II) 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. 215 and/or permission.

* Total credits in Applied Journalism may not exceed six hours.
301 **History of Mass Communications** (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.

303 **Radio and TV News Writing** (I, II) 3 hours
The theory, techniques and practices utilized in gathering, writing and editing news for broadcast journalism. Prereq: Journ. 215 or permission.

311 **Photography** (I, II, S) 3 hours
The theory, techniques and application of basic photographic operations of exposure, development and printing. Prereq: Sophomore Standing.

315 **Newsfilm and Documentaries** (I, II) 3 hours
Theories and techniques for filming and producing television newsfilm and documentaries. Prereq: Journ. 311 or permission.

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** (I) 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. 215 or permission.

327 **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. 215.

*330-331 **Applied Journalism** (I, II) Each 1 hour
See entry listed under 230-231. Prereq: Journ. 215 or permission.

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. 215 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: Mkt. 331 or permission.

420 **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.

*Total credits in Applied Journalism may not exceed six hours.*
423 Public Relations (I, 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 (II) 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.

435 Journalism Internship Program (I, II, S) 3 hours
Media experience under supervision. Prereq: Permission of department head.

443 World Communications (II, S) 3 hours
A comparative study of the mass communications systems of the world today. Prereq: Junior 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
PROFESSOR HAEDER (Head);
ASSOCIATE PROFESSOR RICE (Emeritus)
ASSISTANT PROFESSORS BASMAJI, BUCHALTER,
MALONEY, SMITH; STERN (Emeritus)
INSTRUCTORS CRAIG, DECKER, LARSEN, PARSONS,
SHARIEFF, TUECKE

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 on 400 level mathematics course. A student may include in the 18 hours as many as 6 hours of computer science courses beyond 230. 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.

*Total credits in Applied Journalism may not exceed six hours.
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 143 or equivalent.

322 **Advanced Programming Techniques** (I) 3 hours
The analysis and composition of advanced programs used with contemporary computers. Prereq: C.S. 170 or 230, Math 195, 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 196, 211, and C.S. 230.

430 **Linear Programming** (I) 3 hours
An introduction to linear programming and applications. Prereq: Computer Science 322 or equivalent.

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.

*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.

143 **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.

* Credit not allowable toward degrees in the College of Arts and Sciences.
153 **Introduction to Applied Probability and Statistics**  (I, II) 3 hours
An elementary introduction to the mathematical theory of probability with applications to statistical inference. Prereq: 143 or equivalent.

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

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 195 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 196, 211, and Junior Standing.

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.

451 **Theory of Numbers**  
3 hours  
Congruences, quadratic reciprocity, diophantine equations, continued fractions, and prime number distribution.
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 **Advanced Topics in Algebra I**

512 **Advanced Topics in 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 or Advanced Calculus.

525 **Partial Differential Equations** (II) 3 hours

526-527 **Functional Analysis** Each 3 hours
Normed linear spaces and operators, dual spaces, linear topological spaces, weak topologies, convex sets, Hilbert spaces, Banach spaces, spectral theory. Prereq: Math 427, 523, 562 or permission of instructor.

560 **Differential Geometry** (I) 3 hours
Differential manifolds, integral calculus on manifolds, lie groups, differential geometry of Euclidean space. Prereq: Math 423.

562-563 **Introductory Topology** Each 3 hours
Set theory, topological spaces, convergence, continuity, metric spaces and metrization, simplical homology theory. Prereq: Permission of instructor.

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.
The Bachelor of Music 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**  (II) 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  
Keyboard application of music theory for advanced pianists.  

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.

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 **Bandstracion**  
(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.
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.

Projects in Music  (I, II) Each 1-3 hours
Projects in research, composition and performance in music. Prereq: Permission.

MUSIC EDUCATION

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.

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.

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.

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 Music degree.

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.

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.

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 audition and 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.

PREPARATORY

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  
(II, S) 1 hour

113-114 Class Piano  
(I, II, S) each 1 hour

203-204 Intermediate Voice  
(I, II, S) Each 1 hour

Prereq: Music 104 or permission of instructor.
213-214 **Intermediate Piano** (I, II, S) Each 1 hour
Prereq: Music 114 or permission of instructor.

215-216 **Intermediate Brass** (I, II, S) Each 1 hour
Prereq: Music 116 or permission of instruction.

217-218 **Intermediate Strings** (I, II, S) Each 1 hour
Prereq: Music 118 or permission of instructor.

219-220 **Intermediate Woodwinds** (I, II, S) Each 1 hour
Prereq: Music 120 or permission of instructor.

**COLLEGIATE**

PIANO: to enter the four-year course in piano, the student should be able to play works of the following difficulty: (1) a composition by Bach, such as a prelude and fugue from the WELL TEMPERED CLAVIER or a suite; (2) an entire sonata by Beethoven, Haydn or Mozart; (3) a composition by a nineteenth century composer; (4) a work by a representative twentieth century composer; and (5) all major and minor scales and arpeggios, hands an octave apart.

131-132
231-232 **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
233-234 **Voice** (I, II, S) Each 1-2 hours
333-334
433-434

STRINGS: to enter the four-year course in Violin, Viola, Violincello and String Bass, the student should be able to play scales and arpeggios in at least two octaves, études and studies of intermediate difficulty; one or two movements of a classical sonata; concert: suitable to the student's advancement. An elementary knowledge of piano is recommended.

135-136
235-236 **Violin, Viola, Violincello, String Bass** (I, II, S) Each 1-2 hours
335-336
435-436

WOODWINDS AND BRASS: Required of all entering woodwind and brass majors: the fundamentals of good tone production, breath control and hand position; an elementary knowledge of major and minor scales and arpeggios; one or more solo numbers of good musical quality. An elementary knowledge of piano is recommended.
### REQUIREMENTS FOR THE BACHELOR OF MUSIC

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.

#### FIRST YEAR

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Music 111—Diatonic Harmony</strong></td>
<td><strong>Music 112—Diatonic Harmony</strong></td>
</tr>
<tr>
<td><strong>Music 121—Ear Training and Sight Singing</strong></td>
<td><strong>Music 122—Ear Training and Sight Singing</strong></td>
</tr>
<tr>
<td><strong>English</strong></td>
<td><strong>English</strong></td>
</tr>
<tr>
<td><strong>Physics 101</strong></td>
<td><strong>Biology 102</strong></td>
</tr>
<tr>
<td><strong>Applied Music</strong></td>
<td><strong>Applied Music</strong></td>
</tr>
<tr>
<td><strong>Music Laboratory</strong></td>
<td><strong>Music Laboratory</strong></td>
</tr>
<tr>
<td><strong>Music 211—Chromatic Harmony</strong></td>
<td><strong>Music 221—Chromatic Harmony</strong></td>
</tr>
<tr>
<td><strong>Music 222—Ear Training and Sight Singing</strong></td>
<td><strong>Music 222—Ear Training and Sight Singing</strong></td>
</tr>
<tr>
<td><strong>Music 226—Music Masterpieces</strong></td>
<td><strong>Humans elective</strong></td>
</tr>
<tr>
<td><strong>‘Education 208—Intro. to Tchg.</strong></td>
<td><strong>‘Mus. Ed. 251—Elem. Music Meth.</strong></td>
</tr>
<tr>
<td><strong>Applied Music</strong></td>
<td><strong>Applied Music</strong></td>
</tr>
<tr>
<td><strong>Music Laboratory</strong></td>
<td><strong>Music Laboratory</strong></td>
</tr>
<tr>
<td><strong>Foreign Language</strong></td>
<td><strong>Foreign Language</strong></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>Total</strong></td>
</tr>
</tbody>
</table>

#### SECOND YEAR

<table>
<thead>
<tr>
<th>Second Semester</th>
<th>First Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Music 212—Chromatic Harmony</strong></td>
<td><strong>Music 211—Chromatic Harmony</strong></td>
</tr>
<tr>
<td><strong>Music 222—Ear Training and Sight Singing</strong></td>
<td><strong>Music 222—Ear Training and Sight Singing</strong></td>
</tr>
<tr>
<td><strong>Humans elective</strong></td>
<td><strong>Humans elective</strong></td>
</tr>
<tr>
<td><strong>Applied Music</strong></td>
<td><strong>Applied Music</strong></td>
</tr>
<tr>
<td><strong>Music Laboratory</strong></td>
<td><strong>Music Laboratory</strong></td>
</tr>
<tr>
<td><strong>Foreign Language</strong></td>
<td><strong>Foreign Language</strong></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>Total</strong></td>
</tr>
</tbody>
</table>

#### THIRD YEAR

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Music 315—Music History</strong></td>
<td><strong>Music 316—Music History</strong></td>
</tr>
<tr>
<td><strong>‘Mus. Ed. 352—Sec. Music Meth.</strong></td>
<td><strong>‘Ed. 351—Tchg. in Sec. Schls.</strong></td>
</tr>
<tr>
<td><strong>Psychology 101</strong></td>
<td><strong>‘Ed. Psychology 351</strong></td>
</tr>
<tr>
<td><strong>‘Ed. 207—Hum. Grwth. and Dev.</strong></td>
<td><strong>Humans elective</strong></td>
</tr>
<tr>
<td><strong>Applied Music</strong></td>
<td><strong>Applied Music</strong></td>
</tr>
<tr>
<td><strong>Music Laboratory</strong></td>
<td><strong>Music Laboratory</strong></td>
</tr>
<tr>
<td><strong>Choral Techniques</strong></td>
<td><strong>Choral Techniques</strong></td>
</tr>
<tr>
<td><strong>Mus. 301—Fund. of Conduct.</strong></td>
<td><strong>Mus. 301—Fund. of Conduct.</strong></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>Total</strong></td>
</tr>
</tbody>
</table>
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 Bachelor of Music with teacher certification, it may be necessary to do work in addition to the eight semesters normally required.

**PHILOSOPHY AND RELIGION**

PROFESSOR ANDERBERG (Head); ASSISTANT PROFESSORS PALMER, STOVER, WILLARD; INSTRUCTORS BLUM, MOLOFF

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 Judaean-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.
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.

For the requirements of the General Science major see page 00.

*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.

102 Introduction To Physics (I and/or II 5 hours
A terminal one semester course covering major topics in mechanics, heat, sound, electricity, magnetism, light, and modern physics. Designed particularly for non-science liberal arts majors or others for whom such a one semester coverage might be deemed adequate. (Not applicable toward degrees in chemistry, physics, or engineering.) Prereq: H.S. algebra or equivalent.

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 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.

* Not open to students who have completed courses in both high school chemistry and physics with a grade of "C" or better.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>301</td>
<td>Elements of Electronics</td>
<td>4 hours</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>302</td>
<td>Optics</td>
<td>4 hours</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>335</td>
<td>Atmospheric Physics</td>
<td>3 hours</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>345</td>
<td>Physical Mechanics</td>
<td>3 hours</td>
<td>Statics and dynamics of particles and rigid bodies including the equations of LaGrange and Hamilton. Prereq: Calculus and General Physics 112 or 212.</td>
<td></td>
</tr>
<tr>
<td>375-376</td>
<td>Electricity and Magnetism</td>
<td>(I, II)</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>405</td>
<td>Solid State</td>
<td>3 hours</td>
<td>Behavior of materials in the solid state as concerns Energy Levels, Wave Mechanics, Optical and Electrical Phenomena. Prereq: Calculus and Physics 112 or 212.</td>
<td></td>
</tr>
<tr>
<td>412</td>
<td>Modern Physics</td>
<td>4 hours</td>
<td>Recent developments concerning the nature of matter, radiation, and space including relativistic effects and the dualistic behavior of particles and waves. Prereq: Calculus and Physics 112 or 212.</td>
<td></td>
</tr>
<tr>
<td>414</td>
<td>Nuclear Physics</td>
<td>(I) 4 hours</td>
<td>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.</td>
<td></td>
</tr>
</tbody>
</table>
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, diastrophism, 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 and/or General Chemistry.

455 **Quantum Mechanics** (I or II) 3 hours
Basic quantum phenomena such as black body radiation, photoelectric effect, Compton scattering, and barrier penetration. Course includes the uncertainty principle, and solutions of various problems such as the potential box, potential step, and the harmonic oscillator by use of the Schrödinger equation. Applications will be considered for the Hydrogen atom and to simple molecules and crystals.

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

**PSYCHOLOGY**

PROFESSORS NEWTON (Head), HURST, PEDRINI;
ASSISTANT PROFESSORS BROWN, DEFFENBACHER, HAMM, HANSEN, HELLING, KESSLER, MILLIMET, THOMAS, WIKOFF
INSTRUCTORS HUNTLEY, MANNING, WILLSON

An undergraduate major in psychology may be secured by completing the following courses: Psychology 101, 102 (with laboratory), 213, 343, 401, 421, and nine additional hours of upper division courses in psychol-
ogy. Psychology 401 and 421 are offered with optional laboratory sections for one additional hour of credit. Psychology majors are required to elect a laboratory in one of these two courses, and are strongly encouraged to take the laboratory work with both courses. 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 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: Psy. 101.

213 Basic Statistics (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 143 or perm of instr.

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. Prereq: Psy. 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: Psy. 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: Psy. 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: Psy. 101.

351 Educational Psychology (I, II, S) 3 hours
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 procedures are included. Prereq: Psy. 101.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>352</td>
<td>Child Psychology</td>
<td>I, S 3 hours</td>
</tr>
<tr>
<td></td>
<td>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: Psy. 102 or 351.</td>
<td></td>
</tr>
<tr>
<td>354</td>
<td>Psychology of Adolescence and Adulthood</td>
<td>II, S 3 hours</td>
</tr>
<tr>
<td></td>
<td>A review of theory and available evidence useful in understanding changes and problems in the physical, intellectual, social, and emotional adjustment of individuals in adolescence and later life. Prereq: Psy. 102 or 351.</td>
<td></td>
</tr>
<tr>
<td>362</td>
<td>Industrial Psychology</td>
<td>I, II 3 hours</td>
</tr>
<tr>
<td></td>
<td>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: Psy. 101.</td>
<td></td>
</tr>
<tr>
<td>401</td>
<td>Experimental Psychology of Learning</td>
<td>I, II 3-4 hours</td>
</tr>
<tr>
<td></td>
<td>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: Psy. 102.</td>
<td></td>
</tr>
<tr>
<td>403</td>
<td>Motivation</td>
<td>II 3 hours</td>
</tr>
<tr>
<td></td>
<td>An exploration of the motivation of organisms including methods, concepts, issues, and theories deriving from historical and contemporary research. Prereq: Psy. 213 and 401.</td>
<td></td>
</tr>
<tr>
<td>405</td>
<td>Computer Concepts in Psychology and the Behavioral Sciences</td>
<td>II, S 3 hours</td>
</tr>
<tr>
<td></td>
<td>An introductory course emphasizing the applications of computers in the areas of psychology, sociology, and education. Includes a functional description of computers and a discussion of programming languages as well as specific uses. Prereq: An introductory statistics course.</td>
<td></td>
</tr>
<tr>
<td>407</td>
<td>Cognitive Processes</td>
<td>3 hours</td>
</tr>
<tr>
<td></td>
<td>An exploration of historical and contemporary research and theory concerned with higher cognitive processes including concept formation, problem solving, creativity, memory, and symbolic behavior. Prereq: Psy. 401.</td>
<td></td>
</tr>
<tr>
<td>414</td>
<td>Non-parametric Statistics</td>
<td>I 2 hours</td>
</tr>
<tr>
<td></td>
<td>A study of distribution-free statistics with particular emphasis on application of distribution-free tests to research problems in the social behavior sciences. Prereq: Basic Statistics.</td>
<td></td>
</tr>
<tr>
<td>415</td>
<td>Multiple Regression and Factor Analysis</td>
<td>I 3 hours</td>
</tr>
<tr>
<td></td>
<td>Advanced problems and techniques of correlation and regression are discussed, including: special simple correlation methods and problems, multiple correlation, multiple regression, and factor analysis. Prereq: Basic Statistics.</td>
<td></td>
</tr>
</tbody>
</table>
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 **Experimental Psychology of Sensation and Perception**  
(I, II) 3-4 hours  
Advanced laboratory techniques and methods in the field 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) 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.

427 **Comparative Psychology**  
(I) 3 hours  
Behavior of diverse animals will be studied—primarily to bring out differences and similarities. Research techniques appropriate to behavioral studies with various animal species will be emphasized. Prereq: Psych 401 or permission.

431 **Psychological and Educational Testing**  
(I, II, S) 3 hours  
The purpose of the 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.

433 **Individual Differences**  
(II) 3 hours  
A critical study of experimental and statistical investigations of the influence of age, ancestry, sex, physical traits, and environment in causation of individual differences in mental traits. Prereq: 9 hours of psychology, including Psych 101 and Basic Statistics.

443 **Psychoanalytic Theories of Personality**  
(I, S) 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 Psych 343.

444 **Abnormal Psychology**  
(II) 3 hours  
The purpose is to become familiar with theories (psychological, psychiatric, psychoanalytic) of normalcy and abnormality. The symptoms, dynamics, therapy, and prognosis of individuals and groups in the syndromes will be considered. Prereq: Psych 343 and Basic Statistics.
**Personality Theories**  
(I, S) 3 hours  
This course is designed to familiarize the student with personality theories, which are much more inclusive than learning or perception, per se. To transcend isolated facts and approach integrated viewpoints. A research approach is emphasized. Prereq: Psych 343.

**Advanced Counseling Theory**  
(I, S) 3 hours  
This course emphasizes 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.

**Retardation**  
(II) 3 hours  
This course considers significantly sub-average intellectual functioning originating during the developmental period and associated with impairment in adaptive behavior. Research is emphasized. Prereq: Psych 431.

**Developmental Psychology**  
(I, II, S) 3 hours  
A systematic review of the research literature related to the biological, social, and cognitive development of children from conception to adolescence. Prereq: Basic Statistics.

**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: Psych 343 or 351.

**Engineering Psychology**  
(II) 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.

**Psychological Aspects of Industrial Training and Education**  
(II) 3 hours  
A study and application of the theory, techniques, and procedures involved in preparing individuals for their jobs through training and education. Prereq: Psych 362 and Basic Statistics.

**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.
491 **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.

501 **History of Psychology** (I) 3 hours  
A study through reading and discussion of the significant individual contributors and contributions to the growth of psychology. Prereq: Permission of instructor.

502 **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.

505 **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 401 and 421 or permission of instructor.

520 **Introduction to Counseling Theories** 3 hours  
Study of contemporary theories of counseling, the counseling process and methods. Prereq: Education 490 or department permission.

532 **Tests and Measurements** (II) 3 hours  
A study of the theoretical and practical problems related to the development and use of psychological tests. Covers such topics as: measurement, test development, standardization, reliability, validity, and interpretation. Prereq: Basic Statistics.

545 **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.

551 **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.

553 **Individual Tests: Children and Adolescents** (I) 4 hours  
Administration, scoring, standardization, and interpretation of and research with the Revised Stanford-Binet (L-H), 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 Aperception Test, Sentence Completion, and Thematic Apperception Technique. Prereq: Psych 553.
**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.

**Behavior Modification**  
(I, II, S) 3 hours  
A course in the techniques, rationale, and research literature of changing behavior through reinforcement procedures. Particular attention will be paid to child behavior including retarded children, behavior problems in school, and the behavior of the mentally disturbed. Prereq: Psych 102 and 343, or permission of instructor.

**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: Graduate standing and Basic Statistics.

**Personnel Selection and Assessment**  
(I) 3 hours  
A practical course designed to familiarize the student with the procedures used in assessing and selecting people for industrial positions. Prereq: Basic Statistics, Psych 532 and permission of instructor.

**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.

**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.

**Thesis**  
Each 1-3 hours  
Independent research project written under supervision of a faculty committee.

**POLITICAL SCIENCE**

PROFESSORS SCOTT (Head), LAMBERT, REYNOLDS, SWAGERT, UTLEY; ASSOCIATE PROFESSORS CAMP, MENARD; ASSISTANT PROFESSORS FARR, 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.

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

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 between nation-states and the means of conducting these relations. Prereq: Sophomore Standing.

* Courses marked with an asterisk are to be given priority by students majoring in urban studies.
301 Municipal Government (I, S) 3 hours
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.

313 Comparative Government-Democracies (I, S) 3 hours
A basic study of theory, practice and practitioners of political democracy, its roots, development, present application and problems, and future. Prereq: Junior Standing.

314 Comparative Government-Dictatorships (II, S) 3 hours
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.

315 Communism: Its Theory and Practice (I, S) 3 hours
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.

317 Introduction to Public Administration (I, II, S) 3 hours
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.

320 Jurisprudence (II) 3 hours
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.

322 International Organization (II, S) 3 hours
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.

326 United States Foreign Policy (II, S) 3 hours
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.

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.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Type</th>
<th>Credits</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>426</td>
<td>International Law of Peace</td>
<td>(I, S)</td>
<td>3 hours</td>
<td>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.</td>
</tr>
<tr>
<td>428</td>
<td>Inter-American Politics</td>
<td>(II, S)</td>
<td>3 hours</td>
<td>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.</td>
</tr>
<tr>
<td>431</td>
<td>Political Theory I</td>
<td>(I, S)</td>
<td>3 hours</td>
<td>Reviews and analyzes the leading political theories of Western Man from the Hebrews and Greeks to the mid-17th Century. Prereq: Junior Standing.</td>
</tr>
<tr>
<td>432</td>
<td>Political Theory II</td>
<td>(II, S)</td>
<td>3 hours</td>
<td>Continues the review and analysis of the leading political theories of Western Man begun in Pol. Sci. 431, bringing the study down to the present day. Prereq: Junior Standing.</td>
</tr>
<tr>
<td>433</td>
<td>American Political Thought</td>
<td>(II, S)</td>
<td>3 hours</td>
<td>An over-view and analysis of the dominant political thoughts and ideas that have been present in American thinking from the days of the Puritans to today, and the individuals who held them. Prereq: Junior Standing.</td>
</tr>
<tr>
<td>440</td>
<td>Public Budgeting</td>
<td>(II)</td>
<td>3 hours</td>
<td>A study of the processes and procedures involved in making budgets for governmental institutions. Prereq: 317, Senior Standing.</td>
</tr>
<tr>
<td>441</td>
<td>Public Personnel Management</td>
<td>(II, S)</td>
<td>3 hours</td>
<td>A study of the personnel process in American governmental administration. The processes and problems of recruiting, structuring, and operating public bureaucracies are examined as well as problems in personnel leadership, neutrality, accountability and performance. Prereq: 317, Junior Standing.</td>
</tr>
<tr>
<td>443</td>
<td>Municipal Administration</td>
<td>(II, S)</td>
<td>3 hours</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>
</tr>
<tr>
<td>445</td>
<td>State Administration</td>
<td>(II)</td>
<td>3 hours</td>
<td>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, 11, 317.</td>
</tr>
</tbody>
</table>
490 **Readings in Government**  
(I, II, S) 3 hours  
A course designed for senior majors, who through inability to schedule, are unable to meet departmental requirements for graduation. Prereq: Pol. Sci. major. Senior Standing, and approval of the department and the department head.

491 **Internship in Local Government**  
(I, II, S) 2 hours per sem. to 6  
Internship in Local Government offices: Participation in the policy-making and administrative processes of Local Government; discussions and reports. Prereq: 110, 111, 301, 317, or their equivalents, and Senior Standing. (Also listed under Economics, Sociology, Geography, and History.)

501 **Comparative Politics**  
Theories and Literature of the Field  
An examination of the purpose, theories and literature of the field of comparative politics, with evaluation of the theories by application to contemporary political systems. Prereq: Graduate Standing or Senior Standing with permission of the instructor and the department head.

521 **Theories and Literature of International Relations**  
(I, S) 3 hours  
An examination of the theoretical frameworks advanced for the systematic study of International Relations, with application to particular problems in International relations. Prereq: Graduate or Senior Standing, with permission of instructor and department head.

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.)

585-586 **Urban Economics**  
Each 3 hours  
An examination of the theoretical basis for the analysis of urban economic problems with emphasis upon the policy alternatives applicable toward their possible solution. Prereq: At least 6 hours of upper division work in economics or permission. (Also listed under Economics, Geography, and Sociology.)
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.

Students such as those in military service and others having special interests in foreign or preliterate cultures are directed toward courses in Anthropology which are listed following the Sociology courses. Students interested in employment in a social work agency should consider the social work sequence listed on page 00. One need not be a Sociology major to qualify for the social work sequence.

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.

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.
American Society
A sociological perspective on contemporary American Society, Urbanization and other population trends, social movements, changes in work, family life, recreation, institutions and values. Prereq: 6 hours social science.

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.

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 Anthropology 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.

Medical Sociology
The sociology of health and the health professions providing an examination of the social aspects of medicine and of processes of health and illness. The effects of the norms, values
and roles of medical professionals and their clients on the treatment process. Prereq: Soc. 101 and sophomore standing or permission.

384 Population (II) 3 hours

390 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.

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.

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 **General Seminar in Sociology** 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 selected 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 practical problem of relevance to general social issues.

511 **Social Problems of the Disadvantaged** 3 hours
A survey of the social problems existing in disadvantaged communities. The effects upon individuals of such settings. The subculture of poverty.

*As seminar topics change these course numbers may be repeated in a student's program without implying duplication.
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.

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.

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.

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.

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.

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.)

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.)

Urban Economics (See Economics 586) 3-6 hours

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.

Thesis Each 3 hours
ANTHROPOLOGY

105 Introduction to General Anthropology (I, II) 3 hours
A survey of the principles and major findings of cultural and physical anthropology.

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 Anthr. 105.

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: Anthr. 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: Anthr. 105 or 421.

SOCIAL WORK

The Social Work Sequence is designed to provide an opportunity for students with any major, from any of the undergraduate colleges, to prepare themselves for employment in social welfare positions and other human service occupations not requiring graduate social work education. Those desiring to pursue Graduate professional education will acquire a pre-professional orientation to the field.

Students may qualify for vocational placement by fulfilling the following requirements:

I. Completion of the following three courses with grade of “C” or higher:

II. Completion with grade of “C” or higher of at least nine hours of applicable course work outside the major field. Courses should be chosen from among the following:
**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:**
- 210 Pressure Groups and Public Opinion
- 317 Intro. to Public Administration
- 342 State Administration
- 319 Municipal Administration

**Economics:**
- 335 Public Finance

**Physical Education:**
- 318 Camp Leadership
- 322 Recreation Education
- 324 Recreation Leadership

III. Graduation with B.A., B.G.E., B.S. in Education or any other Bachelor's degree.

IV. Recommendation of the Social Work Teaching Staff.

**345 A Survey of Social Work 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 Work 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.

* Does not carry Graduate Credit in Sociology.
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, social work 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.

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 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, 441.

SPEECH AND DRAMA

PROFESSORS BRILHART (Head), CARTER, CLARK;
ASSOCIATE PROFESSOR HILL;
ASSISTANT PROFESSORS ASCHENBRENNER, BORGE, CARLSON, MANSON, WELK;
INSTRUCTORS FUS, GARRY, HUTCHISON, MINARCINI, SIMMONS, VESPER, WALLCAVE, 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 46 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.
* Courses marked with an asterisk are to be given priority by students majoring in urban studies.
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 or any other required course 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 prehistoric 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.

313 Business and Professional Speaking 3 hours
The role of modern communication theory and practice in business and industrial management and the professions. Instruction and practice in oral technical reporting, persuasion and sales techniques, conferences, and interviews. Study and analysis of representative communication cases. Prereq: Speech 101, Instructor permission; Sophomore Standing.

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.

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** (Crosslisted as Journalism 315) (I, II) 3 hours
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 and Junior Standing.

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.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Schedule</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>421-422</td>
<td><strong>Acting: Historical Periods and Styles</strong></td>
<td>(I, II)</td>
<td>Each 3</td>
<td>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 and Junior Standing.</td>
</tr>
<tr>
<td>423</td>
<td><strong>Scene Design</strong></td>
<td>(I)</td>
<td>3 hours</td>
<td>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, and Junior Standing.</td>
</tr>
<tr>
<td>424</td>
<td><strong>Stage and TV Lighting</strong></td>
<td>(II, S)</td>
<td>3 hours</td>
<td>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, and Junior Standing.</td>
</tr>
<tr>
<td>426</td>
<td><strong>Play Direction</strong></td>
<td>(II)</td>
<td>3 hours</td>
<td>A practicum in play selection, analysis, casting, directing and performing. Prereq: Speech 220, 223, 321, 322 or permission of department head and Junior Standing.</td>
</tr>
<tr>
<td>434</td>
<td><strong>Television and Radio Programming and Sales</strong></td>
<td>(I)</td>
<td>3 hours</td>
<td>A study of contemporary broadcast programming, sales, and advertising techniques. Prereq: Speech 230 or permission of department head and Junior Standing.</td>
</tr>
<tr>
<td>435</td>
<td><strong>Broadcasting and the Public</strong></td>
<td>(II)</td>
<td>3 hours</td>
<td>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 and Junior Standing.</td>
</tr>
<tr>
<td>450</td>
<td><strong>Introduction to General Semantics</strong></td>
<td>(II, S)</td>
<td>3 hours</td>
<td>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.</td>
</tr>
<tr>
<td>461</td>
<td><strong>History and Problems in Speech Education</strong></td>
<td>(II)</td>
<td>3 hours</td>
<td>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.</td>
</tr>
<tr>
<td>471</td>
<td><strong>Advanced Oral Interpretation</strong></td>
<td>(II)</td>
<td>3 hours</td>
<td>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.</td>
</tr>
<tr>
<td>501</td>
<td><strong>Introduction to Research in Speech</strong></td>
<td>(I)</td>
<td>3 hours</td>
<td>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.</td>
</tr>
</tbody>
</table>
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
602 Independent research project written under the supervision of an advisor.

COLLEGE OF BUSINESS ADMINISTRATION
GEORGE G. HEATHER, Dean

SCHOLARSHIPS

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.

Real Estate: The Martin M. Staenberg Memorial Scholarship in the amount of $150 is available to a senior student who is enrolled in a course in Real Estate Investments.

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.

Accounting: The Beta Alpha Psi Scholarship Certificate is awarded by the national council to the graduating senior who has attained the highest cumulative grade point.
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. Students must achieve at least a 2.0 quality point average for all work taken in the college.

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 the College of 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

<table>
<thead>
<tr>
<th></th>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FIRST YEAR</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acc. 101, Prin. of Acc.</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>B.A. 128, Intro. to Bus.</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Psych. 101, Intro. to Psych</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Engl. 111, Composition</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Non-Bus. Requirement</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>15</td>
<td>15</td>
</tr>
</tbody>
</table>

|                  |                |                 |
| **SECOND YEAR**  |                |                 |
| Econ 201, Prin. Econ. | 3              | Econ. 202, Prin. Econ | 3 |
| *Humanities      | 3              | *Humanities     | 3 |
| *Soc. Sci. or Nat. Sci. | 3             | *Soc. Sci. or Nat. Sci. | 3 |
| B.A. 212, Quant. Methods | 3          | Non-Bus. Requirement | 4 |
| Non-Bus. Requirement | 4            | Elective        | 3 |
| **Total**       | 16            | 16              |

|                  |                |                 |
| **THIRD YEAR**   |                |                 |
| B.A. 323, Bus. Law I | 3            | B.A. 324, Bus. Law II | 3 |
| B.A. 325, Corp. Finance | 3            | B.A. 313, Intro. Stat. | 3 |
| Mgmt. 349, Prin. of Mgmt. | 3         | B.A. 320, Bus. Comm. & Rpts. | 2 |
| Mkt. 331, Marketing | 3            | Elective        | 2 |
| Elective         | 3              | **Total**       | 17 |

|                  |                |                 |
| **FOURTH YEAR**  |                |                 |
| B.A. 446, Govt. and Bus. | 3            | B.A. 425, Bus. Cycles | 3 |
| Econ. 345, Money & Banking | 3           | B.A. 448, Bus. Pol. & Adm. | 3 |
| **Specialization Electives** | 6            | **Specialization Electives** | 6 |
| Elective         | 3              | Elective        | 3 |
| **Total**       | 15             | 15              |

## 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,**

Advisers

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.

*With the assistance of his advisor, the student will select appropriate courses from these divisions.*

**The student will consult with his major advisor in the planning of an area of professional specialization.**
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>
</tbody>
</table>

**FINANCE**

MR. HARRIS, Adviser

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
- Acc. 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>Ins. 371, General Insurance</td>
<td></td>
</tr>
<tr>
<td>Ins. 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, Adviser

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**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ins. 371, Gen. Ins.</td>
<td>3</td>
</tr>
<tr>
<td>Ins. 376, Social Ins.</td>
<td>3</td>
</tr>
<tr>
<td>Ins. 372, Life and Health Ins.</td>
<td>3</td>
</tr>
<tr>
<td>Insurance Elective</td>
<td>3</td>
</tr>
</tbody>
</table>

**FOURTH YEAR**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ins. 374, Property and Casualty Ins.</td>
<td>3</td>
</tr>
</tbody>
</table>

**RECOMMENDED ELECTIVES**

- Math 254, Math of Finance
- B.A. 344, Real Estate Principles and Practices
- Acc, 403, Income Tax Accounting
- Mkt. 432, Sales Management
- B.A. 441, Real Estate Appraisal
- Mgmt. 404, Human Resources and Management

**MANAGEMENT**

MR. HILL, MR. NEWPORT, Advisers

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**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Econ. 315, Labor Prob.</td>
<td>3</td>
</tr>
<tr>
<td>Mgmt. 351, Pers. Org. &amp; Management</td>
<td>3</td>
</tr>
</tbody>
</table>

**FOURTH YEAR**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spec. Elective</td>
<td>3</td>
</tr>
</tbody>
</table>

Specialization electives are to be selected from the following courses:

- Psych. 362, Ind. Psych.
- Mgmt. 402, Supervisory Management
- Mgmt. 405, Production Mgmt.
- Mgmt. 438, Ind. Purchas. & Materials Control

**RECOMMENDED ELECTIVES**

- Acc. 300, Manag. Acc.
- Ins. 376, Soc. Ins.
- Econ. 418, Coll. Bargain.
- Soc. 380, Occupational Soc.
- Jour. 423, Public Relations
- I.E. 305, Motion and Time Study

**MARKETING**

MR. BULL, MR. BROWN, MR. PRESTWICH, Advisers

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, Advisers

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, Adviser

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:

<table>
<thead>
<tr>
<th>Mkt. 333, Retailing</th>
<th>Mkt. 430, Marketing Problems</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mkt. 401, Retail Merchandising</td>
<td>Mkt. 434, Marketing Research</td>
</tr>
<tr>
<td>Marketing Elective</td>
<td></td>
</tr>
</tbody>
</table>

**REAL ESTATE**

**MR. LEWIS, Adviser**

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**

| B.A. 344, Real Estate Principles and Practices | B.A. 346, Real Estate Law 3 |

**FOURTH YEAR**

| B.A. 440, Real Estate Finance 3 | B.A. 441, Real Estate Appraisal 3 |
| B.A. 439, Real Estate Investments | Real Estate Elective 3 |

**REAL ESTATE ELECTIVES**

| B.A. 345, Real Estate Management | B.A. 348, City Planning |
| B.A. 347, Urban Land Uses | B.A. 439, Real Estate Investments |

**RECOMMENDED ELECTIVES**

| Acc. 403 Income Tax Accounting | Mkt. 336, Advertising |
| Ins. 371, General Insurance | Mkt. 432, Sales Management |
| Ins. 374, Property and Casualty Ins. | Engg. 137, Architectural Design I |
| Engg. 138, Architectural Design II |

**BUSINESS ADMINISTRATION AND LAW**

**MR. FORBES, Adviser**

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>Credits</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>
</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>

### SECOND YEAR

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</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>B.A. 212, Quant. Methods</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>Credits</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>
<td>3</td>
</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

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acc. 300, Managerial Accounting</td>
<td></td>
</tr>
<tr>
<td>Acc. 303-304, Interm. Acc.</td>
<td></td>
</tr>
<tr>
<td>B.A. 344, Real Estate Principles and Practices</td>
<td></td>
</tr>
<tr>
<td>Ins. 371, General Insurance</td>
<td></td>
</tr>
<tr>
<td>B.A. 446, Government and Business</td>
<td></td>
</tr>
<tr>
<td>Hist. 433-434, American Constitutional History</td>
<td></td>
</tr>
<tr>
<td>Hist. 463-464, Engl. Constitutional History</td>
<td></td>
</tr>
</tbody>
</table>

GENERAL BUSINESS

MISS MINTEER, MR. FORBES, MR. PIBAL, Advisers

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.

SECRETARIAL

Students enrolled in the College of Business Administration who wish to qualify as an administrative assistant or executive secretary in a commercial, industrial, financial or other institution, may include secretarial science within the general business area to a maximum of six credit hours of upper division courses. These courses may be in addition to the twelve-hour limitation from one department. The remaining nine credit hours may be selected upon the recommendation of an adviser from three subject areas in Business Administration. Suggested courses in secretarial science include:

<table>
<thead>
<tr>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intermediate Typewriting</td>
</tr>
<tr>
<td>Advanced Typewriting</td>
</tr>
<tr>
<td>Office Machines</td>
</tr>
<tr>
<td>Intermediate Shorthand</td>
</tr>
<tr>
<td>Advanced Shorthand</td>
</tr>
<tr>
<td>Secretarial Practices</td>
</tr>
</tbody>
</table>

TEACHER EDUCATION—SECONDARY

MISS MINTEER, MISS HOLLEY, Advisers

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:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>B.A. 128, Intro. to Bus.</td>
<td>3</td>
</tr>
<tr>
<td>Acc. 101, Prin. of Acc.</td>
<td>3</td>
</tr>
<tr>
<td>Acc. 102, Prin. of Acc.</td>
<td>3</td>
</tr>
<tr>
<td>Econ. 201, Prin. of Econ</td>
<td>3</td>
</tr>
<tr>
<td>Econ. 202, Prin. of Econ</td>
<td>3</td>
</tr>
<tr>
<td>Typewriting or equivalent</td>
<td>6</td>
</tr>
</tbody>
</table>
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
3
Accounting cycle; accrual basis of accounting; negotiable instruments; taxes; corporate accounting; analysis and appraisal of the firm.

Acc. 102 Principles of Accounting
3
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
3
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
3
A more intensive study of basic accounting theory, corporate accounting problems, accounting statements and ratios. Prerequisite: Acc. 102.

Acc. 304 Intermediate Accounting
3
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
3
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
3
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. 212 **Quantitative Methods**
A study of quantitative methods and their applications in business; including linear programming, game theory, probability theory, inventory models, and finite mathematics. Prerequisites: 3 sem. of H.S. Algebra, or Math 111, or Math 143.

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 fluctuations, 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 intestate 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**
Urban: residential, office, commercial, special purpose buildings; merchandising, maintenance, tenant and public relations. Farm: tenants, crops, fertilizers, soil conservation, livestock, budgets: Records, research. 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**
Institutionalization of urban life: mission of city, social control, moral power, metropolis and mental life, urban policy, power structure. Transit: mass, auto. Housing: public, slum, for aged, design, production, acquisition, consumption, research. Prerequisite: B.A. 344.

B.A. 348 **City Planning**
Cities: ancient, classic, medieval, industrial, beautiful, commerce. Planning process: general plan, zoning, circulation, neighborhood unit, commercial. Urban renewal; new regional distribution of settlements; dynamic planning for change. Prerequisite: B.A. 344.

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. 439  **Real Estate Investments**
A study of the feasibility and the analysis of long term investment characteristics of condominiums, dormitories, apartments, housing complexes, office buildings, shopping centers, industrial properties, farms and subdivisions. Prerequisite: B.A. 344.

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**
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**
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.
INSURANCE
PROFESSOR ROKES (Head)

Ins. 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.

Ins. 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.

Ins. 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.

Ins. 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.

MANAGEMENT
PROFESSORS J. HILL (Head), NEWPORT
INSTRUCTORS CHAPMAN and ETTKIN

Mgmt. 349 Principles of Management
A systematic analysis of the managerial functions; planning, organizing, staffing, directing, and controlling. Prerequisites: Econ. 201 and 202.

Mgmt. 351 Personnel Organization and Management
Manpower management theory and practice are studied through an analysis of the employment setting in business. Prerequisite: Mgmt. 349.

Mgmt. 402 Supervisory Management
A student project course which emphasizes the development and application of supervisory management methods. Prerequisite: Mgmt. 351.

Mgmt. 404 Human Resources and Management
A comprehensive study of the behavior of industrial man and the management processes used to develop better worker and employer relationships. Prerequisite: Senior standing.
Mgmt. 405 Production Management
Operations analysis is presented through construction and study of basic production models. Prerequisites: Mgmt. 349 and B.A. 313.

Mgmt. 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 Mkt. 438. Prerequisite: Mgmt. 349.

MARKETING

PROFESSORS BULL (Head), BROWN, LUCAS, PRESTWICH

Mkt. 105 Retail Selling
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.

Mkt. 331 Marketing
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.

Mkt. 333 Retailing
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, 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: Mkt. 331.

Mkt. 401 Retail Merchandising
Merchandising objectives, policies, and strategy; demand analysis, merchandise budgets, pricing methods, inventory man-
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

BUSINESS ADMINISTRATION  
HOWARD CHRISTENSEN  
M.A., University of Nebraska, 1967; Instructor part-time

ARTHUR J. NEVINS  
A.B. & LL.B., University of Nebraska, 1932; Instructor part-time

MALCOLM D. YOUNG  
LL.B., Duke Law School, 1948; Instructor part-time

MANAGEMENT  
PAUL J. DUCHARME  
M.B.A., Harvard University, 1947; Instructor part-time
The activities of the College of Continuing Studies are administered primarily through two divisions: I. Academic Studies, and II. Non-Credit Community Services. General descriptions of the programs of both divisions appear in the following pages. Each division has prepared literature dealing with specialized aspects of its program, and interested adults are encouraged to request additional information by mail, by telephone, or in person.

For information about credit programs (college degree credit courses), write to: CCS-Credit, University of Nebraska at Omaha, Omaha, Nebraska 68101, or telephone 553-4700, extension 364. For information about non-credit programs (including conferences, workshops, and institutes), write to: CCS-Conference Center, University of Nebraska at Omaha, Omaha, Nebraska 68101, or telephone 553-4700, extension 391.

I. DIVISION OF ACADEMIC STUDIES

MR. THOMPSON, Assistant Dean
MR. KUCHEL, Chairman, Department of Law Enforcement and Corrections
MR. KAESER, Director, On-Campus Military Program
MR. RUSSELL, Director, Off-Campus Military Program
MR. PETERSON, Counselor, BGS Degree Program

GENERAL INFORMATION

Mission and Clientele

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 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-granting 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 in this section. Associate titles are also available in both areas.

Special Features

Several programs of the Academic Studies Division deserve special mention.

**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. A special feature of this degree program is an academic amnesty policy whereby able adults may earn relief from disabling qualitative deficiencies acquired in earlier attempts at college.

**Bachelor of Science in Law Enforcement and Corrections Degree Program.** Professional law enforcement and correctional services demand individuals who have availed themselves of educational opportunities in preparation for career service. Based upon this recognition, the University of Nebraska at Omaha has designed a program that will develop graduates with a high degree of professional competence in their career field and will also provide their communities with an educated citizen. The program is designed to serve the needs of the young person seeking total education to prepare for a career in law enforcement, as well as the needs of men who have law enforcement experience and want to enhance their progress in the profession. The courses are not intended to take the place of recruit or normal in-service training, but provide a functional background for this type of service training.

**Bootstrap Program.** This degree-completion program serving active duty, separated, 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 a final period of full-time study 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.
**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.

**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 a completed Application for Admission plus all required supporting credentials. Note especially that ADVANCE APPLICATION IS REQUIRED OF ALL PROSPECTIVE CCS STUDENTS, including all former students who are re-entering. Complete credentials must be on file in the Office of Admissions no later than September 1 or January 15 for consideration for Fall or Spring semester, respectively.

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.

Acceptance into the College of Continuing Studies does not imply acceptance as a degree candidate. The separate steps which must be taken to qualify for degree candidacy are specified below in the Baccalaureate Degrees section.

**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 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 who, regardless of credits earned, 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 or to assist with long-range planning during September, January, and June when involved with the heavy demands of registration.
The thoughtful 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.

Prospective students, including all transfer students and all former University of Nebraska at Omaha students whose most recent registration was in some college other than CCS, must bring to counseling sessions their personal (unofficial) copies of transcripts covering all previous college work. For this reason, transfer students should order an additional, unofficial copy of each college transcript for their own files at the same time they order an official copy to be sent directly to the UNO Admissions Office.

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 Law Enforcement students. Mr. Kaeser and Mr. Peterson counsel Bootstrappers. Mr. Russell counsels Offutt personnel on base and on campus.

Civilian students-at-large and BGS degree candidates are counseled by Mr. Peterson, Mr. Russell, or Mr. Thompson, whose offices are in Room 182 of the Administration Building. Appointments are required and 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.

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, thereby insuring that the specialized advisement needed can be obtained 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 Room 213, Administration Building, or by telephoning 553-4700, extension 509, during regular business hours.

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 concentrate.

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.

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 in a given semester. 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 one of the professional staff members of the College of Continuing Studies IN ADVANCE OF REGISTRATION. Such permission will be based on demonstrated academic competence in courses taken at this University. New and 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 calling the CCS Receptionist at 553-4700, extension 364, or by making out an Overload Approval Card at the CCS reception desk in Adm. 182, any time up to one week before registration begins.
College of Continuing Studies students can earn credits toward CCS degrees 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 (CLEP). Subject areas covered are English Composition, Social Sciences, Natural Sciences, Humanities, and Mathematics. Credit is granted for acceptable scores on each of the five parts, independently, in the amount of six credits per part. To avoid taking unnecessary work, students should note those academic courses which eliminate eligibility for CLEP credit by duplication.

<table>
<thead>
<tr>
<th>CLEP General Examination Test</th>
<th>General Title</th>
<th>Specific UNO Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Composition</td>
<td>Freshman English</td>
<td>English 111-112</td>
</tr>
<tr>
<td>Social Science</td>
<td>Social Science Survey</td>
<td>None</td>
</tr>
<tr>
<td>Natural Science</td>
<td>General Biology (3) and Physical Science Survey (3)</td>
<td>Biology 102, Physics 101, Humanities 101-102, Mathematics 111, Mathematics 112</td>
</tr>
<tr>
<td>Humanities</td>
<td>Humanities Survey</td>
<td></td>
</tr>
<tr>
<td>Mathematics</td>
<td>College Algebra (3) and Trigonometry (3)</td>
<td></td>
</tr>
</tbody>
</table>

The UNO Testing enter, 213 Administration Building, is an authorized CLEP test administration center. 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.

Note that credit by examination may constitute no part of a CCS degree candidate's terminal residency requirement. Furthermore, since the granting of credit by examination does not by itself guarantee that the prerequisite for any particular course has been met, students who earn such credit should consult their CCS advisor before registering for advanced study in the same discipline.

Probation and Suspension

It is the intention of the College to provide the adult with every opportunity to pursue academic work. However, 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 each semester, once he has accumulated 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 catalog.

**BACCALAUREATE DEGREES**

**Bachelor of General Studies Degree**

**Admission to 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 cumulative average requirement, the student must have qualified for academic amnesty as a "returning adult" under the College of Continuing Studies' "second chance" policy.

**General Requirements—BGS Degree**

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). A maximum of 25 credits from extra-mural sources such as TV Classroom and correspondence courses may be applied toward the BGS degree.

**Course Requirements—BGS Degree**

1. Core Requirements
   a. English Composition (as determined by placement test) ........................................ 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, Philosophy, 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 .................................................................
4. Second Subject Field ............................................................
5. Electives .................................................................................. 32

Total ......................................................................................... 125

Commentary

The following explanatory notes are keyed to the Bachelor of General Studies degree course 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. Note that in the definition of Humanities courses appearing in the College of Arts and Sciences section of this catalog, certain Art, English, Journalism, and Speech courses are excluded. Also note, however, that for the CCS degrees there is no restriction on the level of Foreign Language courses which may be counted as Humanities, since there is no separate Foreign Language 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, Physics, and General Science, 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. (BGS candidates concentrating in these areas must check degree requirements with their CCS advisor.) 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, “Alied 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. A list of available Areas of Concentration and authorized Allied Fields follows this section.

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.

### Available Programs—BGS Degree

<table>
<thead>
<tr>
<th>Primary Area of Concentration</th>
<th>Authorized Allied Fields</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting</td>
<td>Business</td>
</tr>
<tr>
<td>Art</td>
<td>None</td>
</tr>
<tr>
<td>Biology</td>
<td>None</td>
</tr>
<tr>
<td>Business (General)</td>
<td>Economics</td>
</tr>
<tr>
<td>Chemistry</td>
<td>None</td>
</tr>
<tr>
<td>Economics</td>
<td>Business, Geography, History, Political Science, Sociology</td>
</tr>
<tr>
<td>Engineering</td>
<td>None</td>
</tr>
<tr>
<td>English</td>
<td>Speech</td>
</tr>
<tr>
<td>Foreign Languages</td>
<td>None</td>
</tr>
<tr>
<td>General Science</td>
<td>None</td>
</tr>
<tr>
<td>Geography</td>
<td>Economics, History, Political Science</td>
</tr>
<tr>
<td>History</td>
<td>Economics, Geography, Political Science, Sociology</td>
</tr>
<tr>
<td>Home Economics</td>
<td>None</td>
</tr>
<tr>
<td>Journalism</td>
<td>None</td>
</tr>
<tr>
<td>Law Enforcement and Corrections</td>
<td>Business, Economics, Political Science, Psychology, Sociology</td>
</tr>
<tr>
<td>Library Science</td>
<td>English</td>
</tr>
<tr>
<td>Mathematics</td>
<td>None (Computer Science is counted as Mathematics)</td>
</tr>
<tr>
<td>Music</td>
<td>None</td>
</tr>
<tr>
<td>Philosophy</td>
<td>Religion</td>
</tr>
<tr>
<td>Physical Education</td>
<td>None</td>
</tr>
<tr>
<td>Physics</td>
<td>None</td>
</tr>
<tr>
<td>Political Science</td>
<td>Economics, Geography, History</td>
</tr>
<tr>
<td>Psychology</td>
<td>Sociology</td>
</tr>
<tr>
<td>Recreation Leadership</td>
<td>None</td>
</tr>
<tr>
<td>Sociology</td>
<td>Economics, History, Psychology, Religion</td>
</tr>
<tr>
<td>Speech</td>
<td>None</td>
</tr>
<tr>
<td>Urban Studies</td>
<td>None</td>
</tr>
</tbody>
</table>

### Bachelor of Science in Law Enforcement and Corrections Degree

**MR. KUCHEL, Adviser**

The Bachelor of Science in Law Enforcement and Corrections 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.

### Admission to Candidacy

College of Continuing Studies students who wish to earn the Bachelor of Science in Law Enforcement and Corrections 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 recommendations of the Chairman of the Department of Law Enforcement and Corrections and the Dean. Note that acceptance as a Boot-strap student automatically fulfills this requirement.
Application may be made at any time, preferably as soon as the student decides he desires the BS/LEC degree. In any case, application should be made before the student completes 95 credits, since the last 30 semester hours of credit toward the Bachelor of Science in Law Enforcement and Corrections must be earned as an accepted BS/LEC degree candidate. Applicants who are enrolled in other colleges of the University of Nebraska at Omaha must apply for entrance into the College of Continuing Studies, via the change of college procedure, at the same time as they apply for acceptance into the BS/LEC degree program.

Individuals proposing to major in Law Enforcement and Corrections must meet all the requirements for admission to the University of Nebraska at Omaha. Applicants must also possess the qualifications necessary in their chosen field. Students planning to seek employment in law enforcement agencies are advised to investigate the physical requirements of such agencies so that they may determine, in advance, their capacity to meet these requirements.

All applicants must be of excellent moral character. Letters of recommendation 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; deviation from these standards may result in dismissal from the program. Applicants must possess the personality and adaptability deemed necessary for professional law enforcement or the specific field in which they plan to concentrate their studies. This will be determined by the applicant's history, references, and through the medium of a personal interview with the Chairman of the Department of Law Enforcement and Corrections.

General Requirements—BS/LEC Degree

Of the 125 semester hours of credit with an average grade of "C" required for the Bachelor of Science in Law Enforcement and Corrections degree, a minimum of 30 of the last 36 credits must be earned in residence in the College of Continuing Studies as an accepted candidate for the BS/LEC 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). A maximum of 25 credits from extra-mural sources such as TV Classroom and correspondence courses may be applied toward the BS/LEC degree.

Course Requirements—BS/LEC Degree

1. Core Requirements
   a. English Composition (as determined by placement test) ........................................ 9
   b. Social Sciences ................................................................. 12
      (Economics, Geography, History, Political Science, Psychology, and Sociology)
   c. Natural Sciences ................................................................... 12
      (Biology, Chemistry, Geology, Mathematics, and Physics)
   d. Humanities ............................................................................. 12
      (Art, English Literature, Foreign Languages, Music, Philosophy, Religion, and Speech)
2. Area of Concentration (Law Enforcement and Corrections) ........................................ 30  
a. Primary Concentration (LEC): 21 (minimum) to 30  
b. Allied Field (optional): 0 to 9 (maximum)  
3. First Subject Field ........................................................................................................... 12  
4. Second Subject Field ......................................................................................................... 12  
5. Electives ............................................................................................................................. 26  
Total ..................................................................................................................................... 125

Commentary

For a detailed explanation of the BS/LEC course requirements as tabulated above, turn to the “Commentary” section for the Bachelor of General Studies degree on the immediately preceding pages. All of this material is also applicable to the BS/LEC degree, except only paragraph 2 dealing with “Area of Concentration”.

The following additional comments apply expressly to the Bachelor of Science in Law Enforcement and Corrections, and are similarly keyed to the outline designations provided in the tabulation of BS/LEC degree course requirements.

2b. Permissible Allied Fields, which may comprise up to 9 of the 30 semester hours of credit required in the LEC Area of Concentration, are: Political Science, Psychology, and Sociology.

3 and 4. The choice of Subject Fields will be determined in consultation with the Chairman of the Department of Law Enforcement and Corrections.

The following courses are not allowable toward the BS/LEC degree: Chemistry 100; English 109; and Mathematics 100, 11, and 112.

Courses—Department of Law Enforcement and Corrections

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. Note that courses marked with an asterisk carry the same number and credit in the Department of Sociology.

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 (I) 3 hours
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 (I, II, S) 3 hours
General survey of the nature and causes of crime; criminal investigation and prosecution; punishment; correctional treatment; and crime prevention.

LEC 337* Juvenile Delinquency (I, S) 3 hours
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 (I, II, S) 3 hours
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 (I, II) 3 hours
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 (I, II, S) 3 hours
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 (II) 3 hours
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 (I, II) 1 hour per semester, max. 4 hrs.
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 399 Criminal Bioscience and Toxicology (I, II) 3 hours
This course is designed to instruct students of police science in the methods, techniques, and ideas of medico-legal (forensic) and toxicological investigations. The goal is to educate such students so that they may function intelligently during those occasions when the law, medicine and the police find themselves on common ground.

LEC 413* Sociology of Deviant Behavior (II) 3 hours
A theoretical analysis of the relation of deviant behavior, including crime, vice, innovation, individual pathology, and deviant sub-groups, to community standards of conventional behavior as expressed in law and norms.

LEC 435 Probation and Parole (I, II) 3 hours
A course for advanced students with a special interest in the correctional process as applied in a community setting.

LEC 436 Psychology of Criminal Behavior 3 hours
An examination of individual and group criminal identities and of 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.

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 baccalaureate degree, the Associate Title is tangible evidence that the specific requirements of a formal program have been met.

**General Requirements**

Sixty-four 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.

**Course 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. Social Sciences (Economics, Geography, History, Political Science, Psychology, and Sociology) 6
   c. Natural Sciences (Biology, Chemistry, Geology, Mathematics, and Physics) 4
   d. Humanities (Art, English Literature, Foreign Languages, Music, Philosophy, Religion, and Speech) 6

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 one discipline.

3. **Electives** 30

**Total** 64

**Associate in Law Enforcement and Corrections**

The program for the title Associate in Law Enforcement and Corrections will include the following:

1. **Core Requirements**
   a. English Composition (as determined by placement test) 6
   b. Social Sciences (Economics, Geography, History, Political Science, Psychology, and Sociology) 6
   c. Natural Sciences (Biology, Chemistry, Geology, Mathematics, and Physics) 4
   d. Humanities (Art, English Literature, Foreign Languages, Music, Philosophy, Religion, and Speech) 6

2. **Area of Concentration (Law Enforcement and Corrections)** 18

3. **Electives (Not more than 6 hours from a single department may be used)** 24

**Total** 64

Note that the following courses are not allowable toward the Associate Title in Law Enforcement and Corrections: Chemistry 100; English 109; and Mathematics 100, 111, and 112.
II  DIVISION OF NON-CREDIT COMMUNITY SERVICES
MR. MOORE, Assistant Dean
MR. ERIXON, Director, Conferences and Workshops
MR. DALTON, Program Coordinator

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:

Division of Community Services
Phone: 553-4700, ext. 391-392

CERTIFICATION PROGRAMS

Insurance Certification
MR. ROKES, Adviser

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.

Real Estate Certification
MR. LEWIS, Adviser

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.
Required Courses*
Real Estate Principles and Practices (BA 344)
Real Estate Law (BA 346)
Real Estate Finance (BA 440)
Real Estate Appraisal (BA 441)

Elective Courses*: choose one
Real Estate Management (BA 345)
Urban Land Uses (BA 347)
City Planning (BA 348)
Real Estate Investments (BA 439)

Related Courses*: choose one
Income Tax Accounting (Acctg. 403)
General Insurance (BA 371)
Property and Casualty Insurance (BA 374)
Advertising (Marketing 336)
Sales Management (Marketing 432)

The Comprehensive Management Examination of the Institute of Real Estate Management is available to persons who successfully complete the Real Estate Management course (BA 345) and whose application to take the exam is approved by that Institute. The certificate of completion of this examination is the prerequisite for admission to candidacy for membership in the Institute (IREM) and for the examination leading to the CPM (Certified Property Manager) designation.

American Institute of Real Estate Appraisers: Successful completion of BA 441, Real Estate Appraisal, qualifies for application to take the Comprehensive Examination I of this Institute (AIREA). This exam, in turn, qualifies for candidacy for membership in AIREA and the coveted MAI (Member American Institute . . .) designation.

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.

Summer provides an opportunity for program experimentation by the University. Thus, a variety of special workshops, institutes, conferences, are held, and a range of time patterns are used.

* For course descriptions see listings in the Business Administration section of this catalog.
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 who plan full admission to the University, beginning with Summer classes, should make application for admission and take the guidance and placement examinations during the Spring. For full details see the Admissions section of the catalog.

**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.
DEGREE AND ASSOCIATE TITLE REQUIREMENTS

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.

CIVIL ENGINEERING
ASSOCIATE PROFESSORS HOSSACK (Head), GIBSON, LEMAR, REDDY;
ASSISTANT PROFESSORS BENAK, SOKOL, ZORICH;
INSTRUCTORS MURRAY, BOSILJEVAC

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

<table>
<thead>
<tr>
<th>FIRST YEAR</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Semester</strong></td>
<td></td>
</tr>
<tr>
<td>Math 195 Calculus I</td>
<td>Math 196 Calculus II</td>
</tr>
<tr>
<td>Chem 110 General Chemistry</td>
<td>Engr 221 Engr. Graphics II</td>
</tr>
<tr>
<td>Engr 103 Engr. Problems</td>
<td>CE 201 CE Workshop</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>14</td>
</tr>
</tbody>
</table>
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.
**CONSTRUCTION GROUP**

| Course     | Title                       | Credit
|------------|-----------------------------|--------
| CE 442     | Construction Management     | 3      
| CE 465     | Con. Cost & Control         | 3      
| CE 466     | Construction Techniques     | 3      
| CE 467     | Form Des. & Steel Erec.     | 2      
| CE 302     | Engr. Surveying II          |        
| Chem 120   | Gen. Chem. & Qual. Anal.    | 4      
| Acct 101   | Elem. Accounting            | 3      
| Acct 102   | Accounting                  | 3      

**SANITARY & HYDRAULIC GROUP**

| Course     | Title                       | Credit
|------------|-----------------------------|--------
| Chem 120   | Gen. Chem. & Qual. Anal.    | 4      
| CE 471     | Sanitary Engineering I      | 3      
| CE 472     | Sanitary Engineering II     | 3      
| CE 432     | Hydraulic Engineering       | 3      
| CE 474     | Water Resources Engr.       | 3      
| CE 495     | Adv. Fluid Mechanics        | 3      
| CE 433     | Hydrology                   | 3      
| CE 434     | Ground Water Hydrology      | 3      

**INDUSTRIAL ENGINEERING AND GENERAL ENGINEERING**

**PROFESSORS ARNWINE (Head); BROWN; ASSOCIATE PROFESSOR EHLERS; ASSISTANT PROFESSORS MYERS, TITUS**

**INSTRUCTOR SHUKLA**

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

Instructor, Shukla

<table>
<thead>
<tr>
<th>Semester</th>
<th>Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Semester</strong></td>
<td><strong>Math 195</strong> Calculus I</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td><strong>Chem 110</strong> General Chemistry</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td><strong>Engr 100</strong> Engr. Orientation</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>Engl 111</strong> Elem. English Comp.</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Engr 103</strong> Engr. Problems</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td>15</td>
</tr>
<tr>
<td><strong>Second Semester</strong></td>
<td><strong>Math 196</strong> Calculus II</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td><strong>Chem 120</strong> General Chemistry</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td><strong>Engr 221</strong> Engr. Graphics II</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Engl 112</strong> English Comp.</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Engr 104</strong> Engr. Computer Appl.</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td>16</td>
</tr>
<tr>
<td><strong>SECOND YEAR</strong></td>
<td><strong>Math 197</strong> Calculus III</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Phys 211</strong> General Physics, Tech.</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td><strong>Engr 230</strong> Statics of Engr.</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Spch 101</strong> Fundamentals of Speech</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>I.E. 305</strong> Motion &amp; Time Study</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td>17</td>
</tr>
<tr>
<td></td>
<td><strong>Math 235</strong> Adv. Math. for Engrs. I</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Phys 212</strong> General Physics, Tech.</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td><strong>Engr 236</strong> Engr. Math. Sci.</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td><strong>Engr 342</strong> Mechanics of Mtls.</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Non-Tech. Elective</strong></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td>18</td>
</tr>
</tbody>
</table>
### THIRD YEAR

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>I.E. 304</td>
<td>Prob. &amp; Sta. for Engrs.</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>Prin. of Accounting</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Technical Elective</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Credits:** 18

### FOURTH YEAR

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</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>
</tr>
<tr>
<td>Psych 101</td>
<td>Intro. to Psych.</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Technical Elective</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Non-Tech Elective</td>
<td>4</td>
</tr>
<tr>
<td>Econ 201</td>
<td>Prin. of Econ.</td>
<td>3</td>
</tr>
<tr>
<td>I.E. 402</td>
<td>Ind. Planning II</td>
<td>3</td>
</tr>
<tr>
<td>I.E. 490</td>
<td>Operations Res. I</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Technical Electives</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Non-Tech. Elective</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Credits:** 16

### TECHNICAL ELECTIVES

<table>
<thead>
<tr>
<th>Measurement-Methods</th>
<th>Metal Working Processes</th>
</tr>
</thead>
<tbody>
<tr>
<td>I.E. 418 Methods-Time Measurement</td>
<td>Engr 452 Metallurgy for Engineers</td>
</tr>
<tr>
<td>I.E. 491 Work Measurement Design</td>
<td>I.E. 492 Tool Design</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Management</th>
<th>Accounting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Econ 202 Principles of Economics</td>
<td>Acct 102 Elementary Accounting</td>
</tr>
<tr>
<td>Mgmt 349 Principles of Management</td>
<td>Acct 305 Cost Accounting</td>
</tr>
<tr>
<td>Mgmt 405 Production Management</td>
<td>Acct 306 Administrative Accounting</td>
</tr>
<tr>
<td>Engr 416 Contracts &amp; Specifications</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Human Relations</th>
<th>General Technical Electives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psych 461 Human Engineering</td>
<td>Engr 412 Engineering Special Prob.</td>
</tr>
<tr>
<td>Psych 362 Industrial Psychology</td>
<td>Engr 414 Creative Engineering</td>
</tr>
<tr>
<td></td>
<td>I.E. 417 Industrial Plant Design</td>
</tr>
<tr>
<td></td>
<td>Engr 455 Fields &amp; Circuits II</td>
</tr>
<tr>
<td></td>
<td>Engr 456 Electrical Lab</td>
</tr>
<tr>
<td></td>
<td>I.E. 496 Operations Research II</td>
</tr>
</tbody>
</table>

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  
Advisers: 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.

### 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 Chemistry</td>
<td>Chem 120 General Chemistry</td>
</tr>
<tr>
<td>Engr 100 Engr. Orientation</td>
<td>Engr 221 Engr. Graphics II</td>
</tr>
<tr>
<td>Engl 111 Elem. English Comp.</td>
<td>Engl 112 English Comp.</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>15</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>16</td>
</tr>
</tbody>
</table>

### SECOND YEAR

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Phys 211 General Physics</td>
<td>Phys 212 General Physics</td>
</tr>
<tr>
<td>Spch 101 Funds. of Speech</td>
<td>Engr 342 Mechanics of Matls.</td>
</tr>
<tr>
<td>Non-Tech. Elective</td>
<td>Non-Tech. Elective</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>17</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>18</td>
</tr>
</tbody>
</table>

### THIRD YEAR

<table>
<thead>
<tr>
<th>Engr 330 Dynamics</th>
<th>Engr 431 Fluid Mechanics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engr 460 Thermodynamics I</td>
<td>I.E. 306 Mfg. Processes</td>
</tr>
<tr>
<td>Engr 461 Mechanical Lab</td>
<td>I.E. 307 Mfg. Processes Lab</td>
</tr>
<tr>
<td>Engr 303 Engineering Analysis</td>
<td>Technical Electives</td>
</tr>
<tr>
<td>Engr 441 Engineering Economy</td>
<td>Non-Tech. Elective</td>
</tr>
<tr>
<td>*Technical Elective</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>17</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>17</td>
</tr>
</tbody>
</table>

### FOURTH YEAR

<table>
<thead>
<tr>
<th>Engr 410 Seminar</th>
<th>Engr 455 Fields &amp; Circuits II</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engr 415 Tech. Writing</td>
<td>Engr 416 Contracts &amp; Specs</td>
</tr>
<tr>
<td>Engr 454 Fields &amp; Circuits I</td>
<td>Engr 414 Creative Engr.</td>
</tr>
<tr>
<td>Technical Electives</td>
<td>Technical Electives</td>
</tr>
<tr>
<td>Non-Tech. Electives</td>
<td>Non-Tech. Elective</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>17</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>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engr 445</td>
<td>Engr. Systems &amp; Anal.</td>
<td>3</td>
</tr>
<tr>
<td>Engr 464</td>
<td>Heat Transfer I</td>
<td>3</td>
</tr>
<tr>
<td>Engr 462</td>
<td>Thermodynamics II</td>
<td>3</td>
</tr>
<tr>
<td>Engr 463</td>
<td>Gas Dynamics</td>
<td>3</td>
</tr>
<tr>
<td>I.E. 492</td>
<td>Tool Design</td>
<td>3</td>
</tr>
<tr>
<td>Engr 495</td>
<td>Adv. Fluid Mechanics</td>
<td>3</td>
</tr>
</tbody>
</table>

Total: 18

#### Computer Sciences Option

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Math 230</td>
<td>Computer Concepts</td>
<td>3</td>
</tr>
<tr>
<td>Math 211</td>
<td>Linear Algebra</td>
<td>3</td>
</tr>
<tr>
<td>Math 322</td>
<td>Adv. Programming Tech.</td>
<td>3</td>
</tr>
<tr>
<td>Math 332</td>
<td>Theo. of Info. Retr.</td>
<td>3</td>
</tr>
<tr>
<td>Math 432</td>
<td>Systems Programming</td>
<td>3</td>
</tr>
</tbody>
</table>

Total: 15

#### Engineering Mech. Option

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engr 445</td>
<td>Engr. Systems &amp; Anal.</td>
<td>3</td>
</tr>
<tr>
<td>Engr 494</td>
<td>Advanced Dynamics</td>
<td>3</td>
</tr>
<tr>
<td>Engr 495</td>
<td>Adv. Fluid Mechanics</td>
<td>3</td>
</tr>
<tr>
<td>Engr 493</td>
<td>Adv. Mechanics of Mat.</td>
<td>3</td>
</tr>
<tr>
<td>Engr 463</td>
<td>Gas Dynamics</td>
<td>3</td>
</tr>
</tbody>
</table>

Total: 3

#### Mathematics Option

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Math 211</td>
<td>Linear Algebra</td>
<td>3</td>
</tr>
<tr>
<td>Math 225</td>
<td>Calc. of Vector Func.</td>
<td>3</td>
</tr>
<tr>
<td>Math 330</td>
<td>Numerical Analysis</td>
<td>3</td>
</tr>
<tr>
<td>Math 353</td>
<td>Prob. &amp; Statistics</td>
<td>3</td>
</tr>
<tr>
<td>Math 427</td>
<td>Complex Variables</td>
<td>3</td>
</tr>
</tbody>
</table>

Total: 15

#### Physics Option

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phys 301</td>
<td>Elems. of Electronics</td>
<td>4</td>
</tr>
<tr>
<td>Phys 302</td>
<td>Optics</td>
<td>4</td>
</tr>
<tr>
<td>Phys 335</td>
<td>Atmospheric Physics</td>
<td>3</td>
</tr>
<tr>
<td>Phys 414</td>
<td>Nuclear Physics</td>
<td>4</td>
</tr>
</tbody>
</table>

Total: 15

#### Chemistry Option

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chem 213</td>
<td>Organ. Chem./or 102</td>
<td>4</td>
</tr>
<tr>
<td>Chem 230</td>
<td>Elem. Quantit. Chem.</td>
<td>4</td>
</tr>
<tr>
<td>Chem 349</td>
<td>Physical Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>Chem 350</td>
<td>Physical Chemistry</td>
<td>4</td>
</tr>
</tbody>
</table>

Total: 16

#### Business Administration Option

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Econ 201</td>
<td>Economics</td>
<td>3</td>
</tr>
<tr>
<td>Econ 202</td>
<td>Economics</td>
<td>3</td>
</tr>
<tr>
<td>Mgmt 349</td>
<td>Prin. of Management</td>
<td>3</td>
</tr>
<tr>
<td>Mkt 331</td>
<td>Marketing</td>
<td>3</td>
</tr>
<tr>
<td>B.A. 323</td>
<td>Business Law</td>
<td>3</td>
</tr>
</tbody>
</table>

Total: 15

#### Bio-Sciences Option

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biol 145</td>
<td>General Botany</td>
<td>5</td>
</tr>
<tr>
<td>Biol 175</td>
<td>General Zoology</td>
<td>5</td>
</tr>
<tr>
<td>Biol 275</td>
<td>Phys. &amp; Anat. of Man</td>
<td>5</td>
</tr>
<tr>
<td>OR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Biol 285</td>
<td>Comparative Anatomy</td>
<td>5</td>
</tr>
<tr>
<td>Biol 316</td>
<td>Genetics</td>
<td>3</td>
</tr>
</tbody>
</table>

Total: 18

---

**INDUSTRIAL TECHNOLOGY**

PROFESSOR PREWETT(Head);
ASSOCIATE PROFESSOR DAVIS;
ASSISTANT PROFESSOR HARRIMAN;
INSTRUCTOR GARRETT

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. (See College of Education for specific requirements for admission to the teacher certification program.) 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.

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>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering Graphics I &amp; II</td>
<td>Engr 121, 221</td>
<td>6</td>
</tr>
<tr>
<td>Wood Technology</td>
<td>IT 211</td>
<td>3</td>
</tr>
<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>
</tr>
<tr>
<td>Industrial Safety</td>
<td>IT 361</td>
<td>2</td>
</tr>
<tr>
<td>Statics &amp; Strength of Materials</td>
<td>TI 213</td>
<td>4</td>
</tr>
</tbody>
</table>

Additional common courses desirable
IT 217 — Industrial Mfg. Processes
IT 214 — and/or Engr. 415—Tech. Writ.
IT 301—Power Mechanics Technology

### INDUSTRIAL TECHNOLOGY

Industry Option

**Group I** Drama, Language, Literature and Speech

- English 111, 112
- Speech 101
- Humanities, Art, Drama, or Journalism Elective

**Group II** Social Science

- History
- Government
- Economics
- Psychology, Sociology, other

**Group III** Science

- Math 195—Calculus I, Math 196 Calculus II (desirable)
- Chemistry 110 (desirable)
- Physics 111 or 211, 112 or 212
- Electives

* Qualified students may substitute Calculus.
Group IV  Technology and Engineering

A. Basic sequence ........................................... 24
B. Area of concentration in Technology & Engineering .......... 30
   1. Drafting & Design Technology
   2. Construction Technology
   3. Electronics Technology
   4. Ind. Engr. Technology
   5. Others

Group V  Electives ........................................... 26

A. Business Adm. & Related .................................. 12
B. Other ................................................... 14

SUGGESTED ELECTIVES

Business and Related
B.A. 128 Introduction to Business
Acc. 101-102 Accounting
B.A. 371 General Real Estate
B.A. 344 Real Estate Prin. & Pract.
Econ 201 Principles of Economics
Econ 202 Principles of Economics
Mgmt. 349 Principles of Mgmt.
Econ 315 Labor Problems
B.A. 323 Business Law
B.A. 331 Marketing
B.A. 313 Intro. to Statistics
Psych 362 Industrial Psych.
Econ 313 Economic Geography
Psych 461 Human Engineering
Econ 418 Collective Bargaining

C.E. 302 Surveying II
Engr. 137-138 Arch Design
Engr 230 Statics
Engr 330 Dynamics
Engr 336 Meteorology
Engr 414 Creative Engrg.
I.E. 301 Quality Control
I.E. 305 Motion & Time
I.E. 401-402 Ind. Planning

Technical Institute
choose from:
Construction Technology
Drafting & Design Tech.
Electronics Technology
Industrial Engineering Tech.

Mathematics
230—Computer Concepts
211—Linear Algebra
254—Math of Finance
353—Prob. & Statistics

Industrial Technology
IT 220—Welding Tech.
IT 255—Indus. Finish Matls.
IT 301—Power Mech. Tech.
IT 316—Ind. Ops. II
IT 371—Special Problems

Engineering and Technology
C.E. 201 Workshop
C.E. 301 Surveying I

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**

TI 101, 102, 201—Tech. Problem Analysis I, II & III

Physics 111 and 112

---

Group IV  **Technology and Engineering**

A. Basic sequence

B. **Areas of concentration**

*1. Must have at least 12 hours in one area*

*2. Professional: IT 401—Ind. Teach Methods*

*IT 402—Ind. Tech. Adm.*

---

Group V  **Professional Education**

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**

---

**TECHNICAL INSTITUTE**

ASSISTANT PROFESSORS KINNEY, Director, FAHRLANDER, SIRÉS; INSTRUCTORS HUNTER, RYAN, BOGARD, SEDLACEK, COYLE, DESLER

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.

---

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, TI 127 and/or TI 211, TI 215.

Metal Technology IT 216, IT 217, IT 316.


Graphic Arts, Journ 311, 325; Art electives available for this area.
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><strong>TI 101</strong> Tech. Prob. Analysis I ...5</td>
<td><strong>TI 102</strong> Tech. Prob. Analysis II ...4</td>
</tr>
<tr>
<td><strong>TI 125</strong> Constr. Drawing ..........3</td>
<td><strong>TI 126</strong> Struct. &amp; Bldg. Drawg..3</td>
</tr>
<tr>
<td><strong>TI 127</strong> Intro. to Constr. ..........3</td>
<td><strong>TI 128</strong> Constr. Methods ..........3</td>
</tr>
<tr>
<td><strong>18</strong></td>
<td><strong>17</strong></td>
</tr>
</tbody>
</table>

| **SECOND YEAR** | |
| **TI 202** Constr. Surveying II .......3 | **TI 212** Constr. Specs. ..........3 |
| **TI 211** Constr. Management ..........3 | **TI 214** Technical Reporting ......3 |
| **TI 213** Statics & Strength ..........4 | **TI 216** Constr. Estimating ......3 |
| **TI 215** Constr. Matls. ...........3 | **TI 218** Soils Technology ....3 |
| **TI 219** Constr. Equipment ..........3 | **Spch 101** Fund. of Speech ......3 |
| **Tech. Elective** ..........2 | **Tech. Elective** ..........2 |
| **18** | **17** |

**TECHNICAL ELECTIVES**

- **TI 124** Architectural Drafting
- **TI 221** Hydraulics & Pumping Applications
- **TI 235** Adv. Structural Drawing
- **TI 228** Power Applications
- **TI 229** Structural Design for Technicians
- **TI 280** Practical Foremanship
- **BA 128** Introduction to Business
- **TI 236** Special Technical Problems
# REQUIREMENTS

## Associate in Drafting and Design Technology

**Requirements:** 70 Semester Hours

### FIRST YEAR

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engr 221 Engineering Graphics II</td>
<td>TI 225 Graphic Design</td>
</tr>
<tr>
<td>TI 124 Arch. &amp; Drafting I</td>
<td>TI 241 Bldg. &amp; Trades Drftg.</td>
</tr>
<tr>
<td>Engl 111 Elem. Engl. Comp.</td>
<td>Spch 101 Funds. of Speech</td>
</tr>
<tr>
<td>TI 129 Lettering &amp; Inking</td>
<td>TI 130 Reproduction Tech.</td>
</tr>
<tr>
<td>TI 100 Orientation</td>
<td>Technical Elective</td>
</tr>
</tbody>
</table>

### SECOND YEAR

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>TI 215 Constr. Matls.</td>
<td>TI 214 Tech. Reporting</td>
</tr>
<tr>
<td>TI 213 Statics &amp; Str.</td>
<td>TI 238 Tech. Illus.</td>
</tr>
<tr>
<td>TECHNICAL ELECTIVES</td>
<td>Technical Electives</td>
</tr>
</tbody>
</table>

### TECHNICAL ELECTIVES

Architectural
- TI 224 Arch. Design-Drafting II
- TI 231 Arch. Design III
- TI 232 Arch. Design IV

Electro-mechanical
- TI 109 Electronics Drafting
- TI 233 Graphic Design Application
- TI 237 Drafting Room Management

Civil
- TI 128 Struc. & Bldg. Drafting
- TI 229 Struc. Design for Tech's.
- TI 234 Adv. Struc. Drafting

Mechanical
- TI 221 Hyd. & Ppng. Application
- TI 228 Power Applications

### REQUIREMENTS

## Associate in Electronics Technology

**Requirements:** 70 semester hours

### FIRST YEAR

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engl 111 Elem. Engl. Comp.</td>
<td>TI 108 AC Circuits</td>
</tr>
<tr>
<td>TI 107 DC Circuits</td>
<td>TI 112 Basic Elec. Meas.</td>
</tr>
<tr>
<td>TI 109 Electronic Drafting</td>
<td>TI 114 Electronic Fabrication</td>
</tr>
<tr>
<td>TI 100 Orientation</td>
<td>TI 116 Transistors and Tubes</td>
</tr>
<tr>
<td></td>
<td>TI 118 Wave Theory &amp; Mech.</td>
</tr>
</tbody>
</table>

### SECOND YEAR

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>TI 205 Solid State Devices</td>
<td>TI 206 Computer Circuits</td>
</tr>
<tr>
<td>TI 207 Circuit Design I</td>
<td>TI 208 Circuit Design II</td>
</tr>
<tr>
<td>TI 209 Radio &amp; Comm.</td>
<td>TI 210 TV Circuits</td>
</tr>
<tr>
<td>Electives</td>
<td>TI 220 Codes, Stds., &amp; FCC Law</td>
</tr>
</tbody>
</table>

### 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
- BA 128 Intro. to Bus.
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>IT 216 Industrial Metal Opers. ....... 3</td>
</tr>
<tr>
<td>17</td>
<td>17</td>
</tr>
</tbody>
</table>

SECOND YEAR

| TI 201 | Tech. Prblm. Anal. III ........... 3 |
| TI 213 | Statics & Strength ............. 4 |
| IE 305 | Motion & Time Study .......... 3 |
| Econ 201 | Principles of Econ. .......... 3 |
| | Non-Tech. Elective .......... 2 |
| | 18 |

TECHNICAL ELECTIVES

| Acc 101-102 Elementary Accounting |
| Econ 202 Principles of Economics |
| TI 107 DC Circuits |
| TI 108 AC Circuits |
| TI 112 Basic Electrical Measurements |
| TI 246 Machine Drawing and Design |
| IT 361 Industrial Safety |

PRE-NURSING
MISS PATACH, Adviser

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.

PRE-NURSING CURRICULUM

FIRST YEAR

<table>
<thead>
<tr>
<th>*English 111</th>
<th>Sociology 101</th>
<th>Chemistry 101</th>
<th>Biology 102</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>3</td>
<td>5</td>
<td>5</td>
<td>16</td>
</tr>
</tbody>
</table>

SECOND SEMESTER

<table>
<thead>
<tr>
<th>*English 112</th>
<th>Psychology 101</th>
<th>Chemistry 102</th>
<th>Microbiology 214</th>
<th>Nursing 100</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>3</td>
<td>5</td>
<td>4</td>
<td>1</td>
<td>16</td>
</tr>
</tbody>
</table>

*Electives may be substituted if proficiency is established by examination. English 240 recommended.
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 Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>Orientation</td>
<td>1 hour</td>
</tr>
<tr>
<td></td>
<td>Orientation program required of all engineering freshmen. One hour lecture period per week, covering orientation in college life plus the fundamentals to be considered in selecting an engineering career. Includes lectures by leading professional engineers in selected fields.</td>
<td></td>
</tr>
<tr>
<td>103</td>
<td>Engineering Problems</td>
<td>2 hours</td>
</tr>
<tr>
<td></td>
<td>Introduction to engineering problem solving technique; use of the slide rule; curve fitting; introduction to nomograms; graphical differentiation and integration, and approximate methods with engineering applications. Prereq: Math 195 or equivalent</td>
<td></td>
</tr>
<tr>
<td>104</td>
<td>Engineering Computer Applications</td>
<td>2 hours</td>
</tr>
<tr>
<td></td>
<td>The study and application of the digital computer to engineering problems. Prereq: Engr. 103.</td>
<td></td>
</tr>
<tr>
<td>105</td>
<td>Slide Rule and Computing Methods</td>
<td>1 hour</td>
</tr>
<tr>
<td></td>
<td>Slide rule and computing methods, development of computing skills and orderly methods of solving problems; instruction and drill in the uses of the slide rule to include all scales found on a standard log-log slide rule. Prereq: High School Algebra or equivalent</td>
<td></td>
</tr>
<tr>
<td>121</td>
<td>Engineering Graphics I</td>
<td>3 hours</td>
</tr>
<tr>
<td></td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>137</td>
<td>Architectural Design I</td>
<td>3 hours</td>
</tr>
<tr>
<td></td>
<td>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.</td>
<td></td>
</tr>
</tbody>
</table>
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).

250 Introductory Electrical Engineering 3 hours
Principles of electrical engineering with basic concepts of natural and forced circuit response. Prereq: Math 195 and Physics 212 or parallel.

251 Introductory Electrical Engg. Lab 1 hour
Introductory Engineering laboratory. Prereq: Engg 250 parallel.
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** 2 hours  
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** 3 hours  
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** 3 hours  

419 **Legal Principles of Surveying** 3 hours  
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** 3 hours  
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** 3 hours  
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** 3 hours  
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** 3 hours  
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** 3 hours  
Principles of DC, magnetic, AC, and polyphase circuits. Prereq: Physics 212 or equivalent; Math 196 or equivalent.

455 **Fields and Circuits II** 3 hours  
Transformers, AC machinery, control equipment, and electronics. Prereq: Engr. 454.
456 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.

458 Automatic Control Systems 3 hours
Stability studies, design, synthesis, and analysis of servomech­anisms and automatic control devices. Prereq: Math 235, Engr. 454.

460 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.

461 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.

462 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.

463 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.

464 Heat Transfer 3 hours
Introduction to heat transfer; one and two-dimensional steady­state conduction; unsteady-state conduction; natural and forced convection; empirical and analytical relations; radiation heat transfer. Prereq: Engr. 431, 460.

493 Advanced Mechanics of Materials 3 hours

494 Advanced Dynamics 3 hours
Advanced Fluid Mechanics


Civil Engineering Courses (CE)

Civil Engineering Workshop

Civil engineering orientation; introduction to engineering design. Prereq: Engr 100.

Surveying I

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

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

Computation of stresses in girders, roof trusses, by algebraic and graphic methods. Influence line methods, moment area, and elastic weights. Prereq: Engg 342.

Concrete Materials


Structural Design

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

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; introduction 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 considerations for runways, taxiways, terminal and cargo areas, runway length determination, clearance criteria and practices, navigational 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 hydraulic problems; hydrologic, legal and economic considerations; hydraulic structures; hydraulic models; river and coastal engineering; special problems encountered in various branches of hydraulic engineering. Prereq: Engr. 431.

433 **Hydrology** 3 hours
A study of the hydrologic cycle, precipitation, infiltration and soil moisture, runoff, rainfall runoff relationships, and the manner in which these factors affect the utilization and conservation of our water resources. Prereq: Eng 431.

434 **Ground Water Hydrology** 3 hours
A study of the occurrence, distribution, and movement of ground water; formulation and solution of differential equations pertaining to boundary conditions of both steady and unsteady state; exploration; well construction and development; legal and economic aspects. Prereq: Engg 431 or permission.

442 **Construction Management** 3 hours
Estimating and bidding, scheduling (including an introduction to CPM and PERT), contracts, bonds and insurance, cost control systems, equipment utilization, codes and zoning. Prereq: CE 446 or equivalent.

443 **Structural Analysis II** 3 hours

444 **Structural Analysis III** 3 hours
Theory and application of analytic methods in the consideration 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 buildings; examples of design in steel and timber; riveting and welding; 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; foundation 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.

450 **Soil Mechanics II** 3 hours
Analysis of complex problems in soil mechanics involving elastic and plastic equilibrium in soils and soil hydraulics; the role of theory, sampling and testing; interpretation and application of test results; performance studies. Prereq: CE 449 or equivalent.

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.

473 Matrix Methods of Structural Analysis 3 hours
Matrix methods and Computer Applications for analysis of structures, including Beams, Frames, Trusses, Space forms. Prereq: CE 443 or Permission.

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 IE 304.
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
<th>Description</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>304</td>
<td>Probability and Statistics for Engineers</td>
<td>3 hours</td>
<td>Fundamentals of probability and theory with applications to various branches of engineering; developing knowledge of the techniques of using probability and statistics for engineering purposes and the application of these techniques to engineering problems. Prereq: Math 197.</td>
<td></td>
</tr>
<tr>
<td>305</td>
<td>Motion and Time Study</td>
<td>3 hours</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>306</td>
<td>Manufacturing Processes</td>
<td>3 hours</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>307</td>
<td>Manufacturing Processes Laboratory</td>
<td>1 hour</td>
<td>Laboratory for Manufacturing Processes and taken concurrently with it. Prereq: Concurrently with IE 306.</td>
<td></td>
</tr>
<tr>
<td>401</td>
<td>Industrial Planning I</td>
<td>3 hours</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>402</td>
<td>Industrial Planning II</td>
<td>3 hours</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>417</td>
<td>Industrial Plant Design</td>
<td>3 hours</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>418</td>
<td>Methods-Time Measurement</td>
<td>3 hours</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>490</td>
<td>Operations Research I</td>
<td>3 hours</td>
<td>Introduction to Operations Research, discrete and continuous probability models, decision theory, linear programming, and the transportation problem. Network analysis, PERT, dynamic</td>
<td></td>
</tr>
</tbody>
</table>

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.

496 **Operations Research II** 3 hours
Queueing theory for finite populations, optimum cost queueing solutions, inventory theory and control, applications of Markov chains, computer simulation of stochastic systems, integer programming, and an introduction to non-linear programming. Prereq: I.E. 490.

**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; forging, cold working, powder metallurgy, plastics, and sheet metal fabricating processes; abrasives and adhesives, production exercise. Prereq: IT 216.

220 **Welding Technology** 3 hours
Theory and practice in oxyacetylene, electric arc inert gas and resistance welding. Study of special welding processes of submerged arc, plasma arc, stud, forge ultrasonic, explosive and friction welding, properties of metals and effects of heat treatment of metals. Prereq: IT 216 or permission.
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
A study of the science of power and of the importance of the prime movers of our technological society such as internal and external combustion converters, direct mechanical converters, conventional and exotic electrical converters, and hydraulic and pneumatic systems and devices. Prereq: TI 102, TI 107, or permission.

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, heating, glass glazing, concrete and masonry, and materials testing. Prereq: 9 hours IT, TI, Engineering.

361 **Industrial Safety** 2 hours

371 **Special Problems in Industrial Technology** 1-3 hours
A student may select a special problem applicable to technology and through independent study and research, present results in a useful technical report. Prereq: Junior Standing.
380 Industrial Field Experience 3 hours
Practical work experience in which basic skills, technical knowledge and related occupational information learned in classroom theory will be applied practically through industry cooperation and in actual industrial situations. Prereq: Junior Standing or permission.

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.

420 History and Philosophy of Industrial and Technical Education 3 hours
A study of the history, philosophy, and development of industrial technology including industrial arts, vocational, and technical education as related to the industrial society of today. Prereq: Senior Standing or permission.

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.

108 **Alternating Current Circuits** 3 hours

112 **Basic Electrical Measurements** 1 hour
Electronic test equipment and measurements.

114 **Electronic Fabrication** 3 hours
Instruction and practice to give possession of sufficient mechanical skill and knowledge to the technician to successfully install, repair, and construct electronic equipment.

116 **Semiconductor and Electron Tube Fundamentals** 3 hours

118 **Wave Theory and Mechanics** 4 hours
The physics of the electron as it applies to electronics and the cation in electronic circuits. Prereq: TI 101, 107, 108, or 108 parallel.

205 **Solid State Devices** 3 hours
A presentation of the many semiconductor devices. The transistor is treated as only one of the many types of semiconductors. Prereq: TI 116.

206 **Computer Circuits** 3 hours
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.
**207 Basic Electronic Circuits and Systems (Circuit Design I)** 3 hours
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.

**208 Advanced Electronics Circuit Technology (Circuit Design II)** 3 hours
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.

**209 Radio and Communications Technology** 3 hours
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.

**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 207 or parallel.

**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 or parallel.
109 **Electronic Drawing**  
3 hours  
Introducing various drafting techniques and types of diagrams 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 a commercial masonry and concrete 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. Pre-reg: 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; includes microfilming, automated drafting, photo drafting, and design display techniques.

224 **Architectural Drafting and Design II**  
3 hours  
Continuation of TI 124 with particular emphasis on commercial construction, and consideration of heating, wiring and plumbing as related to both light and heavy-commercial structures. Pre-reg: TI 124 or permission.

225 **Graphic Design Methods**  
3 hours  
The analysis, creation, and development of design principles are presented in acceptable forms of visual communication, automated design, and computer-aided display. Emphasis is placed upon lectures and lab assignments on the principles of design for industry. Prereq: Permission of Instructor.

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.

233 **Graphic Design Application** 3 hours
A design product will be developed using the methods of TI 225; it involves investigation and solutions of problems, and frequently the use and manipulation of industrial materials, methods, or techniques of application. Prereq: TI 225.

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.

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: TI 124 or TI 224.

246 **Machine Drawing and Design** 3 hours
Comprehensive treatment of design-drafting of many types of machine elements, with emphasis on exercise of judgment in design. Attention given to materials, tolerances, types of fasteners, jig and fixture design, tool design, and N/C design problems. 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: Soph standing.
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.

201 **Technical Problem Analysis III** 3 hours

**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.

PRE-NURSING

100 Introduction to Professional Nursing 1 hour
Study of major historical and current events as they shape the present and future character of professional nursing and other health team member roles.
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; made satisfactory scores on standardized measures of academic achievement and scholastic aptitude; and obtained the recommendation of his education advisor.

   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, 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 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 104, 117, 118, 203, 396 & 432, 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 104, 117, 118, 203, 396 & 432), 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 item b 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, and 351 or 361, 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 or 361 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.

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

* 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.
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 on semester in the minor field or second teaching field. Exceptions to this are students in the K-12 program majoring in Art, Music, Physical Education, Recreation, 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.

Educational Foundations

PROFESSORS DUNN (Chairman), ACKERMANN, CUSHENBERY, 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 through adolescence.

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 300 Special Studies 1-3 hours
Conducted as short course, seminar, workshop, or special project.
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 351. Also offered for graduate credit.

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. Also offered for graduate credit.

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. Also offered for graduate credit.

FED 486 Audio-Visual Materials in Education  (I, II, S) 3 hours
A course designed to investigate methods of using, selecting, and caring for audio-visual materials and to demonstrate the addition of audio-visual aids in the library as part of its services as a communication center. Prereq Junior Standing and/or permission. Also offered for graduate credit.

FED 487 Preparation of Instructional Materials  3 hours
A basic course in the production of inexpensive audio-visual materials for the classroom. Graphic, photographic and auditory; and including such instructional materials as slides, transparencies, graphics, electronic tapes, and motion pictures. Also offered for graduate credit.

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. Also offered for graduate credit.

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.

COURSES THAT REQUIRE GRADUATE STANDING

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.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Offered</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>FED 501</td>
<td>Introduction to Research</td>
<td>(I, II, S)</td>
<td>3</td>
</tr>
<tr>
<td>FED 502</td>
<td>History and Philosophy of Education</td>
<td>(I, II, S)</td>
<td>3</td>
</tr>
<tr>
<td>FED 504</td>
<td>Comparative Education</td>
<td>(I, S)</td>
<td>3</td>
</tr>
<tr>
<td>FED 505</td>
<td>Seminar in Education</td>
<td>(I, II, S)</td>
<td>3</td>
</tr>
<tr>
<td>FED 506</td>
<td>Education and Society</td>
<td>(II)</td>
<td>3</td>
</tr>
<tr>
<td>FED 507</td>
<td>Statistical Methods</td>
<td>(III, S)</td>
<td>3</td>
</tr>
<tr>
<td>FED 508</td>
<td>Topics in Audio-Visual Education</td>
<td>(II, S)</td>
<td>3</td>
</tr>
<tr>
<td>FED 510</td>
<td>Research Project</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>FED 552</td>
<td>Foundation of Business Education</td>
<td>(S)</td>
<td>3</td>
</tr>
<tr>
<td>FED 601, 602</td>
<td>Thesis</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>
COLLEGE OF EDUCATION

ELEMENTARY EDUCATION

PROFESSORS BETHEL (Chairman), ACKERMAN, ACKERSON;
ASSISTANT PROFESSORS BUNSEN, GRANDGENETT,
HOWELL, WILCOX;
INSTRUCTORS HOOVER, LICKTEIG, LANGAN

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 students 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 Using Audio-Visual Aids (I, II, S) 4 hours
A study of the content and methods of teaching social studies in the modern elementary school with emphasis on the development of knowledges, and resource materials.
EED 433 Teaching of Mathematics (I, II, S) 3 hours
A survey of the content of mathematics in the elementary school and a study of the methods and techniques of teaching modern 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 seminar per week is given to study and discussion of the teaching experience.

EED 436 Advanced Student Teaching and Seminar (I, II) 5 hours (436)
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 seminar per week is given to study and discussion of the teaching experience.

EED 437 (I, II) 3 hours (437)

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. Prereq: Written permission of department head.

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.

COURSES THAT REQUIRE GRADUATE STANDING

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 520 Improvement of Instruction in Elementary Science 3 hours
This course is designed for graduate students in education who wish to become better informed about the recently developed programs for elementary science; the methods, materials, philosophy, and emphasis in instruction, which are characteristic of these programs.
EED 521 Improvement of Instruction in Elementary Mathematics 3 hours
An examination of the philosophy, content, methods, and materials of modern mathematics programs for the elementary school. The needs and backgrounds of the students enrolled during the semester are given special consideration.

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) 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) 3 hours
Designed to help the student 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) 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) 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) 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**  (II) 3 hours
Designed for students who plan to teach in junior or senior high school core classroom.

SED 410  **Special Methods in School Health Education**  3 hours
Provides an opportunity to study, develop, and use materials and equipment in the teaching of health at the secondary level. Various methods of teaching health are evaluated. Students gain experience in unit construction, film evaluation, and test construction.
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. Also offered for graduate credit.

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. Also offered for graduate credit.

**COURSES THAT REQUIRE GRADUATE STANDING**

SED 530  **The Emerging School Curriculum**  
(II, S) 3 hours  
Designed for teachers, coordinators, supervisors, and administrators. Principles, purposes, organization, and curricula of today's schools with a major emphasis upon current curricula issues, materials, and trends.

SED 533  **Trends and Innovations in Secondary Education**  
(I, II) 3 hours  
Emphasis is placed upon the factors bearing upon the development of a qualitative learning environment in the secondary school and the evaluation of current trends in the secondary school. Modular scheduling, team teaching, educational television, and interaction analysis are indicative of the topics presented.

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. 3 hours each

SED 535 Improvement of Instruction of Secondary School Speech
SED 535 Improvement of Instruction of Secondary School Foreign Language
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
SED 557 Improvement of Instruction of Secondary School BSCS Biology
SED 559 Improvement of Instruction of Secondary School PSSC Physics
SED 560-570 Improvement of Instruction of Science, Harvard Project Physics
SED 561-571 Improvement of Instruction of Science, Interaction of Matter and Energy
SED 562-572 Improvement of Instruction of Science, Earth Science Curriculum Project
SED 563-573 Improvement of Instruction of Science, Introductory Physical Science
SED 564-574 Improvement of Instruction of Science, Engineering Concepts Curriculum Project
SED 565 Science Education Seminar
A graduate seminar in K-12 science education emphasizing research, newly developed science curricula, curriculum planning, and science supervision.
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 577 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

The Department of Business Education offers the following programs: a degree with a vocational business education major, a teaching field in general business, and a B.S. Degree with a major in secretarial science. This B.S. Degree with a major in secretarial science is a non-teaching degree for secretarial students who wish to qualify for an executive secretary or an administrative assistant.

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:

*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 vocational program. Students enrolled in Sec. 353, Cooperative Work Experience, (1-4 hours credit) receive work-experience credit equal to twice the number of hours they are employed during that semester.

Minimum course requirements for a teaching field in Business Administration:

- 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.

B.S. Degree with a Major in Secretarial Science: Requirements for this degree include:

- Secretarial courses or equivalency as follows:
  - Sec. 108, 110, 111, 117, 118, 212, 229, 335, 336

- Business administration courses:
  - BA 128, Acct. 101, 102
  - On approval of advisor, student will select 15 to 18 hours from 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 machines, duplicators. Prereq: One year of typing or proficiency.
VBED 110 **Record Management**  (II) 1 hour  Filing systems, record management and control. Prereq: None.

VBED 111 **Elementary Shorthand**  (I, 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 instructor'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 competency. 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** 1-4  (I) 3 hours  Coordinates and relates basic skills, backgrounds, technical-knowledge and related occupational information through practical application of classroom theories. Prereq: Sophomore Standing and employment in an office occupation.

**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 ......... 4 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
DEPARTMENT OF LIBRARY SCIENCE

Library-Media Program

ASSISTANT PROFESSORS HASELWOOD (Chairman), KUCER, HOWELL;
ASSOCIATE PROFESSORS PULLEN, MEANS, McCaulley;
INSTRUCTORS CORKILL, DOUGHERTY, KILLERLAIN, LU,
McKERNAN, PLAYFOOT, LICKTEIG

The Department of Library Science provides through its Library-Media Program undergraduate training for students interested in becoming school librarians and/or media specialists. Those planning to work in elementary and/or secondary schools must meet requirements for teacher certification. Students choosing Library Science may select it as one of their secondary teaching fields or as a departmental major in elementary education (both require 24 hours) or as their one area of concentration leading to a Special Services Certificate in Library Media—K-12 (30 hours required).

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 sub-
ject 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) 3 hours
Detailed consideration of reference materials in the pure and
applied sciences, humanities, and social sciences, including

LS 410 Special Methods in Teaching Library-Media Skills  (I) 2 hours
Designed to provide the potential school librarian media spe-
cialist with a knowledge which will enhance his effectiveness in
teaching skills needed by elementary and/or secondary stu-
dents. Prereq: 12 hours of Library Science and/or permission.

LS 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 inter-
ests. Prereq: Ed. 205 or Psych. 351, or permission.

LS 457 Practice Work in the Library  (I, II) 3 hours
Observation and participation in a library situation with exper-
ience in both public and technical services. Prereq: Completion
of 12 hours in library science and permission.

LS 486 Audio-Visual Materials in Education  (I, II, S) 3 hours
A course designed to investigate methods of using, selecting,
and caring for audio-visual materials and to demonstrate the
addition of audio-visual aids in the library as a part of its serv-
ices as a communication center. Prereq: Junior Standing and/or
permission.

LS 487 Preparation of Instructional Materials  (I, II, S) 3 hours
A basic course in the production of inexpensive instructional
materials for the classroom. Graphic, photographic, and aud-
itory materials are considered, including such instructional ma-
terials as slides, transparencies, graphics, electronic tapes, and
motion pictures. Prereq: LS 486.
LS 488 Administration of the Instructional Materials Center  
(I, II, S) 3 hours
This course is designed for students who wish to prepare themselves for the administration of an educational-media program within an elementary and/or secondary school. Prereq: 12 hours LS or permission.

LS 499 Special Problems  
(I, II) 3 hours
Designed for the mature student in Library Science, particularly for students who have had some library experience. It affords an opportunity for a librarian or teacher librarian to carry out an experimental study based upon his needs, interests, and opportunities. Prereq: 12 hours LS and permission.

HOME ECONOMICS

PROFESSOR KILLIAN (Head)  
ASSISTANT PROFESSOR RAY;  
INSTRUCTORS JOHNSON, ARMSTRONG, GOODRICH, HEDELUND, SEITSCHICK, SWARTZBAUGH

Students must meet the general requirements of the College of Education in regard to making a satisfactory score on the School and College Ability Test or with a minimum of 2.0 cumulative grade point in college.

Students must have completed 125 credit hours for the degree, Bachelor of Science with a major in any of the areas of Home Economics.

Thirty of the last thirty-six hours earned toward a degree must be in residence at the University.

Students must meet the general education requirements of the College of Education including English, Humanities, Natural Science, and Mathematics, Social Science and Physical Education.

Students must also complete nine hours of Professional Education credit. Students earning certification in Home Economics must complete the following major or minor teaching fields:

Major Field Requirements in Home Economics

Home Economics Education

101 Elementary Nutrition and Food Preparation 3 hours
102 Advanced Food Preparation 3 hours
103 Clothing Construction 3 hours
104 Clothing Construction 3 hours
or
303 Advanced Clothing 3 hours
or
304 Tailoring 3 hours
201 Meal Planning and Table Service 3 hours
202 Textiles 3 hours
204 Home Management 3 hours
205 Costume Design 3 hours
214 Household Equipment 3 hours
301 Advanced Nutrition and Dietetics 3 hours
306 Interior Decoration 3 hours
309 Demonstration Techniques 3 hours
310 Experimental Cookery 3 hours

Minor Field Requirements in Home Economics

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>101 Elementary Nutrition and Food Preparation</td>
<td>3</td>
</tr>
<tr>
<td>102 Advanced Food Preparation</td>
<td>3</td>
</tr>
<tr>
<td>103 Clothing Construction</td>
<td>3</td>
</tr>
<tr>
<td>104 Clothing Construction</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>303 Advanced Clothing</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>304 Tailoring</td>
<td>3</td>
</tr>
<tr>
<td>201 Meal Planning and Table Service</td>
<td>3</td>
</tr>
<tr>
<td>204 Home Management</td>
<td>3</td>
</tr>
<tr>
<td>214 Household Equipment</td>
<td>3</td>
</tr>
<tr>
<td>301 Advanced Nutrition and Dietetics</td>
<td>3</td>
</tr>
<tr>
<td>306 Interior Design</td>
<td>3</td>
</tr>
</tbody>
</table>

Students completing a minor teaching field in Home Economics should take Marriage and the Family as one of the social science requirements.

Dietetics (Foods and Nutrition)

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>101 Elementary Nutrition and Food Preparation</td>
<td>3</td>
</tr>
<tr>
<td>102 Advanced Food Preparation</td>
<td>3</td>
</tr>
<tr>
<td>201 Meal Planning and Table Service</td>
<td>3</td>
</tr>
<tr>
<td>301 Advanced Nutrition and Dietetics</td>
<td>3</td>
</tr>
<tr>
<td>302 Diet in Disease</td>
<td>3</td>
</tr>
<tr>
<td>307 Quantity Cookery</td>
<td>3</td>
</tr>
<tr>
<td>308 Institutional Management</td>
<td>3</td>
</tr>
<tr>
<td>310 Experimental Cookery</td>
<td>3</td>
</tr>
<tr>
<td>311 Institutional Equipment</td>
<td>3</td>
</tr>
</tbody>
</table>

Related Area Requirements as Specified by the American Dietetic Association for Internships and Membership:

**Human Physiology and Anatomy**
**Bacteriology or Microbiology**
**Inorganic and Organic Chemistry (101 and 102)**
**Biochemistry**
**Personnel Management or Industrial Psychology**
**Principles of Learning or Educational Psychology**

Highly Recommended:

**Anthropology**
**Economics**
**Accounting**

**Interior Design**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>202 Textiles</td>
<td></td>
</tr>
<tr>
<td>203 Non-Textiles</td>
<td></td>
</tr>
<tr>
<td>204 Home Management</td>
<td></td>
</tr>
<tr>
<td>211 Upholstery</td>
<td></td>
</tr>
</tbody>
</table>
212 Furniture Repair and Refinishing 3 hours
213 Home Planning 3 hours
306 Interior Design 3 hours
401 Textile Design I 3 hours
402 Textile Design II 3 hours
406 Advanced Interior Design 3 hours
407 Special Problems in Interior Design 1 hour
408 2 hours
409 1 hour
410 2 hours

Related Area Requirements
Students Majoring in Interior Design Should Complete a Minimum of Nine Hours in Graphic Arts and 9-12 hours in Art History.

General Home Economics
Preparation for Careers in Business and Homemaking:
101 Elementary Nutrition and Food Preparation 3 hours
102 Advanced Food Preparation 3 hours
103 Clothing Construction 3 hours
104 Clothing Construction 3 hours
or
303 Advanced Clothing 3 hours
or
304 Tailoring 3 hours
201 Meal Planning and Table Service 3 hours
202 Textiles 3 hours
204 Home Management 3 hours
205 Costume Design 3 hours
214 Household Equipment 3 hours
301 Advanced Nutrition and Dietetics 3 hours
305 Child Care and Development 3 hours
306 Interior Decoration 3 hours
309 Demonstration Techniques 3 hours
310 Experimental Foods 3 hours
405 Consumer Education and Family Economics 3 hours

Suggested Related Courses:
Introduction to Radio and Television Economics
Accounting Typewriting

Natural Science requires for all Home Economics Majors should be satisfied by taking inorganic and organic Chemistry (101 and 102), Physiology and Anatomy and Microbiology.

Course Listings
HEC 101 Elementary Nutrition and Food Preparation 3 hours
Basic principles of nutrition, food principles with emphasis on food quality and characteristics.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HEC 102</td>
<td>Advanced Food Preparation</td>
<td>3 hours</td>
</tr>
<tr>
<td></td>
<td>Advanced food preparation techniques and gourmet cookery. Prereq: 101 or permission.</td>
<td></td>
</tr>
<tr>
<td>HEC 103</td>
<td>Clothing Construction</td>
<td>3 hours</td>
</tr>
<tr>
<td></td>
<td>Fundamental processes of garment construction and selection of clothing suited to the individual.</td>
<td></td>
</tr>
<tr>
<td>HEC 104</td>
<td>Clothing Construction</td>
<td>3 hours</td>
</tr>
<tr>
<td></td>
<td>The socio-economic approach to the study of clothing and textiles and advanced construction techniques. Prereq: 103 or permission.</td>
<td></td>
</tr>
<tr>
<td>HEC 201</td>
<td>Meal Planning and Service</td>
<td>(I) 3 hours</td>
</tr>
<tr>
<td></td>
<td>The planning, purchasing, preparation and service of all types of meals. Prereq: 102 or permission.</td>
<td></td>
</tr>
<tr>
<td>HEC 202</td>
<td>Textiles</td>
<td>(I) 3 hours</td>
</tr>
<tr>
<td></td>
<td>Consumer information about the manufacture, properties, and selection of textile fibers.</td>
<td></td>
</tr>
<tr>
<td>HEC 203</td>
<td>Non-Textiles or Merchandise Information</td>
<td>(II) 3 hours</td>
</tr>
<tr>
<td></td>
<td>Consumer information about synthetic fabrics and non-textiles merchandise; plastics, furs, leather goods and jewelry.</td>
<td></td>
</tr>
<tr>
<td>HEC 204</td>
<td>Home Management</td>
<td>3 hours</td>
</tr>
<tr>
<td></td>
<td>Efficient use of resources for the achievement of family goals. Budgeting, consumer information, installment purchasing.</td>
<td></td>
</tr>
<tr>
<td>HEC 205</td>
<td>Costume Design</td>
<td>(II) 3 hours</td>
</tr>
<tr>
<td></td>
<td>Historical sources of dress; creative design.</td>
<td></td>
</tr>
<tr>
<td>HEC 209</td>
<td>Personality and Style</td>
<td>3 hours</td>
</tr>
<tr>
<td></td>
<td>Assessment of individual potential and values. Good grooming, good taste, good manners.</td>
<td></td>
</tr>
<tr>
<td>HEC 211</td>
<td>Upholstering</td>
<td>3 hours</td>
</tr>
<tr>
<td></td>
<td>Styling, conditioning and covering of furniture.</td>
<td></td>
</tr>
<tr>
<td>HEC 212</td>
<td>Furniture Repair and Refinishing</td>
<td>3 hours</td>
</tr>
<tr>
<td></td>
<td>Reconstruction, stripping and finishing of furniture.</td>
<td></td>
</tr>
<tr>
<td>HEC 213</td>
<td>Home Planning</td>
<td>3 hours</td>
</tr>
<tr>
<td></td>
<td>Planning space for area of the home for beauty and efficiency. Interpreting and constructing floor plans.</td>
<td></td>
</tr>
<tr>
<td>HEC 214</td>
<td>Household Equipment</td>
<td>3 hours</td>
</tr>
<tr>
<td></td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>HEC 301</td>
<td>Advanced Nutrition and Dietetics</td>
<td>(I) 3 hours</td>
</tr>
<tr>
<td></td>
<td>Comprehensive study of human nutrition.</td>
<td></td>
</tr>
<tr>
<td>HEC 302</td>
<td>Diet in Disease</td>
<td>(II) 3 hours</td>
</tr>
<tr>
<td></td>
<td>Nutrition as related to therapeutic practices.</td>
<td></td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Credits</td>
</tr>
<tr>
<td>-------------</td>
<td>--------------------------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>HEC 303</td>
<td>Advanced Clothing</td>
<td>3 hours</td>
</tr>
<tr>
<td>HEC 304</td>
<td>Tailoring</td>
<td>3 hours</td>
</tr>
<tr>
<td>HEC 305</td>
<td>Child Care and Development</td>
<td>3 hours</td>
</tr>
<tr>
<td>HEC 306</td>
<td>Interior Design</td>
<td>3 hours</td>
</tr>
<tr>
<td>HEC 307</td>
<td>Quantity Cookery</td>
<td>3 hours</td>
</tr>
<tr>
<td>HEC 308</td>
<td>Institutional Management</td>
<td>3 hours</td>
</tr>
<tr>
<td>HEC 309</td>
<td>Demonstration Techniques</td>
<td>3 hours</td>
</tr>
<tr>
<td>HEC 310</td>
<td>Experimental Cookery</td>
<td>3 hours</td>
</tr>
<tr>
<td>HEC 311</td>
<td>Institutional Equipment</td>
<td>3 hours</td>
</tr>
<tr>
<td>401</td>
<td>Textile Design I</td>
<td>3 hours</td>
</tr>
<tr>
<td>402</td>
<td>Textile Design II</td>
<td>3 hours</td>
</tr>
<tr>
<td>HEC 404</td>
<td>Advanced Tailoring</td>
<td>3 hours</td>
</tr>
<tr>
<td>405</td>
<td>Consumer Education and Family Economics</td>
<td>3 hours</td>
</tr>
<tr>
<td>HEC 406</td>
<td>Advanced Interior Design</td>
<td>3 hours</td>
</tr>
<tr>
<td>407</td>
<td>Special Problems of Interior Design</td>
<td>1 hour</td>
</tr>
</tbody>
</table>
**Special Problems in Interior Design**

1 hour

Field trip to Chicago Merchandise Mart, Museum and supply sources. Prereq: Jr/Sr; 12 hrs Interior Design including HEc 306 & 406.

**Special Problems in Interior Design**

2 hours

Independent research in specific areas of Interior Design under supervision of a faculty member. Prereq: Jr/Sr; 9 hrs Interior Design including HEc 306 & 406.

---

**HEALTH, PHYSICAL EDUCATION AND RECREATION**

**MEN'S FACULTY**

ASSISTANT PROFESSOR WATCHORN (Chairman);
ASSOCIATE PROFESSOR GORR, YELKIN;
ASSISTANT PROFESSORS BENNING, BORSHEIM, CANIGLIA, CARDWELL, KURTH;
INSTRUCTORS CAMPBELL, MEYERS, WAGNER

**WOMEN'S FACULTY**

ASSISTANT PROFESSORS CLAUSSEN (Chairman), GREEN, LUNDAHL

---

**MEN'S PHYSICAL EDUCATION PROGRAM**

**Physical Education Majors (7-12)**

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.

**WOMEN'S PHYSICAL EDUCATION PROGRAM**

**Physical Education Majors (7-12)**

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. Biology 275 is a prerequisite for PE 315 and 363. One must also qualify in one additional teaching field. 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.
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. 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.

PHYSICAL EDUCATION COURSES FOR ALL STUDENTS

PE 111 Team and Individual Sports (I) 1 hour
PE 112 Team and Individual Sports (II) 1 hour
PE 113 Restricted Physical Education 1 hour
PE 211 Beginning Swimming 1 hour
PE 212 Team 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

PROFESSIONAL PHYSICAL EDUCATION COURSES

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. Prereq: None.

MPE 177 Football Coaching Theory and Practice (I) 3 hours
Offers the basic fundamentals involved in coaching football. Lecture 2 hours, laboratory 2 hours. Prereq: None

MPE 179 Basketball Coaching Theory and Practice (I) 3 hours
Offers the basic fundamentals involved in coaching basketball. Involves the study of the history, rules, and the basic fundamentals of individual and team play. Lecture 2 hours, laboratory 2 hours. Prereq: None

WPE 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. Prereq: None

WPE 202 Sports Officiating II (II) 1 hour
Prereq: None
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: Be able to demonstrate beginning skill level.

PE 214 **Senior Life Saving and Water Safety Instruction**  
(II) 2 hours  
This is an activity course which will present skills and information for Red Cross Senior Life Saving, Red Cross Water Safety Instruction and Competitive Swimming. Prereq: 18 years of age and intermediate swimming ability.

MPE 217 **Wrestling Coaching Theory and Practice**  
(II) 3 hours  
History, fundamentals, methods of instruction, rules and officiating training methods, care and prevention of injuries, equipment, and preparation of competition. Lecture 2 hours, laboratory 2 hours. Prereq: None

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. Prereq: None

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 for men and women students to help them 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. Prereq: None

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. Prereq: None

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 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. Prereq: None
MPE 276 **Baseball Coaching Theory and Practice** (II) 3 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. Prereq: None

MPE 278 **Track and Field Coaching Theory and Practice** (II) 3 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. Prereq: None

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 administering 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 Ballroom)** (II) 3 hours
Designed for men and women interested in teaching dance an opportunity to attain knowledge, skill and practical experience necessary for the teaching of modern and ballroom dancing. Prereq: PE 223, PE 227.

MPE 314 **Sports Officiating** (I) 3 hours
The general principles, guiding philosophy, techniques and mechanics of sports officiating. Prereq: Sophomore 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, S) 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. Students must be admitted to the Teacher's Education Program.

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. Prereq: Junior standing.

PE 335 **Physical Education in the Elementary School** (I, II, S) 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. Prereq: Junior standing.

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. Prereq: PE 342.

MPE 348 **Organization and Administration of Athletics** (II) 3 hours
A study of the organization and administration of athletics in the secondary schools. Prereq: Junior standing.

WPE 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. One must be gymnastics.

WPE 350 **Teaching Physical Education Activities II** (II) 3 hours
Same as PE 349.

MPE 352 **Physical Education Activities** (I) 3 hours
Participation, supervision, and officiating team and individual sports and other related activities. Prereq: Physical Education major or minor of Junior standing.

MPE 353 **Physical Education Activities** (II) 3 hours
Participation, supervision, and officiating team and individual sports and other related activities. Prereq: Physical Education major or minor of Junior standing.

PE 363 **Kinesiology** 3 hours
The science of bodily movements, mechanics and muscular exercises in relation to sports, posture, corrective movements, and everyday activity. Prereq: Biology 275.

PE 422 **Organization and Administration of Physical Education and Intramurals** (II, S) 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 standing.

PE 493 **Measurement and Evaluation in Physical Education** (II, S) 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: Junior standing.
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 Education and Recreation and to further professional improvement and growth beyond the normal four year undergraduate program. Prereq: Permission of the Dean.

RECREATION EDUCATION PROGRAM

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.

PROFESSIONAL RECREATION EDUCATION PROGRAM

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, 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.

HEALTH EDUCATION PROGRAM

Health Education Major  (K-12)
A major in health education includes the following courses: HED 231, HED 302, HED 306, PE 304, PE 422, Soc. 215, Biol. 275, HEC 301 and FED 418. An additional 12-14 hours in directed electives.
Health Education Minor (7-12)
A minor in health education includes the following courses:
Soc. 215, HED 231, HED 302, HED 306, Biol. 275, HEC 301, PE 304, PE 422, and FED 418.

PROFESSIONAL HEALTH EDUCATION COURSES

HED 231 Personal and Community Health (I, II, S) 3 hours
A study of selected health problems and controversies in our society as related to knowledges, attitudes and habits necessary for healthful living.

HED 302 Health Problems of Youth 3 hours
Identification of health problems of school age children. Role of the school.

HED 306 School Health Programs (II) 3 hours
Provide information for planning and conducting a school and community health programs, use of health committees and councils, coordination of instructional, environmental, and service programs. Inter-related role of teachers, parents, physicians, and nurses in the total health education of students.

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 Foundations of Educational Administration and Supervision (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) 3 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 Educational Administration and Supervision (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 571 Advanced Practicum in Educational Administration and Supervision 3 hours
Continuation of EdAd 570. Advanced study and practice under guidance 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 Educational 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 Educational 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 Educational 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) CUSHENBERY; ASSISTANT PROFESSORS GILREATH, LARSEN, MCKENNEY ASSOCIATE PROFESSORS MORRISON, WOODS

SPED 306 Teaching the Exceptional Child (I, 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.

SPED 341 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 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 and adult. 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 techniques 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 language principles for the older deaf pupil. Prereq: SPED 423.

SPED 425 Observations and Student Teaching of the Deaf (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-curricular as well as classroom experience encouraged. Prereq: Permission of head of the department.

SPED 433 Speech Reading and Auditory Training (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 School Subjects to the Deaf I (I) 2 hours
Philosophy underlying formal education of the deaf; methods and special adaptations used in presenting school subjects. Prereq: Junior Standing.

SPED 435 Teaching School Subjects to the Deaf II (II) 2 hours
Consideration of problems in the education; of the deaf; approaches to school subjects considered in detail. Prereq: SPED 434.

SPED 437 Basic Audiology (II) 3 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 Learning Disabilities (S) 3 hours
Study of developmental patterns in speech and language; causal factors of delayed speech and language development; evaluative techniques for identification of problems; therapy techniques for habilitation and/or rehabilitation of children with deviant language development.
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, aphasia and 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 447 **Neurophysiology 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 450 **Speech Correction in Elementary and Secondary Schools**  
(I) 3 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 in 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 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 469 **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 educable retarded wherever possible. Weekly seminar required of all students concurrent with practice teaching experiences. Prereq: SPED 460, 463, 464 and permission.

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.

**COURSES REQUIRING GRADUATE STANDING**

SPED 506 **Teaching the Exceptional Child**  
(I, II, S) 3 hours  
Required course for all Special Education majors.

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.
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.

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.

SPED 514 **Measurement and Evaluation of Reading** (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).

SPED 515 **Clinical Practice in Reading** (II, S) 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: Permission of instructor.

SPED 516 **Reading Problems of the Disadvantaged** 3 hours

Investigation relating to causes of reading difficulties of the culturally disadvantaged; methods and materials; demonstration of individual and group reading remediation procedures.

SPED 517 **Seminar in Organization and Administration of Reading Programs** 3 hours

Participation in the seminar is limited to individuals who have completed at least one graduate reading course (or equivalent) and are professional workers who are charged with the total or partial responsibility for organizing and administering reading programs. Familiarity with the philosophy, organization, and major research related to different reading programs will be emphasized. Local and area reading authorities will conduct panels and lectures on topics chosen by the students. Prereq: 1 graduate reading course (or equivalent) and permission of instructor.

SPED 520 **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.

SPED 521 **Teaching of Speech to the Deaf I** (I) 2 hours

Methods and practicum in teaching speech to the deaf child; special emphasis on tactual, visual and auditory techniques.
SPED 522 **Teaching of Speech to the Deaf II** (II) 2 hours
Continuation of Special Education 521; focus on various types of speech learning problems found in a population of deaf children.

SPED 523 **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.

SPED 524 **Teaching of Language to the Deaf II** (II) 2 hours
Continuation of Special Education 523 with further consideration of criteria for selection and utilization of teaching materials; special emphasis on reading problems.

SPED 524 **Teaching School Subjects to the Deaf I** (II) 2 hours
Philosophy underlying formal education of the deaf; methods and special adaptations used in presenting school subjects, preparing lesson plans for deaf classes.

SPED 534 **Teaching School Subjects to the Deaf II** (I) 2 hours
Consideration of problems in deaf education; approaches to school subjects considered in detail.

SPED 537 **Observation and Student Teaching of the Deaf** (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-curricular as well as classroom experiences emphasized.

SPED 540 **Learning Disabilities** (I, S) 3 hours
Developmental phenomena in speech and language; causal factors of delayed speech and language; survey of evaluative and habilitative programs for children with deviant language development.

SPED 541 **Disorders of Articulation** (I) 2-3 hours
Types and causes of articulation disorders; rationale for case selection; S-R-L syndrome; special emphasis of rehabilitation procedures associated with individual involvements; practicum. (Lec. 2, Lab. 3)

SPED 542 **Disorders of Voice** (I) 2-3 hours
Types and causes of voice disorders; rationale for case selection; cleft palate; special emphasis on rehabilitation procedures associated with individual involvements; practicum. (Lec. 2, Lab. 3)

SPED 543 **Disorders of Rate and Rhythm** (II) 2-3 hours
Types and causes of rate, rhythm and stress pattern disorders; rationale for case selection; survey of stuttering theories and therapies; special emphasis on rehabilitation procedures associated with individual involvement; practicum. (Lec. 2, Lab. 3)
SPED 544 Disorders of Symbolization (II) 2-3 hours
Types and causes of language symbolization disorders; rationale for case selection; childhood aphasia and autism; special emphasis on rehabilitation procedures associated with individual involvements; practicum. (Lec. 2, Lab. 3)

SPED 546 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: 6 hours of Speech Pathology.

SPED 548 Advanced Audiology (I) 3 hours
Hearing evaluation techniques; methods and practicum in basic audiological assessment; types of hearing losses and their implications for rehabilitation. Prereq: Permission of instructor.

SPED 549 Advanced Measurement of Hearing (II) 3 hours
Hearing evaluation problems associated with pre-school children, recruitment, functional hearing loss, etc.; education and rehabilitation problems associated with electronically-assisted hearing. Prereq: Permission of instructor and SPED 548.

SPED 551 Basic Practicum in Speech Correction (I, II) 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 instructor.

SPED 552 Advanced Practicum in Speech Correction (I, II) 1-2 hours
Continuation of Special Education 551; 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 of instructor.

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: Permission of instructor with six semester hours in Speech Pathology or Correction.

SPED 555 Alaryngeal Speech Rehabilitation (I) 2 or 3 hours
Problems of voice and speech rehabilitations for the individual without a functional larynx; social, emotional, and medical consideration as well as clinical procedures for esophageal, pharyngeal and buccal speech; implications for use of artificial larynx, current research pertinent to this area. Prereq: 6 hours of speech pathology including voice problems.
SPED 556 **Speech Problems of Cerebral Palsied Children**  
(II) 2 or 3 hours  
Identification of types of Cerebral Palsy by a location of lesion, motor symptoms, and additional handicaps; the role of the speech clinician on the team; types of speech therapy, with special emphasis on the Bobath approach; current research and controversial issues will be discussed. Prereq: 6 hours of speech pathology.

SPED 566 **Vocational Training of the Mentally Retarded**  
(II) 3 hours  
Consideration of the following aspects of treatment of the mentally retarded: prevocational training and evaluation, on the job training, vocational placement, working with related disciplines, follow-up services.

SPED 569 **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 concurrent with practice teaching experiences. Prereq: Permission of department only.

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.
AEROSPACE STUDIES

Professor, Colonel Connell; Assistant Professors, Major Kelliher, Captain Hall, Captain Nagley.

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

*102 World Military Systems I

*201 World Military Systems II
Prereq: AS 101-102, or permission of PAS

202 Corps Training

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
Prereq: permission of PAS

*302 Growth and Development of Aerospace Power II
Prereq: AS 301 or permission of PAS

*401 The Professional Officer I
Prereq: AS 302, or permission of PAS

*402 The Professional Officer II
Prereq: AS 401, or permission of PAS

403 Flight Instruction Program (FIP)
Prereq: POC standing and permission of PAS

*Plus 1 hour of Cadet Corps Training—Arranged
## INDEX

### A

**Academic Standing** ............... 27  
**Academic Studies Division** ........ 169  
**Accounting** ... 154-155, 161-162  
**Accreditation** ........ 3  
**Activities Card** ........ 40  
**Administration** *(See Front of Catalog)*  
**Administration (Courses in School Administration)** .... 248-250  
**Administrative Staff** .... 59-60  
**Admission** ........ 7-8  
**Advanced Degrees** ........ 42  
**Advanced Placement** ... 7, 10, 67  
**Advanced Standing** ........ 8  
**Aerospace Studies** ........ 258  
**Aid, Financial for Students** .... 24-27, 150-52  
**Air Force ROTC** ........ 18-19  
**Alumni Association** .... 22, 24  
**Art** ........ 67-71  
**Associate Title**  
  **Engineering and Technology** .................. 187, 196-198  
  **Continuing Studies** .................. 183-184  
**Athletics** ........ 21-22  
**Audio-Visual Aids** .......... 14  
**Audit Students** .......... 31  

### B

**Bachelor of Arts** ........ 61-64  
**Bachelor of Fine Arts** ........ 64  
**Bachelor of General Studies** .. 170, 175-178  
**Bachelor of Science**  
  **Business Administration** .......... 152-154  
  **Education** .......... 219-222  
  **Engineering (Civil)** .......... 187-189  
  **Engineering (General)** ........ 191-192  
  **Engineering (Industrial)** .......... 189-191  
  **Industrial Technology** .......... 193-195  
  **Law Enforcement and Corrections** ... 170, 179-180, 181-183  
  **Medical Technology** .......... 66  
  **Nursing** .......... 198  
**Band** .......... 40, 115  
**Biology** .......... 71-74  
**Book Store** .......... 20  
**Bootstrap Program (Military Personnel)** .......... 171  
**Business Administration** .......... 17, 162-167  
**Business Administration and Law** .......... 158-160  
**Business Education** .......... 232-234
C

Calendar for 1969-70 ........................................ 4-5
Certification Programs ........................................
   Insurance .................................................. 155-156
   Real Estate ................................................. 158
Chemistry ..................................................... 75-77
Chorus ......................................................... 116
Civil Engineering ........................................... 187-189, 204-207
Class Attendance ............................................ 31
Clinical Services ............................................ 24
College of Arts and Sciences ................................ 16, 61-149
College of Business Administration ......................... 17, 150-168
College of Continuing Studies ................................ 18, 57, 169-186
College of Education ......................................... 16-17, 219-258
College of Engineering and Technology ....................... 17-18, 187-218
College, The Graduate (See also Graduate Catalog) ........... 42
Community Service Courses .................................. 184
Computer Center ............................................. 20
Computer Sciences ........................................... 109-110
Conferences and Workshops ................................... 184, 186
Co-operative Program (Business, Industry) ..................... 184
Counseling Center ............................................ 12-13
Credit .......................................................... 31
Credit for High School Work ................................ 7-8

D

Debate ......................................................... 147-149
Degrees with Honors .......................................... 33
Dietetics ....................................................... 237-238
Drama .......................................................... 145-149
Dropping a Course ........................................... 29

E

Economics ....................................................... 77-82
Education ...................................................... 16-17, 219-231
Elementary Education ......................................... 226-228
Emeritus Faculty ............................................. 56-57
Employment Service .......................................... 21
Engineering .................................................... 187-218
English ........................................................ 82-87
Entrance Requirements ....................................... 7-8
Evening School ................................................. 169
Examinations .................................................. 30, 31-32
Extra-Curricular Activities .................................. 31

F

Faculty ........................................................ 43-55
Faculty (Emeritus) ........................................... 56-57
Fees ............................................................. 34-36
Finance .......................................................... 155
Food Service .................................................. 19-20
Foreign Languages and Literatures ......................... 87-92
Fraternities ..................................................... 39
French .............................................................. 88-89
Freshman Days—See Calendar ................................. 4-5
Freshman Standing ............................................... 7

G
General Academic Regulations ................................ 31-32
General Business ............................................... 160
General Engineering .......................................... 189, 191-192
General Military Course ...................................... 258
General Science ................................................ 71-74
Geography and Geology ...................................... 92-97
German ............................................................. 89-90
Grades ............................................................... 28-29
Graduate College (See also Graduate Catalog) ............ 42
Guidance Courses ............................................. 247-248
Guidance Services ............................................... 8-11

H
Health Education ................................................ 246-247
Health, Physical Education and Recreation .................. 241-247
High School Teaching ......................................... 226-231
Historical Sketch .............................................. 1
History ............................................................. 98-107
Home Economics ............................................... 236-241
Honors (Degrees with) ........................................ 33
Humanities ......................................................... 62

I
Identification Card ............................................. 40-41
Industrial Engineering ....................................... 189-191, 207-209
Industrial Technology ........................................ 193-195, 209-211
Insurance ......................................................... 155-156
Interior Design .................................................. 237-238
Intramural Athletics .......................................... 22

J
Journalism ........................................................ 107-109

L
Languages .......................................................... 87-92
Law ................................................................. 64-65
Law Enforcement and Corrections ............................ 170, 179-184
Library (Gene Eppley) ......................................... 14
Library Science .................................................. 234-236
Loans ............................................................... 27
<table>
<thead>
<tr>
<th>Section</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management (Courses Offered)</td>
<td>166-167</td>
</tr>
<tr>
<td>Marketing</td>
<td>156-157, 167-168</td>
</tr>
<tr>
<td>Master of Arts Degree</td>
<td>42</td>
</tr>
<tr>
<td>Master of Science Degree</td>
<td>42</td>
</tr>
<tr>
<td>Mathematics</td>
<td>109-113</td>
</tr>
<tr>
<td>Matriculation</td>
<td>7-8</td>
</tr>
<tr>
<td>Medical Technology</td>
<td>66-67</td>
</tr>
<tr>
<td>Medicine</td>
<td>65-66</td>
</tr>
<tr>
<td>Military, General Course</td>
<td>258</td>
</tr>
<tr>
<td>Military Programs</td>
<td>171</td>
</tr>
<tr>
<td>Music</td>
<td>114-120</td>
</tr>
<tr>
<td>National Defense Education Act, 1958</td>
<td>27</td>
</tr>
<tr>
<td>New Students</td>
<td>7-8</td>
</tr>
<tr>
<td>Officer (Professional) Course</td>
<td>258</td>
</tr>
<tr>
<td>Officers of Administration</td>
<td>(See Front of Catalog)</td>
</tr>
<tr>
<td>Orchestra</td>
<td>115-116</td>
</tr>
<tr>
<td>Piano</td>
<td>115-118</td>
</tr>
<tr>
<td>Philosophy</td>
<td>120-122</td>
</tr>
<tr>
<td>Physical Education, (Courses Offered)</td>
<td>241, 242-246</td>
</tr>
<tr>
<td>Physical Education for Men</td>
<td>242-246</td>
</tr>
<tr>
<td>Physical Education for Women</td>
<td>242-246</td>
</tr>
<tr>
<td>Physics</td>
<td>123-125</td>
</tr>
<tr>
<td>Placement Service</td>
<td>21</td>
</tr>
<tr>
<td>Political Science</td>
<td>131-136</td>
</tr>
<tr>
<td>Pre-Legal Study</td>
<td>64-65</td>
</tr>
<tr>
<td>Pre-Medical Study</td>
<td>65-66</td>
</tr>
<tr>
<td>Pre-Nursing Study</td>
<td>218</td>
</tr>
<tr>
<td>Pre-Professional Courses</td>
<td>64-66</td>
</tr>
<tr>
<td>Probation</td>
<td>30</td>
</tr>
<tr>
<td>Professional Officer Course</td>
<td>258</td>
</tr>
<tr>
<td>Psychology</td>
<td>125-131</td>
</tr>
<tr>
<td>Publications (Student)</td>
<td>39</td>
</tr>
<tr>
<td>Radio and Television</td>
<td>146-149</td>
</tr>
<tr>
<td>Reading Laboratory</td>
<td>22</td>
</tr>
<tr>
<td>Real Estate</td>
<td>158</td>
</tr>
<tr>
<td>Recreation Education</td>
<td>246</td>
</tr>
<tr>
<td>Recreation Major</td>
<td>246</td>
</tr>
<tr>
<td>Refunds</td>
<td>36-37</td>
</tr>
<tr>
<td>Section</td>
<td>Page Numbers</td>
</tr>
<tr>
<td>----------------------------------------------</td>
<td>--------------</td>
</tr>
<tr>
<td>Regents</td>
<td>(See Front of Catalog)</td>
</tr>
<tr>
<td>Registration</td>
<td>.7, 187</td>
</tr>
<tr>
<td>Regulations (General Academic)</td>
<td>.31-32</td>
</tr>
<tr>
<td>Regulations (University)</td>
<td>.41</td>
</tr>
<tr>
<td>Religion</td>
<td>.122</td>
</tr>
<tr>
<td>Residency</td>
<td>.33-34</td>
</tr>
<tr>
<td>Retail Management</td>
<td>.157-158</td>
</tr>
<tr>
<td>ROTC (Air Force)</td>
<td>.18-19</td>
</tr>
<tr>
<td>Russian</td>
<td>.90</td>
</tr>
<tr>
<td>Scholarships, Grants and Awards</td>
<td>.24-27</td>
</tr>
<tr>
<td>School Administration (Courses Offered)</td>
<td>.248-250</td>
</tr>
<tr>
<td>Sciences</td>
<td>.71-74</td>
</tr>
<tr>
<td>Secondary School Education</td>
<td>.228-231</td>
</tr>
<tr>
<td>Secondary Teaching Certificate</td>
<td>.64, 223</td>
</tr>
<tr>
<td>Secretarial Science</td>
<td>.232-234</td>
</tr>
<tr>
<td>Social Work</td>
<td>.137-138, 143-145</td>
</tr>
<tr>
<td>Sociology</td>
<td>.137-145</td>
</tr>
<tr>
<td>Sororities</td>
<td>.39</td>
</tr>
<tr>
<td>Spanish</td>
<td>.90-92</td>
</tr>
<tr>
<td>Special Education</td>
<td>.250-257</td>
</tr>
<tr>
<td>Special Testing</td>
<td>.174</td>
</tr>
<tr>
<td>Speech</td>
<td>.145-149</td>
</tr>
<tr>
<td>Student Activities</td>
<td>.37-40</td>
</tr>
<tr>
<td>Student Classification</td>
<td>.28</td>
</tr>
<tr>
<td>Student Loans</td>
<td>.27</td>
</tr>
<tr>
<td>Student Organizations</td>
<td>.37-40</td>
</tr>
<tr>
<td>Student Teaching</td>
<td>.222-223</td>
</tr>
<tr>
<td>Study Load</td>
<td>.28, 173-174</td>
</tr>
<tr>
<td>Summer Sessions</td>
<td>.186-187</td>
</tr>
<tr>
<td>Suspension</td>
<td>.30</td>
</tr>
<tr>
<td>Teachers' Certificates</td>
<td>.64, 223, 232</td>
</tr>
<tr>
<td>Technical Institute</td>
<td>.196-198, 211-213</td>
</tr>
<tr>
<td>Television-Radio</td>
<td>.146-149</td>
</tr>
<tr>
<td>Testing Programs</td>
<td>.8-11</td>
</tr>
<tr>
<td>Transfer Students</td>
<td>.7-8</td>
</tr>
<tr>
<td>Tuition, Fees</td>
<td>.34-36</td>
</tr>
<tr>
<td>Two-Year Programs (See Associate Title)</td>
<td></td>
</tr>
<tr>
<td>TV Classroom</td>
<td>.171</td>
</tr>
<tr>
<td>University (Purpose)</td>
<td>.2</td>
</tr>
<tr>
<td>University Division</td>
<td>.11-12</td>
</tr>
<tr>
<td>University Regulations</td>
<td>.41</td>
</tr>
<tr>
<td>Urban Affairs Center</td>
<td>.20</td>
</tr>
</tbody>
</table>
Vocational Business Education ........................................ 232-234
Vocational Guidance ...................................................... 7, 10-11

Withdrawal from University ........................................... 29