3-1971

1971-1972 Bulletin

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Published by the University of Dayton, 300 College Park Avenue, Dayton, Ohio 45409. Issued five times a year: three in January, once in March, and once in June. Second class postage paid in Dayton, Ohio.

The University of Dayton Bulletin includes the admissions catalog issue, the undergraduate catalog issue, the graduate catalog issue, the evening session announcements, and the summer session announcements.

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The current number of any of these publications may be obtained by applying to the office of the Provost.
1971-72 Academic Calendar

**FIRST TERM**

<table>
<thead>
<tr>
<th>Date</th>
<th>Day(s)</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aug. 26-27</td>
<td>Thurs., Fri.</td>
<td>Registration</td>
</tr>
<tr>
<td>Aug. 29</td>
<td>Sun.</td>
<td>Parents Day</td>
</tr>
<tr>
<td>Aug. 30</td>
<td>Mon.</td>
<td>Classes begin at 8 a.m.</td>
</tr>
<tr>
<td>Sept. 6</td>
<td>Mon.</td>
<td>National Holiday—Labor Day—No class meetings</td>
</tr>
<tr>
<td>Sept. 8</td>
<td>Wed.</td>
<td>Last day for change in schedules</td>
</tr>
</tbody>
</table>
### 1971-1972

<table>
<thead>
<tr>
<th>Date</th>
<th>Day</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sept. 18</td>
<td>Sat.</td>
<td>Last day to withdraw without record</td>
</tr>
<tr>
<td>Sept. 18</td>
<td>Sat.</td>
<td>Last day to change grading option</td>
</tr>
<tr>
<td>Sept. 20</td>
<td>Mon.</td>
<td>From this date every withdrawal from class for academic difficulty is recorded as F</td>
</tr>
<tr>
<td>Oct. 11</td>
<td>Mon.</td>
<td>National Holiday—Columbus Day—No class meetings</td>
</tr>
<tr>
<td>Oct. 18</td>
<td>Mon.</td>
<td>Mid-term progress grades due in the Registrar’s Office for freshmen only</td>
</tr>
<tr>
<td>Oct. 25</td>
<td>Mon.</td>
<td>National Holiday—Veterans Day—Classes as usual</td>
</tr>
<tr>
<td>Oct. 30</td>
<td>Sat.</td>
<td>Homecoming</td>
</tr>
<tr>
<td>Nov. 1</td>
<td>Mon.</td>
<td>All Saints Day—No class meetings</td>
</tr>
<tr>
<td>Nov. 24</td>
<td>Wed.</td>
<td>Thanksgiving recess begins after the last evening class</td>
</tr>
<tr>
<td>Nov. 29</td>
<td>Mon.</td>
<td>All classes resume</td>
</tr>
<tr>
<td>Dec. 8</td>
<td>Wed.</td>
<td>The Immaculate Conception—No class meetings</td>
</tr>
<tr>
<td>Dec. 10-16</td>
<td></td>
<td>Examinations in evening courses conducted during final class meeting</td>
</tr>
<tr>
<td>Dec. 11</td>
<td>Sat.</td>
<td>Examinations—Saturday courses</td>
</tr>
<tr>
<td>Dec. 14</td>
<td>Tues.</td>
<td>Examinations 8:00-5:00</td>
</tr>
<tr>
<td>Dec. 15</td>
<td>Wed.</td>
<td>Examinations 8:00-5:00</td>
</tr>
<tr>
<td>Dec. 16</td>
<td>Thurs.</td>
<td>Examinations 8:00-5:00</td>
</tr>
<tr>
<td>Dec. 17</td>
<td>Fri.</td>
<td>Examinations 8:00-5:00</td>
</tr>
<tr>
<td>Dec. 17</td>
<td>Fri.</td>
<td>First Term ends after the last examination</td>
</tr>
<tr>
<td>Dec. 18</td>
<td>Sat.</td>
<td>Diploma Exercises</td>
</tr>
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<th>Day</th>
<th>Event</th>
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<td>Jan. 3</td>
<td>Mon.</td>
<td>Registration</td>
</tr>
<tr>
<td>Jan. 5</td>
<td>Wed.</td>
<td>Classes begin at 8 a.m.</td>
</tr>
<tr>
<td>Jan. 13</td>
<td>Thurs.</td>
<td>Last day for change in schedules</td>
</tr>
<tr>
<td>Jan. 22</td>
<td>Sat.</td>
<td>Last day to withdraw without record</td>
</tr>
<tr>
<td>Jan. 22</td>
<td>Sat.</td>
<td>Last day to change grading option</td>
</tr>
<tr>
<td>Jan. 24</td>
<td>Mon.</td>
<td>From this date every withdrawal from class for academic difficulty is recorded as F</td>
</tr>
<tr>
<td>Feb. 22</td>
<td>Tues.</td>
<td>Mid-term progress grades due in the Registrar’s Office for freshmen only</td>
</tr>
<tr>
<td>Mar. 29</td>
<td>Wed.</td>
<td>Easter recess begins after the last evening class</td>
</tr>
<tr>
<td>Apr. 4</td>
<td>Tues.</td>
<td>All classes resume</td>
</tr>
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</table>
### 1971-1972

<table>
<thead>
<tr>
<th>Date</th>
<th>Day</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apr. 14-20</td>
<td></td>
<td>Examinations in evening courses conducted during final class meeting</td>
</tr>
<tr>
<td>Apr. 15</td>
<td>Sat.</td>
<td>Examinations—Saturday courses</td>
</tr>
<tr>
<td>Apr. 18</td>
<td>Tues.</td>
<td>Examinations 8:00-5:00</td>
</tr>
<tr>
<td>Apr. 19</td>
<td>Wed.</td>
<td>Examinations 8:00-5:00</td>
</tr>
<tr>
<td>Apr. 20</td>
<td>Thurs.</td>
<td>Examinations 8:00-5:00</td>
</tr>
<tr>
<td>Apr. 21</td>
<td>Fri.</td>
<td>Examinations 8:00-5:00</td>
</tr>
<tr>
<td>Apr. 21</td>
<td>Fri.</td>
<td>Second Term ends after the last examination</td>
</tr>
<tr>
<td>Apr. 23</td>
<td>Sun.</td>
<td>Commencement</td>
</tr>
</tbody>
</table>

### THIRD TERM (First Session)

<table>
<thead>
<tr>
<th>Date</th>
<th>Day</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>May 3</td>
<td>Wed.</td>
<td>Last day to complete registration</td>
</tr>
<tr>
<td>May 4</td>
<td>Thurs.</td>
<td>Classes begin at 8 a.m.</td>
</tr>
<tr>
<td>May 11</td>
<td>Thurs.</td>
<td>Ascension—No class meetings</td>
</tr>
<tr>
<td>May 12</td>
<td>Fri.</td>
<td>Last day for change in schedules</td>
</tr>
<tr>
<td>May 20</td>
<td>Sat.</td>
<td>Last day to withdraw without record</td>
</tr>
<tr>
<td>May 20</td>
<td>Sat.</td>
<td>Last day to change grading option</td>
</tr>
<tr>
<td>May 23</td>
<td>Tues.</td>
<td>From this date every withdrawal from class for academic difficulty is recorded as F</td>
</tr>
<tr>
<td>May 29</td>
<td>Mon.</td>
<td>National Holiday—Memorial Day—No class meetings</td>
</tr>
<tr>
<td>June 12-16</td>
<td></td>
<td>Examinations in evening courses conducted during final class meeting</td>
</tr>
<tr>
<td>June 14</td>
<td>Wed.</td>
<td>Examinations 8:00-5:00</td>
</tr>
<tr>
<td>June 15</td>
<td>Thurs.</td>
<td>Examinations 8:00-5:00</td>
</tr>
<tr>
<td>June 16</td>
<td>Fri.</td>
<td>Examinations 8:00-5:00</td>
</tr>
<tr>
<td>June 17</td>
<td>Sat.</td>
<td>Examinations—Saturday courses</td>
</tr>
<tr>
<td>June 17</td>
<td>Sat.</td>
<td>First Session ends after the last examination</td>
</tr>
</tbody>
</table>

### THIRD TERM (Second Session)

<table>
<thead>
<tr>
<th>Date</th>
<th>Day</th>
<th>Event</th>
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</thead>
<tbody>
<tr>
<td>June 16</td>
<td>Fri.</td>
<td>Last day to complete registration</td>
</tr>
<tr>
<td>June 19</td>
<td>Mon.</td>
<td>Classes begin at 8 a.m.</td>
</tr>
<tr>
<td>June 23</td>
<td>Fri.</td>
<td>Last day for change in schedules</td>
</tr>
<tr>
<td>July 1</td>
<td>Sat.</td>
<td>Last day to withdraw without record</td>
</tr>
<tr>
<td>July 1</td>
<td>Sat.</td>
<td>Last day to change grading option</td>
</tr>
</tbody>
</table>
1971-1972

July 4       Tues.  National Holiday—Independence Day—No class meetings
July 5       Wed.  From this date every withdrawal from class for academic
difficulty is recorded as F
July 24-28   Examinations in evening courses conducted during final
class meeting
July 27      Thurs. Examinations 8:00-5:00
July 28      Fri.  Examinations 8:00-5:00
July 29      Sat.  Examinations—Saturday courses
July 29      Sat.  Second Session ends after the last examination
July 30      Sun.  Diploma Exercises

1972-73 Academic Calendar

FIRST TERM

Aug. 24-25  Thurs., Fri.  Registration
Aug. 27     Sun.  Parents Day
Aug. 24-27  Thurs., Fri.  Orientation for freshmen
             Sat., Sun.
Aug. 28     Mon.  Classes begin at 8 a.m.
Sept. 4     Mon.  National Holiday—Labor Day—No class meetings
Sept. 6     Wed.  Last day for change in schedules
Sept. 16    Sat.  Last day to withdraw without record
Sept. 16    Sat.  Last day to change grading option
Sept. 18    Mon.  From this date every withdrawal from class for academic
difficulty is recorded as F
Oct. 9      Mon.  National Holiday—Columbus Day—No class meetings
Oct. 16     Mon.  Mid-term progress grades due in the Registrar's Office for
                   freshmen only
Oct. 21     Sat.  Homecoming—Saturday only classes meet
Oct. 23     Mon.  National Holiday—Veterans Day—Classes as usual
Nov. 1      Wed.  All Saints Day—No class meetings
Nov. 22     Wed.  Thanksgiving recess begins after the last evening class
Nov. 27     Mon.  All classes resume
<table>
<thead>
<tr>
<th>Date</th>
<th>Day</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dec. 8</td>
<td>Fri</td>
<td>The Immaculate Conception—No class meetings</td>
</tr>
<tr>
<td>Dec. 11-15</td>
<td></td>
<td>Examinations in evening courses conducted during final class meeting</td>
</tr>
<tr>
<td>Dec. 9</td>
<td>Sat</td>
<td>Examinations—Saturday courses</td>
</tr>
<tr>
<td>Dec. 12</td>
<td>Tues</td>
<td>Examinations 8:00-5:00</td>
</tr>
<tr>
<td>Dec. 13</td>
<td>Wed</td>
<td>Examinations 8:00-5:00</td>
</tr>
<tr>
<td>Dec. 14</td>
<td>Thurs</td>
<td>Examinations 8:00-5:00</td>
</tr>
<tr>
<td>Dec. 15</td>
<td>Fri</td>
<td>First Term ends after the last examination</td>
</tr>
<tr>
<td>Dec. 16</td>
<td>Sat</td>
<td>Diploma Exercises</td>
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**SECOND TERM**

<table>
<thead>
<tr>
<th>Date</th>
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<tbody>
<tr>
<td>Jan. 2</td>
<td>Tues</td>
<td>Registration</td>
</tr>
<tr>
<td>Jan. 4</td>
<td>Thurs</td>
<td>Classes begin at 8 a.m.</td>
</tr>
<tr>
<td>Jan. 13</td>
<td>Sat</td>
<td>Last day for change in schedules</td>
</tr>
<tr>
<td>Jan. 20</td>
<td>Sat</td>
<td>Last day to withdraw without record</td>
</tr>
<tr>
<td>Jan. 20</td>
<td>Sat</td>
<td>Last day to change grading option</td>
</tr>
<tr>
<td>Jan. 22</td>
<td>Mon</td>
<td>From this date every withdrawal from class for academic difficulty is recorded as F</td>
</tr>
<tr>
<td>Feb. 19</td>
<td>Mon</td>
<td>National Holiday—Washington-Lincoln Birthdays</td>
</tr>
<tr>
<td>Feb. 20</td>
<td>Tues</td>
<td>No class meetings</td>
</tr>
<tr>
<td>Apr. 12-18</td>
<td></td>
<td>Mid-term progress grades due in the Registrar's Office for freshmen only</td>
</tr>
<tr>
<td>Apr. 13</td>
<td>Fri</td>
<td>Examinations 8:00-5:00</td>
</tr>
<tr>
<td>Apr. 16</td>
<td>Mon</td>
<td>Examinations 8:00-5:00</td>
</tr>
<tr>
<td>Apr. 17</td>
<td>Tues</td>
<td>Examinations 8:00-5:00</td>
</tr>
<tr>
<td>Apr. 18</td>
<td>Wed</td>
<td>Examinations 8:00-5:00</td>
</tr>
<tr>
<td>Apr. 18</td>
<td>Wed</td>
<td>Second Term ends after the last examination</td>
</tr>
<tr>
<td>Apr. 21</td>
<td>Sat</td>
<td>Commencement</td>
</tr>
<tr>
<td>Apr. 22</td>
<td>Sun</td>
<td>Easter</td>
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</tbody>
</table>
**THIRD TERM (First Session)**

<table>
<thead>
<tr>
<th>Date</th>
<th>Day(s)</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>May 2</td>
<td>Wed.</td>
<td>Last day to complete registration</td>
</tr>
<tr>
<td>May 3</td>
<td>Thurs.</td>
<td>Classes begin at 8 a.m.</td>
</tr>
<tr>
<td>May 11</td>
<td>Fri.</td>
<td>Last day for change in schedules</td>
</tr>
<tr>
<td>May 19</td>
<td>Sat.</td>
<td>Last day to withdraw without record</td>
</tr>
<tr>
<td>May 19</td>
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<td>Last day to change grading option</td>
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<tr>
<td>May 22</td>
<td>Tues.</td>
<td>From this date every withdrawal from class for academic difficulty is recorded as F</td>
</tr>
<tr>
<td>May 28</td>
<td>Mon.</td>
<td>National Holiday—Memorial Day—No class meetings</td>
</tr>
<tr>
<td>May 31</td>
<td>Thurs.</td>
<td>Ascension—No class meetings</td>
</tr>
<tr>
<td>June 11-15</td>
<td>Wed.</td>
<td>Examinations in evening courses conducted during final class meeting</td>
</tr>
<tr>
<td>June 13</td>
<td>Wed.</td>
<td>Examinations 8:00-5:00</td>
</tr>
<tr>
<td>June 14</td>
<td>Thurs.</td>
<td>Examinations 8:00-5:00</td>
</tr>
<tr>
<td>June 15</td>
<td>Fri.</td>
<td>Examinations 8:00-5:00</td>
</tr>
<tr>
<td>June 16</td>
<td>Sat.</td>
<td>Examinations—Saturday courses</td>
</tr>
<tr>
<td>June 16</td>
<td>Sat.</td>
<td>First Session ends after the last examination</td>
</tr>
</tbody>
</table>

**THIRD TERM (Second Session)**

<table>
<thead>
<tr>
<th>Date</th>
<th>Day(s)</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>June 15</td>
<td>Fri.</td>
<td>Last day to complete registration</td>
</tr>
<tr>
<td>June 18</td>
<td>Mon.</td>
<td>Classes begin at 8 a.m.</td>
</tr>
<tr>
<td>June 22</td>
<td>Fri.</td>
<td>Last day for change in schedules</td>
</tr>
<tr>
<td>June 30</td>
<td>Sat.</td>
<td>Last day to withdraw without record</td>
</tr>
<tr>
<td>June 30</td>
<td>Sat.</td>
<td>Last day to change grading option</td>
</tr>
<tr>
<td>July 2</td>
<td>Mon.</td>
<td>From this date every withdrawal from class for academic difficulty is recorded as F</td>
</tr>
<tr>
<td>July 4</td>
<td>Wed.</td>
<td>National Holiday—Independence Day—No class meetings</td>
</tr>
<tr>
<td>July 23-27</td>
<td>Wed.</td>
<td>Examinations in evening courses conducted during final class meeting</td>
</tr>
<tr>
<td>July 26</td>
<td>Thurs.</td>
<td>Examinations 8:00-5:00</td>
</tr>
<tr>
<td>July 27</td>
<td>Fri.</td>
<td>Examinations 8:00-5:00</td>
</tr>
<tr>
<td>July 28</td>
<td>Sat.</td>
<td>Examinations—Saturday courses</td>
</tr>
<tr>
<td>July 28</td>
<td>Sat.</td>
<td>Second Session ends after the last examination</td>
</tr>
<tr>
<td>July 29</td>
<td>Sun.</td>
<td>Diploma Exercises</td>
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General Information

THE UNIVERSITY OF DAYTON

The University of Dayton is a medium-sized, private, coeducational school with a growing reputation for academic achievement. Located in the heart of the Midwest, it attracts its student body from the local community, the state of Ohio and other Midwestern and Eastern states, and a number of foreign lands. With a full-time student body of sixty-five hundred, the University of Dayton is ranked fifth in size among the nation’s Catholic colleges. It includes three schools and the college, offering a large selection of study ranging from art and philosophy to geology and computer science.

Founded more than a century ago by the Catholic teaching order of the Society of Mary (Marianists), the University numbers among its students representatives of many faiths. All students, however, partake of the friendly family spirit for which the campus is known.

The campus itself is located on a seventy-six acre hilltop at the southern edge of the city of Dayton where older and newer buildings are blended into a pleasant setting. A West Campus, just fifteen minutes distant from the Main Campus, also comprises seventy-six acres; it is used primarily for housing of freshman men. An East Campus, on the dividing line between Montgomery and Greene Counties, is the motherhouse for young Marianist Brothers who are doing college work. The East Campus is also the site of Bergamo, a center for ecumenical study and activity.

A well-qualified faculty of laymen, priests, Brothers, and Sisters provides the student with competent instruction and prudent counseling. The University’s policy of tempered discipline encourages students to accept responsibility for their own judgments and conduct.

A placement service for students and graduates; reasonable tuition rates and financial aid plans; varied religious, social, and cultural opportunities; a trimester-type academic calendar providing a number of different study-recess possibilities; and high-caliber intercollegiate and intramural athletic programs are but a few of the “features” which contribute to the character of the University of Dayton.
UNIVERSITY GOALS

The University of Dayton, by tradition, by legal charter, and by resolute intent, is a church-related institution of higher learning. As such, it seeks, in an environment of academic freedom, to foster principles and values consonant with Catholicism and with the living traditions of the Society of Mary. Operating in a pluralistic environment, it deliberately chooses the Christian world-view as its distinctive orientation in carrying out what it regards as four essential tasks: teaching, research, serving as a critic of society, and rendering public service.

The University of Dayton has as its primary task to teach—that is, to transmit the heritage of the past, to direct attention to the achievements of the present, and to alert students to the changes and challenges of the future. It regards teaching, however, as more than the mere imparting of knowledge; it attempts to develop in its students the ability to integrate knowledge gained from a variety of disciplines into a meaningful and viable synthesis.

The University of Dayton holds that there is harmony and unity between rationally discovered and divinely revealed truths. Accordingly, it commits its entire academic community to the pursuit of such truths. It provides a milieu favorable to scholarly research in all academic disciplines, while giving priority to studies which deal with problems of a fundamentally human and Christian concern. It upholds the principle of responsible freedom of inquiry, offers appropriate assistance to its scholars, and endeavors to provide the proper media for the dissemination of their discoveries.

The University of Dayton exercises its role as critic of society by creating an environment in which faculty and students are free to evaluate, in a scholarly manner, the strengths and weaknesses found in the institutions developed by man. While, as an organization, it remains politically neutral, objective and dispassionate, it encourages its members to judge for themselves how these institutions are performing their proper tasks; to expose deficiencies in their structure and operation; to propose and to actively promote improvements when these are deemed necessary.

The University of Dayton recognizes its responsibility to support, with means appropriate to its purposes, the legitimate goals and aspirations of the civic community and to cooperate with other agencies in striving to attain them. It assists in promoting the intellectual and cultural enrichment of the community; it makes
available not only the resources of knowledge that it possesses, but also the skills and techniques used in the accumulation and dissemination of knowledge; and, above all, it strives to inspire persons with a sense of community and to encourage men of vision who can and will participate effectively in the quest for a more perfect human society.

HISTORICAL SKETCH
The University of Dayton traces its history to the year 1850 when a modest primary school for boys, known as St. Mary's Institute, was opened in Dayton. Operating the little school was a group of Catholic missionaries who had left their native France just a year earlier to bring their educational work to America. These priests and Brothers were members of the Society of Mary, a religious order founded in 1817 by Father William Joseph Chaminade.

These pioneer Marianists, as members of the Society are called, while conducting their ministry in Dayton fortunately became acquainted with a certain Mr. John Stuart, scion of the royal family of Scotland. Mr. Stuart sold the Marianists his one-hundred-and-twenty-acre "Dewberry Farm" just south of the city — an ideal, hilltop property for a school. The following summer, in 1850, fourteen pupils began classes in the house on Dewberry Farm.

From that humble beginning St. Mary's Institute grew. Some years later, it became St. Mary's College, and then, in 1920, the University of Dayton.

Its growth and progress continued. When the school adopted its present name, enrollment was one hundred and seventy-one. In 1937, two years after coeducation was introduced, it passed the thousand mark. Following World War II, enrollment at the University of Dayton — as at most other colleges and universities around the country — expanded rapidly. In 1946, almost three thousand students registered and, in 1967, a record total enrollment of over ten thousand was attained.

Growth in numbers does not necessarily represent progress, of course. While enrollments grew, new programs on both undergraduate and graduate levels were initiated, curricula and methods of presenting them were streamlined. New buildings to house various departments and activities were built at a rapid pace. Professional and educational groups recognized the University's work with accreditation and approval.

Today, in its one-hundred-and-twenty-first academic year, the University of Dayton includes the College of Arts and Sciences, School of Business Administration, School of Education, School of Engineering, including Engineering Technology. In all, thirty-eight departments of instruction function on the campus, awarding twenty-nine different degrees on the associate, baccalaureate, and graduate levels. These degrees are:
Bachelor of Arts  
Bachelor of Science  
Bachelor of Fine Arts  
Bachelor of Music  
Bachelor of Social Science  
Bachelor of Science in Home Economics  
Bachelor of Science in Medical Technology  
Bachelor of Science in Business Administration  
Associate in Business Administration  
Bachelor of Science in Education  
Bachelor of Chemical Engineering  
Bachelor of Civil Engineering  
Bachelor of Electrical Engineering  
Bachelor of Industrial Engineering  
Bachelor of Mechanical Engineering  
Bachelor of Technology  
Associate in Technology  
Master of Arts  
Master of Business Administration  
Master of Public Administration  
Master of Science  
Master of Science in Education  
Master of Science in Engineering Management  
Master of Science in Chemical Engineering  
Master of Science in Engineering  
Master of Science in Civil Engineering  
Master of Science in Electrical Engineering  
Master of Mechanical Engineering  
Doctor of Philosophy in Biology  

**ACCREDITATION**

The University of Dayton is officially accredited by the North Central Association of Colleges and Secondary Schools. Other official accreditations include those of the State of Ohio Department of Education, the National Council for Accreditation of Teacher Education, the Engineers’ Council for Professional Development (for chemical, civil, electrical, and mechanical engineering curricula, and for electronic, industrial, and mechanical engineering technology programs). The University has the approval of the American Medical Association (for its pre-medical program) and of the American Chemical Society (for its programs in chemistry), and is an Associate Member of the National Association of Schools of Music. The School of Business Administration is an Assembly Member of American Association of Collegiate Schools of Business.
In addition to these accreditations and approvals, the University holds institutional memberships in the Association of American Colleges, the American Association of Colleges for Teacher Education, the American Council on Education, the American Society for Engineering Education, the National Catholic Educational Association, the Ohio College Association, the International Council on Education for Teaching, the Association of Urban Universities, the American Association of University Women, and the Association of University Evening Colleges.

UNIVERSITY PROGRAMS

In addition to the regular day session, the University also conducts evening and summer sessions and offers short-term non-credit courses, conferences, and institutes through a Special Sessions program.

College of Arts and Sciences

The College of Arts and Sciences includes the following Departments and Programs: American Studies, Biology, Chemistry, Communication Arts, Computer Science, Criminal Justice, Economics, English, General Studies, Geology, History, Home Economics, Languages, Mathematics, Military Science, Performing and Visual Arts (Fine Arts, Music, Theatre), Philosophy, Physics, Political Science, Psychology, Sociology, Anthropology and Social Work and Theological Studies.

Pre-professional courses are offered in medicine, dentistry, dietetics, optometry, veterinary medicine, pharmacy, law, foreign service, social service, radio and television broadcasting. In cooperation with St. Elizabeth, Good Samaritan, Kettering, and Miami Valley Hospitals, courses are given in medical technology. Through its affiliation with the Dayton Art Institute, the University enriches its offerings in Fine Arts. Affiliation of the Dayton Junior Philharmonic Orchestra with the University provides music students an opportunity for valuable musical practice and experience.

Programs leading to the degrees of Master of Arts or Master of Science are offered in biology, chemistry, communication arts, English, history, mathematics, philosophy, physics, political science, psychology, information science, and theological studies. The professional degree Master of Public Administration is also offered. The Department of Biology offers the Doctor of Philosophy degree.

School of Business Administration

The School of Business Administration offers undergraduate majors in accounting, business management, industrial management, marketing, personnel management, and economics. On the graduate level, the School awards a Master of Business Administration degree. Also offered is a two-year course in secretarial studies leading to an associate degree.
School of Education

The School of Education prepares teachers for the elementary and secondary levels and for such specialized fields as art, music, speech, business, health and physical education, and home economics. It conducts retraining and post-graduate programs, and offers graduate programs leading to the degree of Master of Science in Education. These programs are designed to prepare school administrators, school counselors, school psychologists, master elementary teachers, master high school teachers, and educational research specialists.

School of Engineering

The School of Engineering includes the departments of Chemical Engineering, Civil Engineering and Engineering Mechanics, Electrical Engineering, Industrial Engineering, and Mechanical Engineering. The School offers graduate programs leading to the degrees of Master of Science in Engineering, Engineering Management, Chemical Engineering, Civil Engineering and Electrical Engineering and the Master of Mechanical Engineering.

The Engineering Technology Division includes the Departments of Chemical Technology, Electronic Engineering Technology, Industrial Engineering Technology, and Mechanical Engineering Technology. Each of these offers a five-term program leading to the Associate in Technology degree. Engineering Technology also offers a program leading to the Bachelor of Technology degree for those who complete the Associate in Technology program.

Special Sessions

Many of the programs presented during the regular day sessions are offered also in the Evening and Summer Sessions, enabling students to work toward degrees on a part-time basis. These sessions are governed by the same policies and regulations prevailing during the Day Session.

In addition, specialized non-credit, adult education courses are offered through Special Sessions. Management development and continuing education programs are conducted for business, industry, government, schools, the professions, and the general public.

STUDY ABROAD

Through the Department of Languages, the University offers several programs of study abroad. These programs are available to students majoring in nearly all departments of the University. One program is offered at the University of
Salzburg, Austria, for an academic year. Another academic year program is offered in Rome in cooperation with Loyola University of Chicago. Interested majors from all disciplines may obtain information concerning these programs, and others, from the Director of Study Abroad, Miriam Hall 418.

**WVUD-FM and UD-CCTV**

Modern communications media, available to all University departments and programs, include WVUD-FM, a radio station covering the Miami Valley area, and an on-campus, closed circuit television operation. Both facilities are housed in the John F. Kennedy Memorial Union.

**RESEARCH INSTITUTE**

As an integral unit of the University, the Research Institute administers sponsored research that the University agrees to perform for commercial organizations and governmental agencies. Research projects concerned with a single discipline are normally performed by the appropriate department of instruction, whereas the larger projects that are primarily multi-disciplinary in character are performed within research laboratories under the jurisdiction of the Research Institute. A strong emphasis is placed on the integration of all research with the instructional activities of the University, and a concerted effort is made to provide opportunities for undergraduate, as well as graduate, students to acquire experience and training in the methods of research.

**DAYTON-MIAMI VALLEY CONSORTIUM**

Ten institutions of higher learning in the Miami Valley, among them the University of Dayton, have developed the Dayton-Miami Valley Consortium (DMVC). In so doing, the member institutions seek to increase interinstitutional cooperation, improve curricula, develop new courses and programs, minimize cost, and centralize selected functions, using the most recent technology, emphasizing computers, modern educational technology, and communication media.

Among the benefits enjoyed by the members of the Consortium is that regularly enrolled full-time students at one institution, under certain conditions, may register for credit in courses offered by other Consortium institutions at no additional charge, on a space-available basis.

**CHERS**

The University of Dayton is a participating member of the Consortium for Higher Education Religion Studies. This consortium makes possible cross-registra-
tion, shared library resources and lectureships, joint seminars and experimental programs among the following institutions: Antioch College, Central State University, Hamma Divinity School, Hebrew Union College, Payne Theological Seminary, St. Leonard Seminary, University of Dayton, Western College for Women, Wilberforce University, Wittenberg University, Wright State University, and United Theological Seminary.

United Seminary, Antioch College, University of Dayton and Wright State jointly employ and share a Professor of Judaic Studies under a grant from the Harriet Sanders Trust of Dayton, Ohio.

HEBREW UNION COLLEGE CONSORTIUM

The University of Dayton is likewise a member of the Consortium of the Hebrew Union College Biblical and Archaeological School of Jerusalem.

CALENDAR

The University of Dayton operates on a “Split Third-Term” calendar. This modern calendar, detailed on page 3, comprises a fall and winter term, each of fifteen weeks, and a spring-summer term which is split into two six-week units. The advantages of such a calendar, for varying the vacation periods or for accelerating the study program, are many. A student may enroll for the traditional fall and winter terms and take an expanded summer vacation; or he may add each summer a half term or full term in order to complete graduation requirements sooner. The student who must work to put himself through school will have additional time in the spring and summer for employment; or he may enroll for the spring-summer term and use either the fall or winter term as a vacation period when the employment market is not crowded with other college students. Each student is free, within the broad limits of the calendar, to construct his own study-vacation plan.

LOCATION

The University of Dayton Main Campus is located near Interstate Route 75, just a short distance east from the Exit at Nicholas Road and Stewart St. Directional signs posted throughout the area facilitate travel to the campus.

The West Campus is located on Germantown Street (State Route 4 West) near the intersection of Gettysburg Avenue. City bus routes serve both campuses.

The East Campus, situated on Patterson Road five miles to the east of the Main Campus, houses in Marianist College Brothers of the Society of Mary who are students at the University. Bergamo, a center for ecumenical study and activity, is located on the East Campus.

(See map, inside back cover.)
CAMPUS AND BUILDINGS
Principal buildings on the Main Campus, with the date of construction of each in parentheses, are as follows:

**Albert Emanuel Building (1928)**

The Albert Emanuel Building, erected by the late Victor C. Emanuel, was the University's main library for forty-two years. It now is the home of the Department of Languages and the Art Department.

**University Fieldhouse (1950)**

The Fieldhouse, with a seating capacity for six thousand, houses the offices of the Department of Athletics and the Department of Physical and Health Education. It also provides recreation facilities for students and members of the faculty.

**Flyers Hangar (1962)**

A smart snack shop and cafeteria, the "Hangar" is a popular between-classes gathering place for students.

**Baujan Field (1925)**

The University football stadium, with a seating capacity of fourteen thousand, is named for Harry C. Baujan, long-time athletic director at the University.
1. Fieldhouse
2. Flyer's Hangar
3. Albert Emanuel Library
4. St. Joseph's Hall
5. Zehler Hall
6. Chapel of the Immaculate Conception
7. Liberty Hall
8. St. Mary's Hall
9. Arcade
10. Chaminade Hall
11. Post Office
13. New Library
14. Power House
15. Service Bldg.
16. Religious Activities Center
17. J. F. Kennedy Memorial Union
18. Miriam Hall
19. Sherman Hall
20. Alumni Hall
21. Founders Hall
22. Wohlleben Hall
23. Mechanical Engineering Bldg.
24. R.O.T.C. Bldg.
25. Marycrest Hall
26. University Health Center
27. Telescope
28. Stuart Hall
29. Engineering and Research
University of Dayton
(Campus Map)

“A”, “E” Student Parking
“B”, “C”, “D”, “F” Faculty Staff Parking

Visitors Parking

Campus South, an apartment building for women, is located four blocks southwest of the main campus at Alberta St. and Irving Ave. On the west bank of the Miami River, a new sports arena was completed in time for the 1969-70 basketball season.
St. Joseph Hall (1884)
One of the oldest buildings on the campus, St. Joseph Hall has seen many uses. It now houses classrooms and laboratories, faculty offices, and the Department of Political Science.

Chapel of the Immaculate Conception (1869)
Dedicated to the patroness of the University, the main chapel is the focal point of religious life on the campus.

St. Mary Hall (1870)
When it was built, St. Mary Hall was the largest building in the city of Dayton. For many years, practically the entire school was centered in its five floors. Today it houses the University's principal administrative offices and the Psychological Services Center.

Women’s Gymnasium and Music Building (1874)
Headquarters of the women's physical education program (first floor) and the Department of Music (second floor), this building was originally a “Play House” and chemistry laboratory.

Post Office (1903)
The University's postal service includes a federal Post Office contract station, assuring efficient service features for the campus.

Chaminade Hall and Arcade (1904)
Named for the founder of the Society of Mary, Father William Joseph Chaminade, this building provides quarters for the School of Education and the University Bookstore. The Arcade joins Chaminade Hall to St. Mary Hall, and houses the Office of Admissions.
Liberty Hall (1866)
This small, two-story structure is used as a service building.

C. H. Gosiger Health Center (1967)
This new three-story facility is a small hospital with 44 beds, 21 rooms for patients, and the latest in medical accommodations. The staff includes a doctor and five full-time and seven part-time registered nurses.

Zehler Hall (1865)
The oldest of the present campus buildings, Zehler Hall houses the Department of Theological Studies, the University Printing Service, and some research activities.

Power House (1898)
Heat and power for older campus buildings is supplied through this facility. The University laundry also operates in the Power House.

John F. Kennedy Memorial Union (1964)
The “University Living Room” includes a little theater, cafeteria and snack shop, ballroom, art galleries, lounges, bowling alleys, and other “union” type facilities.

Miriam Hall (1965)
Construction of this modern classroom and office building was completed in 1965 for the School of Business Administration. It was named in memory of a great philanthropist, Miriam Rosenthal, without whose labor and enthusiasm the funds for erecting the edifice would not have been available.

Sherman Hall of Science (1960)
Honoring the late John Q. Sherman, distinguished Dayton industrialist and philanthropist, Sherman Hall includes the administrative offices of the College of Arts and Sciences, classrooms and laboratories of departments of Biology, Physics, Home Economics, Psychology, and Mathematics.

Wohlleben Hall (1958)
The departments of Chemistry, Chemical Engineering, and Geology, and administrative offices of the Research Institute are located in Wohlleben Hall, named for the late Brother William J. Wohlleben, Marianist Brother who introduced chemistry and chemical engineering studies to the campus.
Alumni Hall (1924)
This hall is the residence for members of the Society of Mary.

Founders Hall (1954)
Honoring the founders of the University, this men’s residence hall is conveniently located in the center of the campus.

Department of Military Science (1952)
Regarded as the finest ROTC facility in the First US Army area, the building is the headquarters for the Department of Military Science. Among its outstanding features is a large indoor rifle range.

Eugene W. Kettering Engineering and Research Laboratories (1969)
The newest building on campus, this facility is occupied by the Departments of Civil Engineering, Electrical Engineering, Electronic Engineering Technology, Industrial Engineering, Industrial Engineering Technology, and Mechanical Engineering and houses a broad spectrum of Research Institute activity.

The administrative offices of the Dean of Engineering and the Director of Engineering Technology are also located here.

Engineering Laboratory Building (1948)
Laboratories of several engineering departments are located in this building which was originally a drill hall at Camp Perry, Va. It was dismantled and brought to Dayton, rebuilt and bricked. A portion of the building is also used by the Office for Buildings and Grounds.

New Library Building (1970)
In January, 1971, the University opened a new library building which, at the time of this writing, is still unnamed. Rising eight stories, it contains 180,000 square feet of space. Among other distinguishing features, the library has thirteen seminar rooms, seventy enclosed study carrels, a music-listening room, three special study rooms, and various types of seating interspersed with book stacks. The building is air conditioned, and every floor is carpeted.

Marian Library (1942)
On the top floor of the new library building is located the Marian Library, formerly situated in an annex to the Albert Emanuel Library. It is the largest library in the world devoted to works about the Blessed Virgin Mary, containing approximately 33,000 different items.
Marycrest (1962)

Marycrest is the University’s first residence hall for women. It is home for more than nine hundred women students, and has its own cafeteria, lounge and chapel.

Campus South (1969)

Campus South, several blocks from campus, is a high-rise apartment house for women students. Fifty-four apartments accommodate over three hundred women.

Stuart Hall (1963)

This men’s residence hall provides modern accommodations for some seven hundred students. Its name honors John Stuart, from whom the pioneer Marianists obtained the original University property.

Sports Arena (1969)

Completed in time for the 1969-70 basketball season, the Sports Arena, on the west bank of the Miami River, is the home of the nationally famous Dayton Flyers. The arena accommodates over thirteen thousand.
West Campus, University Hall

In 1960, the University acquired through the federal government surplus program a large property in the western section of Dayton which had been a part of the vast Veterans Administration Center. The property included a large hospital building. The building was converted into University Hall, and the entire property, including housing facilities, cafeteria, classrooms, and indoor and outdoor recreational areas, is known as the West Campus. Residents of this campus are primarily freshman men. Regularly scheduled busses bring students to and from the Main Campus throughout the day and evening hours.

East Campus, Marianist College

Marianist College (1961) is located on the eastern outskirts of Dayton. It is the house of studies for religious members of the Society of Mary. These students pursue their collegiate studies, some on the East Campus, some on the Main Campus. On the East Campus are also located a dormitory, classroom and administration building (1915); a gymnasium and recreation building called Sieben Hall (1961); a residence (1926) for Brothers; and a retreat for students and men called Marianist Retreat House (1911). The Bergamo Center for Christian Renewal (1966) is also located on the East Campus.

RESERVE OFFICERS TRAINING CORPS (ROTC)

The Department of Military Science offers the Reserve Officers Training Corps (ROTC) program on the campus, providing instruction in general military subjects applicable to all branches of the Army. The purpose of the Reserve Officers Training Program is to develop selected college educated men for positions of responsibility as officers in the active Army and its Reserve components. The program enables qualified college graduates to fulfill their normal two year active duty obligation as commissioned officers.

The Military Science course is designed to develop a high degree of personal honor, self-reliance, and leadership and to provide the means of becoming a better informed student on matters of national defense. The program provides an opportunity to college men who complete the eight semesters of study, receive a baccalaureate degree, and display the ability to lead others, to become officers in the United States Army Reserve.

The four year course is divided into a basic and an advanced course and is offered to all students male or female for academic credit. Students who desire to pursue a commission must fulfill the requirements of the Department of the Army.

The basic course emphasizes leadership development and techniques, national security, and military history.
The advanced instruction includes practical exercises in tactical training, management, leadership techniques and the exercise of command. Male students who have successfully completed the basic course requirements and have demonstrated a potential for becoming effective officers may be invited to pursue a commission. To receive a commission students must agree to complete the advanced course, accept a reserve commission as a Second Lieutenant, and serve two years active duty in the United States Army. Students who have completed the basic course requirements may enroll in the advanced program for credit. Students may also audit all courses without credit.

Male students who enroll in the advanced course and agree to pursue a commission will receive a $50.00 per month subsistence. While in attendance at summer camp, they will receive approximately $200.00 a month.
II Student Life and Services

RESIDENCE FACILITIES

Men

It is the University’s policy that all male freshmen live in one of the men’s residence halls unless their home is within commuting distance, or unless all of the rooms are occupied.

Application/contracts for residence hall accommodations and instructions are forwarded by the Office of Admissions to all new students upon their official acceptance to the University of Dayton. The instructions should be read and followed carefully.

All rooms are double occupancy rooms with the exception of a number of triple occupancy rooms at University Hall. The University provides adequate furnishings for comfortable living. Bed linens are supplied and laundered, but students must furnish their own desk lamps, towels, wash cloths, and blankets.

A professional staff and a student staff coordinate with the Office of the Dean of Men and the Director of Housing in administering the management and personnel functions of the Halls. It is the responsibility of this staff to help each resident realize a total educational experience while at the University.

A Chaplain resides in each hall and is available for counseling or religious direction.

The University maintains a Housing Office for those students who are unable to obtain accommodations in one of the men’s residence halls and for those upperclassmen and transfer students who prefer not to live in one of the men’s halls.

For aid in securing accommodations off campus, please contact by mail or in person the Director of Housing in care of the University of Dayton.

Questions concerning housing information in any of the men’s residence halls should be directed to the Housing Office at the University of Dayton.
Women

Housing for women students at the University of Dayton is administered by the Director of Housing. University policy requires that freshmen who do not live within commuting distance secure housing in Marycrest Hall on the University campus. Upperclass women are assigned to Marycrest, the women's apartment building or to University-approved off campus housing. Communications regarding women's housing should be addressed to the Director of Housing.

Application/contracts for residence hall accommodations and instructions are forwarded by the Office of Admissions to all new students upon their official acceptance to the University. Students should follow the instructions carefully and return the application/contract promptly. Upperclass transfer students apply directly to the Director of Housing's office for assignment to off campus housing.

Rooms at Marycrest are double or triple. Adequate closet space and comfortable furnishings are provided. Bed linens are supplied and laundered, but students must provide desk lamps, towels, wash cloths and blankets.

A professional staff and a student staff cooperate with the Office of the Dean of Women in managing the Residence Hall and providing student services. A Chaplain appointed by the University maintains an office in the Hall and is available for counseling. An elected Hall Council represents student opinion and initiates programs for the residents.

DINING FACILITIES

The University's food service is operated in four principal facilities. The main cafeteria is located in the Kennedy Memorial Union and contains a dining area seating four hundred students. Adjacent to this facility in the Union is a snack bar where light lunches may be obtained.

Marycrest cafeteria is located in the women's residence hall and is a smartly decorated modern dining room.

The University Hall cafeteria, located on the West Campus, serves the students residing in this residence hall.

The Flyers Hangar serves light lunches consisting of sandwiches, salads, soups, pastries, and beverages. It is a popular meeting place for the student body during the day and the early evening hours.

All food service on both campuses is operated under the direction of a professional manager, with qualified assistants managing each of the separate facilities.

Well-rounded, appetizing meals are served attractively in quantities appropriate to the needs of still growing young men and women. Food service is of
such proportions at the University that more than a million meals a year are served in the four cafeterias.

**STUDENT ORGANIZATIONS**

The University of Dayton campus abounds in student organizations. Any student from any part of the world, no matter what his interest, will find at least one group on the campus from which he will derive benefits.

Included are student government units such as the Student Government and the Central Women's Organization; many religious clubs, social groups, local University of Dayton fraternities and sororities; co-curricular or academic organizations from the Art Club and Debate Team to the honor societies in the various colleges and schools; and there are musical, military, and athletic clubs—all designed to help the student further his educational, religious, or social well-being while at the University. Students also publish a bi-weekly newspaper, a quarterly literary magazine, an annual pictorial review, and other special interest publications.

Each of the campus clubs elects its own officers and has a member of the faculty as adviser.

At the beginning of each academic year, students are issued a handbook in which these organizations are listed. During the regular orientation week early each year, new students are invited to become members of the various clubs.

**LITURGICAL LIFE**

As a Catholic college, the University of Dayton places great emphasis on the liturgical life of the student. All Catholic day students are strongly encouraged to participate in the liturgical services on campus, especially Holy Mass. Opportunities for the reception of the sacraments are provided. Regular participation, it is felt, insures the integration of thought and action, of belief and practice, which is envisioned by the University in its professed purposes. At the same time, by enabling the students to pray and worship together, a spirit of unity and solidarity is fostered among them, thus creating a genuine Christian atmosphere on the campus.

Mass is celebrated in the Chapel of the Immaculate Conception (the main chapel) five times each morning during the week and six times on Sunday. At least one Mass each day (morning or evening) is offered in the chapels of the residence halls. Confessions are heard before, during, and after all Masses in the main chapel each day, and before the daily Mass in all the residence halls.

The Chaplain and Associate Chaplain of the University supervise all spiritual group activities of the student body and of all religious organizations. The many
priests on the faculty, under the direction of the Chaplain, are available at all times for counseling on moral, religious, or social matters.

TESTING
The University Psychological Services Center provides a complete testing program for the students of the University, and for industry and the community at large. Besides this local service, the Testing Center conducts testing programs for Catholic elementary and high school students in fifteen States and is under contract to the U.S. Government to administer the National Defense Education Act (N.D.E.A.) tests in secondary private schools in thirty-eight States.

COUNSELING AND GUIDANCE
In addition to the testing services for University full-time students which are used to help the student identify his talents and aptitudes and thus guide him into proper fields of study, the Psychological Services Center offers the student the opportunity to seek advice in personal, social, and academic problems which he may encounter.

Well-qualified psychologists direct and participate in the work of the Center—work which goes beyond the campus to provide counseling, guidance, and other psychological services to schools, business, and industry.

Specific counseling in all study areas is provided by the deans of the schools and colleges, by the departmental chairmen, and by individual faculty members who are available throughout the day, subject to their administrative and teaching schedules.
GRADUATE AND ALUMNI PLACEMENT

The services of the Placement Office in St. Mary's Hall are available to seniors, graduate students and alumni seeking career positions in business, industry and government.

These services include:
—personal counseling
—campus interviews by representatives of business, industry and government
—a library of literature describing opportunities with more than 500 employers
—listings of current job openings
—direct referral of alumni to employers
—computerized referral of alumni through the College Placement Council

Campus interviews are conducted from October through March; and are announced in a monthly calendar which can be obtained in the Placement Office.

Part time and summer employment is the responsibility of the Personnel Services Office. Teacher Placement is the responsibility of the School of Education, Teacher Placement Office.

STUDENT HEALTH SERVICES AND INSURANCE

Centrally located in the C. H. Gosiger Health Center, the University Health Service provides a well-staffed and well-equipped operation to safeguard the health of the student. The University physician, on call at all hours, is on duty six hours daily for advice and treatment. A staff of professional nurses works around the clock.

Full-time students may come to the Health Service for out-patient treatment by the staff on duty at the time, and no restriction is made on the number of visits. Ordinary medications are provided without charge when ordered by the attending physician.

Students whose permanent residence is not within commuting distance may avail themselves of the in-patient service of the infirmary at a nominal cost. When the case warrants, students are transferred to local hospitals.

Infirmary or hospital costs are covered for the most part by the highly recommended student insurance program which is available to all full-time students. (Full information on this program will be sent to each student prior to the start of the school year.)

STUDENT IDENTIFICATION CARDS

At the beginning of the school year, each full-time student secures a student identification card (I.D. card) which he carries with him at all times. Provision for obtaining the card, complete with the student's photograph, is made during
registration procedures. The I.D. card is vital and obligatory for the student, since it is necessary for participating in student elections or other activities for which official identification is necessary. It must be shown in order to obtain tickets to certain athletic events. It also serves as a library card.

**PARKING**

Parking facilities are extremely limited on the Main Campus. Those that are available are restricted to commuting students who live some distance from the campus, and all such parking is by permit only. Students may apply for permits. Students residing on the West Campus are permitted to have cars and to park them on campus.

**CULTURAL ACTIVITIES**

Principally through its very successful University Arts Series, but as well through various other programs throughout the year, the University of Dayton provides for the student well-planned and coordinated opportunities for association with high-level intellectual and cultural ideas and personalities.

Among renowned guests to appear on the University Arts Series have been Contralto Marian Anderson, Poets Louis Untermeyer, John Ciardi, and W. H. Auden, Philosopher Mortimer Adler, Publisher Frank Sheed, Illinois Senator Paul Douglas, the Roger Wagner Chorale, the Dayton Civic Ballet, Journalists Marquis Childs and Ralph McGill. The Dayton Philharmonic Orchestra, the University Concert Band and the University Choir perform each year.
In addition to this Series, many other continuing programs are offered for the student each year. Among these are the regular productions of the talented University Players of the Theatre Division; "The Music Division presents a series of recitals and concerts by students and faculty"; Evening Religion Series, bringing to the campus outstanding theological scholars; annual lectures sponsored by the Department of History in which known historians are brought to the University; an interesting variety of musical and discussion programs on WVUD-FM; and lectures by outstanding men and women in many other fields of interest.

Many outstanding musical, dramatic, and artistic programs are given throughout the year in the Dayton community. Most offer students rates and are well advertised on the campus.
SOCIAL LIFE
Realizing that "all work and no play" will indeed dull the young student, the University of Dayton provides and encourages participation in a wide variety of social functions.

Small informal social events are held on the campus almost every weekend. Bigger, more formal occasions, such as the Homecoming Dance, or the Junior Prom or the Military Ball are usually held off the campus. Social functions are attended by members of the faculty.

RECREATION
All campuses of the University are equipped with recreational areas where, over and above intramural programs on an organized basis, the student may take part in recreation. Each residence hall has its own recreational areas; the Fieldhouse on the Main Campus and the gymnasium on the West Campus have facilities for individual calisthenics and similar programs. The Kennedy Union includes bowling alleys, browsing rooms, music and art rooms. Tennis courts, outdoor and indoor basketball courts, baseball diamonds, and playfields are available on both campuses. During the winter months, skiing, tobogganing, and ice skating in nearby parks are popular with students. Dayton has a number of fine theaters and several campus organizations frequently present recent motion pictures in campus auditoriums as fund-raising ventures; these are well attended.
ATHLETICS
Participation in athletics is an integral part of the educational development that the University strives to achieve for all its students. This applies both to intercollegiate and intramural athletics.

All students are encouraged to engage in some form of athletic activity according to their ability. This is particularly emphasized for students majoring in physical education, for whom the various athletic activities have special importance in view of the career for which they are preparing.

The University feels that athletics, intercollegiate and others, cultivate a sense of unity which is one of the important factors in student morale.

Many persons throughout the country have come to know the University of Dayton through the accomplishments of its varsity team, the Dayton Flyers. The University also engages in intercollegiate competition in football, baseball, tennis, golf, soccer, ice hockey, and field hockey.

There are highly competitive intramurals in all sports including golf, tennis, softball, touch football, basketball, and volleyball.

THE STUDENT HANDBOOK
As a member of the University family, the student will desire more detailed information than that given here. This information is given in a separate publication called THE STUDENT HANDBOOK. Students and parents are strongly urged to familiarize themselves with the contents of this publication.
III Admissions

REQUIREMENTS FOR ADMISSION

For admission to a freshman class, the applicant must submit a written application, a satisfactory high school record, and the results of either the Scholastic Aptitude Test (mathematical and verbal) of the College Entrance Examination Board (CEEB) or the American College Test (ACT). The application must be on a form which the prospective student may obtain by writing the Director of Admissions.

A student is allowed to register only after all credentials have been received and evaluated and a registration permit has been issued.

The applicant for the freshman class must present sixteen units from a high school accredited by some regional accrediting association or by a State Department of Education, and have a total record indicating likelihood of success in college. Certain courses of study require specific entrance units, as follows:

ENTRANCE UNITS RECOMMENDED

ARTS & SCIENCES: A well prepared candidate will have had from 15 to 18 units in English, Social Sciences, Mathematics, Foreign Language, and Laboratory Science. Those who plan to major in one of the Natural Sciences, Mathematics or Computer Science will find a strong mathematics background most helpful.

<table>
<thead>
<tr>
<th>DEGREES</th>
<th>English</th>
<th>Language</th>
<th>Algebra</th>
<th>Geometry</th>
<th>Trigonometry</th>
<th>Mathematics</th>
<th>Chemistry</th>
<th>Physics</th>
<th>Science</th>
<th>History</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business degrees</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Education degrees:</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>a) elementary</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>2*</td>
<td></td>
</tr>
<tr>
<td>b) secondary, art,</td>
<td>4</td>
<td>2 or 1</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>music, and speech</td>
<td></td>
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<td></td>
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<tr>
<td>c) physical education</td>
<td>4</td>
<td></td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>d) home economics</td>
<td>4</td>
<td></td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Engineering degrees***</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td>***</td>
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<tr>
<td>Engineering Technology</td>
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<tr>
<td>degrees</td>
<td>4</td>
<td>1</td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*History or Social Studies.

**Two years of high school Mathematics required for Business Education.

***Appropriate Mathematics and Science.
All exceptions to the foregoing admission rules must be approved by the Academic Dean.

The University bases its acceptance of a prospective student on a satisfactory high school record, recommendation of the high school principal, and the results of either the scholastic Aptitude Test or the American College Test (Junior SAT or ACT results accepted).

In addition to the above the University of Dayton requires all accepted students to take the English, Mathematics II, and Language Achievement Tests of the C.E.E.B. before June 1. These tests are used for placement only. Those who have not taken a language in high school do not take the Language Achievement Test.

**ACHIEVEMENT TESTS**

Students who are accepted to the University of Dayton must take the following Achievement Tests for placement only, sometime prior to June 1.

<table>
<thead>
<tr>
<th>COLLEGE OR SCHOOL</th>
<th>ENGLISH</th>
<th>MATH (LEVEL II)</th>
<th>FOREIGN LANGUAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arts</td>
<td>required</td>
<td>required for those seeking registration in calculus during their first term</td>
<td>required</td>
</tr>
<tr>
<td>Business</td>
<td>required</td>
<td>optional</td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>required</td>
<td>required for those seeking registration in calculus during their first term</td>
<td>required for secondary teaching field in languages or language electives</td>
</tr>
<tr>
<td>Engineering</td>
<td>required</td>
<td>required for those seeking registration in calculus during their first term</td>
<td></td>
</tr>
<tr>
<td>Sciences</td>
<td>required</td>
<td>required for those seeking registration in calculus during their first term</td>
<td>optional</td>
</tr>
<tr>
<td>Engineering Technology</td>
<td>—</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The University admissions standards and policies are free of discrimination on the grounds of race, creed, color, and national origin.
ADVANCED PLACEMENT
The University accepts the advanced placement program offered to secondary schools under the auspices of the Advanced Placement Committee of the College Entrance Examination Board.

The University will give not only advanced placement but also credit to students enrolled in the program, provided that such students have taken the tests provided and scheduled by the College Entrance Examination Board and have received a favorable interpretation grade from the Educational Testing Service.

Students desirous of receiving advanced placement under this program are to arrange that test scores be sent to the University Office of Admissions, which will grant advanced standing with or without credit in the appropriate subject areas. Credit, when given, will be recorded as Em credit and will be determined by the interpretation grade:

- For a score of "5", two terms of advanced standing with credit.
- For a score of "4", one term of advanced standing with credit.
- For a score of "3", one term of advanced standing without credit.

Scores below "3" do not entitle the applicant to either credit or advanced standing.

High school students in the senior year may under certain conditions take courses at the University of Dayton for advanced standing with credit. Interested students should seek further details from the Registrar.

TRANSFER STUDENTS
The admission of transfer students is controlled by a special Committee on Admissions comprising the Provost of the University, the Director of Admissions, and the Dean of the School concerned.

In addition to the credentials required of all applicants, a transfer student must present an official transcript of credits from each of the schools he has attended and a statement from the last school attended confirming that he was honorably dismissed and that the school would be willing to enroll him again.

The University, through the executive officer of the Admissions Committee, will accept transfer students in the following categories:

1. students who have established credit in less than thirty-two semester hours work (or the equivalent) with a grade point average of 2.00 or higher out of a possible 4.00;

2. students who have established credit in not less than thirty-two semester hours work nor more than sixty-three semester hours work (or the equivalent) with a grade point average of 2.25 or higher out of a possible 4.00;
(3) students who have established credit in sixty-four semester hours work (or the equivalent) with a grade point average of 2.50 or higher out of a possible 4.00. (Grade point averages will be calculated on the basis of all work taken and in University of Dayton equivalents.)

Transfer students will be usually accepted:

(1) From a fully accredited school.
   a) Holding an Associate Degree from that institution, or
   b) Maintaining a cumulative average as stated above.

(2) From ECPD (Engineers' Council for Professional Development) approved programs wishing to enter into Engineering Technology.

(3) Holding an Associate Degree in Police Administration or Law Enforcement from a University of Dayton approved institution.

The number of credits that a transfer student will be awarded is determined after the applicant has been accepted into the University and has submitted the necessary deposits. First a preliminary evaluation of the applicant's transcript(s) is made, indicating the credits which will appear on his permanent record. Generally all "C" or better grades from fully accredited Colleges and Universities will be submitted. After this preliminary evaluation, the Dean of the division into which the applicant will enter makes a final evaluation to determine which of the credits will be applied toward particular degree requirements.

Students are not awarded advanced standing for correspondence courses, with the exception of college-level United States Armed Forces Institute courses. A maximum of 12 credit hours may be awarded.

APPLICATION AND ADMISSIONS PROCEDURES

The prospective student should write to the Director of Admissions requesting application forms. This request should be made at the beginning of the applicant's senior year in high school.

After completing the forms, the applicant must affix a check or money order for a non-refundable application fee, made payable to University of Dayton, and present the application to his high school principal and/or high school counsellor.

The principal and/or high school counsellor completes those portions of the forms so designated (recommendation of the applicant, and official records of high school performance) and mails them to the University.

If the applicant is in the upper third of the class and had 1000 on Junior SAT or 24 composite on Junior ACT, his application is given immediate attention by the Committee on Admissions. If he is not within the upper third of the class or does not have a total of 1000 on Junior SAT or 24 composite on Junior ACT,
his application is held until he has completed seven semesters of high school and grades are received, as well as Senior SAT or ACT scores.

After the Committee on Admissions studies the application, the applicant is notified if he has been found "acceptable" or not. Those "acceptable" must, on or before the date specified on the acceptance, forward the required deposit—the applicant's assurance to the University that he intends to register.

Prospective students who have designated on their applications that they wish to live in campus housing will receive a contract for such accommodations. This must be properly filled in, and a deposit made. All freshmen must live on the campus, if room is available.

These two latter deposits are applicable to the student's bill at the first registration, except for the housing deposit which is retained to cover possible damage to his room during occupancy.

Let it be noted that the provisions of this bulletin are not an irrevocable contract between the student and the University. The University reserves the right to change any provision or requirement at any time within the student's term of residence. The University further reserves the right to ask the student to withdraw for cause at any time.

DEADLINE DATES FOR APPLYING

<table>
<thead>
<tr>
<th>Term</th>
<th>Deadline Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>September Term</td>
<td>July 1, if vacancies still exist.</td>
</tr>
<tr>
<td>January Term</td>
<td>November 20</td>
</tr>
<tr>
<td>May Term</td>
<td>March 15</td>
</tr>
<tr>
<td>June Term</td>
<td>May 15</td>
</tr>
</tbody>
</table>

Applications which arrive after the deadline dates mentioned above will be considered for the following term.

EDUCATION OF VETERANS

All departments of the University have been approved by the Veterans Administration for training under the G.I. Bill. Veterans' affairs are handled by Robert Hildreth, Veteran's Office, Room 203, C. H. Gosiger Health Center. All veterans attending the University must contact his office. Counseling by the Veterans Administration is available in the Guidance Center.

PHYSICAL EXAMINATIONS

All incoming students are required to submit, on the form provided by the Office of Admissions, a report of physical examination and certain basic diagnostic tests and immunizations. These are to be performed by a private physician and sent DIRECTLY TO THE HEALTH CENTER. The report is strictly confidential.
and can in no way influence the student's acceptability for admission: however, until a properly completed report is on file at the Health Center, the student will not be permitted to register.

FOREIGN STUDENTS
All foreign students must comply with the admission requirements. In addition, the following items must be in order.

1) the official credentials must be in an official English translation.
2) the results of the TOEFL test must be submitted.
3) the student health record must be on file on the University of Dayton health form.

Foreign students must deposit $2,500 with the Treasurer of the University of Dayton before the form to obtain a student visa can be issued.

Arrangements to see the Foreign Student Advisor must be made within 24 hours of the student's arrival on campus.

Other pertinent facts may be found in the pamphlet "Information for Prospective Foreign Students." This pamphlet may be obtained by writing the Director of Admissions.

**See Student Financial Aid on page 48.
IV Financial Information

GENERAL POLICY
The tuition and fee charges of the University are set at the minimum permissible for financially responsible operation, and in general, these charges are less than the actual costs incurred. Gifts and grants received through the generosity of industry, friends, and the alumni of the University help to bridge the difference between income and costs. When need arises, the trustees of the University reserve the right to change the regulations concerning the adjustment of tuition and fees at any time, and to make whatever changes in the curricula they may deem advisable.

All fees and tuition are payable in full at the time of registration for the term, unless arrangements for payment by some deferred payment program are made with the Office of Student Accounts in advance of each registration.

No student will be registered for a new term, unless the account for the previous term is settled.

Transcript of credits and honors of graduation will be denied students whose bills have not been paid.

All checks should be made payable to the UNIVERSITY OF DAYTON.

A payment of tuition and fees made at the time of registration with a bad check will result in the cancellation of the student's registration until the tuition and fees and penalty are properly paid. The penalty fee is $20.00.

The penalty for passing bad checks in any other area on the campus is $5.00.

Tuition reductions are granted to some unmarried children from the same family attending classes, full-time, simultaneously, and not on scholarship, if certain conditions are fulfilled. Inquiries regarding such reductions should be made through the Office of Student Aid in advance of each registration.
<table>
<thead>
<tr>
<th>Charge</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application Fee, payable once, upon application</td>
<td>$10.00</td>
</tr>
<tr>
<td>Matriculation Fee, payable once by Full Time Students, at entrance</td>
<td>$10.00</td>
</tr>
<tr>
<td>Testing and Counseling Fee, payable once at entrance</td>
<td>$25.00</td>
</tr>
<tr>
<td>Freshman Orientation Fee</td>
<td>$35.00</td>
</tr>
<tr>
<td><strong>FULL TIME COMPREHENSIVE ACADEMIC CHARGE, I &amp; II TERMS</strong></td>
<td></td>
</tr>
<tr>
<td>Undergraduate Student, per term</td>
<td>$800.00</td>
</tr>
<tr>
<td>Full Time Student Teacher (12 credit hours or less), including the supervising teacher fee, per credit hour</td>
<td>$40.00</td>
</tr>
<tr>
<td>Full Time Student Teacher (13 or more credit hours), including the supervising teacher fee</td>
<td>$800.00</td>
</tr>
<tr>
<td>Full Time Fine Arts Student, when taking art courses at Dayton Art Institute simultaneously, per credit hour</td>
<td>$40.00</td>
</tr>
<tr>
<td>Basic University Fee—Students carrying 12 or more hours at UD or 12 or more hours combined at UD and/or an affiliated institution and Full Time Student Teachers, per term</td>
<td>$50.00</td>
</tr>
<tr>
<td>Applied Music Fees — please refer to page 287</td>
<td></td>
</tr>
<tr>
<td><strong>PART TIME UNDERGRADUATE STUDENTS, I &amp; II TERMS AND ALL UNDERGRADUATE STUDENTS, EACH SPLIT TERM</strong></td>
<td></td>
</tr>
<tr>
<td>Registration Fee, each Registration</td>
<td>$2.00</td>
</tr>
<tr>
<td>Tuition, per credit hour</td>
<td>$40.00</td>
</tr>
<tr>
<td>Tuition per Laboratory clock hour</td>
<td>$22.00</td>
</tr>
<tr>
<td>Laboratory Materials and Equipment Fee</td>
<td></td>
</tr>
<tr>
<td>each term, where applicable</td>
<td>$15.00</td>
</tr>
<tr>
<td>Laboratory Breakage Deposit, each term</td>
<td>$5.00 to 10.00</td>
</tr>
<tr>
<td>Basic University Fee....$5.00 per credit hour—not to exceed $25.00 per term</td>
<td></td>
</tr>
<tr>
<td><strong>OTHER CHARGES</strong></td>
<td></td>
</tr>
<tr>
<td>R.O.T.C. Uniform Deposit, payable once each year, refundable</td>
<td>$20.00</td>
</tr>
<tr>
<td>Service Charge for Change of Schedule per course</td>
<td>$2.00</td>
</tr>
</tbody>
</table>
Late Registration Service Charge
Full Time Students ................................................................. 15.00
Part Time and Summer .......................................................... 5.00
Proficiency and Final Make-up Examinations ....................... 5.00
Graduation Fee, Undergraduate and Graduate Students ...... 26.00
Books and Stationery ............................................................. Variable

FULL-TIME STUDENTS
A student with an academic schedule of at least twelve credit hours is considered a full-time student. Students from outside the Dayton area must be full-time students. With this status and upon payment of the tuition and applicable fees he is entitled to the benefits of the various activities.

SPECIAL STUDENTS
Special students, non-matriculated students, and auditors are subject to the various expenses as outlined above (see pages 46 and 47).
CANCELLATION AND REFUNDS
Cancellation will be allowed only after the completion of the proper withdrawal forms. Students who discontinue class attendance without officially completing the withdrawal procedures during the cancellation period will be responsible for the full amount of the applicable tuition and fees. Those called to military service before the end of a given term should consult with the Bursar of the University concerning possible credits and financial adjustments.

During the four-week cancellation period for the first and second terms, the tuition charges will be made according to the following schedule:
- During first week of classes: 20%
- During second week of classes: 40%
- During third week of classes: 60%
- During fourth week of classes: 80%
- During or after fifth week of classes: 100%

During the two-week cancellation for each session of the split term the tuition charges will be made according to the following schedule:
- During the first week of classes: 35%
- During second week of classes: 70%
- During or after third week of classes: 100%

The special course and laboratory fees are not refundable nor is the University Fee for student activities.

RESIDENCE FACILITIES FEES
Students from outside the Dayton area reside on the campus unless the residence halls are fully occupied. Meals are provided in the cafeteria assigned to service the particular residence halls. A seven day meal service is offered (three meals a day, Monday through Saturday; Sunday breakfast and noon dinner). The following rates include room rental, meal service, and bed linens; vacation periods are excluded.
## CHARGES FOR ROOM AND BOARD
**MAY, 1971 THROUGH APRIL, 1972**

<table>
<thead>
<tr>
<th></th>
<th>1st Split Term</th>
<th>2nd Split Term</th>
<th>1st Term</th>
<th>2nd Term</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FULL TIME STUDENTS—WOMEN</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single Occupancy</td>
<td>$75.00</td>
<td>$75.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(7 Day Meal Ticket)</td>
<td></td>
<td></td>
<td>$512.00</td>
<td></td>
</tr>
<tr>
<td>Double Occupancy</td>
<td>60.00</td>
<td>60.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(7 Day Meal Ticket)</td>
<td>487.00</td>
<td>487.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Triple Occupancy</td>
<td>462.00</td>
<td>462.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Room Deposit to Cover Possible Damage (refundable)</td>
<td>10.00</td>
<td>10.00</td>
<td>10.00</td>
<td>10.00</td>
</tr>
<tr>
<td><strong>FULL TIME STUDENTS—MEN</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single Occupancy</td>
<td>75.00</td>
<td>75.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Double Occupancy</td>
<td>60.00</td>
<td>60.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(7 Day Meal Ticket)</td>
<td>467.00</td>
<td>467.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Triple Occupancy</td>
<td>442.00</td>
<td>442.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Room Deposit to Cover Possible Damage (refundable)</td>
<td>10.00</td>
<td>10.00</td>
<td>10.00</td>
<td>10.00</td>
</tr>
<tr>
<td><strong>MEAL TICKETS—DORMITORY STUDENTS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 Day Meal Service</td>
<td>65.00</td>
<td>65.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7 Day Meal Service</td>
<td>85.00</td>
<td>85.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>OFF-CAMPUS HOUSING—U.D. OWNED (Note 1)</strong></td>
<td>Low</td>
<td>Med.</td>
<td>High</td>
<td>Low</td>
</tr>
<tr>
<td>Room Only</td>
<td>65.00</td>
<td>70.00</td>
<td>75.00</td>
<td>180.00</td>
</tr>
<tr>
<td>Room Deposit to Cover Possible Damage (refundable)</td>
<td>30.00</td>
<td>30.00</td>
<td>30.00</td>
<td>30.00</td>
</tr>
<tr>
<td><strong>MEAL TICKETS—OFF-CAMPUS FULL TIME STUDENTS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 Day Meal Service</td>
<td>65.00</td>
<td>65.00</td>
<td>225.00</td>
<td>225.00</td>
</tr>
<tr>
<td>7 Day Meal Service</td>
<td>85.00</td>
<td>85.00</td>
<td>253.00</td>
<td>253.00</td>
</tr>
</tbody>
</table>

Note 1: There is a probability of an increase in rental rates as of January 1, 1972.

## WEEKLY RATES—ROOM AND BOARD
(Institute Rates are available upon request from the Director of Housing.)
- **Single**: $49.00 per week—(7 Day Meal Ticket) $43.00—(5 Day Meal Ticket)
- **Double**: 40.00 per week—(7 Day Meal Ticket) 34.00—(5 Day Meal Ticket)
Students who cannot secure accommodations in the residence halls because of limited space may make arrangements to reside in approved housing in the vicinity of the University through the Housing Office. University cafeterias are closed on Sunday evening. Vending areas are available in the residence halls for light lunches.

During the Christmas vacation, students may continue to reside in residence halls at a nominal charge. During the Thanksgiving and Easter vacation periods, students may reside in their rooms without any additional charge. The meal ticket is honored only during the Thanksgiving vacation period.

Request for accommodations in the residence halls should be addressed to the Director of Housing.

Applications for room reservations must be accompanied by a fifty-dollar deposit of which forty dollars will be credited to the student's bill for the first session of attendance. The remaining ten dollars will be held as a deposit against any room damage which may result during the occupancy.

Students who cancel room reservations prior to June 15 (for fall term occupancy), December 1 (for second term occupancy), April 1 (for the first split term occupancy), or June 1 (for the second split term occupancy), will be entitled to a refund of the housing deposit. A fifty-dollar housing deposit is required for both the fall term applicants or the second term applicants. A twenty-five dollar deposit is required for each of the two split third terms.

Those who cancel reservations after these dates forfeit the entire deposit.

All students living in residence halls are required to observe University regulations in general along with the specific requirements of each hall, and will be held responsible for any damage to their rooms during occupancy. The cost for any unnecessary damage to the various community areas (lounges, utility rooms, halls, etc.) will be pro-rated to all residents of the area of damage in cases where individual responsibility is not ascertained.

FINANCIAL AID POLICY
The University of Dayton desires to assist all qualified students who seek financial assistance in order to continue their education. In an effort to meet this goal, the University has established a complete and sound student aid program which includes: scholarships, loans, grants, tuition reductions, and part-time employment.

The allocation of financial assistance is closely related to the student's need. Financial need is the difference between the expense of attending college and the financial resources available to the student to meet expenses. It is the basic policy of every college to expect that the parents will make a reasonable effort to assist with the student's college expenses from the family's resources. The student is
also expected to make a contribution from savings and employment.

To assure the most equitable distribution of financial assistance, the University of Dayton uses the financial need analysis information which is provided by the family on the Parents’ Confidential Statement. The Parents’ Confidential Statement may be obtained from the high school counselor or from this office upon request and is to be sent, by the family, to the College Scholarship Service. The family’s expected contribution to the educational expense is determined by considering their resources and factors influencing the use of these resources—number of dependents, current educational expenses of other family members, unusual medical expenses, retirement needs, and other special problems which deserve consideration.

Financial assistance from the University of Dayton must be viewed as supplemental to all other resources (parents’ expected contribution, percentage of student’s savings, student’s summer earnings, state scholarships, state guaranteed loans, private scholarships, etc.) to meet the expenses of attending the University of Dayton. Financial aid awards are tailored to meet the particular needs of assistance. Eligibility for and interest of the applicant determines the type of assistance offered. If possible, you should arrange to meet with a representative of the Student Aid Office. This would provide an opportunity to discuss your particular situation with you and your parents so that the most appropriate assistance may be arranged.

All financial assistance, other than academic scholarships, is awarded for the academic year. A new application and a Parents’ Confidential Statement must be submitted each year for students applying for loans, grants, or employment.

EXPENSES

The University of Dayton operates on a “Split Third-Term Calendar.” Tuition and Fees for full-time students during the 1971-72 academic year (fall and winter terms) will total $1700. Room and Board on campus for this period would be $970 for female students and $930 for male students. Books and supplies will cost approximately $50 per term. In addition to this, the student will need funds to satisfy personal expenses.

Expenses for commuting students include tuition, supplies, and miscellaneous living costs. Transportation to and from the University as well as lunches should be considered in the budget.

APPLICATION PROCEDURE

Application for grants, tuition reductions, loans and employment may be obtained from the office of Scholarships and Student Aid, University of Dayton, Dayton,
Ohio 45409. The following procedure must be completed each academic year:

1. Submit an application to the above mentioned office. Priority is given to those applications received prior to April 30 for the following year.

2. File a Parents’ Confidential Statement with the College Scholarship Service. Forms may be obtained from the high school counselor or from this office upon request. Be sure to request that a copy of the results be sent to the University of Dayton.

Applications for scholarships may be obtained from the office of Scholarships and Student Aid, University of Dayton, Dayton, Ohio 45409. Specific information concerning scholarships may be found on the next page.

SCHOLARSHIPS

The scholarships program at the University of Dayton has been established to recognize excellent high school achievement by incoming freshman students and outstanding performance by upperclass students in their academic pursuits and service to the University.

President’s Scholarship

The President’s Scholarship Program at the University of Dayton rewards the academic excellence of high school seniors. Students in all curricula may apply for these scholarships which range in monetary value from $200 per year to full tuition. Scholarship recipients are selected on the basis of scholastic achievement; stipends are adjusted in accordance with financial need.

Applicants receive consideration for these scholarships on the basis of: 1) high school academic performance; 2) S.A.T. or A.C.T. scores; 3) demonstrated service to school, community and church; 4) evidenced leadership ability; and 5) citizenship. The scholarship is renewable for eight consecutive undergraduate terms providing the recipient maintains at least a 3.0 (B) cumulative grade point average and participates in University sponsored extracurricular activities (other than social).

Application Procedure

1. Request an application for the President’s Scholarship from the Office of Scholarships and Student Aid between September 15 and December 1. Complete the application and return it to the Office of Scholarships and Student Aid prior to December 30. Deliver the Recommendation insert to your principal or counselor and ask this school official to complete this form and send it to the Office of Scholarships and Student Aid prior to December 30.

2. Obtain a Parents’ Confidential Statement from your principal or counselor
and request your parents to complete this form and send it to the College Scholarship Service before the first of December. Designate the University of Dayton as a recipient of the financial analysis.

3. Arrange to take the Scholastic Aptitude Test (Math and Verbal Sections) or the American College Test no later than December of your senior year. Indicate that your scores are to be sent to the University of Dayton. Scores made in earlier tests are also acceptable if your high school forwards the results.

4. All forms: 1) Application; 2) Recommendation insert; 3) Parents' Confidential Statement should be filed on or before December 1, but must be available to the University of Dayton Scholarship Committee by December 30. Application, Recommendations, and Parents' Confidential Statements received after that date cannot receive consideration.

All scholarship applicants will be notified that they have or have not been selected as a recipient of a scholarship. You may expect to hear from this office by March 1.

Dayton Area Scholarship

These scholarships are offered to top ranking students in schools in the greater Dayton area. To be eligible, the student must rank first or second at the end of seven semesters in schools of 1000 or more, and in schools with less than 1000 students (grades 9 thru 12) the number one ranking senior will be eligible for the scholarship.

The purpose of these scholarships is to attract outstanding students who will be the academic and activity leaders at the University of Dayton. The remission of tuition provides the recipient with more time for study and leadership in campus activities.

The Dayton Area Scholarship covers full-tuition costs and is renewable for eight consecutive semesters provided the recipient continues to be a full-time student, maintains a 3.00 (B) average or better, and takes part in University sponsored activities (other than social).

The Director of Student Aid will obtain the names of those eligible from the high school principal or guidance counselor and will then contact the students.

Marianist Scholarship

These scholarships are offered to top ranking students in Marianist High Schools in the New York and Cincinnati provinces. To be eligible, the student must rank first or second at the end of seven semesters in schools of 1000 or more, and in schools with less than 1000 students (grades 9 thru 12) the number one ranking senior will be eligible for the scholarship.
The purpose of these scholarships is to attract outstanding students who will be academic and activity leaders at the University of Dayton. The remission of tuition provides the recipient with more time to study and leadership in campus activities.

The Marianist Scholarship covers full-tuition costs and is renewable for eight consecutive undergraduate semesters provided the recipient continues to be a full-time student, maintains a 3.00 (B) average or better, and takes part in University sponsored extracurricular activities (other than social).

The Director of Student Aid will obtain the names of those eligible from the high school principal or guidance counselor and will then contact the students.

The General Motors Scholarship

The University of Dayton is proud to have been selected to participate in this outstanding scholastic program. Each year one incoming freshman is selected to receive General Motors Scholarships.

The recipient of the General Motors Scholarship is selected by the Scholarship Committee of the University of Dayton from the applicants for President's Scholarships. Preference is given to students entering the school of Engineering.

General Motors awards range from an honorary award carrying a stipend of $200 per year to an award carrying a maximum stipend of $2000 per year, depending upon demonstrated need. The scholarships are renewable for four years provided the recipient meets the high standards required of President's Scholarship recipients. Students receiving this scholarship are not permitted to hold other scholarships.

Scholarship holders are under no obligation to repay General Motors or work for the General Motors Corporation. They are expected to maintain a high academic standing and conduct themselves in a manner that will bring credit to themselves, their college, and the corporation.

Tom Prinz Memorial Scholarship

In 1968 a Memorial Scholarship was established to honor the memory of Tom Prinz, a 1967 graduate of the University of Dayton. The recipient of this scholarship must be a Dayton high school graduate who plans to attend the University of Dayton and major in Physical Education.

The Scholarship is co-sponsored by the Dayton Coaches Association, the University of Dayton Physical Education Major and Minors Club, and the U.D. Alumni Association and has a stipend of $1000. The selection committee is composed of representatives of Dayton Coaches Association and a staff member from the University of Dayton Physical Education Department.
Faculty Scholarship

The faculty at the University of Dayton has contributed to a scholarship fund which is designed for Negro graduates of Dayton area high schools who rank below the top five percent of their graduating class but possess sound academic potential and can demonstrate financial need.

Students may request an application from the University of Dayton Scholarship Office. Applications will be accepted until April 15. The recipients will be announced in May.

Alfred P. Sloan Foundation Grant

The Technical Institute has been granted funds by the Alfred P. Sloan Foundation for ten scholarships for disadvantaged students who wish to begin their studies in engineering technology in September 1971. These scholarships can be continued for up to three years, a sufficient length of time for the student to complete the Associate Degree Program in Engineering Technology. Further information regarding these scholarships may be obtained from the Director of the Technical Institute, University of Dayton.

Merle Smith Scholarship

The Merle Smith Scholarship is made available by the Greater Dayton Area Chapter of the Alumni Association to a deserving incoming freshman from Montgomery County who is a son or daughter of a University of Dayton Alumnus. This scholarship is intended for one academic year and has a stipend of $400.

ROTC Scholarships

U.S. Army ROTC financial assistance scholarships are awarded to outstanding ROTC cadets in all four academic years. The scholarship includes all costs for tuition, fees, books, and supplies. Interested students should contact the Military Science Department for further information.

Athletic Scholarships

The Athletic Department offers scholarships to young men who demonstrated athletic and academic promise. The selections of the recipients is made by the coach who has the responsibility for administering the particular sport. Correspondence should be directed to the head coach of the sport in which the applicant is interested.

Additional Scholarships Administered By The University of Dayton

In addition to its own scholarships, the University is authorized to select students as nominees for scholarships offered by certain corporations, business
firms, service groups, and friends of the University. These private groups include: Western Electric Company, Alcoa, Monsanto Chemical Company, The Association of General Contractors, and others who prefer to remain anonymous.

The amount of the scholarship award will vary with the financial need of the student, the terms, under which the scholarship funds were established, and total amount of funds available for distribution.

Recipients are usually selected by a special committee which is formed to review nominees by Deans and Department Chairmen.

GRANTS

Educational Opportunity Grants
These federally-supported, University-administered grants are provided to full-time undergraduate students who have exceptional financial need. Eligibility for the grant and the stipend the recipient is to receive is governed by the rules and regulations of the United States Office of Education. The value of these grants range from $200-$1000 per year. The student must also receive assistance from certain other sources, in an amount at least as great as the amount of the grant. The following may be included as matching funds: 1) institutionally administered loans; 2) institutional, state, corporate, or other privately financed scholarships, tuition reductions, or grants; and 3) institutionally administered employment programs. The completion of an application for student aid assures applicants of consideration for this type of assistance.

Tuition Remission Grant
The University of Dayton offers a non-repayable grant to students with a financial need greater than can usually be solved by assuming a loan and employment. Need is defined as the difference between the family's expected contribution and anticipated educational expenses. The University assumes that the student can provide "self-help" in the form of a loan and employment, for $1300 of his need. To determine eligibility for the remission grant all non-repayable assistance the student will receive is deducted from his established need. If, after this deduction, the student's need exceeds $1300 the University will provide a remission grant for that amount up to a maximum of $400.

If, at a later date, the recipient receives a non-repayable award from another source, the University will adjust this remission so that it is within the described guidelines. The completion of an application for student aid assures eligible applicants of consideration for this type of assistance.
Ohio Instructional Grant (Ohio Resident)

The Ohio Instructional Grant was established for Ohio residents attending colleges in Ohio. Eligibility for the grant and the stipend the recipient is to receive is determined by the Ohio Board of Regents. Grants range from $100-$900 per year. The completion of an application for student aid assures applicants of consideration for this type of assistance.

University of Dayton Grant

The University has funds available which are reserved for students in extreme or exceptional financial need. Grants of this nature are usually included in the package of assistance arranged by the Student Aid Office and no special application is necessary.

The grant is a gift and although the student is not required to repay the grant, those who receive the grant should accept the obligation when they attain a sufficient financial status, to reimburse the University so that other deserving students may stay in school.

John Westendorf Scholarship Fund

The John Westendorf Scholarship Fund was established to assist deserving students who have graduated from Dayton high schools.

The Director of Student Aid will use funds from this source to supplement financial assistance offered to a student. Each graduate of a Dayton high school that applies for financial assistance will be considered. The parent's and student's responsibility to finance an education will be considered and when unusual circumstances prevail. The Director of Student Aid may utilize funds from the John Westendorf Scholarship Fund to assist those deemed worthy of this fund.

Students receiving assistance from this fund are expected a 2.0 cumulative grade point average and participate in at least one extracurricular activity. Renewal of this grant will be at the discretion of the Director of Student Aid.

Harry F. Finke Scholarship Fund

This fund was established by Harry F. Finke, Sr. to assist a deserving needy boy in his pursuit of an education. Priority is to be given to a worthy young man pursuing a degree in Engineering.

Approximately $400 is available each year from this fund. The Director of Student Aid will solicit names from the Dean of Engineering and will supplement this list with names obtained from the evaluation of financial aid applications. These prospective recipients will be reviewed by the Student Aid Committee and the selection is the responsibility of this group.
Band Grants
The Music Division of the Performing and Visual Arts Department administers Band Grants. Additional information may be obtained from Mr. Charles Ritter, Music Dept., University of Dayton.

LOANS
National Defense Student Loan
The National Defense Student Loan is available to those applicants who have demonstrated genuine need for assistance to pay the actual costs of attending school. A student is eligible to borrow only that amount which is needed to supplement other resources to meet expenses. The maximum amount available to an undergraduate student in one academic year is $1000 and for graduate students is $1500 in an academic year.

The recipient enters the repayment cycle nine months after he ceases to carry at least one-half the normal full-time academic load. The loan bears simple interest commencing nine months after the end of student status. The loan and interest of any borrower who serves as a full-time teacher in any elementary and secondary school or in a college or university will be cancelled at the rate of ten percent (10%) per year of service up to a maximum of fifty percent (50%). Fifteen percent (15%) per year cancellations are available to students who teach in low-income areas or who teach in the area of special education. Service in the Armed Forces after receiving this loan will result in a twelve and one-half percent (12½%) cancellation of the loan and interest for each complete year of service. The maximum cancellation will be fifty percent (50%). The cancellation provisions are currently being reviewed by Congress.

State Guaranteed Loans
The Federal Government, in cooperation with State Agencies, private non-profit agencies, and participating leaders has designed a loan program to enable students to borrow from commercial sources such as banks, savings and loan associations, and credit unions, at a low interest rate.

The guaranteed loans are particularly useful to students from middle and uppermiddle income families who may not qualify on the basis of need for assistance from other sources. Loans are made directly to students by banks and other lending institutions and the loan will be repaid directly to the lender. The size of the loan depends on the state policies. Federal guidelines allow for a maximum of $1500 each academic year.

If you have difficulty in locating a lending institution, please contact the Student Aid Office and we will assist in locating a source for the loan.
United Student Aid Funds Loan
Students who have been accepted for enrollment or are currently enrolled in good standing are eligible for loan under this program. The provisions and terms are the same as under the Guaranteed Loan Program. Please refer to this section for information concerning the amount which may be borrowed, repayment, and interest benefits.

A student interested in this program should contact the Student Aid Office to secure an application.

The major difference between this program and the Guaranteed Loan Program is that these loans may be used as matching for Educational Opportunity Grants. A Guaranteed Loan may not be used as a match for an Educational Opportunity Grant.

Emergency Loans
The Student Financial Aid Office Administers an emergency loan program for students who encounter unexpected financial problems during the year. No interest is charged on the loans and the student has a one year repayment period. These emergency funds may be secured at any time during the year when there are sufficient funds.

DEFERRED PAYMENT PLANS
For those who prefer to budget annual school costs out of monthly income, the University of Dayton makes three approved financing programs available to those who prefer to make monthly payments.

The Tuition Plan, Incorporated
The family may borrow that part of the college expenses they feel necessary and distribute the payments over a period of months. This loan program has conventional interest rates. Correspondence related to this plan should be directed to the Assistant to the Bursar, University of Dayton.

BankAmericard
Application and specific information about the BankAmericard may be obtained at your local bank. The card may be used to meet all University collectable expenses within the limits of the Line O’ Credit for that card.

Master Charge
Application and specific information about the Master Charge may be obtained at your local bank. The card may be used to meet all university collectable expenses within the credit limits for that card.
TUITION REDUCTIONS
The University of Dayton awards tuition reductions to qualified, full-time, undergraduate students in good standing. No student or his family is eligible to benefit from more than one of these reductions at the same time.

These reductions are not automatic. A student must complete an application each academic year in the Office of Student Aid. It is preferred that a student make application by April 30 for the following academic year. Applications will be accepted not later than three weeks after the first day of classes for the term for which the tuition reduction is requested.

Sibling Reduction
A reduction of $200 per term is available to families who are supporting two or more unmarried dependents simultaneously at the University of Dayton. The second member of the family and each additional member in attendance shall be eligible for this reduction.

Marianist Reduction
A $200 per term reduction is granted for relatives, including only brothers and sisters and their children (nephews and nieces), of active members of the Society of Mary (nonscholastic) and the Institute of the Daughters of Mary.

EMPLOYMENT
Under the federally supported COLLEGE WORK-STUDY PROGRAM, on-campus and off-campus work opportunities are provided for full-time students who request employment and demonstrate a financial need for employment to meet educational expenses. Students may work up to fifteen hours per week during the school term and will receive a payroll check semi-monthly for his services. When possible, a student will be employed by the University in a job related to his educational objectives.

For students who do not qualify for this program, INSTITUTIONAL EMPLOYMENT opportunities are available in the Personnel Office located in Room 215 of St. Mary's Hall. Applications should be made to that office as soon as the student knows what his schedule will be for the period of employment.

ADDITIONAL OPPORTUNITIES
G.I. Bill
To be eligible for benefits under the G.I. Bill any veteran of the Army, Navy, Marine Corps, Air Force or Coast Guard must have served continuously on active duty for at least 181 days ending after January 31, 1955 and have received an
honorable discharge. If the veteran's active duty was ended by a service-connected disability they do not need to meet the 181 day requirement. Persons still in the service are eligible if they have had at least two years of active duty. Applications may be obtained from the Office of Student Aid or from any Veterans Administration Office.

**Junior G. I. Bill**

Educational opportunities are available to children of veterans who died or were permanently and totally disabled in or as the result of service in the Armed Forces of the United States during specified time periods. Application must be filed by a parent or guardian with the Veterans Administration.

**Vocational Rehabilitation**

Training of handicapped persons for gainful employment is arranged through state vocational rehabilitation agencies. Request for information about rehabilitation services should be directed to the State Director, Vocational Rehabilitation Agency, the State Capitol.

**Social Security**

Sons and daughters of retired, disabled, or deceased workers may be eligible for Social Security benefits up to the age of 22 if they are unmarried, full-time students. Information pertaining to eligibility and procedure may be obtained from the Social Security Office serving your community.
Requirements for Degrees

All bachelor's degrees granted by the University of Dayton require a minimum of one hundred and twenty semester credit hours.

Requirements of the different degrees are listed under the various schools. One year of residence or thirty semester credit hours — ordinarily the senior year — is a minimum requirement for any bachelor's degree.

A credit hour denotes a semester course taken one hour a week as a class period, or two or three hours a week as a laboratory period.

Students enrolled in the University as candidates for degrees should not take courses at other colleges or universities without first obtaining written permission from their respective deans. If the permission is granted, the dean will request "transient status" for such students at the institutions which they designate. The University reserves the right to refuse the acceptance of credits in transfer when this procedure has not been followed.

The Bachelor of Science in Education degree may be awarded to holders of non-professional degrees from the University of Dayton with the completion of a minimum of thirty semester credit hours prescribed by the School of Education beyond the requirements of the non-professional degree. Students who in addition to a professional degree from the University of Dayton complete all the requirements for the Bachelor of Arts or Bachelor of Science degree may be awarded that degree also. Otherwise, for a second bachelor's degree, a minimum of forty-eight semester hour credits in upper-level courses (plus prerequisites) is required. For a second associate degree, a minimum of twenty-four semester hour credits in the area of specialization (plus prerequisites) is required. Moreover, students seeking a second degree must complete, either as part of or in addition to the above minima, the prescribed philosophy and theological studies courses of the general curriculum requirements, if they have not already done so as part of their first degree.
GENERAL CURRICULUM REQUIREMENTS
The University desires that every student develop a thorough knowledge in at least one area of study. In addition, each student should be introduced to the humanistic, cultural, scientific and aesthetic areas. To broaden his education in a meaningful manner, at least one of these areas outside the field of specialization should be pursued in greater depth. Above all, the University endeavors to embrace a philosophical and theological dimension in all areas of student development. Although courses play an important part in the accomplishment of these aims, out-of-class contact with the faculty and fellow students, various activities, and the general atmosphere on campus likewise make an important contribution.

Day students following four-year programs are required to complete successfully certain general University requirements, viz., requirements in Communication Arts, English, Philosophy and Theological Studies.

INDEPENDENT STUDY PROGRAM AND HONORS COURSES
To facilitate development of each student to his fullest capacity the University offers a variety of honors courses and the opportunity to follow an independent study program.

Some of the growing list of honors courses presently offered include:

Bio. 102L General Biology Laboratory II
Bio. 421H Biological Problems (Laboratory)
Bio. 422H Biological Problems (Library research)
Bus. 450H Business Management Honors Seminar
Chem. 499H Research
Cme. 499H Special Problems in Chemical Engineering
Cps. 498H Problems in Selected Areas
Cps. 499H Special Topics
Econ. 499H Special Problems in Economics
Edf. 440H Honors Seminar
Eng. 240-241H Literature of Western Civilization
Eng. 395H Junior Honors Tutorial
Eng. 495H Senior Honors Tutorial
Hist. 497H Honors Colloquium I. American History
Hist. 498H Honors Colloquium II. Non-American History
Mkt. 499H Problems in Marketing
Mth. 245H Sophomore Honors Mathematics
Mth. 246H Sophomore Honors Mathematics
Mth. 345H Junior Honors Mathematics
Mth. 346H  Junior Honors Mathematics
Mth 445H  Senior Honors Mathematics
Mth. 445H  Special Topics
Phil. 402H  Metaphysics Seminar
Phy. 196H  Mechanics
Phy. 207H  Electricity and Magnetism
Phy. 208H  Mechanics of Waves
Phy. 430H, 431H, 432H, 433H  Independent Research
Phy. 499H  Special Problems in Physics (Honors)
Pol. Sci. 201H  American National Government
Psy. 490H  Special Problems in Psychology
Psy. 491-492H  Readings in Psychology
Theol. 195H  Theology Honors I
Theol. 295H  Theology Honors II
Theol. 395H  Theology Honors III
Theol. 409H  Readings in Theology
Theol. 494H  Seminar
Theol. 495H  Theology Honors IV

A number of students are afforded the opportunity to participate in an independent study program and pursue a more flexible curriculum under the direction of a designated faculty advisor.

Eds. 456  Independent Study

INNOVATIVE AND INTERDISCIPLINARY STUDIES

The Office of the Assistant Provost has been established to foster innovative education throughout the University, especially through the Center for Interdisciplinary Studies. The Center administers UDI courses which accommodate inter-school offerings and experimental, innovative programs that draw resources from the entire University. (When interdisciplinary studies involve disciplines that lie entirely within one of the Schools of the University or the College of Arts and Sciences, the programs are handled by the respective School or College.)

In addition to accrediting UDI courses, the Office of the Assistant Provost provides research on innovations in education at the University and at other schools.
The Program of African and Afro-American Studies (AAS) offers courses as well as an undergraduate minor in Black Studies. The program is administered by the Assistant Provost.

AFRICAN AND AFRO-AMERICAN STUDIES
The purpose of the African and Afro-American Studies Program at the University of Dayton is to provide all students with a more accurate and relevant picture of themselves and their progenitors and to develop operational methods for abating the social and human problems on the contemporary American scene.

The African and Afro-American Studies Program proposes to give Blacks the intellectual tools necessary to effect change in a technocracy without severing them from their distinctive Black consciousness.

African and Afro-American Studies, using the Black experience as its base, provides for the development and transmission of ideas and information vital to the Black community in its efforts to gain self-determination and self-definition.

The following are the objectives of the program:

1. To provide students with an awareness, through systematic study, of the experiences, conditions, and origins of Black people, their living conditions, their philosophical, religious, and social values, their modes of artistic expression, and the way in which each of these cultural aspects has been interrelated in the perspective of time.

2. This comprehensive approach to African and Afro-American Studies calls for consideration not only of the Black community in the U.S., but also of its relations, past and present, to the experiences of the Black people in other parts of the world, especially Africa.

3. The program provides both the traditional approaches of study and analysis, as well as directly involving the student in research into the structure of the Black community.

4. To provide a systematic program of studies for students preparing for graduate study and possible teaching careers in Afro-American Programs.

5. To provide a program for students who expect to enter various occupations and professions of service to Black communities.

The approach in all the courses is innovative, as well as interdisciplinary, and seeks to delineate what is functional and what is dysfunctional within the context of the struggle of Black or Third World peoples everywhere. Whenever possible, the courses involve community fieldwork.

The University is presently offering a minor in African and Afro-American
Studies. The course requirements for AAS minors is 12 credit hours. Candidates for a minor are required to take AAS 311—Afro-American Politics.

GRADES AND SCHOLARSHIP

Final grades are submitted at the end of the term and these are made part of a student's permanent record in accord with the option chosen by the student. Copies of these reports are given to the students and deans and are sent to the parents and or guardians. A progress report of every freshman in each of his classes is submitted to the Registrar by every instructor at the middle of each term. The final grades of freshman students are also sent to their high school principals.

Beginning with the Second Term, January 1971, the undergraduate students will be permitted a selection from three alternative grading options. The course grading options are as follows:

No. 1—A, B, C, D, F; No. 2—A, B, C, No Credit (NC-less than “C” grade); No. 3—Satisfactory (S—“C” grade or better), No Credit (NC-less than “C” grade).

The official marks with their meanings and quality point value are as follows:

A—Excellent; options 1 and 2; for each semester credit hour, four quality points are allowed.

B—Good; options 1 and 2; for each semester credit hour, three quality points are allowed.

C—Fair; options 1 and 2; for each semester credit hour, two quality points are allowed.

D—Poor but passing; option 1 only; for each semester credit hour, one quality point is allowed.

F—Failed; option 1 only. This mark indicates poor scholastic work, or failure to report withdrawal from a course. In such cases, required courses must be repeated, preferably at the next opportunity. A student may not take the course a third time unless at the time of the second failure he has a standard cumulative point average of 2.50 or higher. Under no circumstances will he be permitted to take a course a fourth time.

S—Satisfactory. This mark indicates credit given for a course taken under grading option 3 and is granted for passing work, “C” grade or better. The “S” credit shall be counted as hours only and shall not be considered in determining a student's option cumulative point average.

NC—No Credit. This mark indicates no credit given for a course taken under either
grading options 2 or 3 and is granted for grades lower than “C” or for failure to report withdrawal from a course. In such cases, required courses must be retaken, preferably at the next opportunity. He may not take the course a third time unless at the time of the second failure he has a standard cumulative point average of 2.50 or higher. Under no circumstances will he be permitted to take a course a fourth time.

I—This grade may be given at the direction of the instructor to any student who, for reasons beyond his control, has not completed some portion of the work of the term, provided that the rest of the work has been of satisfactory grade. It is not to be given if the student has been delinquent in his work, that is, when work has not been completed through his own fault. A grade of “I” is not to be marked at mid-term. An “I” must be removed within thirty days from the date listed on the grade report, or it will be changed to an “F” (option 1 only) or “NC” (options 2 and 3) on the student’s permanent record card. No quality point is allowed.

W—Withdrew. During the first three weeks of a term (or the first week and a half of a split term) a student may withdraw from a class without record. Beginning with the fourth week (or the middle of the second week in a split term) all withdrawals are recorded as “F” (option 1 only) or “NC” (options 2 and 3) if the student withdraws because of academic difficulty. When a student finds it necessary to withdraw from a class for any reason whatsoever, it is important that he notify his Dean immediately. Financial adjustments, if allowed, will be made only from the date of notification.

K—Credit. This mark is used only for work credited from other institutions by the Office of Admissions. No quality point is allowed.

X—Audit. This mark indicates that the student has registered to audit the course. No credit hours or quality points are awarded for this mark.

Em—Examination. This mark indicates credit given to students registered in the University either on the basis of the advanced placement program of the C.E.E.B. or of examinations taken prior to or after admission to the University. The level of achievement which must be demonstrated by the student on these examinations is determined by the department in which the course is taught. This credit, up to a maximum of twenty-four semester credit hours, shall be assigned only on authorization of the Dean of the School or College in which the student is registered. No quality point is allowed.

No grade change of any kind is permitted after thirty days from the date listed on the grade report.
GRADE POINT AVERAGES

The SEMESTER grade point average is the total number of quality points divided by the number of semester credit hours carried by the student.

The STANDARD cumulative grade point average is computed from the grades submitted by the instructors except those for sub-college work; in such cases where courses are repeated, both the original grades and the new grades are computed. Marks of W, K, X, S, NC and Em are disregarded in the computation of the standard CGPA, but a course for which an “F” or an “I” is received is included in the usual manner.

The OPTION cumulative grade point average is computed from the grades A, B, C, D, F under option 1 and the grades A, B, C under option 2.

ACADEMIC STANDING

The student's academic standing is determined by using the standard cumulative point average and applying the following rules:

1. To be in good academic standing a student must have a standard cumulative point average of (a) at least 1.7 at the end of his first and second terms, (b) at least 1.8 at the end of his third, (c) at least 1.9 at the end of his fourth term, and (d) at least 2.0 at the end of his fifth and succeeding terms. A standard cumulative point average of at least 2.0 is required for graduation.

2. Any student who has a semester point average of less than 1.0, regardless of his standard cumulative point average, will be dismissed from the University. The Registrar’s Office will post the statement, “Subject to Dismissal” on the student’s permanent record.
3. A standard cumulative point average below those required will automatically place the student on academic probation for the next term. The Registrar’s Office will post the statement “Probation” on the student’s permanent record.

A student on probation must follow a restricted program as follows:

a. His course load shall be reduced to fifteen semester hours, or less in the event his available study time is reduced by remunerative employment or by other activities and responsibilities either in the University or elsewhere.

b. Although he may retain membership in extra-curricular organizations, he shall not take part as a performer, an officer, or an active participant in any extra-curricular activity or any intercollegiate meeting, conference, or athletic event.

4. To remove probation, a student in the following term must earn grades sufficiently high to attain the required standard cumulative point average. If he fails to do so, he will be dismissed from the School or College in which he is enrolled. He may remain in the University only if he is accepted by the Dean of another School or College.

5. No student will be put on probation more than once in the same School or College.

6. In general, if it appears from the record that a student is not meeting requirements, either scholastic or otherwise, he may be placed on academic probation or he may be dismissed from the University.

7. A student dismissed because of unsatisfactory academic standing may, after the lapse of one calendar year, submit a petition to the Dean of the School or College of his last registration for reinstatement, and be reinstated on probation if the Dean is convinced of his ability and desire to do satisfactory work.

HONORS AND AWARDS

Beginning with the Second Term, January 1971, the option cumulative point average will be used in computing honors and awards for scholarships. Honors and awards for scholarships are announced at the Honors Convocation.

To be eligible for consideration for honors graduation, students must have completed seventy-five per cent (75%) of their hours under either grading options 1 or 2.

To be graduated “With Honors” a student must have an option cumulative point average for seven terms at the University of 3.5 or higher, based on 4.0. A student who has the required cumulative point average but has been in attendance at the University for less than seven terms may be graduated with honors if he is so recommended by the faculty of the School or College in which he is enrolled and if the recommendation is accepted by the Academic Committee of the School or
College. For that Academic Committee to consider such a recommendation, it is necessary that a student must have at least a 3.5 cumulative average in every institution attended. Under no circumstances may a student be graduated with honors who has taken more than half his credits elsewhere and who has not enjoyed at least a 3.5 average in the institution he attended prior to coming to the University of Dayton.

The notation of honors is made in the commencement program, on the diploma, on the student's permanent record, and on transcript, as follows:
- Cum Laude—if the option cumulative point average is between 3.5 and 3.69;
- Magna Cum Laude—if the option cumulative point average is between 3.7 and 3.89;
- Summa Cum Laude—if the option cumulative point average is between 3.9 and 4.0.

Special awards for exceptional scholastic achievement are given annually through the generosity of donors. To be eligible for any of these awards a student must have an option cumulative point average of at least 3.0. The awards:

**Accounting**—The Award of Excellence to Outstanding Senior in Accounting—donated by Jerome E. Westendorf '43 and Warren A. Kappeler '41.

**Arts and Sciences**—The Dean Leonard A. Mann, S.M., Award of Excellence to Outstanding Senior in the College of Arts and Sciences—donated by Joseph Zusman '65.

**Athletics Citizenship Award**—The Reverend Charles L. Collins, S.M., Award of Excellence to an athlete for outstanding citizenship—donated by Joseph Zusman, '65.

**Biology**—The John E. Dlugos, Jr., Memorial Award of Excellence to the outstanding senior majoring in Biology—donated by Mr. and Mrs. John E. Dlugos.

**Business Administration**—The Alpha Kappa Psi Scholarship Key, awarded by the Delta Nu Chapter to the male senior with the highest cumulative point average.

**Business Administration**—The Delta Sigma Pi Scholarship Key, awarded by the Epsilon Tau Chapter to the male senior in commerce and business administration who ranks highest in his class.


**Chemical Engineering**—The Victor Emanuel '15 Award of Excellence to Outstanding Senior in Chemical Engineering—sponsored by the University of Dayton Alumni Association since 1962.

**Chemical Engineering**—The Robert G. Schenck Memorial Award of Excellence to the outstanding Junior in Chemical Engineering—donated by Stanley L. Lopata.
Chemistry—The Brother George J. Geisler, S.M., Award of Excellence to Outstanding Student in Chemistry—donated by Joseph Poelking '32.

Civil Engineering—The Harry F. Finke '02 Award of Excellence to Outstanding Senior in Civil Engineering—sponsored by the University of Dayton Alumni Association since 1962.

Communication Arts — The Si Burick Award of Excellence for Outstanding Academic and Cocurricular Achievement in Mass Media Arts—donated by the University of Dayton.

Current Problem Award—The Very Reverend John A. Elbert, S.M., Memorial Award to the student who best assesses a human problem in light of current psychological, philosophical and theological understanding—donated by Dr. and Mrs. Anthony Debons.

Economics—The Doctor E. B. O'Leary Award of Excellence to Outstanding Senior majoring in Economics—donated by Winters National Bank and Trust Company.


Electrical Engineering — The Anthony Horvath '22 and Elmer Steger '22 Award of Excellence to Outstanding Senior in Electrical Engineering—donated by Anthony Horvath '22 and Elmer Steger '22.

Elementary Education—The George A. Pflaum '25 Award of Excellence to Outstanding Student in Elementary School Teacher Education—donated by George A. Pflaum, Jr.

Engineering—The Tau Beta Pi Award for the outstanding freshman student.

Engineering Technology—The Engineering Technician Society Award of Excellence to the graduating full-time student with the highest cumulative point average.

Engineering Technology—The Tau Alpha Pi Award of Excellence to the Outstanding Senior in the Bachelor of Technology Program—donated by Gamma Beta Chapter, University of Dayton.

English — The Catholic Poetry Society Award.

English—The Faculty Wives Club Award for excellence in composition.

English—The Brother Thomas P. Price, S.M., Award of Excellence to Outstanding Senior in English—donated by the U.D. Mothers' Club.

General Excellence-Men—The Mary M. Shay Award of Excellence in both academic and extracurricular activities (Senior men only) — donated by the Poelking family.

General Excellence-Women—The Central Women's Organization Award in both academic and extra-curricular activities. (Senior women only.)

History—The Doctor Samuel E. Flook Award of Excellence to Outstanding Junior majoring in History—donated by Doctor Samuel E. Flook.

History—The Phi Alpha Theta Scholarship Key. (Senior members of Delta Eta Chapter only.)

Home Economics — The Upsilon Delta Chi Award for Outstanding Achievement.

Industrial Engineering — The American Institute of Industrial Engineers Award of Excellence to Outstanding Student in Industrial Engineering—donated by
the local chapter of the American Institute of Industrial Engineers.

Mathematics — The Mathematics Club Alumni Awards of Excellence in the Junior and Senior classes.

Mechanical Engineering — The Bernard F. Hollenkamp '39 Memorial Award of Excellence to Outstanding Senior in Mechanical Engineering—donated by Louise A. and Mrs. Lucille Hollenkamp.

Mechanical Engineering — The Martin C. Kuntz '12 Award of Excellence to Outstanding Junior in Mechanical Engineering—sponsored by the University of Dayton Alumni Association since 1962.

Mechanical Engineering — The Class of '02 Award of Excellence for Outstanding Mechanical Engineering Achievement in memory of Warner H. Kiefaber '05—donated by Michael J. Gibbons '02.

Mechanical Engineering — The Brother Andrew R. Weber, S.M. Award of Excellence for outstanding service and achievement in Mechanical Engineering—donated by the Poelking family.

Mechanical Engineering Technology — The Dayton Chapter, No. 18, American Society of Tool and Manufacturing Engineers, Award of Excellence to the Outstanding Freshman in Mechanical Engineering Technology.

Military Science — Department of the Army Award. The superior cadet award, provided by the Department of the Army, is presented to the outstanding cadet of each academic year.

Military Science — The Lt. Robert M. Wallace '65 Memorial Award to the Outstanding Junior ROTC Scholarship Cadet—donated by his family and friends.

Oratory — The Mary Elizabeth Jones Memorial Award of Excellence to the First and Second Outstanding Debaters—donated by Doctor D. G. Reilly.

Philosophy — The Award of Excellence to the First and Second Outstanding Seniors in Philosophy—donated by Rev. Charles Polich.

Physical and Health Education — The John L. Macbeth Memorial Award of Excellence to Outstanding Student in Physical and Health Education—donated by Mrs. John L. Macbeth.

Physics — The Sigma Pi Sigma Award of Excellence to a student majoring in Physics in memory of Caesar Castro—donated by Sigma Pi Sigma and Mrs. C. C. Castro.

Political Science — The Brother Albert H. Rose, S.M., Award of Excellence to Outstanding Senior in Political Science—donated by Joseph Zusman '65.

Political Science — The Eugene W. Stenger '30 Memorial Award of Excellence to the Outstanding Junior in Political Science—donated by Mrs. Eugene W. Stenger.


Public Relations — The Public Relations Department Award of Excellence to a student organization for an outstanding contribution of service to the community—donated by the Poelking family.

Scholar-Athlete — The John L. Macbeth Memorial Award to the outstanding scholar-athlete in football and basket-
ball. Recipient must have completed five or more terms and must have won his varsity letter.

**Student-Athlete** — The Charles R. Kendall '29 Memorial Award of Excellence for Over-achievement in academic and athletic effort—donated by Mrs. Charles R. Kendall and Friends.

**Secondary Education**—The Brother Louis J. Faerber, S.M., Award of Excellence to Outstanding Student in Secondary School Teacher Education—donated by the University of Dayton Mothers’ Club.

**Sociology**—The Doctor Edward A. Huth Silver Anniversary Award of Excellence to the Outstanding Student in Sociology — donated by Joseph Zusman '65.

**Sociology**—The Margaret Mary Emonds Huth Memorial Award of Excellence to the Outstanding Senior in Anthropology — donated by Doctor Edward A. Huth.

**Sociology** — The Joseph Zusman '65 Award of Excellence to Outstanding Senior in Social Work Studies—donated by Joseph Zusman '65.

**Sociology**—The Dr. Martin Luther King Memorial Award in Human Relations for excellence in scholarship, Christian leadership, and the advancement of brotherhood among men — donated by Dr. Edward A. Huth.

**Teacher Education** — The Reverend George J. Renneker, S.M., Award of Excellence for Outstanding Achievement in Teacher Education—donated by the Montgomery County Chapter, University of Dayton Alumni Association.

**Theological Studies**—The William Joseph Chaminade Award of Excellence in memory of Mr. and Mrs. George W. Dickson, to Outstanding Student in Theology — donated by Rev. John Dickson, S.M., '36.

**Theological Studies**—The Msgr. J. Dean McFarland Award of Excellence to the outstanding Junior majoring in Theological Studies—donated by the Poelking family.

## CLASS ATTENDANCE

### Foreward

It is desirable for students to attend all classes. Listening to the lectures of instructors and being involved in classroom discussions should:

1. stimulate an awareness and interest in the course topics beyond the levels acquired by textbook reading. Because textbook material is generally beneath the level of the current state of knowledge, instructors acquaint the student with new ideas and integrate this material into the course topics;

2. provide instances of the way of thinking and methodology employed by an academic discipline in formulating and solving problems,

3. serve to provide guidelines and goals in the course of study, thus lending direction to the study activities of the student.
POLICY

For the above reasons, students are expected to attend all classes. It is felt that upperclassmen, i.e., sophomores, juniors and seniors, can be relied upon to display sufficient maturity to assume this responsibility. Let it be noted, however, that to insure the accuracy of records, every student must be present at classes during the first week of each term.

Students are responsible for being aware of the proceedings and material covered in each class period. Students must attend all announced tests and submit assigned written work on the date set by the instructor; it is recommended that the instructor announce such tests and assignments at least a week in advance. The action taken as a consequence of missing a test or an assignment will be determined by the instructor and will be based upon a consideration of the individual circumstances involved.

To assist freshmen in their transition to college responsibilities, it is felt that a policy of compulsory attendance is necessary. Therefore, freshmen will be permitted only a limited number of absences. For freshmen, the allowable number of absences in the first term or in the second term will be equal to twice the number of class meetings per week, i.e., six absences for a class meeting three times a week. A student exceeding this number will not be permitted to continue in the class unless he presents justifiable reasons for his absences to the Attendance Appeals Committee.

The handling of tardiness is left to the discretion of the instructor.

TRANSCRIPTS

A transcript of the permanent academic record is a confidential document to be released only with the permission of the student except under due process of law. A transcript of record will be issued by the Registrar upon receipt of a request in writing. The student may request his transcript to be mailed to himself, another institution, or organization. The first copy of a transcript requested after graduation is a complimentary copy. All transcripts except the complimentary copy will require advanced payment of a dollar. The charge for transcripts ordered in lots of two or more is a dollar for the first copy and fifty cents for each additional copy.
The College of Arts and Sciences strives to help students developing habits of clear thinking and critical reasoning, a recognition and respect for the role of each person in society, and an appreciation of the aesthetic and spiritual values in life. Ideally, the student has achieved this development when he understands and loves his fellow man, and when he can confront the issues and problems that arise in every walk of life with a wisdom that never loses sight of his final destiny.

It is assumed that the student enrolls in the College of Arts and Sciences because he wants to avail himself of all the assistance possible to achieve this goal; he shapes his curriculum with faculty guidance, and he is eager to take advantage of the many other opportunities that the formal curriculum does not provide: the social and professional clubs and societies, the campus publications and radio station, the guest artist and lecture series, and the spiritual retreats and other religious programs. It is especially important that the student recognize the opportunity provided by membership on the committees that exist throughout the campus, and especially in the academic departments. It is through these that he can learn to work with fellow students, faculty members, and administrators on projects that have basic meaning to the department or to the College. And it is through these that he can share in decision making at every level.

DEGREE REQUIREMENTS
For the Bachelor of Arts or Bachelor of Science degree, it is necessary to complete all of the requirements listed in one of the programs on the following pages. Programs ordinarily include the four following components: a) tool courses involving skills appropriate to the particular programs, such as mathematics, English, speech, or languages; b) a breadth requirement involving introductory courses in the major areas of knowledge, such as the natural sciences,
the social sciences, and the humanities and fine arts; c) student electives involving hours which must be taken but the selection of which is completely the option of the student; and d) a concentration requirement involving advanced work in two or more disciplines along with the necessary prerequisites. Ideally the student program each term would not be limited to any one of the components. The concentration requirement ordinarily occupies about half of the total degree program.

The concentration requirement may currently be satisfied in any of the following ways:

1. **Departmental Concentrations.**
The departmental area of concentration (or major) requires a bloc of courses in a single discipline with supporting courses in a related discipline or disciplines. The departmental bloc of courses usually does not exceed 39 hours. Only six specialized programs in the College presently require more than 39 hours in a single discipline.

Supporting courses do not include tool courses or distribution requirements. Supporting courses, usually ranging from 12-18 hours, may be from one or more disciplines as the major department provides.

2. **Established Interdisciplinary Concentrations.**
American Studies, the Premedical, and the predental programs are present examples of established interdisciplinary concentrations. Other interdisciplinary concentrations are in various stages of preparation. Such programs are established by an interdisciplinary committee and administered by the chairman of the committee.

3. **Individually Designed Interdisciplinary Concentrations.**
Students demonstrating extraordinary interest, special skills or needs, and sound academic status may initiate individually designed concentrations. Such concentrations are negotiated between the student and the chairmen of the relevant departments. Long-range plans for the individually designed concentration are submitted to the student's Dean for final approval. Such long-range plans may be altered with appropriate supporting rationale and after the approval of chairmen and Dean.

**POSSIBLE MAJORS**
For the Bachelor of Arts degree, the possible majors are: American Studies, chemistry, communication arts, economics, English, fine arts, history, languages, mathematics, music, philosophy, political science, psychology, sociology or anthropology, theatre, and theological studies.
For the Bachelor of Science degree, the possible majors are: biology, chemistry, computer science, geology, home economics (the general program or the dietetics program), mathematics, medical technology, physics, physical science, psychology, (general program or Biological emphasis), and social work.

Other programs lead to the Bachelor of Science degree with specialization in Criminal Justice, the Bachelor of Fine Arts, the Bachelor of Music degrees, and the Bachelor of Science degree with specialization in pre-medicine or pre-dentistry.

ACADEMIC STANDING
As a requirement for graduation, it is necessary that the standard grade point average be at least 2.00 in the major field, and in the total program. In the B.F.A. and B. Music programs, a 2.0 cumulative average is required in the non-professional courses, as well as in the professional courses.

SPECIAL EDUCATIONAL OPTIONS
1. B.A. or B.S. Degree Program with Teacher Certification
This program is designed for students in the College who wish to pursue secondary school certification concurrent with their major program of studies. Students admitted to the program must satisfy all the requirements for their degree in the College as well as the requirements designated by the School of Education and the State of Ohio for secondary school certification.

Application for admission to the program is made through the Office of the Dean of the College no later than three weeks prior to the beginning of scheduling. Applicants should normally have a cumulative grade point average of at least 2.9 at the time of their application.

COMMENTS: Counseling relative to the degree program is given by the major department; counseling relative to certification is given by the Chairman of the Department of Secondary Education.

Additional information is given in this Bulletin, page 86.

2. Bachelor of General Studies
The Bachelor of General Studies degree is designed to provide a maximum of flexibility for undergraduates in planning their program of studies. It will permit students more latitude in utilizing university resources for acquiring an education which serves their individual needs. Since there are no specific requirements, the student may plan his entire program to the best advantage of his particular educational objectives. The program is designed for those students who do not wish to pursue the traditional degree programs with a departmental major.
3. Arts and Sciences Interdisciplinary (ASI) Courses

The College of Arts and Sciences constantly strives to present meaningful and significant innovative learning experience to its students. Courses and programs or activities which are interdisciplinary or multidisciplinary in nature and therefore not offered through the traditional departmental structure are possible through authorization by the Academic Affairs Committee of the College. There are two main types of ASI course offerings as follows:

a) Student Initiated Interdisciplinary Courses: Such courses are credited and formulated by a group of students sharing a similar interest in a theme. They spend one term developing the course and then register for it the following term. Only students who assist in the planning may register for the course.

b) Extradepartmental Academic Activity: Such activities are created and formulated by students and/or faculty members to assist others in an educationally significant activity not otherwise possible within departmental structure. Such activities are open to any student who qualifies.

All ASI credit applies toward the student's general elective requirements, but a student may petition the chairman of a department to apply such credit to specific departmental requirements.

Additional information is available in the Office of the Dean of the College of Arts and Sciences.
TYPICAL PROGRAM FOR BACHELOR OF ARTS STUDENTS

<table>
<thead>
<tr>
<th>Dept.</th>
<th>No.</th>
<th>Course</th>
<th>1st Term</th>
<th>2nd Term</th>
<th>3rd Term</th>
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<td></td>
<td></td>
<td>Freshman Year</td>
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<tr>
<td>ASI</td>
<td>100</td>
<td>Arts and Sciences Seminar</td>
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<td>ENG</td>
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<td>HST²</td>
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<td>History Electives</td>
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<tr>
<td>PHL</td>
<td>101</td>
<td>Basic Problems in Philosophy</td>
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<tr>
<td>SPE⁴</td>
<td>101</td>
<td>Fundamentals of Effective Speaking</td>
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<td>THL⁵</td>
<td>112</td>
<td>Foundations in Theology</td>
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<td>Science Course</td>
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<td>Sophomore Year</td>
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<td>HST²</td>
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<td>Basic Problems in Philosophy II</td>
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<tr>
<td>THL⁵</td>
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<td>ENG⁸</td>
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<td>PSY⁹</td>
<td>201</td>
<td>Introduction to Psychology</td>
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</table>

Under “Term,” 3-0-3 means 3 hrs. class, 0 hrs. laboratory, and 3 hrs. credit.

Some programs offer options in lieu of the History requirement. If required, Freshmen elect 6 hrs. from Hst 101-102, 120, 125, 130, 135. Sophomores elect 6 hrs. from Hst 251, 252, 260, 265, 270, 275.

This course is fitted into the different programs at different times.

Non-Catholic students take an elective, or Spe 101.

Freshmen who continue a language studied in high school for 2 or more years must have taken CEEB Achievement and Supplementary Achievement Tests in that language in order to qualify for exemptions from further language study. Exempted freshmen may take 307 as elective. Freshmen not exempted will be placed at the proper level. Freshmen who begin a new language take 101. Transfer students consult department chairman. Some programs offer options in lieu of the language requirement.

Some programs do not require Sociology.

Some programs offer options in lieu of the English requirement.

Some programs do not require Psychology.

For further details: See specific programs on the following pages or consult chairman of Department.
TYPICAL PROGRAM FOR BACHELOR OF ARTS STUDENTS—Cont.

<table>
<thead>
<tr>
<th>Dept.</th>
<th>No.</th>
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**Junior Year**

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**Senior Year**

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**B.A. OR B.S. DEGREE PROGRAM WITH TEACHER CERTIFICATION**

Students admitted to this Program must satisfy all the requirements for their degree program in addition to the Education courses listed below. These courses constitute the minor concentration in the degree program.

**Term A**

<table>
<thead>
<tr>
<th>EDS 109</th>
<th>Personal Professional Development</th>
<th>1 credit hour</th>
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<tr>
<td>EDF 206</td>
<td>Adolescent Growth and Development</td>
<td>3 credit hours</td>
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<td>Art and Music majors take EDF 207</td>
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**Term B**

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<tr>
<td>EDF 208</td>
<td>The Learning Process</td>
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**Term C**

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<th>EDS 351</th>
<th>The Secondary School, Self, and Society</th>
<th>2 credit hours</th>
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<tr>
<td>EDS 4-</td>
<td>Methods Course</td>
<td>3 credit hours</td>
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<td>This course is taken in the principal teaching field</td>
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**Term D**

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<th>EDS 414</th>
<th>Student Teaching (Secondary)</th>
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<tr>
<td></td>
<td>Twelve weeks in actual classroom situation under supervision</td>
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<tr>
<td>EDF 419</td>
<td>Philosophy of Education</td>
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BACHELOR OF GENERAL STUDIES PROGRAM

The specific requirements for the Bachelor of General Studies are as follows:

1. Admission requirements for the B.G.S. degree are the same as those for any other degree now offered in the College of Arts and Sciences. At the outset of the program, a limited number of students will be accepted into this program.

2. Candidacy for the B.G.S. may be declared in the first year, but students in good academic standing may transfer from one program to another, provided they meet the requirements of, and can be accommodated by the program into which they transfer.

3. The candidate must complete:
   a. 120 semester hours with an overall G.P.A. of 2.00
   b. A minimum of 54 semester hours selected from 300-400 level courses with a G.P.A. of 2.00 or better
   c. Additional courses to attain the required 120 hours, with a G.P.A. of 2.00 or better.

4. Not more than 40 semester hours of work from any one academic discipline may be counted toward the 120 semester hours required for graduation.

5. First year students in the B.G.S. degree program will be required to seek approval of course elections under the direction of the appropriate official of the College of Arts and Sciences. Thereafter, students will be required to plan an academic program satisfying requirements for graduation in consultation with their advisors. A special advisory program will be set up for the B.G.S. Program by the administration of the College of Arts and Sciences.

6. The usual policy regarding prerequisites remains in effect in this program.

PROGRAM—A1: BACHELOR OF ARTS WITH AN INTERDISCIPLINARY MAJOR IN AMERICAN STUDIES

American Studies 300-1, 400 ................................................................. 9 semester hours
First Area Electives ................................................................. 24 semester hours
   These courses are chosen from Group A, B, or C, as listed under American Studies courses of instruction, p. 000 of the Undergraduate Bulletin 1971-72.
Second Area Electives ................................................................. 9 semester hours
   These courses are chosen from one of the two remaining Groups A, B, or C, as listed under American Studies, p. 000.
Third Area Electives ................................................................. 6 semester hours
   These courses are chosen from the remaining Group A, B, or C, as listed under American Studies, p. 000.
English 101-6, 204, 200-level elective ................................................. 12 semester hours
2Foreign Language ................................................................. 3-12 semester hours
History (6 hours of 100-level, 6 hours of 200-level) .......................... 12 semester hours
Philosophy 101-201, electives ......................................................... 12 semester hours
1Theology 112, electives ................................................................. 12 semester hours
Science ................................................................. 8 semester hours
Social Studies Prerequisite Electives ........................................... 6 semester hours
  Students choose six or more hours in departments in which they
  plan to take upper level courses, i.e. Eco 201-2, Pol 201, Psy 201,
  Soc 204 or 205.
Physical Education (Women Only) ......................................... 4 credit hours
Speech 101 ........................................................................... 3 semester hours
General Academic Electives to a total of at least ...................... 120 semester hours

1Non-Catholic students substitute general academic electives.
2Proficiency through the intermediate level (202) must be achieved.

PROGRAM—A2: BACHELOR OF ARTS WITH A MAJOR IN
CHEMISTRY

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<td>THL</td>
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**Senior Year**

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<tbody>
<tr>
<td>Mth 112, 113 and 215.</td>
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</table>

1. Under "Term" 3-0-3 means 3 hours class, 0 hours laboratory, and 3 hours credit.
2. May substitute more advanced course depending on background, placement test, or permission of department head.
5. Must include two of the following courses: Chm 405, 412, 415, 420, 417, 404.
6. Humanities Electives must include 3 credits in Speech 101, (unless previously taken), and 6 credits in Philosophy. Remainder may not be in physical sciences or math.
7. Must include Chm 303-4.
9. Must include either two or more of the above in footnote 5, or two of the following: Bio 313, 310, 312, 325, 340, 407, 411, certain computer science, geology, etc.
10. See footnote 6, p. 66.

### PROGRAM—A3: BACHELOR OF ARTS WITH A MAJOR IN COMMUNICATION ARTS

**Major Program** ................................................................. 30 semester hours

**Mathematics and/or Sciences Unit** ........................................... 12 semester hours

Two Units of 12 hours each selected from the Departments of Psychology, Sociology and Anthropology, Economics, Political Science, Languages, Marketing, Accounting, Business Management, Education. (At least 6 hours in each Unit must be 300-400 level) .......... 24 semester hours

Two Units of 12 hours each selected from the Departments of English, History, Philosophy, Theological Studies, Performing and Visual Arts. (If English, Philosophy, and/or Theological Studies is chosen, then the Unit of 12 hours excludes the hours already required by the University. At least 6 hours in each unit must be 300-400 level) ........................................ 24 semester hours

**University Requirements** ......................................................... 18 semestr hours

1. Physical Education (Women Only) ........................................ 4 semester hours

General Academic Electives to total at least .................................. 120 semester hours

1. Non-Catholic students may substitute general academic electives.
PROGRAM—A4: BACHELOR OF ARTS WITH A MAJOR IN ECONOMICS

A student must successfully complete a minimum of 120 semester hours for the degree not counting 100 and 200 level courses in P.E. and Military Science.

2. Minor Area. Must satisfy requirements of minor department, but at least 12 upper division hours are needed.
4. Psy. 201
5. Lab. Science, 8 hrs.
6. Humanities. History, 12 hrs.; Philosophy 106-206 and 6 upper division hrs.; Catholic students take 12 hrs. of Theology including Thl. 112; Foreign Language competency required at the intermediate level (see note 6, page 66).
7. General Requirements. Freshman and Sophomore English (12 hrs.); Edp. 130-1, 140 (Women only); Spe. 101.
8. Electives. Sufficient hrs. to attain a minimum of 120 semester hrs. credit for graduation.
9. Departmental Requirements for Minor in Economics. Eco. 201-2, Eco. 340-1, and six upper division hours in acceptable area.

The following curriculum is offered as a sample.

<table>
<thead>
<tr>
<th>Dept.</th>
<th>No.</th>
<th>Course</th>
<th>1st Term</th>
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<tr>
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<td>THL⁴</td>
<td>112</td>
<td>Foundations in Theology</td>
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<td>3-0-3</td>
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<td>—⁶</td>
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Sophomore Year

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<td>Principles of Economics</td>
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<td>ENG</td>
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<td>MTH</td>
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<td>HST²</td>
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PROGRAM—A4—Continued

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<td>Eco</td>
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1. Under "Term" 3-0-3 means 3 hours class, 0 hours laboratory, and 3 hours credit.
2. See footnote 2, p. 61.
3. Non-Catholic students may take an elective.

PROGRAM—A5: BACHELOR OF ARTS WITH A MAJOR IN ENGLISH

1. English ................................................................. 36 semester hours
2. Minor requirement—excludes major (300-400 level) ............12 semester hours
3. Philosophy 101-201, electives .................................... 12 semester hours
4. Theology 112, electives ........................................... 12 semester hours
5. History (6 hours of 100-level, 6 hours of 200-level) ........ 12 semester hours
6. Modern Language .................................................... 3-12 semester hours

1. English majors must take 316, 318, or 428; 405 or 431; 490; a semester of Shakespeare; a period survey each from sequence 412 to 435 and 438 to 442; a semester of American literature from the sequence 450 to 456; and one additional elective from 300-400 level offerings.
2. Non-Catholic students may substitute general academic electives.
3. French or German preferred. Proficiency through the intermediate level (202) must be achieved.
PROGRAM—A5—Continued

Speech 101 .................................................................................. 3 semester hours
Sociology elective ........................................................................ 3 semester hours
Psychology 201 ........................................................................... 3 semester hours
Science .......................................................................................... 8 semester hours
General Academic Electives to total at least.................................. 120 semester hours

PROGRAM—A6: BACHELOR OF ARTS WITH A MAJOR IN
FINE ARTS

University Requirements

Speech (3)
English 101-6 (6)
Philosophy 101-201 (6)
Theology 112, elective (6) ............................................................ 21 semester hours

Mathematics and/or Science Unit ......................................................... 8 semester hours

Major Program2 (Depending upon specific program requirements).... 44 semester hours

Two units of 12 hours each selected from the Departments of Communica-
tion Arts, English, History, Philosophy, Theological Studies, Performing and Visual Arts (other than major). At least 6 hours in each unit must be 300-400 level. (If English, Philosophy, Theological Studies and/or Communication Arts then the unit of 12 hours excludes the hours already required by the University)......................... 24 semester hours

Two units of 12 hours each selected from the Departments of English, Communication Arts, History, Philosophy, Theological Studies, Performing and Visual Arts (other than major). At least 6 hours in each unit must be 300-400 level. (If English, Philosophy, Theological Studies and/or Communication Arts then the unit of 12 hours excludes the hours already required by the University)......................... 24 semester hours

General Academic Electives to total at least.................................. 120 semester hours

1Non-Catholic students may substitute general academic electives.

2Portfolio required before registration for regular as well as transfer students. Portfolio is also a requirement for graduation.
PROGRAM—A7: BACHELOR OF FINE ARTS

University Requirements

Speech 101  (3)
English 101-106  (6)
Philosophy 101-201  (6)
1Theology 112, elective  (6) ............................................................. 21 semester hours

2Major Program .......................................................... 88 semester hours

Breadth Requirement

Two units of 6-9 hours each selected from the Departments of:
Psychology, Sociology/Anthropology, Political Science, Mathematics, Science, Economics, Marketing, Business Mgt., Education, Home Economics, Business Administration Core Program,
(12 hours required) .............................................................12-15 semester hours

Two units of 6-9 hours each selected from the Departments of
Language, English, History, Performing and Visual Arts (other

1Non-Catholic students may substitute general academic electives.
2Portfolio required before program placement for regular as well as transfer students. Portfolio is also required for graduation.
PROGRAM—A7—Continued
than major field), Communication Arts, Philosophy, Theological
Studies. (If English, Philosophy, Theological Studies or Commu-
nication Arts is chosen, then the 6 hour requirement excludes the
hours already required by the University) ................................. 12-15 semester hours
Total .......................................................................................... 27 semester hours
General Academic Electives to total at least .................................. 136 semester hours

PROGRAM—A8: BACHELOR OF ARTS WITH A MAJOR IN
HISTORY

History .......................................................................................... 38 semester hours
Minor requirement—excludes major (300-400 level) ..................... 12 semester hours
English 101-6, 200-level electives .................................................. 12 semester hours
Philosophy 101-201, electives .................................................... 12 semester hours
1 Theology 112, electives ............................................................ 12 semester hours
2 Language .................................................................................. 3-12 semester hours
Science ........................................................................................ 8 semester hours
Psychology 201 ............................................................................ 3 semester hours
Sociology elective .......................................................................... 3 semester hours
Speech 101 .................................................................................... 3 semester hours
General academic electives to total at least ................................. 120 semester hours

1 Non-Catholic students may substitute general academic electives.
2 Proficiency through the intermediate level (202) must be achieved.

PROGRAM—A9: BACHELOR OF ARTS WITH A MAJOR IN
LANGUAGE

Language ..................................................................................... 36 semester hours
One of two options is available with the approval of the department
chairman.
1. Major in a single language—24 hours of 300-400 level courses
2. Composite Major—minimum of 18 hours in each of two lan-
guages (any level).
Concentration requirement—excludes major (300-400 level) ......... 12 semester hours
It is recommended but not required that students of either option
1 or 2 above elect a minor in languages as well.
For Option 1—12 hours of 300-400 level work not in the major
language.
For option 2—18 hours (any level) in a language or languages
preferably other than those of the composite major
English 101-6, 200-level electives .................................................. 12 semester hours
History (6 hours of 100-level, 6 hours of 200-level) ..................... 12 semester hours
PROGRAM—A9—Continued

Philosophy 101-201, electives .......................................................... 12 semester hours
1Theology 112, electives ............................................................... 12 semester hours
Science ...................................................................................... 8 semester hours
Speech 101 .................................................................................. 3 semester hours
Psychology 201 ............................................................................. 3 semester hours
Sociology elective .......................................................................... 3 semester hours
Physical Education (Women only) ..................................................... 4 semester hours
General Academic Electives to total at least....................................... 120 semester hours

<table>
<thead>
<tr>
<th>Dept. No.</th>
<th>Course</th>
<th>1st Term</th>
<th>2nd Term</th>
<th>3rd Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman and Sophomore Years</td>
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<td></td>
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<td>Follow typical program (p. 00)</td>
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</table>

<table>
<thead>
<tr>
<th>Junior Year³</th>
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<tbody>
<tr>
<td>PHL — Philosophy elective</td>
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<td>THL¹ — Theology elective</td>
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<td>— — General elective</td>
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<tr>
<td>— — Language courses</td>
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<td>— — Minor</td>
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<table>
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<th>Senior Year⁴</th>
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<tbody>
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<td>PHL — Philosophy elective</td>
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<tr>
<td>THL¹ — Theology elective</td>
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<tr>
<td>— — General elective</td>
</tr>
<tr>
<td>— — Language courses</td>
</tr>
<tr>
<td>— — Minor</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

¹Non-Catholic students may substitute general academic electives.
²Under "Term," 3-0-3 means 3 hrs. class, 0 hrs. laboratory, and 3 hrs. credit.
³Students with a composite major arrangement may begin their second language in the fourth term, whether they continue the first language or not. A language major may minor in any other field approved in the College of Arts and Sciences, but a minor in languages is highly recommended.
⁴It is recommended that students take any course, such as the history of a particular country or period, which will strengthen their grasp of the cultural background of the languages they are studying. It is possible also that in view of certain types of teaching or graduate work a student would elect special technical courses, such as psychology, statistics, etc. A good student with a background in two languages may be permitted to take as little as one term of a new language for reasons approved by the department chairman. In general, however, any additional language should be taken for a least two terms.
PROGRAM—A10: BACHELOR OF ARTS WITH A MAJOR IN MATHEMATICS

A. MAJOR FIELD—Qualified students elect Mth 128 upon entering; those with weaker backgrounds elect Mth 101. Upon completion of 15 credit hours in calculus and differential equations (or demonstration of proficiency) a student will, with the approval of the department, elect 24 credit hours of upper-level course work. Students with strong mathematical ability may be invited to satisfy these requirements in the honors program offered by the department.

B. MINOR FIELD—The requirement for the minor normally consists of 12 upper-level credit hours. The chosen field may require prerequisite knowledge that could extend the total number of hours beyond 12. The minor is to be chosen in any area of the humanities or in secondary education, subject to approval by the department.

C. COURSES IN OTHER AREAS

1. In addition to Eng 101, Eng 106, and Spe 101, which are university requirements, a course in computer programming is required of all majors, and everyone is required to attain 202 level proficiency in a foreign language approved by the department.

2. FINE ARTS, HUMANITIES AND BEHAVIORAL SCIENCE—A minimum of 36 credit hours, including 6 in theology for Catholic students, and 6 in philosophy. Eng 101, Eng 106 and Spe 101 may not be counted toward the fulfillment of this requirement. Course selections may be made from the following disciplines: economics, English, fine arts, history, languages, performing and liberal arts, philosophy, psychology, sociology and theology.

3. SCIENCE—A minimum of 8 credit hours which may be chosen in biology, chemistry, geology or physics.

4. UNIVERSITY REQUIREMENTS AND ELECTIVES—Students are subject to all general requirements of the University. (For example, all students must have a minimum of 120 academic credit hours for graduation.)

More detailed information will be provided by the Department upon request. All majors are encouraged to cooperate closely with their departmental advisor in planning their course work.

PROGRAM—A11: BACHELOR OF ARTS WITH A MAJOR IN MUSIC

University Requirements

<table>
<thead>
<tr>
<th>Subject</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speech</td>
<td>(3)</td>
</tr>
<tr>
<td>English 101-6</td>
<td>(6)</td>
</tr>
<tr>
<td>Philosophy 101-201 or 106-206</td>
<td>(6)</td>
</tr>
<tr>
<td>Theology¹ 112, elective</td>
<td>(6) 21 semester hours</td>
</tr>
</tbody>
</table>

Mathematics and/or Science Unit .................................................................. 8 semester hours
PROGRAM—A11—Continued

Major Program\(^2\) (Depending upon specific program requirements).... 38 semester hours

Two units of 12 hours each selected from the department of Psychology, Sociology/Anthropology, Business Administration Core Program, Economics, Political Science, Language, Marketing, Business Management, Education (at least 6 hours in each Unit must be 300-400 level) .......................................................... 24 semester hours

Two units of 12 hours each selected from the Departments of Communication Arts, English, History, Philosophy, Theological Studies, Performing and Visual Arts (other than major). At least 6 hours in each unit must be 300-400 level. (if English, Philosophy, Theological Studies and/or Communication Arts then the unit of 12 hours excludes the hours already required by the University) ................. 24 semester hours

General Academic Electives to total at least ........................................ 120 semester hours

1Non-Catholic students may substitute general academic electives.

2Prospective candidates will be auditioned by the Music faculty for placement in a degree program. The candidate must demonstrate a high level of performance in his chosen instrument or in voice.

Note: Applied Music students are required to perform at least once each term.

PROGRAM—A12: BACHELOR OF MUSIC

University Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speech</td>
<td>(3)</td>
</tr>
<tr>
<td>English</td>
<td>(6)</td>
</tr>
<tr>
<td>Philosophy 101-201 or 106-206</td>
<td>(6)</td>
</tr>
<tr>
<td>Theology(^1) 112, elective</td>
<td>(6)</td>
</tr>
</tbody>
</table>

..............................................................................21 semester hours

Major Program\(^2\) ............................................................................. 88 semester hours

The student may select any combination of the following academic areas but must take at least 6 hours in each selection; Psychology, Sociology/Anthropology, Economics, Political Science, Language, Business Administration Core Program (12 hours req.), Marketing, Business Management, Education, Science, Mathematics, English, History, Philosophy, Theological Studies, Performing and Visual Arts (other than the major program). Communication Arts, (if English, Philosophy, Theological Studies and/or Communication Arts is chosen, then the 6 hour requirement excludes the hours already required by the University) .......................................................... 27 semester hours

General Academic electives to total at least ........................................ 136 semester hours

1Non-Catholic students may substitute general academic electives.

2Prospective candidates will be auditioned by the Music faculty for placement in a degree program. The candidate must demonstrate a high level of performance in his chosen instrument or in voice.

Note: Applied Music students are required to perform at least once each term.
PROGRAM—A13: BACHELOR OF ARTS WITH A MAJOR IN PHILOSOPHY

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Philosophy</td>
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<tr>
<td>Concentration requirement—excludes major (300-400 level)</td>
<td>12</td>
</tr>
<tr>
<td>English 101-6, 200-level electives</td>
<td>12</td>
</tr>
<tr>
<td>History (6 hours of 100-level, 6 hours of 200 level)</td>
<td>12</td>
</tr>
<tr>
<td>Theology 112, electives</td>
<td>12</td>
</tr>
<tr>
<td>Language</td>
<td>3-12</td>
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<tr>
<td>Science</td>
<td>8</td>
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<tr>
<td>Speech 101</td>
<td>3</td>
</tr>
<tr>
<td>Psychology 201</td>
<td>3</td>
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<tr>
<td>Sociology Elective</td>
<td>3</td>
</tr>
<tr>
<td>General Academic Electives to total at least</td>
<td>120</td>
</tr>
</tbody>
</table>

1 Non-Catholic students may substitute general academic electives.

2 Proficiency through the intermediate level (202) must be achieved.
PROGRAM—A14: BACHELOR OF ARTS WITH A MAJOR IN
POLITICAL SCIENCE

A student must successfully complete a minimum of 120 semester hours for the degree.

1. Humanities. 30 semester hours chosen from the courses offered by the Departments of Communication Arts, English, History, Languages, Performing and Visual Arts, Philosophy, and Theological Studies. These must include six hours in Philosophy and Catholic students must take six hours in Theology. Credits earned in English 101-106 and Speech 101 are not included in the number of hours stated above.

2. Social and Behavioral Sciences. 12 semester hours chosen from courses offered in Anthropology, Economics, Psychology, and Sociology.

3. Political Science. 30 semester hours, which are to include Pol. 201, The American Political System; Pol. 202, Comparative Political Analysis; Pol. 418, History of Political Theory; Pol. 431, Independent Study and Research, and 18 hours chosen from 300-400 level courses. The 18 hours of advanced courses must be chosen by the student in consultation with his advisor and in accordance with his academic or career objective.

4. Minor Subject or Area Concentration. One minor subject is studied, chosen from any of the Departments of the College of Arts and Sciences. The requirements of the Department concerned are followed, but ordinarily twelve semester hours of 300-400 courses are required. Students who are accepted may minor in Secondary Education. A student majoring in Political Science may elect an area concentration in Urban Affairs in lieu of a minor field by taking Pol. 360, Urban Politics and Soc. 426, Urban Sociology plus any three of the following courses for a total of 15 hours:

- Bio 440 Environmental Biology
- Hist 396 History of the Negro in the New World or
- AAS 340 Afro-American History Since 1865
- Psy 406 Community Problems and Psychology
- Soc 325 American Ethnic and Racial Minorities
- Soc 406 Social Change
- Psy 408 Social Psychology
- Ele 499 System Theory and Urban System I
- Acc 408 Federal, State and Local Taxes or
- Eco 345 Public Finance

Courses in urban history and urban geography as well as other courses related to the understanding of urban-metropolitan affairs should be included in the course option once they have been developed as a part of the course offerings here at U.D.

5. Laboratory Science. Eight semester hours of laboratory science.

6. Tool of Research. One of the following sequences:

A) completion of a foreign language at the intermediate level (202) or the equivalent as determined by the Department of Languages;

B) four terms of the following, in any combination:

1. two terms of foreign language
2. Acc 207-208
3. Computer Science
4. Mathematics
### Freshman Year

<table>
<thead>
<tr>
<th>Dept.</th>
<th>No.</th>
<th>Course</th>
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<td>POL</td>
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<td>Freshman Seminar</td>
<td>1-0-0</td>
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<tr>
<td>ENG</td>
<td>101-6</td>
<td>Freshman English</td>
<td>3-0-3</td>
<td>3-0-3</td>
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<tr>
<td></td>
<td></td>
<td>Humanities Electives¹</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PHL</td>
<td>101</td>
<td>Basic Problems in Philosophy I</td>
<td>3-0-3</td>
<td></td>
</tr>
<tr>
<td>THL</td>
<td>112</td>
<td>Foundations in Theology²</td>
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<td>3-0-3</td>
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<td>Tool of Research Electives³</td>
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<td>3-0-3</td>
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### Sophomore Year

<table>
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<tr>
<td>POL</td>
<td>201-2</td>
<td>The American Political System and Comparative Political Analysis</td>
<td>3-0-3</td>
<td>3-0-3</td>
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<td></td>
<td></td>
<td>Humanities Electives¹</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PHL</td>
<td>201</td>
<td>Basic Problems in Philosophy II</td>
<td>3-0-3</td>
<td></td>
</tr>
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<td></td>
<td>Social Science Electives⁴</td>
<td>3-0-3</td>
<td>3-0-3</td>
</tr>
<tr>
<td>THL</td>
<td></td>
<td>Theology Elective²</td>
<td></td>
<td>3-0-3</td>
</tr>
<tr>
<td>SPE</td>
<td>101</td>
<td>Fundamentals of Effective Speaking</td>
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</tr>
<tr>
<td></td>
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<td>15</td>
<td>18</td>
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</tbody>
</table>

### Junior and Senior Years

See Political Science Program (A14)

1. To be admitted as a major in this program, a student must have received an associate degree in police science, corrections, law enforcement, or a similar field of criminal justice, and achieved a 2.50 cumulative average on a 4.00 grading system. A candidate is required to complete a minimum of 65 semester hours beyond the associate degree to receive the B.S. degree.

2. Prerequisites: One year of college English and courses in Criminology, Juvenile

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¹See Political Science Program (A14) No. 1
²Non-Catholic students take Humanities electives
³See Political Science Program (A14) No. 6
⁴See Political Science Program (A14) No. 2

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PROGRAM—A15: BACHELOR OF SCIENCE WITH A MAJOR IN CRIMINAL JUSTICE

1. To be admitted as a major in this program, a student must have received an associate degree in police science, corrections, law enforcement, or a similar field of criminal justice, and achieved a 2.50 cumulative average on a 4.00 grading system. A candidate is required to complete a minimum of 65 semester hours beyond the associate degree to receive the B.S. degree.

2. Prerequisites: One year of college English and courses in Criminology, Juvenile
PROGRAM—A15—Continued

Delinquency, Introduction to Sociology, Introduction to Psychology and American Government are required in addition to degree requirements if they were not included in the associate program.

3. Humanities: a minimum of 18 hours is required in the Program, chosen from courses in Communication Arts, English, History, Languages, Performing and Visual Arts, Philosophy, and Theological Studies. This must include Spe 101, Fundamentals of Effective Speaking and six credits in Philosophy. Catholic students are also required to take six credits in Theology.

4. Social and Behavioral Sciences: A minimum of 30 hours is required in the Program, chosen from courses in Economics, Political Science, Psychology, Sociology and Anthropology. These must include: Eco 201, Principles of Economics I; Pol 301, American Judicial Process; Pol 360, Urban Politics; Pol 450, Civil Liberties; Psy 408, Social Psychology; Soc. 426, Urban Sociology and Pol 305, Introduction to Public Administration.

5. A criminal justice major is also required to take Cps 203, Data Processing Systems.

6. Criminal Justice: A minimum of 15 hours is required in the Program including CrJ 300, Principles of Criminal Justice; CrJ 313, Criminal Law and CrJ 320, Law of Evidence and Procedure. The rest of the fifteen credits is determined by the student in consultation with his advisor in the Criminal Justice Program. A criminal justice major does not have to register for CrJ 313, Criminal Law, if this course was included in the associate degree program and the student has maintained a “C” grade in the course.

PROGRAM—A16: BACHELOR OF ARTS WITH A MAJOR IN PSYCHOLOGY

Psychology—201, 302, 310, electives ................................................... 31 semester hours
May substitute Mth 207 or Mth 215 for Psy 302
Minor (300-400 level) ........................................................................ 12 semester hours
Biology 101-2 ...................................................................................... 8 semester hours
English 101-6, 6 hours of 200-level ..................................................... 12 semester hours
Language .............................................................................................. 12 semester hours
History (6 hours of 100-level, 6 hours of 200-level)............................ 12 semester hours
Philosophy 101-201 electives .............................................................. 12 semester hours
Theology 112, electives ....................................................................... 12 semester hours
Speech 101 ............................................................................................ 5 semester hours
General Academic Electives to total at least ........................................ 120 semester hours

1Non-Catholic students substitute general academic electives.
2Certain Mathematics courses are recommended for students planning to pursue graduate study.
3French, German or Russian preferred. However, student may substitute General Electives in lieu of a language. See advisor as graduate study often requires language.
### Program—A17: Bachelor of Arts with a Major in Sociology

**Sociology:** Soc. 205, 401, 415, 420 or 422 .................................................. 12 semester hours  
**Sociology/Anthropology/Social Work electives** ........................................... 18 semester hours  
**Minor:** (300-400 level) and Soc 205 .............................................................. 15 semester hours  
**Philosophy** 101, 201, electives ................................................................. 12 semester hours  
1. **Theology** 112, electives ........................................................................... 12 semester hours  
**English** 101-6, 6 hrs. 200-level ................................................................. 12 semester hours  
**History:** 6 hrs. 100-level, 6 hrs. 200-level ................................................... 12 semester hours  
2. **Language:** (101-102, 201-202) ................................................................. 12 semester hours  
**Science (not Physical Science)** ..................................................................... 8 semester hours  
**Psychology** 201 ......................................................................................... 3 semester hours  
**Speech** 101 ............................................................................................... 3 semester hours  
**General Academic electives to total at least** .................................................. 120 semester hours

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### Program—A17: Bachelor of Arts with a Major in Anthropology

**Anthropology:** Ant 210, 321, 322, 408 ......................................................... 12 semester hours  
**Sociology:** Soc 401 and Soc 415 or Soc/Ant 439 ........................................... 6 semester hours  
**Anthropology/Sociology/Social Work electives** ........................................... 12 semester hours  
**Minor:** (300-400 level) .................................................................................. 12 semester hours  
**Philosophy** 101, 201, electives ................................................................. 12 semester hours  
1. **Theology** 112, electives ........................................................................... 12 semester hours  
**English** 101-6, 6 hrs. 200-level ................................................................. 12 semester hours  
**History:** 6 hrs. 100-level, 6 hrs. 200-level ................................................... 12 semester hours  
2. **Language:** (101-102, 201-202) ................................................................. 12 semester hours  
**Science (not Physical Science)** ..................................................................... 8 semester hours  
**Psychology** 201 ......................................................................................... 3 semester hours  
**Speech** 101 ............................................................................................... 3 semester hours  
**General Academic electives to total at least** .................................................. 120 semester hours

---

1. Non-Catholic students substitute general academic electives.  
2. Proficiency through the intermediate level (202) must be achieved.
PROGRAM—A18: BACHELOR OF ARTS WITH A MAJOR IN THEATRE

University Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tr>
<td>Speech</td>
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<tr>
<td>English 101-6</td>
<td>(6)</td>
</tr>
<tr>
<td>Philosophy 101-201 or 106-206</td>
<td>(6)</td>
</tr>
<tr>
<td>Theology 112, elective</td>
<td>(6)</td>
</tr>
</tbody>
</table>

21 semester hours

Mathematics and/or Science Unit ................................................. 8 semester hours

Major Program (Depending upon specific program requirements) .... 36 semester hours

Two units of 12 hours each selected from the Department of Psychology, Sociology/Anthropology, Business Administration Core Program, Economics, Political Science, Language, Marketing, Business Management, Education (at least 6 hours in each unit must be 300-400 level) ............................................. 24 semester hours

Two units of 12 hours each selected from the Departments of Communication Arts, English, History, Philosophy, Theological Studies, Performing and Visual Arts (other than major). At least 6 hours in each unit must be 300-400 level. (If English, Philosophy, Theological Studies and/or Communication Arts then the unit of 12 hours excludes the hours already required by the University) .................... 24 semester hours

General Academic Electives

(depending upon credit hours in Major Program to total) .............. 120 semester hours

1Non-Catholic students substitute general academic electives.

2All theatre majors must audition for placement in the degree program.

Note: Participation in each major production is required of all theatre majors for the Bachelor's Degree. Credit for participation is received in Thr 100 and Thr 300.

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PROGRAM—A19: BACHELOR OF ARTS WITH A MAJOR IN THEOLOGICAL STUDIES

Theological Studies ................................................................. 33 semester hours

a. Thl 112
b. Thl 210 and one other 200 level course
c. One course in each of the 5 areas:
   History of Religions (00-09)
   Biblical Studies (10-19)
   Historical Theology (20-29)
   Systematic Theology (30-49)
   Christian Ethics/Religion and Culture (60-79)
d. Seminar (Thl 490)
e. Electives
PROGRAM—A19—Continued

Concentration requirement—excludes major (300-400 level) .............. 12 semester hours

Humanities ........................................................................................................ 30 semester hours
  Philosophy 101-201, electives ................................................................. (12)
  Electives from Literature, History\(^1\), Fine Arts, Communication
  Arts, American Studies ............................................................................... (18)

Social and Behavioral Science ................................................................. 12 semester hours
  Electives from Economics, Political Science, Psychology
  Sociology/Anthropology

Communication Skills .................................................................................. 12-21 semester hours
  English 101-106 .................. (6)
  Language\(^2\) ........................ (3-12)
  Speech 101 ............................ (3)

Laboratory Science ...................................................................................... 8 semester hours

General Academic Electives to total at least ............................................. 120 semester hours

\(^1\)Hst 101, 102 or 306, 260 recommended.

\(^2\)Proficiency through the intermediate level (202) must be achieved.

PROGRAM—S1: BACHELOR OF SCIENCE WITH A MAJOR IN BIOLOGY

Biology Major Curriculum

Requirements:

<table>
<thead>
<tr>
<th>Category</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major (Biology courses as listed in program S-1)</td>
<td>23</td>
</tr>
<tr>
<td>Science required (CHEM., PHYSICS, MATH in Program S-1)</td>
<td>34</td>
</tr>
<tr>
<td>Science electives (BIO., CHEM., PHYSICS, MATH, etc.)</td>
<td>12</td>
</tr>
<tr>
<td>Study of man (THL., PHL., SOC., PSY.)</td>
<td>18</td>
</tr>
<tr>
<td>Humanities electives</td>
<td>15</td>
</tr>
<tr>
<td>English, Languages or General Electives</td>
<td>22</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Science 69</th>
<th>Humanities 33</th>
<th>General 22</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>124</td>
<td>124</td>
<td></td>
</tr>
</tbody>
</table>

Study of Man electives include theology, philosophy, psychology, sociology and similar courses.

Humanities electives are to be selected from the various courses which would broaden the individual’s approach to reality. These include: Art, Music, Literature, History, Economics, Political Science and others.

General electives are non-specified courses which add flexibility to the program.
Science electives include physics, chemistry, mathematics, computer science and the following biology courses:

Bio. 209 Comparative Anatomy  
Bio. 303 Physiology  
Bio. 310 Microtechnique and Histology  
Bio. 325 Parasitology  
Bio. 361 Invertebrate Zoology

407 Embryology  
411 General Bacteriology  
434 Higher Plants  
436 Lower Plants  
466 Pathogenic Bacteriology and Serology

With permission of the Chairman, advanced students may also elect one or more graduate courses.

<table>
<thead>
<tr>
<th>Dept.</th>
<th>No.</th>
<th>Course</th>
<th>1st Term</th>
<th>2nd Term</th>
<th>3rd Term</th>
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<tr>
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<td>100</td>
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</tr>
<tr>
<td>BIO</td>
<td>101</td>
<td>General Biology</td>
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<td>3-3-4</td>
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Freshman Year

Sophomore Year

Junior Year
### PROGRAM—S1—Continued

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*At the option of the student, an additional course may be taken in either or both semesters.

1 Under "Term," 3-0-3 means 3 hrs. class, 0 hrs. laboratory, and 3 hrs. credit.

2 Mil 101-102 optional for men.

3 May substitute depending on background and score on placement test.

4 Phil 101 or Thl 112.

5 Phil 201 or Thl elective; non-Catholics take Psych., Soc., Eco., etc.

6 Women only, men take elective.

7 Chm 201, 302 or 420.

8 Spe 101 in either semester.

10 Either semester.

11 Any other Bio., Chm., Phy., Mth., Cps course as needed.

12 Thl electives to total 6 cr. Non-Catholics take humanities or Phil, etc.

### PROGRAM—S2: BACHELOR OF SCIENCE WITH A MAJOR IN CHEMISTRY

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**Junior Year**

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**Senior Year**

1. Under "Term," 3-0-3 means 3 hrs. class, 0 hrs. laboratory, and 3 hrs. credit.
2. Non-Catholic students take an elective.
3. Chm 313-4 may be substituted with permission of the department chairman.
4. Students with 2 or more years of high school German take Ger 201-2; all others take Ger 101-2.
6. A course in computer science is recommended.
PROGRAM—S3: BACHELOR OF SCIENCE WITH A MAJOR IN
COMPUTER SCIENCE

Minimum graduation requirements are distributed as follows:

A. COURSES ASSOCIATED WITH THE MAJOR (about 50 credits)
   1. COMPUTER SCIENCE—Two courses in basic programming, normally Cps 147, and Cps 245, and 24 credits in upper-level courses, normally including two courses in the area of numerical methods or analysis, Cps 441 in the area of programming, and Cps 383 in the area of logic.
   2. MATHEMATICS—basic calculus and normally 12 credits beyond calculus, including linear algebra. Differential equations, abstract algebra and statistics are recommended.

B. COURSES IN OTHER AREAS (about 50 credits)
   3. HUMANITIES—30 credits, including 6 credits in Theological Studies for Catholic students and 6 credits in Philosophy. It is recommended that 12 credits be concentrated in one area of the humanities. 100-level Eng and Spe courses do not apply to this requirement.
   4. SCIENCES—normally 12 credits, including Chm 123, 124, and Phy 196, 207.
   5. COMPOSITION AND SPEECH SKILLS—a certain level of proficiency is required in these skills. 100-level Eng and Spe courses may be prescribed by the department or elected by the student to assist in attaining the minimum proficiency.

C. ELECTIVES (about 25 credits)
   6. Additional courses to attain the required 120.

More detailed information may be obtained from the department.
PROGRAM—S4: BACHELOR OF SCIENCE WITH A MAJOR IN GEOLOGY

Geology ............................................................................................................. 38 semester hours
1Mathematics 128-9 ..................................................................................... 8 semester hours
Chemistry 123-4 ............................................................................................. 8 semester hours
2Physics 201-2 ............................................................................................... 8 semester hours
3Science Electives ......................................................................................... 16 semester hours
Philosophy 101-201 ....................................................................................... 6 semester hours
4Theology 112, elective .................................................................................. 6 semester hours
Language ......................................................................................................... 6 semester hours
English 101-6 .................................................................................................. 6 semester hours
Speech 101 ....................................................................................................... 3 semester hours
Non-Science Electives ..................................................................................... 6 semester hours
General Academic Electives to total at least ...................................................... 120 semester hours

1May substitute Mth 112-3, 118-9, with permission of department.
2May substitute Phy 196, 207 if Mth 128-9 is taken.
3Choose from courses in Chemistry, Mathematics, Physics, Biology, Geology, or Engineering.
4Non-Catholic students substitute non-science electives.

HOME ECONOMICS

The undergraduate program in Home Economics at the University of Dayton has as its primary purpose to utilize principles from many disciplines in solving problems faced by individuals, families and communities in day by day living. The B.S. degree in Home Economics is currently awarded in General Home Economics and Dietetics.

The flexible curriculum in the General Program allows for a wide choice of electives. The student majoring in this program may elect courses in Home Economics, Marketing, Communications, Fine Arts, and the natural and social sciences to emphasize Home Economics areas in Human Relations, Research, Applied Art, and Consumer Behavior. The Education E-11 program, as a minor, qualifies the student for Vocational Home Economics certification. The department accreditation offers the possibility of Vocational certification in the School of Education and the E-11 program.

BACHELOR OF SCIENCE WITH A MAJOR IN HOME ECONOMICS
(GENERAL HOME ECONOMICS)

Home Economics ............................................................................................. 46 semester hours
1 Biology 101-2 or Chm 123-4 .......................................................... 8 semester hours
English 101-6, 200-level elective ...................................................... 9 semester hours
Social Sciences, Language or History .............................................. 18 semester hours
Philosophy 101-201 ........................................................................ 6 semester hours
2 Theology 112, elective ............................................................ 6 semester hours
Speech 101 .................................................................................. 3 semester hours
3 Major, Minor, or electives to total at least..................................... 120 semester hours

1 May substitute Chm 123-4.
2 Non-Catholic students substitute general academic electives.
3 Can be in Home Economics, Fine Arts, Marketing, History, English or the Education E-11 program. The E-11 program requires one course in Chemistry and 51 hours in Home Economics to be vocationally certified. Total academic hours must total 120.

PROGRAM—S5: BACHELOR OF SCIENCE WITH A MAJOR IN
HOME ECONOMICS (General Home Economics)

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1Under "Term," 3-0-3 means 3 hrs. class, 0 hrs. laboratory, and 3 hrs. credit.
2May substitute Chm 123-4.
3Social Sciences, Language or History.
4Non-Catholic students substitute general academic electives.
5Can be in Home Economics, Fine Arts, Marketing, History, English or the Education E-11 program. The E-11 program requires one course in Chemistry and 51 hours in Home Economics to be Vocationally certified. Total academic hours must total 120.

The B.S. degree in Dietetics prepares the student to function as a professional in some phase of nutritional care. The uniqueness of the profession is to improve the nutrition
of human beings, to advance the science of dietetics and nutrition and to promote education in these and allied areas. The department meets the standards of the American Dietetic Association for the preparation of students to enter a fifth year of study in a dietetics internship program.

Bachelor of Science with a major in Home Economics (Dietetic Internship)

Home Economics .......................................................... 36 semester hours
Biology 101-2, 411 .................................................. 13 semester hours
Chemistry 123-4, 302, 313-4, 420 ..................... 19 semester hours
Physical Education 205-6 ........................................ 6 semester hours
Psychology 201, 420 ................................................... 6 semester hours
Philosophy 101-201 .................................................. 6 semester hours
Theology 112, elective ............................................. 6 semester hours
English 101-6, 200-level elective ............................. 9 semester hours
Speech 101 ................................................................. 3 semester hours
Accounting 207 ........................................................ 3 semester hours

1General Academic Electives to total at least.............. 120 semester hours

1With permission Bio 303 may be substituted for Edp 205-6.
2Non-Catholic students substitute general academic electives.
3American Dietetic Association requires one course in Learning Theory either Methods of Teaching (Hec 405) or Learning Theory (EdF 208).

PROGRAM—S6: BACHELOR OF SCIENCE WITH A MAJOR IN HOME ECONOMICS (Dietetic Internship)

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16 15
# PROGRAM—S6—Continued

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| Junior Year |
| ACC   | 301 | Fin. Reporting and Admin.    | 3-0-3    |          |          |
| EdP³  | 205-6 | Anatomy and Physiology      | 3-0-3    | 3-0-3    |          |
| HEC   | —   | Home Economics Elective      | 3-0-3    |          |          |
| HEC   | 304 | Quantity Food Production     | 1-4-3    |          |          |
| HEC   | 308 | Institutional Buying         | 3-0-3    |          |          |
| HEC   | 323 | Demonstration Techniques     | 2-0-2    |          |          |
| THL²  | —   | Theology elective            | 3-0-3    |          |          |
| —     | —   | Elective                     | 3-0-3    | 6-0-6    |          |

| Senior Year |
| BIO   | 411 | General Bacteriology         | 3-4-5    |          |          |
| HEC   | —   | Family Living or Child Development | 3-0-3    |          |          |
| HEC   | 401 | Advanced Nutrition           | 3-0-3    |          |          |
| HEC   | 402 | Diet Therapy                 | 3-0-3    |          |          |
| HEC   | 407 | Organization and Management  | 3-0-3    |          |          |
| PSY   | 420 | Industrial Psychology        | 3-0-3    |          |          |
| CHM   | 420 | Biochemistry                 | 3-0-3    |          |          |
| HEC⁴  | 405 | Methods of Teaching          | 3-0-3    |          |          |
| —     | —   | Electives                    | 3-0-3    |          |          |

| 1Under “Term,” 3-0-3 means 3 hrs. class, 0 hrs. laboratory, and 3 hrs. credit. |
| 2Non-Catholic students substitute general academic electives. |
| 3May take Bio 303 with permission. |
| 4American Dietetic Association requires one course in Learning Theory EdF 208 or Methods of Teaching Hec 405. |
PROGRAM—S7: BACHELOR OF SCIENCE WITH A MAJOR IN
MATHEMATICS, MATHEMATICAL STATISTICS
OR APPLIED MATHEMATICS

A. MAJOR FIELD—Qualified students elect Mth 128 upon entering; those with
weaker backgrounds elect Mth 101. Upon completion of 15 credit hours in
calculus and differential equations (or demonstration of proficiency), a student
will, with the approval of the department, elect 24 credit hours of upper-level
course work. Students with strong mathematical ability may be invited to satisfy
these requirements in the honors program offered by the department.

B. MINOR FIELD—The requirement for the minor normally consists in 12
upper-level credit hours. The chosen field may require pre-requisite knowledge
that could extend the total number of hours beyond 12. The choice of a minor
and the supporting course work must be approved by the student’s advisor.

C. COURSES IN OTHER AREAS
1. COMMUNICATION SKILLS—In addition to Eng 101 and Eng 106,
which are university requirements, a course in programming is required of all
majors, and those looking forward to research are strongly advised to elect some
foreign language.

HUMANITIES—A minimum of 30 credit hours, including 6 in theology for
Catholic students, and 6 in philosophy. Twelve hours should be concentrated
in one area of the humanities. Eng 101, 106, and Spe 101 may not be counted
toward the fulfillment of this requirement.

3. SCIENCE REQUIREMENT—This requirement is fulfilled by electing the
sequence of basic courses in two science areas approved by the department.
(physics and chemistry, for example)

4. UNIVERSITY REQUIREMENTS, ELECTIVES—Students are subject to
all general requirements of the university. (For example, all students must have
a minimum of 120 academic credit hours for graduation).

More detailed information will be provided by the department upon request. All
majors are encouraged to cooperate closely with their departmental advisor in
planning their course work.
PROGRAM—S8: BACHELOR OF SCIENCE WITH A MAJOR IN MEDICAL TECHNOLOGY

The Program leading to a Bachelor of Science degree with a major in Medical Technology consists of three years of instruction at the University of Dayton and a twelve or thirteen month course offered by the Diagnostic Laboratories of St. Elizabeth Hospital, Good Samaritan Hospital, Miami Valley Hospital and Kettering Memorial Hospital. These schools are accredited by the Registry of Medical Technologists of the American Society of Clinical Pathologists through the Council on Medical Education and Hospitals of the American Medical Association, and qualify a student to take the examination given by the Registry of Medical Technologists.

The student receives practical and theoretical experience in the various branches of the clinical laboratory, after which he is qualified for positions in hospitals, clinics, research laboratories, and physicians’ offices.

Requirements:

- Biology required: 21
- Chemistry required: 20
- Math required: 3
- Science elective: 4
- Study of Man: 12
- Humanities electives: 15
- English, Languages or General Electives: 25
- Hospital courses: 38

Total: 138

Study of Man electives include theology and philosophy. Humanities electives are to be selected from the various courses which would broaden the individual’s approach to reality. General electives are non-specified courses which add flexibility to the program.

METHODS OF INSTRUCTION: SENIOR YEAR

After a preliminary concentrated introduction to medical technology, the student participates in the activities of the Diagnostic Laboratories, spending a specific time in each department. Instruction is under the supervision of the pathologist and his staff. Regular assignments in recognized textbooks and laboratory periodicals are given. Conferences and examinations are held throughout the year.
Following a review period at the end of the prescribed course, a final examination, patterned after that of the Registry of Medical Technologists, is given.

HOSPITAL ADMISSION REQUIREMENTS
In planning for the hospital experience, the student is required to arrange for an interview with the pathologist at the approved School of Medical Technology at the hospital. He should also plan to visit each hospital for the purpose of seeing the facilities of the diagnostic laboratories. His choice of school must be stated in writing to both the pathologist at the school of medical technology, and the advisor of the medical technology students at the University. This must be done no later than February 1, if he intends to begin training at the hospital in June. The University advisor will submit letters of recommendation to each school of medical technology in behalf of the student seeking the interview. The Registry requires 90 semester hours of academic work for admission to the clinical year in the hospital.

SENIOR YEAR SCHOLARSHIP
A full tuition scholarship is made available for the senior year. This includes room and board for the women students; it may not be possible to secure housing for male students. Students provide their own uniforms and textbooks.

LENGTH OF CLINICAL COURSE
The course of instruction covers a period of fifty-two to fifty-six consecutive weeks. If vacation period or leave of absence is granted, additional equivalent time must be made up in the school of medical technology. The hours of duty are from 8 a.m. to 5 p.m., five days a week. Special assignments for Sunday and holiday work are given with time off during the week. There is no night call for students.

Textbook assignments and extracurricular reading and study shall be done outside the regular hours. Written and oral examinations are held at regular intervals throughout the course.

GRADUATION AND REGISTRATION
After demonstrating a theoretical and practical proficiency in clinical laboratory procedures, the student is given a certificate by the hospital, and becomes eligible for the national examination for certification by the Registry of Medical Technology.

Students who are registered at the University of Dayton are eligible for the
degree of Bachelor of Science in Medical Technology.

Examinations for Registration and the Certificate of M.T. (Medical Technologist) are given in July and November by the Registry of Medical Technologists in various cities. These are written examinations.

**PROGRAM—S8: BACHELOR OF SCIENCE WITH A MAJOR IN MEDICAL TECHNOLOGY**

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**Good Samaritan Hospital**

| MET   | 451 | Introduction to Medical Technology          | 4 credit hours |
| MET   | 452 | Urinalysis                                  | 4 credit hours |
| MET   | 453 | Hematology                                  | 6 credit hours |
| MET   | 454 | Microbiology                                | 7 credit hours |
| MET   | 455 | Chemistry                                   | 8 credit hours |
| MET   | 456 | Histology                                   | 3 credit hours |
| MET   | 457 | Serology                                    | 3 credit hours |
| MET   | 458 | Blood Banking                               | 3 credit hours |
|       |     | **Total**                                   | **38 credit hours** |

**Kettering Memorial Hospital**

| MET   | 471 | Orientation                                | 1 credit hour |
| MET   | 472 | Ethics                                     | 1 credit hour |
| MET   | 473 | Histopathologic Technic                    | 3 credit hours |
| MET   | 474 | Serology and Immunology                    | 4 credit hours |
| MET   | 475 | Microbiology                                | 11 credit hours|
| MET   | 476 | Parasitology                                | 3 credit hours |
| MET   | 477 | Hematology                                  | 11 credit hours|
| MET   | 478 | Blood Banking                               | 4 credit hours |
| MET   | 479 | Clinical Chemistry                          | 15 credit hours|
|       |     | **Total**                                   | **53 credit hours** |
PROGRAM—S8—Continued

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1 Under "Term," 3-0-3 means 3 hrs. class, 0 hrs. laboratory, and 3 hrs. credit.
2 May substitute depending on background and score on placement test.
3 Phl 101 or Thl 112; one each term.
4 Spe 101 and Psy, Soc, Eco, Hst, etc.
5 Phl 201 or Thl elective; one each term.
6 Bio 303 or 466 recommended.
7 At least one science elective recommended. May take General Physics 201-2.
8 Of the 38 credits in the senior year, 24 must be completed before graduation. The remaining 14 are necessary to complete the program of the Hospital School of Medical Technology.

PROGRAM—S9: BACHELOR OF SCIENCE WITH A MAJOR IN PHYSICAL SCIENCE

The primary goal of this program is to encourage the development of people with a sound training in the physical sciences who will be able to communicate their knowledge to the new generation of students, primarily in our secondary schools. The program, as outlined below, call for 24-28 hours of college physics, 20-24 hours of chemistry and 21 hours of mathematics. In addition, there are sufficient hours to allow for an extremely strong minor of the students choice and enough time in the four year program to complete all necessary education requirements as outlined by our own School of Education for secondary school teachers. Students interested in this latter option should consult the E-11 program in the School of Education which is described elsewhere in the catalog.

A second goal has to do with the development of a program in physical science which is less specialized and will allow more students to better relate the physical sciences to other parts of our culture.

1 Physics 196, 207-8, 451-2-3 ................................................................. 24 semester hours
   Physics or Chemistry elective (upper level) ........................................... 4 semester hours
Chemistry 123-4, 201, 302, 313 ................................................. 19 semester hours
Mathematics 101, 118-9, 228, 219 ............................................. 19 semester hours
Computer Science 133 .......................................................... 2 semester hours
Minor (300-400 level) ............................................................ 12 semester hours
English 101-6 ................................................................. 6 semester hours
Philosophy 101-201 ............................................................ 6 semester hours
2Theology 112, elective ......................................................... 6 semester hours
Speech 101 ........................................................................ 3 semester hours
General Academic Electives to total at least................................ 120 semester hours

1For students not planning to teach in secondary schools, phy 451-2-3 may be replaced with 12 hrs. of upper-level Physics after consultation with Chairman.
2Non-Catholic students substitute General academic electives.

A SAMPLE PROGRAM
BACHELOR OF SCIENCE IN PHYSICAL SCIENCE

<table>
<thead>
<tr>
<th>Dept.</th>
<th>No.</th>
<th>Course</th>
<th>1st Term</th>
<th>2nd Term</th>
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<tbody>
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<tr>
<td>CHM</td>
<td>123-4</td>
<td>General Chemistry</td>
<td>3-3-4</td>
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<td>ENG</td>
<td>101-6</td>
<td>Freshman English</td>
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<td>MTH</td>
<td>101</td>
<td>Pre-Calculus Math</td>
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<tr>
<td>MTH</td>
<td>118</td>
<td>Analytical Geometry &amp; Calculus I</td>
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<tr>
<td>PHL</td>
<td>101</td>
<td>Basic Problems in Philosophy I</td>
<td>3-0-3</td>
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<tr>
<td>THL</td>
<td>112</td>
<td>Foundations in Theology</td>
<td>3-0-3</td>
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<td>SPE</td>
<td>101</td>
<td>Fundamentals of Effective Speaking</td>
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Sophomore Year

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<td>PL/I Programming</td>
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<tr>
<td>CHM</td>
<td>201</td>
<td>Quantitative Analysis</td>
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<td>MTH</td>
<td>119-228</td>
<td>Analytical Geometry &amp; Calculus II, III</td>
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<tr>
<td>PHY</td>
<td>196-207</td>
<td>General Physics, I, II</td>
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<td>THL</td>
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<td>Theology elective</td>
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### PROGRAM—S9—Continued

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<tr>
<td>CHM</td>
<td>313-302</td>
<td>Organic &amp; Physical Chemistry</td>
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<td>MTH</td>
<td>219</td>
<td>Applied Differential Equations</td>
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<td>Basic Problems in Philosophy II</td>
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<td>General Physics III</td>
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<td>PHY</td>
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<td>General Physics III Lab</td>
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<td>PHY</td>
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<td>Intermediate Physics I</td>
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**Junior Year**

**Senior Year**

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1. Under "Term," 3-0-3 means 3 hours class, 0 hours lab or recitation and 3 hours credit.
2. This elective is to be used to meet any prerequisites necessary for the minor field; consult with department chairmen.
3. Electives can be used to complete teacher certification.
4. Upper level physics or chemistry course.
# PROGRAM—S10: BACHELOR OF SCIENCE WITH A MAJOR IN PHYSICS (A Sample Program)

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<tr>
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¹The 3-3-4 signifies 3 hours of lecture, 3 hours of lab (or recitation), 4 semester hours credit.
PROGRAM—S10—Continued

2 Students who do not start with Mth 128 must delay Phy 196 until the second term.
3 The 24 hours in Humanities should include 12 hours of Theology and/or Philosophy. Normally 12 hours should be concentrated in one area of Humanities.
4 Students should show proficiency in composition by end of freshman year and facility in computer programming by the end of their sophomore year.
5 In this example, 28 credit hours in the major are shown.
6 Consult Department Chairman concerning minor.
7 Electives can be used for strengthening the major, a second minor, or be a “free” elective.
8 In this example, 128 total hours are shown; the minimum required is 120.

PROGRAM—S10: BACHELOR OF SCIENCE WITH A MAJOR IN PHYSICS

1 IS-10 Bachelor of Science with a major in Physics

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
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<tbody>
<tr>
<td>Physics 196, 207, 208 and the associated laboratories</td>
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<tr>
<td>Physics courses at the 300-400 level</td>
<td>24</td>
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<tr>
<td>Mathematics 128-9, 228-9</td>
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<tr>
<td>Chemistry 123-4</td>
<td>8</td>
</tr>
<tr>
<td>Minor (300-400 level)</td>
<td>12</td>
</tr>
<tr>
<td>Humanities</td>
<td>24</td>
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<tr>
<td>Basic Skill Courses</td>
<td>11</td>
</tr>
<tr>
<td>English Composition, Eng 101-6, Speech 101 and Computer Programming Cps 133</td>
<td></td>
</tr>
</tbody>
</table>

At least 12 of the 24 hours to be in Theology and/or Philosophy. It is strongly recommended that 12 hours be in one area of the humanities to encourage some depth. The introductory courses in Philosophy and Theology are Thl 112 and Phl 101-201.

Prospective students are encouraged to write or visit the Department for more detailed information. New students should contact the Chairman of the Dept. to plan individual programs.

1 This can be in any academic University subject; a combination of 12 upper level hours of physics, math or other approved courses also satisfies the minor requirement. See p. 340 of the 1971-72 University Bulletin for additional details.
PREMEDICAL AND PREDENTAL

Students who intend to continue their education at the professional school level (medical, dental, osteopathic) should choose an undergraduate major that holds the greatest interest for them. The minimum academic requirements for admission to professional schools are met by a number of science degree programs at the University of Dayton. Students with strong interests in biology or chemistry should enroll in Program—S1 (B.S. in Biology), Program—A2 (B.A. in Chemistry) or Program—S9 (B.S. in Physical Science). From an academic standpoint students in these science programs are as fully qualified for admission to professional schools as are those students who follow the formal premed curriculum. These students may utilize all the premedical counseling and advisory facilities available at the University.

Program S11, the B.S. for Premedical and Predental students is recommended for 1) students who have no strong interest in a conventional major, and 2) students who wish to follow an abbreviated program prior to entrance to school of Occupational Therapy, Optometry, Pharmacy, Physical Therapy, Veterinary Medicine, etc. The full four year program meets the admission criteria (required and recommended courses) of all approved medical and dental schools. In addition to the basic sciences, it includes an adequate study of the humanities and the social sciences. Students contemplating a career in medicine should realize that preference is given to candidates who have the most complete education, as well as good scholastic standing.

Sixteen hours of science electives are available in Program—S11. While these electives can be chosen from any science area (biology, chemistry, computer science, mathematics, physics) current medical school catalogs indicate that the most frequently required and/or recommended advanced science courses are Physical Chemistry, Embryology, Genetics, Biochemistry and Comparative Anatomy. As such, it is strongly recommended that at least three of the four science electives be selected from this group.

A Premedical Faculty Committee is responsible for curriculum requirements, program changes, course advising and general counseling. Current members of this committee are: Dr. B. Lawrence Fox (Chemistry); Dr. Carl I. Michaelis (Chemistry); Prof. James M. Ramsey (Biology); Dr. Charles J. Chantell (Biology), Chairman. Upon admission to Program—S11 each student will be assigned a permanent faculty advisor.

A premedical recommendation board exists and is charged with making the joint recommendations that are required for students who apply for admission to the professional schools. In addition to considering academic standing these
recommendations also weigh the applicant's character and personality qualities. Dr. Carl I. Michaelis is Chairman of the recommendation board.

A chapter of the National Premedical Honor Society, Alpha Epsilon Delta, is established on campus. All premedical and predental students should attend the chapter meetings and are urged to join this society.

Both the Medical College Admissions Test and the Dental Aptitude Testing Program are administered on this campus each year in the spring and fall. All prospective medical, dental and osteopathic school applicants must take these tests, usually in the spring of their junior year. Information regarding these tests can be obtained from the premedical advisors.

The increasingly high admission standard for professional schools make it imperative that the premedical and predental student give full time to study. The undergraduate cumulative grade-point average is an important criterion in gaining admission to a professional school. The minimum acceptable cumulative average for most medical schools is 3.0 for most dental schools 2.8. For this reason, the Premedical Faculty Committee conducts a sophomore evaluation on all students enrolled in Program—S11. Any student whose cumulative average after 2 years is below 2.7 will be directed to change his major.

PROGRAM—S11: BACHELOR OF SCIENCE FOR PREMEDICAL AND PREDENTAL STUDENTS

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<tr>
<th>Course</th>
<th>Hours</th>
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<td>Biology 101-2, 340</td>
<td>11 hours</td>
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<td>Chemistry 123-4, 313-4, 201</td>
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<td>Mathematics 112-3</td>
<td>6 hours</td>
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<td>Physics 201-2</td>
<td>8 hours</td>
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<td>Science Electives</td>
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<td>Philosophy 101-201</td>
<td>6 hours</td>
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<tr>
<td>Theology 112, elective</td>
<td>6 hours</td>
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<tr>
<td>Behavioral, Social Science Electives</td>
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<td>English 101-6, 200-level elective</td>
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<tr>
<td>Speech 101</td>
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<tr>
<td>Language (any modern language)</td>
<td>6 hours</td>
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<td>General Academic Electives</td>
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1If Mth 101 is taken this is in addition to Mth 112-3.
2It is strongly recommended that at least three of the four electives be chosen from Bio 209, 312, 407 and Chm 302, 420.
3Non-Catholic students substitute general academic electives.
4Choose from Psychology 201 and electives, and Sociology electives.
PROGRAM—S12: BACHELOR OF SCIENCE WITH A MAJOR IN PSYCHOLOGY, BIOLOGICAL EMPHASIS

Psychology 201, 302, 310, electives ................................................................. 31 semester hours
   May substitute Mth 207 or Mth 215 for Psy 302
Biology 101-2, electives ............................................................................ 16 semester hours
Chemistry 123-4, 313-4 ............................................................................... 16 semester hours
Physics 201-2 .............................................................................................. 8 semester hours
1 Mathematics 112-3 ................................................................................... 6 semester hours
English 101-6, electives ............................................................................ 9 semester hours
3 Language .................................................................................................... 9 semester hours
Philosophy 101-201 or 106-206 ............................................................... 6 semester hours
2 Theology 112, elective ............................................................................ 6 semester hours
Speech 101 ................................................................................................. 3 semester hours
General Academic Electives to total at least ............................................ 120 semester hours

1 May substitute Mth 101 for Mth 112 and Mth 112 for Mth 113.
2 Non-Catholic students substitute general academic electives.
3 French, German or Russian preferred. However, student may substitute General Electives in lieu of a language. See advisor as graduate study often requires a language.

PROGRAM—S13: BACHELOR OF SCIENCE WITH A MAJOR IN PSYCHOLOGY

Psychology—201, 302, 310, electives ................................................................. 31 semester hours
   May substitute Mth 207 or Mth 215 for Psy 302
Biology 101-2 .............................................................................................. 8 semester hours
Chemistry 123-4 ......................................................................................... 8 semester hours
Physics 201-2 .............................................................................................. 8 semester hours
1 Mathematics 112-3 ................................................................................... 6 semester hours
English 101-6 .............................................................................................. 6 semester hours
3 Language .................................................................................................... 6 semester hours
Philosophy 101-201 ..................................................................................... 6 semester hours
2 Theology 112, elective ............................................................................ 6 semester hours
Speech 101 ................................................................................................. 3 semester hours
General Academic Electives to total at least ............................................ 120 semester hours

1 May substitute Mth 101 for Mth 112 and Mth 112 for Mth 113.
2 Non-Catholic students substitute general academic electives.
3 French, German or Russian preferred. However, student may substitute General Elective in lieu of a language. See advisor as graduate study often requires language.
PROGRAM—S14: BACHELOR OF SCIENCE WITH A MAJOR IN SOCIAL WORK (129 Credit Hours)

Social Work: Swk 206, 206L, 304, 337, 376, 418, 421, 431 .................. 25 semester hours
Sociology 205, 401 .............................................................................. 6 semester hours
Anthropology 210 .............................................................................. 3 semester hours
Social Work/Sociology/Anthropology electives .................................. 12 semester hours
Minor: Soc 205, Ant 210, Swk 206 and 206L, 376, 418 ....................... 16 semester hours
Psychology 201 ................................................................................... 3 semester hours
Political Science 201, 303 ................................................................. 6 semester hours
Economics 201 .................................................................................... 3 semester hours
Philosophy 101, 201 ............................................................................ 6 semester hours
1Theology 112, elective ................................................................. 6 semester hours
History electives ............................................................................... 6 semester hours
English 101-6, 200-level electives ..................................................... 12 semester hours
Speech 101 ......................................................................................... 3 semester hours
Science (not Physical Science) ......................................................... 8 semester hours
2General Academic electives to total at least ................................ 120 semester hours

1Non-Catholic students substitute general academic electives.
2Electives may not be taken in the Department of Sociology, Anthropology and Social Work.
The School of Business Administration operates in accord with the educational philosophy and purposes of the University. It believes that Christian principles of thought and action are essential to the complete formation of a business man. Through instruction and related activities it aims to develop in the student a moral excellence and firmness along with a degree of professional competence. It proposes to enhance the student's awareness of his obligation to himself, his family, society, and God — an awareness that is fundamental to his total development as a business man.

The School of Business Administration particularly seeks to develop that knowledge of business policies, problems and procedures which will enable the student to take a responsible place in the business and economic environment within which he must earn a livelihood.

In order to insure the breadth of background demanded of successful business and community leaders, the student must complete work in humanities and general studies as well as in professional business courses. This preparation is included in each of the programs offered.

DEGREE REQUIREMENTS

The School of Business Administration confers the degree of Bachelor of Science in Business Administration upon satisfactory completion of the following prescribed requirements:

1. Each candidate must complete successfully the Freshman-Sophomore Business Administration program, which is designed to give the student a broad and liberal education in preparation for more specialized training in Business Administration and Economics.

2. Each candidate must earn a cumulative grade point average of at least 2.00 in the overall average in the total credits required for the degree and in the major.

3. Each candidate must complete a minimum of thirty-six credits in 300-400 level courses in the School of Business Administration consisting of the following:
   a) Twenty-four credits in the core courses required of all students enrolled
in the Upper Division in the School of Business Administration;
b) Fifteen credits (or more) in one of the Upper Division areas of concentration offered in the School of Business Administration.

4. Each candidate must earn twelve credits of electives in the upper division. These electives may be taken outside the School of Business Administration. The responsibility of meeting the degree requirements in Business Administration rests with the student and not with the faculty and staff of the School of Business Administration. The student should be thoroughly familiar with the course requirements and should keep his own record of courses completed and credit hours applicable to degree requirements. Business courses listed in the program shown below should be taken in the sequence listed because they are pre-requisites to core and major courses.

FRESHMAN-SOPHOMORE BUSINESS ADMINISTRATION PROGRAM

<table>
<thead>
<tr>
<th>Dept. No.</th>
<th>Course</th>
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<td>Language and Thought</td>
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**Sophomore Year**

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*Bus 108 is recommended for students with insufficient knowledge of secondary mathematics. This would be an additional course for those taking it.
Freshman-Sophomore Business Administration Program—Continued

1Under "Term" 3-0-3 means 3 hrs. class, 0 hrs. laboratory, and 3 hrs. credit.
2Courses listed in italics may be taken in either the first or second term as directed by the program advisor.
3Elect one of the following history courses: Hst 120, 125, 130, 135.
4Women only.
5Choose one of these courses: Bio 114, Chm 110, Geo 109, Phy 105.
6Women only.

UPPER DIVISION

Specialization in the School of Business Administration occurs in the Junior and Senior years.

It is possible to major in any one of the following areas: accounting, management, marketing, or economics.

Each curriculum is organized to include six to twelve credits of electives in the Junior and Senior years. Since the aim of the School of Business Administration is to provide breadth of education, these credits may be taken outside of the School of Business Administration. The electives may be concentrated in one area, or, if the student desires, they may be taken in more than one area.

ACCOUNTING

The profession of accountancy concerns itself with recording, classifying, summarizing, and analyzing financial data. The professional accountant prepares the reports and statements which business management uses for control of operations, and which investors and credit grantors depend upon.

In addition to the three basic courses, required of all business administration students, the accounting major must earn credit for seven upper level accounting courses. Five of these are required of all accounting majors; the other two may be selected by the student from elective accounting courses.

Successful completion of the prescribed program may lead to a career in public accounting, to varied employment in business enterprises, or to service in federal, state, or local government.
### PROGRAM—B1: BACHELOR OF SCIENCE WITH A MAJOR IN ACCOUNTING

<table>
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<td>Business Law I</td>
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<tr>
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<td>341</td>
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**Junior Year**

**Senior Year**

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<td>401</td>
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¹Under "Term" 3-0-3 means 3 hrs. class, 0 hrs. laboratory, and 3 hrs. credit.
²Courses listed in italics may be taken in either the first or second term as directed by the program advisor.
³Non-Catholic students take philosophy elective.
⁴Choose general electives.
⁵Select accounting courses in consultation with program advisor.

### BUSINESS MANAGEMENT

The major of Business Management is designed, in conjunction with the business core requirements, to give the student the basic principles of the management area. In addition, through the proper selection of electives, the student may obtain a degree of specialization in either industrial management, or personnel management.

The following outline of courses constitutes the upper level work required for a Bachelor of Science with a major in Business Management.
PROGRAM—B2: BACHELOR OF SCIENCE WITH A MAJOR IN BUSINESS MANAGEMENT

<table>
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<th>Dept.</th>
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<td>Human Relations for Management</td>
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**Junior Year**

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¹Under “Term” 3-0-3 means 3 hrs. class, 0 hrs. laboratory, and 3 hrs. credit.
²Courses listed in italics may be taken in either the first or second term as directed by the program advisor.
³Non-Catholic students take philosophy elective.
⁴Choose general electives.
⁵Select three business courses in consultation with the program advisor.
⁶Choose humanities electives.

MARKETING

Recent years have witnessed emergence of a broad marketing management concept. It retains as its central thrust a systematic approach to the discovery and satisfaction of consumer wants as a pervasive and cohesive basis for successful administration. The concept is now broadened to include the development of
organizational members to their fullest potential and the achievement of social purpose within the total environment.

Although the student often enters with an interest in a single phase of marketing, the emphasis in the curriculum is on the marketing concept as stated above. Thus, any specialized activity is studied as a part of total marketing process which in turn must be integrated with the objectives of a business firm, the functioning of an economic system, and the constraints of society.

The goal is to add limited specialization to a base made up of the general education required for all students and a core of business administration courses required of business students.

Within the marketing specialization the purpose is to:

1. Develop a student of marketing who has the tools and groundwork for continued study after graduation. Applications of the social sciences and quantitative techniques are stressed. Communication skills are emphasized. Understanding of institutions and nomenclature is essential.

2. Develop a practitioner of marketing with interests, attitudes, and sufficient understanding to be potentially productive at a responsible level of decision making.

3. Provide flexibility through choice of courses for marketing majors and provide some breadth of choice of marketing courses as electives for non-marketing majors both from within and without the School of Business Administration.

The Department of Marketing is represented through institutional or faculty memberships in the American Academy of Advertising, the American Collegiate Retailing Association, and the American Marketing Association. The courses and programs of the department are in accord with the recommendations of these professional groups.

Some of the options within the field of Marketing which have proved to be popular are:

**Advertising**

Students interested in advertising as a concentrated area of study take the following sequence of courses: Mkt 420 Marketing Communications, Mkt 421 Advertising, Mkt 430 Marketing Research.

A major in marketing requires three additional marketing courses selected in consultation with the chairman of the department.
Industrial Marketing

Students interested in industrial marketing as a concentrated area of study take the following sequence of courses: Mkt 340 Industrial Marketing, Mkt 411, Sales Management, Mkt 430 Marketing Research.

A major in marketing requires three additional marketing courses selected in consultation with the chairman of the department.

Marketing Research

Students interested in marketing research as a concentrated area of study take the following sequence of courses: Mkt 315 Retail Merchandising, Mkt 405 Consumer Behavior, Mkt 430 Marketing Research.

A major in marketing requires three additional marketing courses selected in consultation with the chairman of the department.

Marketing Management

Students interested in marketing management as a concentrated area of study take the following sequence of courses: Mkt 315 Retail Merchandising, Mkt 335 Advanced Marketing, Mkt 430 Marketing Research.

A major in marketing requires three additional marketing courses selected in consultation with the chairman of the department.

Retailing

Students interested in retailing as a concentrated area of study take the following sequence of courses: Mkt 315 Retail Merchandising, Mkt 318 Retail Advertising and Sales Promotion, Mkt 417 Retail Buying and Merchandising.

A major in marketing requires three additional marketing courses selected in consultation with the chairman of the department.

Salesmanship

Students interested in salesmanship as a concentrated area of study take the following sequence of courses: Mkt 310 Salesmanship, Mkt 405 Consumer Behavior, Mkt 411 Sales Management.

A major in marketing requires three additional marketing courses selected in consultation with the chairman of the department.
**PROGRAM—B3: BACHELOR OF SCIENCE WITH A MAJOR IN MARKETING**

<table>
<thead>
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¹Under “Term” 3-0-3 means 3 hrs. class, 0 hrs. laboratory, and 3 hrs. credit.
²Courses listed in italics may be taken in either the first or second term as directed by the program advisor.
³Select three marketing courses in consultation with the program advisor.
⁴Non-Catholic students take PhI elective.
⁵Take humanities elective.
ECONOMICS

The Department of Economics offers courses in the core business curriculum and in a major concentration. Economics 201 and 202 serve as the foundation for all upper level business subjects including those taken by economic majors. Within the core business curriculum, the Department of Economics offers Macro Economic Analysis (Eco 341) and Micro Economic Analysis (Eco 340).

The major program in economics is designed for those students seeking careers as economists in education, government, or business, or who wish to prepare for other specialized areas such as banking, finance, investment security analysis, or labor relations. To accomplish this objective, the Department of Economics emphasizes in its instruction the development and functioning of the economics of the United States and other countries. The student thus is equipped with the tools for the systematic analysis of the economic problems of the individual firm, the industry, the nation, and the world within their social, political, and legal contexts.

For admission to the major, a student must have completed Economics 201 and 202. To complete the major, eighteen hours of economics courses, in addition to Economics 340, and 341, are required of the Business Administration student. After consultation with the Chairman of the Department, the major may select these eighteen hours to fit his own special needs or interests.

Candidates for the Bachelor of Arts degree who desire to major in economics will follow the program of the College of Arts and Science.

PROGRAM—B4: BACHELOR OF SCIENCE WITH A MAJOR IN ECONOMICS

<table>
<thead>
<tr>
<th>Dept.</th>
<th>No.</th>
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<tr>
<td>BUS</td>
<td>301</td>
<td>Corporation Finance</td>
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<tr>
<td>BUS</td>
<td>303</td>
<td>Business Law I</td>
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<tr>
<td>ACC</td>
<td>340</td>
<td>Fundamentals of Business</td>
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<td></td>
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<td>Data Processing</td>
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<tr>
<td>Eco</td>
<td>340</td>
<td>Micro Economic Analysis</td>
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<tr>
<td>Eco</td>
<td>341</td>
<td>Macro Economic Analysis</td>
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<td>Economics Elective</td>
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<tr>
<td>ENG</td>
<td>382</td>
<td>Directed Readings III-IV</td>
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<td>Humanities elective</td>
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## PROGRAM—B4—Continued

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<td>BUS</td>
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<td>Business Communication and Report</td>
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<td>Writing</td>
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<td>BUS</td>
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<td>Business Policies and Management</td>
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1Under “Term” 3-0-3 means 3 hrs. class, 0 hrs. laboratory, and 3 hrs. credit.

2Non-Catholic students take Phi elective.

3Choose general electives.

4Choose electives in Economics. Consult program advisor.

### ASSOCIATE DEGREE IN BUSINESS ADMINISTRATION

The Associate Degree in the Business Administration program specializing in executive secretarial studies has been designed especially for those who plan to attend college for only two years.

University-trained secretaries with broad educational backgrounds are urgently needed in business. This cultural background, combined with competency in typing, shorthand, accounting, business machines, and office procedures, will prepare graduates for responsible positions in commerce and industry.

## PROGRAM—B5: ASSOCIATE DEGREE IN BUSINESS ADMINISTRATION

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<td>Principles of Economics</td>
<td>3-0-3</td>
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<td>EdP</td>
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<tr>
<td>SEC</td>
<td>101 or</td>
<td>Fundamental Shorthand</td>
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<tr>
<td>SEC3</td>
<td>101A</td>
<td>Refresher</td>
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<tr>
<td>SEC</td>
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<td>Intermediate Shorthand</td>
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<tr>
<td>SEC</td>
<td>103 or</td>
<td>Fundamental Typing</td>
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<td>SEC3</td>
<td>103A</td>
<td>Refresher</td>
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**PROGRAM—B5—Continued**

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<td>Dictation and Transcription</td>
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<td>SEC 202</td>
<td>Advanced Dictation and Transcription</td>
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<td>SEC 203</td>
<td>Advanced Typing</td>
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<td>SEC 204</td>
<td>Production Typing</td>
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<td>SEC 205</td>
<td>Administrative Secretarial Practicum</td>
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<td>SEC 206</td>
<td>Advanced Administrative Secretarial Practicum</td>
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<td>SEC 207</td>
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<td>SEC 208-9</td>
<td>Secretarial Accounting</td>
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<tr>
<td>SEC 210</td>
<td>Introduction to Business Data Processing</td>
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<td></td>
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<td><strong>15</strong></td>
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</tr>
</tbody>
</table>

1 Under "Term," 3-0-3 means 3 hrs. class, 0 hrs. laboratory, and 3 hrs. credit.
2 Courses listed in italics may be taken in either the first or second term as directed by the program advisor.
3 Refresher courses for qualified students with prior training.

**EVENING PROGRAMS IN BUSINESS ADMINISTRATION**

The University of Dayton, through its Evening classes, offers an Associate Degree in Business Administration, specializing in Accounting, General Business Management, or Marketing. Further information about these programs can be obtained from the office of the Dean of Business Administration.
In conformity with the University’s purposes, the School of Education endeavors to foster both (1) the development of those general capacities of the students which flow directly from his human nature and (2) the development of those particular capacities which enable him to become an effective practitioner in the field of professional education.

The general capacities of the student are developed through a broad and sound education of a general nature. It endeavors to acquaint the student with the major areas of knowledge and provides planned opportunities for personal, social, and ethical development.

The particularized concern of the School is the professional preparation of teachers for the elementary and secondary schools. Provisions for professional competence are made: (1) through comprehensive study of specialized teaching fields, (2) through thorough study of the professional foundations which are common to all teaching, and (3) through specialized study of the principles underlying a particular type and level of teaching.

DEGREE REQUIREMENTS
Specific four-year course requirements for kindergarten-primary, elementary, educationally mentally retarded, secondary, and special (music, art, physical education, home economics, speech) certification are outlined in the following pages.

Toward the close of the Freshman year each student is required to file formal application for admission to the Sophomore class. At this point his work is reviewed by a faculty committee to determine the extent to which the applicant’s personal traits, academic work, etc., point toward likelihood of success as a professional teacher.

As a rule the School of Education will not recommend students for graduation unless these students can also qualify for teacher certification.

The responsibility for meeting the University and State requirements rests with the student. The student is cautioned to study the course requirements and to keep accurate count of the credit hours applicable to graduation. Students planning
to teach in states other than Ohio should fulfill University requirements plus those of the State in which they desire to teach. (Consult the book, *Requirements for Certification* by Woellner, University of Chicago Press; this book is constantly available both in the Education Office, Room C-104, and in the Curriculum Materials Center, Room C-114.)

Requirements for graduation and teacher certification are the following:

1. Evidence of such general scholarship, personal and moral qualities, as give promise of professional success.

2. Evidence of participation in a variety of planned field experiences essential to the development of the resourcefulness needed by teachers.

3. Successful completion of one hundred and thirty-two semester credit hours in approved courses.

4. An over-all cumulative point average of at least 2.00 (C average) and a cumulative point average of at least 2.50 (C+ average) for the professional education courses and for the principal teaching field.

5. Successful completion of the following professional education sequence:

   Credit Hours

   A. Professional and Personal Development of the Teacher ..........2-3
   B. Human Growth and Development ........................................3
   C. The Learning Process ..................................................3
   D. The Elementary School: Purposes and Practices (or) ..........3
     The Secondary School: Self and Society .........................3
   1E. Special Methods ......................................................3
   F. Philosophy of Education ............................................3
   G. Student Teaching ....................................................6-12

   1Students in Elementary Education follow special courses covering (a) Reading and Language Arts, (b) Arithmetic. Students in Kindergarten-Primary Education follow special courses in theory, methods, and materials on kindergarten-primary level.

   With the possible exception of A and B, all courses in the above sequence must be taken at the University of Dayton. Transfer credits from other institutions will not be accepted in substitution for courses C through G.

6. Completion of University requirements in General Education, including the following courses in theology and philosophy:

Catholic students — 18 semester hours:

   Thl 112 and 3 hours of electives; Phl 101, 201, an elective in philosophy, and EdF 419.
Other students — 12 semester hours:
Phl 101, 201, 312, and EdF 419.

7. Acceptable scores in the National Teacher Examination, a comprehensive examination involving the following: General Education, Professional Education, and Specialization (principal teaching field). The examination MUST be taken no later than one term prior to the term in which the student expects to be graduated. Delay in taking the examination will lead to postponement of graduation and certification. Students should be sure to consult the Education Office regarding dates on which the examination will be administered.

Counseling
Each freshman education student is assigned a faculty counselor from the department in which he is enrolled. Each upperclassman reports for proper guidance at least once every semester to his dean or to the chairman of the department in which he is majoring.

Student Teaching
This consists of actual classroom teaching under competent supervision. During the semester of student teaching, the student is not permitted to carry more than six semester hours of additional course work. These additional hours are ordinarily scheduled outside the normal school day in order to keep intact the student teaching experience for the full school day. The student should arrange his financial obligations so that he need not continue with part-time employment during this semester.

The faculty of the School of Education screens each candidate who applies for student teaching on the basis of the following factors: (1) skill in communication arts, (2) quality point average in course work (at least a 2.5 for professional education courses and for principal teaching field and at least a 2.0 for second teaching field), (3) physical and emotional fitness, (4) desirable personal and moral traits, (5) completion of the prerequisite courses.

Prerequisites for candidacy for student teaching are: (1) official enrollment in a teacher education program at the University, (2) prospective completion of minimum residence requirement of thirty semester hours inclusive of student teaching, (3) formal application for processing by screening committee; application must be submitted a term in advance of student teaching. (Application blanks may be secured from the Education Office, Room C-104.)

The campus supervisors have direct charge of the student teaching experience. Once a week throughout the term a student teaching seminar is held on campus.

Students who register for 12 sem. hrs. of student teaching are involved in full-day sessions for an entire semester. Students who register for less than 12
sem. hrs. must continue their student teaching for a minimum of twelve weeks.

Once a student has been approved and placed for student teaching, he may not withdraw from the program unless approved by his Department Chairman. A student who withdraws without this approval forfeits future placement in student teaching.

Student teaching during the summer term is restricted to candidates who have had previous teaching experience. The applications of such students will be processed only with the express permission of the Dean.

TEACHER PLACEMENT

Students who qualify for teacher certification in the School of Education are aided in securing teaching positions through the School’s placement service located in Chaminade Hall, Room C-323. This requires cooperation from the candidate in filling out the necessary papers and in submitting names for references. Interviews with prospective employers are conducted in the University Placement Center and are announced in advance.

TEACHER CERTIFICATION

The School of Education is on the approved list of the State Department of Education and of the National Council for Accreditation of Teacher Education. NCATE accreditation is being used increasingly as the major basis for reciprocity between states in teacher certification. To date the following states grant regular certificates under practically all circumstances to teachers who have completed approved programs in institutions accredited by NCATE: Alabama, Arizona, Colorado, Delaware, Florida, Georgia, Illinois, Indiana, Iowa, Kentucky, Maine, Maryland, Mississippi, Missouri, Nebraska, North Carolina, North Dakota, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Dakota, Tennessee, Texas, Utah, Vermont, Washington and West Virginia.

In addition to preparing properly certified kindergarten-primary, elementary, and high school teachers, the School also enables students to qualify for special certification in art, physical education, driver education, home economics, music, speech, and the teaching of the educable mentally retarded.

A curriculum in Home Economics Education has been established through the vocational division of the State of Ohio, Department of Education. Graduates of this curriculum are certified to teach vocational home economics as well as non-vocational.
CORRECTIVE THERAPY CERTIFICATION

Through the affiliation of the Veterans Administration Center’s Corrective Therapy Clinical Training Program (Brown Hospital, Dayton, and Veteran’s Hospital Brecksville) students who follow the School of Education’s program in health and physical education have the opportunity to qualify for national certification as Corrective Therapists by satisfactorily completing 400 clock hours of directed corrective therapy clinical training and by passing the examination of the American Medical Association. This program as designed for University of Dayton students has the certified approval of the Veterans Administration Central Office, Washington, D.C.
GRADUATE PROGRAMS

The School of Education offers six graduate programs for in-service teachers leading to the Master of Science in Education degree; they are designed to prepare master high school teachers, master elementary teachers, school counselors, school psychologists, school administrators, and educational research specialists. (For details on the graduate programs request a copy of The Graduate Catalog Issue.)

PROGRAM—E1: BACHELOR OF SCIENCE IN ELEMENTARY EDUCATION

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<td>114</td>
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<tr>
<td>EDE</td>
<td>109-10</td>
<td>Prof-Pers Dev of Elem Tchr</td>
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<td>ED²⁵</td>
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<td>Child Growth and Development</td>
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<td>Language and Thought</td>
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<td>Language and Literature</td>
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<td>HST</td>
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<td>History of Civilization</td>
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<td>EDF</td>
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<td>Physical Education (women only)</td>
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<td>EDP²⁵</td>
<td>101</td>
<td>Sports Appreciation (men only)</td>
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<td>PHY</td>
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<td>ART⁵</td>
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<td>Introductory Drawing</td>
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**Total Freshman Year**

17 18

**Sophomore Year**

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<td>Basic Problems in Philosophy II</td>
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<td>SPE⁷</td>
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**Total Sophomore Year**

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### PROGRAM—E1—Continued

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1. Under "term," 3-0-3 means 3 hrs. class, 0 hrs. lab, and 3 hrs. credit.
2. Most courses can be taken in terms other than listed. Consult advisor.
3. Evening students may substitute EdF 207.
4. Or Humanities elective for non-Catholic students.
5. A minimum of 6 credit hours each is required in Art and Music. Recommended courses include Art 101, 281-2, 481; Mus 101, 103, 231-2. If proficient consult advisor.
6. Must be 200, 300 or 400 course that has no prerequisite.
7. For possible substitutions, if proficient, consult advisers.
8. May substitute Pol 201 or Eco 201. If Sociology is desired for specialization, take Soc 205 instead.
10. Required for specialization in Math or for standard Elementary certificate (Grade 1-8).
11. A specialization of 12 or more hours, above other course requirements, in a teaching field or area of interest. Courses in special education can be used for second certificate.
12. For certification in both Standard Elementary and K-Pri, 12 hrs. Ede 413 is required. For Emr Certification take 6 hrs. Ede 413 and 6 hrs. Ede 411.
13. Philosophy 312, Ethics is required for non-Catholic students.
## PROGRAM—E2: BACHELOR OF SCIENCE IN SECONDARY EDUCATION

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|       |     | **Sophomore Year**                                          |          |          |          |
| EDF   | 208 | Learning Process                                            | 3-0-3    |          |          |
| EDP⁷  | 140 | Personal Health                                             | 2-0-2    |          |          |
| ENG⁸  | 2—  | *English electives*                                         | 3-0-3    | 3-0-3    |          |
| PHL   | 201 | Basic Problems in Philosophy II                             | 3-0-3    |          |          |
| SPE   | 101 | *Fundamentals of Effective Speaking*                         |          | 3-0-3    |          |
| THL⁹  | —   | Theology elective                                          |          |          | 3-0-3    |
|       | —   | Teaching Field electives                                    | 6-0-6    | 8-0-8    |          |
| EDP   | 201¹⁰| Phys. Ed. Activities                                       | 0-3-1    |          | 0-3-1    |
| EDP   | 202¹⁰| Phys. Ed. Activities                                       |          |          | 16-18    | 17-18    |

|       |     | **Junior Year**                                             |          |          |          |
| EDS   | 351 | *The Secondary School, Self, Society*                       | 3-0-3    |          |          |
| EDS   | —   | *Special Methods in Teaching Field*                          |          |          | 3-0-3    |
| —     | —   | Theology or Humanities electives                            | 3-0-3    | 3-0-3    |          |
| —     | —   | Teaching Field electives                                    | 12-0-12  | 12-0-12  |          |
|       |     |                                                            | 18       | 18       |          |
### PROGRAM—E2—Continued

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</table>

1. Under "Term," 3-0-3 means 3 hrs. class, 0 hrs. laboratory, and 3 hrs. credit.
2. Courses listed in italics may be taken in terms other than listed. Consult program advisor.
3. Women only.
4. Non-Catholic students take humanities electives.
5. Take 6 hrs. in Math or 8 hrs. in Science.
6. For men only.
7. For women only.
8. Students may elect 6 hrs. of 200 level English or 6 hrs. of a Foreign Language.
9. Non-Catholic students take humanities elective
10. For men only.
11. Non-Catholic students take Phl. 312
Requirements in High School Teaching Fields

Students following the program in secondary education are required to have at least two teaching fields with a minimum of thirty-six semester credit hours in the principal teaching field (i.e. the field in which the special methods course is taken) and the minimum hours listed below for the second teaching field; or, instead of two teaching fields, they may take a single comprehensive field totaling at least fifty-one semester credit hours. To facilitate placement, students are advised to select fields which are related, e.g., Speech and English, or Science and Mathematics.

In order to be recommended for student teaching and certification, the student must earn a quality point average of at least 2.500 in the principal field for which he seeks certification. Certification is valid for teaching in grades seven through twelve.

Minimum requirements in semester credit hours for the second teaching field are as follows: (For detailed course requirements in each field, secure copy of checklist for each teaching field in the Education Office, Room C-104.)

<table>
<thead>
<tr>
<th>Teaching Fields</th>
<th>Sem. Cr. Hrs.</th>
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<tbody>
<tr>
<td>Art</td>
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<tr>
<td>Biological Science</td>
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<td>Bookkeeping—Basic Business</td>
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<tr>
<td>Earth Science</td>
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<tr>
<td>English</td>
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<td>General Science</td>
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<tr>
<td>Physical and Health Education</td>
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<tr>
<td>Health</td>
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<td>History—Government</td>
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<td>Home Economics</td>
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<td>Speech</td>
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<td>Stenography—Typing</td>
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<td>Theology</td>
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<td>Typing (Third Field Only)</td>
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Comprehensive Fields

In lieu of two separate teaching fields, a single comprehensive field (with a minimum of fifty-one semester hours) may be chosen from the following:

Art
Business Education
English
History—Gov’t
Home Economics
Mathematics
Music
Physical and Health Education
Science
Social Studies
Speech
Physical Science
### PROGRAM—E3: BACHELOR OF SCIENCE IN PHYSICAL & HEALTH EDUCATION (MEN)

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|       |      | **Senior Year**                             |          |          |          |
| EdP   | 402  | Org., Adm., of Physical Education          | 2-0-2    |          |          |
| EdP   | 405  | Tests and Measurements of Phys. Edu.       | 2-0-2    |          |          |
| EdP   | 407  | Mod. Prob. of Public Health               | 2-0-2    |          |          |
| EdP   | 408  | Physiology of Exercise                     | 2-0-2    |          |          |
| EdP   | 417  | Student Teaching (Comprehensive)          |          | 6-x-12   |          |
|       |      | or                                          |          |          |          |
| EdP   | 418  | Student Teaching (Prin. Field)            |          | 6-x-12   |          |
| EdF   | 419  | Philosophy of Education                    | 3-0-3    |          |          |
| EdP   | —    | Elective                                   | 3-0-3    |          |          |
| THL   | —    | Theology or Humanities Electives          | 3-0-3    |          |          |
| PHL   | —    | Elective                                   |          | 3-0-3    | 17       |
|       |      |                                             | 12       |          |          |
PROGRAM—E3—Continued

1Under “Term,” 3-0-3 means 3 hours class, 0 hours laboratory, and 3 hours credit.

2Courses listed in italics may be taken in terms other than listed. Consult program advisor.

3May be waived on the basis of previous training.

4Non-Catholic students take Phl 201 or elective

5Secondary Education students with principal or second teaching field in Physical Education take EdF 206, Adolescent Growth and Development.

6Non-Catholic students take Phl 312.

7, 112 of the 3 coaching courses are required.

8Non-Catholic students take elective in Humanities.

9Students are required to take EdP 303 or 304.

10Students may elect 6 hours from Eng 201, 202, 203, 204, or 205.

7, 112 of the 3 coaching courses are required.

PROGRAM—E4: BACHELOR OF SCIENCE IN PHYSICAL & HEALTH EDUCATION (WOMEN)

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### Sophomore Year

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### Junior Year

| EdP   | 303-4| Advanced Physical Education Activities | 0-4-1    | 0-4-1    |          |
| EdP   | 309  | Methods, Materials of Health Education | 3-0-3    |          |          |
| EdP   | 325  | Methods of Teaching Dance            |          |          | 2-0-2    |
| EdP   | 334  | Methods of Teaching Individual Sports | 1-2-2    |          |          |
| EdP   | 336  | Safety Education and First Aid       |          |          | 3-0-3    |
| EdP   | 348  | Org. and Adm. of Recreation          | 2-0-2    |          |          |
| EdP   | 350  | Kinesiology                         | 3-0-3    |          |          |
| EdP   | 410  | Adapted Physical Education          |          | 2-0-2    |          |
| EdP   | 433  | Gymnastics                          |          | 1-2-2    |          |
| EdS   | 351  | Secondary Schools                   |          | 2-0-2    |          |
| ENG   | 2    | Electives                           | 3-0-3    | 3-0-3    |          |
| EdP   | 324  | Prin. & Pract. of P.E. in Elem. School | 2-0-2    | 3-0-3    |          |
|       |      |                                   | 15-16    | 17-18    |          |

### Senior Year

| EdP   | 402  | Org., Adm., of Physical Education | 2-0-2    |          |          |
| EdP   | 405  | Tests and Measurements of Phys. Ed. | 2-0-2    |          |          |
| EdP   | 408  | Physiology of Exercise            | 2-0-2    |          |          |
| EdP   | 417  | Student Teaching (Comprehensive)  |          |          | 6-x-12   |
| EdP   | 418  | Student Teaching (Prin. Field)    |          |          | 6-x-12   |
| EdF   | 419  | Philosophy of Education           |          | 3-0-3    |          |
| PHL   | —    | Elective                          | 3-0-3    |          |          |
| EdP   | 407  | Mod. Prob. of Public Health       | 2-0-2    |          |          |
| EdP   | —    | Electives                          | 5-0-5    | 2-0-2    |          |
|       |      |                                   | 16       | 14       |          |
PROGRAM—E4—Continued

1Under “Term,” 3-0-3 means 3 hours class, 0 hours laboratory, and 3 hours credit.
2May be waived on the basis of previous training.
3Non-Catholic students take Phi 101.
4Non-Catholic students take Phi 201.
5Secondary Education students with principal or second teaching field in Physical Education take EdF 206, Adolescent Growth and Development.
6Non-Catholic students take Phi 312.
7Non-Catholic students take elective in Humanities.
8Students are required to take EdP 303 or 304.
9Students may elect 6 hours from Eng. 201, 202, 203, 204, or 205.

PROGRAM—E5: BACHELOR OF SCIENCE IN MUSIC EDUCATION

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**Ensembles (ref. p. 273)**

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1. Under “term,” 3-0-3 means 3 hrs. class, 0 hrs. laboratory, 3 hrs. credit.
2. Women only. Men take EdP 101, 102, 201, 202 or Mil 101, 102, 201, 202.
3. Applied Music (Mus 399) includes private instruction courses in Piano, Organ, Voice, orchestral instruments. Class Piano, (Mus 296, 7, 8, 9) is required of students who have not previously studied piano.
4. Non-Catholic students take an elective.
5. Take Bio. 114 and Phy 105 or Geo 109, or 6 hrs. Math.
6. Choose from Eng 203, 204, or 205.
7. Music Education electives: Mus 235-6, 325-6-7-8, 425, 431.
9. Required of students planning to teach instrumental music in secondary schools.
10. Catholic students take PHL 308, 455 or 456.

Note: B.S.C. in MUSIC ED

Applied Music students are required to perform at least once each term. If the student is approved for an Applied Music major, he will present not less than one-half of a recital as the Senior requirement.
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\(^{1}\) Under "Term," 3-0-3 means 3 hrs. class, 0 hrs. laboratory, 3 hrs. credit.

\(^{2}\) Students interested in Secondary Education only may take EdF 206 Adolescent Growth and Development.

\(^{3}\) Women only. Men take EdP 101, 102, or Mil 101-102.

\(^{4}\) Non-Catholic students take an elective.

\(^{5}\) Take Bio 114 and Phy 105 or Geo 109; or 6 hrs. Mth.

\(^{6}\) Courses with letter-number codes are taken at the Dayton Art Institute.

\(^{7}\) For women only. Men take EdP 201, 202 or Mil 201, 202.

\(^{8}\) Students may elect 6 sem. hrs. of 200 level English courses.

\(^{9}\) Take EdE 350 or EdS 351.

\(^{10}\) Non-Catholic students take Phi 312 and an elective.

\(^{11}\) Craft elective: Art 261 Intro. Enameling or Art 263 Jewelry.

\(^{12}\) Students may elect Art 371, 372, 471, 472.

\(^{13}\) Electives from: Design, Drawing, Crafts, Graphics, Painting, Sculpture, special problems following sequence and requirements of courses. Art 181 may also be elected.

\(^{14}\) Consult program advisor for appropriate course—Art 481, or 482. In summer term Art 483w and 484w are usually offered.

## PROGRAM—E7: BACHELOR OF SCIENCE IN SPEECH EDUCATION

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\(^{3}\) For women only. Men take EdP 201, 202 or Mil 201, 202.

\(^{4}\) Science course for women only; Men take EdP 201, 202 or Mil 201, 202.

\(^{5}\) Non-Catholic students take Phi 312 and an elective.

\(^{6}\) Students may elect 6 sem. hrs. of 200 level English courses.

\(^{7}\) Take EdE 350 or EdS 351.

\(^{8}\) Non-Catholic students take Phi 312 and an elective.

\(^{9}\) Craft elective: Art 261 Intro. Enameling or Art 263 Jewelry.

\(^{10}\) Students may elect Art 371, 372, 471, 472.

\(^{11}\) Electives from: Design, Drawing, Crafts, Graphics, Painting, Sculpture, special problems following sequence and requirements of courses. Art 181 may also be elected.

\(^{12}\) Consult program advisor for appropriate course—Art 481, or 482. In summer term Art 483w and 484w are usually offered.
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1. Under "Term," 3-0-3 means 3 hrs. class, 0 hrs. laboratory, 3 hrs. credit.
2. Courses listed in italics may be taken in either the first or second term as directed by the program advisor.
3. Women only. Men take EdP 101, 102 or Mil 101, 102.
4. May take Bio 114 and Phy 105 or Geo 109; or 6 hrs. Mth.
5. Non-Catholic students take an elective.
6. Students may elect Eng. 201, 202, 203, 204, or 205.
7. Women only. Men take EdP 201, 202 or Mil 201, 202.
8. Non-Catholic students take Phl 312.
9. Take Spe 204 or 302 and Spe 306.
10. Take Spe 401 or 424.
### PROGRAM—E8: BACHELOR OF SCIENCE IN HOME ECONOMICS EDUCATION

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</tbody>
</table>

1Under "Term," 3-0-3 means 3 hrs. class, 0 hrs. laboratory, 3 hrs. credit.
2Foods and Clothing I & II may be interchanged.
3Art 111-12 Principles of Design may be substituted.
4Non-Catholic students take elective.
5Students may elect 6 sem. hrs. of 200 level English courses.
6Non-Catholic students take Phl 312 and electives.
PROGRAM—E9: CERTIFICATION (POST-GRADUATE)

For graduates of the University of Dayton or of other accredited institutions who hold a non-professional degree (B.A., B.S., or equivalent) and who are interested in becoming certified teachers. The program involves approximately 30 semester credit hours and includes courses in professional education, courses needed to complete teaching field requirements and supervised teaching. No assignment to student teaching can be made until all prerequisite courses have been taken in the School of Education, and application for certification will be made only after successful completion of an approved program.

To be admitted to the Certification Program the applicant must:

1. have a cumulative quality point-average on his non-professional degree of at least 2.5 (out of a possible 4.0);
2. submit a letter of recommendation from one of his former professors or from a responsible school official;
3. meet the standards which the School of Education uses for screening transfer students.

PROGRAM—E10: RETRAINING (POST-GRADUATE)

For students who have completed requirements for the Provisional High School Certificate or for the Provisional Special Certificate and who desire certification valid for Elementary Teaching.

A. The holder of a provisional High School or Special Certificate may obtain a certificate valid for elementary teaching by completing the following hours of credit:

<table>
<thead>
<tr>
<th>Cr. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The Elementary School: Purposes and Practices</td>
</tr>
<tr>
<td>2. Reading in the Elementary School</td>
</tr>
<tr>
<td>3. Arithmetic in the Elementary School</td>
</tr>
<tr>
<td>4. Growth and Development</td>
</tr>
</tbody>
</table>

B. Such a certificate is designated as a “RETRAINING” certificate. It may be renewed upon evidence of the completion of 12 semester hours of additional credit in prescribed courses. Conversion to a Standard 4-Year Provisional Elementary Certificate is possible when the appropriate pattern of training has been completed.
For students who wish to qualify for a High School Teaching Certificate while working toward a B.S. or B.A. degree in the College of Arts and Sciences.

Students matriculating in the College of Arts and Sciences may enroll in the teacher education program (secondary school program) of the School of Education without transferring to the School of Education. For requirements in professional education courses and in teaching fields consult the Chairman of the Department of Secondary Education.

Enrollment in this program is subject to the same admission requirements, counseling, maintenance of a unified system of records, screening, and other professional provisions standard for regular students of the School of Education working toward the B.S. in Education degree. This includes the maintenance of at least a 2.50 average in the principal teaching field and taking the comprehensive exam
During the first semester of their enrollment, these students are given a regular orientation period suited to their special needs.

In order to finish in four years, a student in the College of Arts and Sciences will need to process his application for admission to the teacher education program during the third semester of his matriculation. He will need to begin his professional education sequence in his fourth semester. Failure to enroll on time would necessitate his going beyond the normal four years in order to qualify for teacher certification and graduation. The requirements for both the College of Arts and Sciences and the School of Education must be completed before any degree is granted.

When the student has completed the proper course requirements in seven semesters, he may register for student teaching in the eighth semester (provided his application for student teaching is duly processed at the beginning of the semester directly prior to student teaching and, at that time, has passed the normal screening procedure).

When the duly enrolled student has completed all the requirements for teacher certification, he should make application for the standard State Teaching Certificate through the official recommending officer of the School of Education.

**PROGRAM—E12: SECOND DEGREE (POST-GRADUATE)**

For non-professional degree holders who, in addition to certification (see Program—E9 above) desire a Bachelor of Science in Education as a second degree. The gaining of such a second degree offers as one of several advantages that of enabling the candidate to qualify under and to benefit from the national accreditation which the School of Education holds through the National Council for the Accreditation of Teacher Education (NCATE).

The requirements for admission to this program are the same as those for Program—E9 (see above).

To qualify for the Bachelor of Science in Education as a second degree the student must:

1. complete a *minimum* of 30 semester credit hours beyond the first degree;

2. qualify for the Provisional Elementary Certificate by completing a pattern of courses substantially equivalent to the curriculum outlined in Program—E1, OR qualify for the Provisional High School Certificate by completing a pattern of courses substantially equivalent to the curriculum outlined in Program—E2, including the prescribed minimum requirements for a principal and a second teaching field, both of which must be certifiable.

3. complete the general curriculum requirements prescribed by the University for all undergraduate degrees.
\[
\frac{R_1}{R_1 + R_2} \cdot E_1 = E_2
\]

\[
\frac{R_1}{R_1 + R_2} \cdot 90 = 30
\]

\[
\frac{100}{100 + \theta^2} \cdot 9000 = 3001
\]
GENERAL STATEMENT

The School of Engineering has as its purpose the implementation of the general purposes of the University of Dayton in the development of professional attitudes and competencies within its area of academic disciplines.

The engineering curricula in each of the fields of chemical, civil, electrical, industrial, and mechanical engineering are drawn up for a four year minimum period.

No effort is spared to acquaint the student thoroughly with fundamental principles and to give him a clear insight into the analysis of engineering problems. While emphasis is laid on fundamental theory, continued attention is paid to the solution of practical problems for the purpose of illustrating scientific principles and pointing out their industrial applications.

The broader responsibilities of the engineering profession demand that the professional training of an engineer include at least an acquaintance with the humanities in order that scientific discoveries and developments by engineers may result in the real advancement of man. To help the young engineer achieve his purpose in life, the University offers, in addition to the prescribed engineering subjects, a wide selection of courses in the arts and sciences.

ENGINEERING MATHEMATICS

Since a sound knowledge of mathematics is essential for success in engineering, the School of Engineering tries to place each entering student at the proper level. Freshmen who are qualified will be placed in Mth 118, Analytic Geometry and Calculus I. Those who are not qualified will be placed in a lower level mathematics course.

DEGREE REQUIREMENTS

The Degrees—Bachelor of Chemical, Civil, Electrical, Industrial, and Mechanical
Engineering—are conferred at commencement if the following requirements have been fulfilled:

1) All prescribed courses outlined in the respective curricula must have been passed with a grade "D" or better. Courses may be scheduled in terms other than listed, however, all prerequisites and corequisites must be met;

2) The cumulative quality point average must be at least 2.0;

3) The student must have attended the School of Engineering at the University of Dayton during his senior year, and have carried at least thirty credit hours.

CURRICULUM FOR ALL ENGINEERING FRESHMEN

<table>
<thead>
<tr>
<th>Dept.</th>
<th>No.</th>
<th>Course</th>
<th>1st Term</th>
<th>2nd Term</th>
<th>3rd Term</th>
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<td>123</td>
<td>General Chemistry</td>
<td>3-3-4</td>
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<td>CPS</td>
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<td>Fortran Programming</td>
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<td>EGM</td>
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<td>Mechanics I</td>
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<td>MTH</td>
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<td>Engineering Graphics I</td>
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<td>Basic Problems in Philosophy I</td>
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</table>

¹Under "Term," 3-0-3 means 3 hrs. class, 0 hrs. laboratory, 3 hrs. credit.
²An introduction to the School of Engineering, the profession of engineering, and related topics.
³Non-Catholics take H-S Elective.

CHEMICAL ENGINEERING

Chemical engineering applies the principles of the physical sciences, economics and human relations to fields that pertain to processes and process equipment in which matter is treated to effect a change in state, energy or composition.

The first part of the curriculum provides a firm foundation in mathematics, physics and chemistry. The chemistry background is stressed in chemical engineering. Courses include inorganic, organic, and physical chemistry. The second part of the curriculum stresses chemical engineering topics such as transport phenomena, thermodynamics, kinetics, unit operations and processes, process control, materials of construction and design.
The Chemical Engineering department is located in Wohlleben Hall. Three stories of the north wing house the Unit Operations Laboratory. Experimental equipment includes units for the study of fluid flow, heat transfer, distillation extraction, filtration, evaporation and drying. The Process Control and Transport Phenomena Laboratories are located on the second floor. In addition to the instructional laboratories, the department has a wood working shop, pipe fitting shop, analytical laboratory and dark room.

The curriculum in chemical engineering serves as basic training for graduate study or for positions in diverse areas of the chemical industry.

PROGRAM—EN1: BACHELOR OF CHEMICAL ENGINEERING

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</table>

1Under “Term,” 3-0-3 means 3 hrs. class, 0 hrs. laboratory, 3 hrs. credit.
2Non-Catholic students take H-S Elective.
3In the senior year, students who are academically qualified may register for graduate level courses as Technical Electives. If a student, after graduation with a BChE degree from the University of Dayton, is admitted to Graduate Studies at the University of Dayton, the graduate level courses taken in the senior year may be accepted as part of the requirement for a Master’s degree in the Chemical Engineering Department.

CIVIL ENGINEERING

The curriculum is designed to give a thorough education in the principles fundamental to the civil engineering profession, so that the graduate is prepared to pursue to advantage any field of civil practice of advanced study.

During the first two years, emphasis is placed on those subjects underlying all engineering—English, mathematics, chemistry, physics, graphics, surveying, mechanics. The third and fourth years are devoted principally to technical subjects relative to hydraulic, sanitary, structural, highway, and soils engineering.

Engineering projects, completed or under construction, are visited under the guidance of the instructors. The Student Chapter of the American Society of Civil Engineers is very active, and close association is maintained with the Dayton Section of the American Society of Civil Engineers.

At the end of their Junior year, students who appear to be qualified for graduate study may elect to plan their programs so as to complete certain prerequisite courses during their Senior year for graduate credit, thus it is possible to complete the requirements for the bachelor’s degree and the master’s degree in a total of five years.
**PROGRAM—EN2: BACHELOR OF CIVIL ENGINEERING**

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<tr>
<td>EGM 303 Strength of Materials</td>
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N.B.: The number of credits in the 3rd term are less than 3.
PROGRAM—EN2—Continued

1 Under "Term," 3-0-3 means 3 hrs. class, 0 hrs. laboratory, 3 hrs. credit.
2 Three weeks special summer schedule which does not conflict with regular third term.
3 Non-Catholic students take H-S Elective.
4 May select from list of elective courses or by departmental approval select courses listed in Graduate Catalog. A senior student may apply to take additional 500 level courses for graduate credit toward a Master of Science in Civil Engineering degree at the University of Dayton.

ELECTRICAL ENGINEERING

The curriculum of electrical engineering is planned with the primary objective of providing a thorough knowledge of the fundamental laws of electricity and the application of these laws in electrical engineering.

Courses are arranged to give the student an understanding of basic principles and practices common to the various fields of electrical engineering so that he is prepared to begin specialization in the field of his choice or to pursue advanced study.

Proper attention is directed to an appreciation of the practical economic factors in the electrical world, and to the cultural and social qualities necessary for a successful career in the engineering profession.

PROGRAM—EN3: BACHELOR OF ELECTRICAL ENGINEERING

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Sophomore Year
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### Junior Year

### Senior Year

| CME   | 305 | Thermodynamics                      | 3-0-3    |          |          |
| ELE   | 410B-A | Seminar                            | 1-0-0    | 1-0-1    |          |
| ELE   | 413  | Communication Engineering          | 3-0-3    |          |          |
| ELE   | 431  | Energy Conversion                  | 3-0-3    |          |          |
| ELE   | 432  | Automatic Control Systems          | 3-0-3    |          |          |
| ELE   | 435L-6L | Electrical Engineering Lab. IV & V | 0-2-1    | 0-2-1    |          |
| ELE   | 437L  | Electrical Engineering Laboratory VI | 0-2-1    |          |          |
| ELE   | —    | Technical Electives                | 3-0-3    | 3-0-3    |          |
| H-S   | —    | Humanistic Social Studies Electives | 3-0-3    | 3-0-3    |          |
| INE   | 313  | Engineering Law                    | 2-0-2    |          |          |
|       |      |                                      | 16       | 14       |          |

1. Under "Term," 3-0-3 means 3 hours class, 0 hours laboratory, and 3 hours credit.
2. Courses may be scheduled in terms other than listed.
3. Selected from list approved by the Department of Electrical Engineering.

### INDUSTRIAL ENGINEERING

"Industrial Engineering is concerned with the design, improvement, and installation of integrated systems of men, materials, and equipment. It draws upon specialized knowledge and skill in the mathematical, physical, and social sciences together with the principles and methods of engineering analysis and design, to specify, predict, and evaluate the results to be obtained from such systems.""1

In accord with the purpose and goals of the University, the Industrial Engi-
The Department of Engineering has devised a specialized program in Industrial Engineering. It prepares students to use the quantitative, economic, and behavioral ingredients, and the processes of analysis and synthesis in design and decision making.

Students follow a program of study leading to broad and fundamental understanding of technology and of complex man and machine systems. Such a program is desirable for active participation as creative citizens and managers as well as for those who plan for other careers. However, the curriculum is especially designed for those preparing for a professional career in engineering. It includes chemistry, physics, mathematics, the engineering sciences, and courses in analysis and design. They lead to the application of knowledge to practical problems and decision making under economic constraints and uncertainty, and provide a balanced approach to lifelong career and educational development.

The curriculum recognizes understanding as being a desirable educational objective. To understanding it adds the social and technical design concepts needed by those who will be generating technological changes and the human interactions which have an even greater social impact.

Industry as used here means intelligent and purposeful human endeavor. Industrial Engineers, whose services were once largely restricted to manufacturing, now are engaged in organizations of all kinds: government, business, military, academic, financial. Industrial Engineering problems and practices are useful to all areas of human industry where employment is purposeful and systematic, where men give attention to achievement and are diligent in their attempts to accomplish objectives, and especially where land, capital, and labor meet and must be economically and efficiently related.

**PROGRAM—EN4: BACHELOR OF INDUSTRIAL ENGINEERING**

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**Junior Year**

**Senior Year**

| CME   | 305  | Thermodynamics                               |          |          | 3-0-3    |
| H-S   | —    | Humanistic-Social Studies Electives          | 3-0-3    | 3-0-3    |          |
| INE   | 410B-A| Seminar                                     | 2-0-1    | 2-0-1    |          |
| INE   | 421  | Reliability Theory                           | 3-0-3    |          |          |
| INE   | 430  | Engineering Systems Design I                 |          |          | 3-0-3    |
| INE   | 442-3| Work Design II & III                         | 2-2-3    | 2-2-3    | 3-0-3    |
| T E   | —    | Technical Electives                          | 3-0-3    | 3-0-3    |          |
| H-S   | —    | Elective                                     | 2-0-2    |          |          |
|       |      |                                              | 15       | 16       |          |

1 Official definition of the American Institute of Industrial Engineers.
2 Under "Term," 3-0-3 means 3 hrs. class, 0 hrs. laboratory, and 3 hrs. credit.
3 Non-Catholic students take H-S Elective.
4 An Honors Course may be added each term for students designated by Department Chairman.
5 Students may select from Life Sciences, Physical Sciences, including Mathematics and Computer Science; Engineering Sciences or Analysis and Design.

### MECHANICAL ENGINEERING

The curriculum of Mechanical Engineering is designed to give the student thorough training in the fundamental principles of the mechanical engineering profession and the application of these principles to pertinent problems.

The course sequence is arranged so that the student completes courses in mathematics and the sciences early in his program. Departmental courses are then
taken which build upon this scientific training. The course of studies includes lectures, recitations and laboratory practice.

Every attempt is made to prepare the student to accept the responsibilities of the profession upon graduation. The curriculum is designed to prepare the student equally well to enter the practice of engineering upon graduation, or to pursue an advanced degree through further study.

**PROGRAM—EN5: BACHELOR OF MECHANICAL ENGINEERING**

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1. Under "Term," 3-0-3 means 3 hrs. class, 0 hrs. laboratory, 3 hrs. credit.
2. Non-Catholic students take H-S Elective.
3. A technical course from other engineering departments or science may be elected with the approval of the Department Chairman.
OBJECTIVES
The Engineering Technology Division of the School of Engineering has as its objective the collegiate education of young men and women to be competent engineering and scientific technicians.

It is the philosophy of the Engineering Technology Division that this objective is best accomplished by:

1. Providing specialized technical courses which emphasize the use of rational thinking and the application of scientific principles to the practical solution of technological problems.

2. Providing courses in mathematics and basic science sufficient to support the technical courses and to prepare the student for future growth.

3. Providing education to prepare the student to communicate intelligently and to take his place in society as a responsible Christian citizen.

THE ENGINEERING TECHNICIAN
An engineering technician is one who works in the engineering field. His work requires the application of established engineering knowledge and methods combined with technical skills in the support of engineering activities. He differs from the craftsman and the draftsman in his knowledge of engineering theory and methods. He also differs from the engineer in his more specialized background and his use of technical skills.

It should be noted that the engineering technician is concerned with the application of established scientific and engineering knowledge and methods. Therefore, Engineering Technology programs consist of courses especially designed to emphasize the use of engineering knowledge. The engineering technician, as stated above, works in the support of engineering activities. He is usually involved in the design, testing, sales, and construction of products, and in some instances the supervision of craftsmen or other technicians. The engineering technician is a definite part of the scientific-engineering team. He works with the scientist who develops the theory, the engineer who seeks means of making effective use of this theory, and the skilled craftsman who works with tools to construct the finished product.

The current shortage of engineers has increased the use of engineering technicians by industry and engineering technicians themselves are in short supply. The need for competent engineering technicians educated at the college level is high and the future holds a bright prospect for those who are in this field.
PROGRAMS OFFERED

Associate Degree Curricula

The Engineering Technology Division offers programs in chemical technology, electronic engineering technology, industrial engineering technology, and mechanical engineering technology leading to the associate degree. These programs are five terms in length and include specialized technical subjects, non-technical subjects, mathematics and science. Upon satisfactory completion of the prescribed courses in the programs outlined on the following pages the student is awarded the Associate in Technology degree. The holder of such a degree is prepared to enter industry as a beginning engineering technician.

Bachelor of Technology Degree

Since education is a lifelong process, some engineering technicians desire to continue their education. In particular, many wish to broaden their technical background to include areas other than their associate degree specialization. The objectives of the Bachelor of Technology program are to offer graduates from the associate degree programs the opportunity to broaden themselves technically as well as culturally. The requirements for this degree are outlined in the program on a following page.

GUIDANCE AND COUNSELING

The facilities of the Guidance Center are available for Engineering Technology students. Staff members experienced in this type of program will be on hand before and during registration. Prospective students are encouraged to visit the campus or telephone for information regarding any of the programs offered.

CREDITS

All courses in Engineering Technology are evaluated on a semester hour basis. Recitation and similar classroom work generally require outside preparation, while laboratory or practice periods are usually self-contained.

CHEMICAL TECHNOLOGY

Chemical technology is designed to prepare students for technological services in chemical manufacturing plants and processing industries as well as for technical positions in chemical laboratories.

Emphasis is placed upon laboratory procedures for basic chemical analysis, especially quantitative analysis, certain non-technical subjects, mathematics, and physics.
# PROGRAM—T1: ASSOCIATE IN TECHNOLOGY WITH MAJOR IN CHEMICAL TECHNOLOGY

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| **Sophomore Year**                                                                                                                                                     |          |          |          |
| CTI   | 202 | Quantitative Analysis                 | 3-6-5    |          |          |
| CTI   | 203 | Physical Chemistry                    | 3-3-4    | 3-3-4    |          |
| CTI   | 206 | Instrumentation                        | 3-0-3    |          |          |
| CTI   | 208-9| Organic Chemistry                     | 3-3-4    | 3-3-4    |          |
| ITI   | 203 | Elements of Supervision               | 2-0-2    |          |          |
| STI   | 215 | Physics: Electricity                  |          |          | 2-2-3    |
| STI   | 216 | Physics: Heat, Light and Sound        | 2-2-3    |          |          |
| STI   | 252 | American Political Ideas              |          | 3-0-3    |          |
|       |     |                                       |          | 17       | 17       |

| **Junior Year**                                                                                                                                                        |          |          |          |
| CTI   | 309 | Chemical Engineering Technology       | 3-0-3    |          |          |
| CTI   | 305 | Materials Science                     | 3-0-3    |          |          |
| CTI   | 308 | Chemical Engineering Technology       | 2-3-3    |          |          |
| PHL   | 201 | Basic Problems in Philosophy II       | 3-0-3    |          |          |
| STI   | 234 | Report Writing                        | 2-0-2    |          |          |
| STI   | 251 | Economics of Industry                 | 3-0-3    |          |          |
|       |     |                                       |          | 17       |          |

1 Under "Term," 3-0-3 means 3 hrs. class, 0 hrs. laboratory, 3 hrs. credit.
2 Non-Catholic students may substitute a humanistic-social elective.
ELECTRONIC ENGINEERING TECHNOLOGY

Electronic engineering technology is designed to prepare students for services as engineering technicians in the modern industrial world. Emphasis is placed on the fundamentals of circuit-theory, electronics, and measurements in addition to related courses in mathematics, physics, and chemistry. The graduate is thus prepared to perform research and development, serve with manufacturers of electronic equipment, and with users of modern electrical and electronic devices. An E.C.P.D. accredited Engineering Technology curriculum.

PROGRAM—T2: ASSOCIATE IN TECHNOLOGY WITH MAJOR IN ELECTRONIC ENGINEERING TECHNOLOGY

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1Under “Term,” 3-0-3 means 3 hrs. class, 0 hrs. laboratory, 3 hrs. credit.
2Non-Catholic students may substitute a humanistic-social elective.

INDUSTRIAL ENGINEERING TECHNOLOGY

The curriculum in industrial engineering technology has as its objective the implementation of the broad purposes of the University in a college program of technical education by:

(1) Providing education to prepare students for subsequent development as responsible Christian citizens:

(2) Providing education in mathematics and basic sciences sufficient to support the specialized technical portion of the curriculum and to increase the student’s awareness of fundamental scientific principles in order to facilitate his future growth in an advancing technology;

(3) Providing specialized education designed to prepare students primarily for technological services to management in such industrial engineering areas as production, operations and control. It also covers the essentials of management with which foremen, supervisors, and administrative personnel in general are concerned.

Emphasis is placed on courses in motion and time study, production control, plant layout, quality control, and cost control. An E.C.P.D. accredited Engineering Technology curriculum.
PROGRAM—T3: ASSOCIATE IN TECHNOLOGY WITH MAJOR IN INDUSTRIAL ENGINEERING TECHNOLOGY

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²Non-Catholic students may substitute a humanistic-social elective.
MECHANICAL ENGINEERING TECHNOLOGY

This curriculum is designed to give the student a practical knowledge of the modern fundamental principles of mechanical engineering technology as they are applied in industrial and scientific endeavor.

Emphasis is placed on courses in applied mechanics; strength of materials; mechanisms; thermodynamics; fluid mechanics; industrial automation actuation; dies, jig and fixture design; machine design, and basic technical courses such as technical drawing, physics, mathematics and chemistry.

The non-technical courses English, speech and report writing are specially designed to teach a student how to formulate and deliver technical communications, both oral and written.

Typical mechanical engineering technician assignments are research and development laboratory technician, designer, technical report writer, erection and maintenance technician, technical sales, field service and customer relations technician, plant engineering technician and industrial automation actuation technician. An E.C.P.D. accredited Engineering Technology curriculum.
## PROGRAM—T4: ASSOCIATE IN TECHNOLOGY WITH MAJOR IN MECHANICAL ENGINEERING TECHNOLOGY

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<td>Industrial Materials and Processes</td>
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<td>Introduction to Engineering Technology</td>
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<td>Engineering Technology Math I, II</td>
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<td>Physics: Mechanics</td>
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<td>General Chemistry</td>
<td>3-3-4</td>
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<td>ENG</td>
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<td>Language and Thought</td>
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<td>Report Writing</td>
<td>3-0-3</td>
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<td>THL²</td>
<td>112</td>
<td>Foundations in Theology</td>
<td>17</td>
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### Sophomore Year

| ITI   | 203 | Elements of Supervision                     | 2-0-2    |          |          |
| MTI   | 104L| Graphical Computations                      | 0-6-2    |          |          |
| MTI   | 106L| Testing and Measurements                    | 0-3-1    |          |          |
| MTI   | 108L| Manufacturing Processes I, Lab              | 0-3-1    | 3-0-3    | 3-0-3    |
| MTI   | 221 | Strength of Materials                       | 3-0-3    |          |          |
| MTI   | 215 | Statics                                     |          |          | 1-3-2    |
| MTI   | 225 | Dynamics                                    | 2-0-2    |          |          |
| MTI   | 226L| Mechanisms                                  |          |          |          |
| MTI   | 321L| Dies, Jigs, and Fixtures                   |          | 1-3-2    |          |
| MTI   | 232 | Thermodynamics                              | 3-0-3    |          |          |
| MTI   | 231 | Fluid Mechanics                             | 3-0-3    |          |          |
| STI   | 207 | Engineering Technology Math III             | 5-0-4    |          |          |
| STI   | 215 | Physics: Electricity                        | 2-2-3    |          |          |
| STI   | 216 | Physics: Heat, Light and Sound              | 2-2-3    | 17       | 17       |
PROGRAM—T4—Continued

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<th>Dept.</th>
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<td>MTI</td>
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<td>Industrial Automation Actuation</td>
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</table>

1Under “Term,” 3-0-3 means 3 hrs. class, 0 hrs. laboratory, 3 hrs. credit.
2Non-Catholic students may substitute a humanistic-social elective.

BACHELOR OF TECHNOLOGY

The curriculum is designed to provide the opportunity for those who hold the Associate in Technology degree to continue their education. Emphasis is placed upon broadening the student’s technical knowledge. Flexibility in the curriculum permits the student with his advisor’s consent to plan an individual program based on his needs, interests, educational background and occupational objectives.

PROGRAM—T5: BACHELOR OF TECHNOLOGY

Degree requirements for the Bachelor of Technology:

A. Completion of the requirements for the Associate in Technology degree.

B. Completion of a minimum 46 additional credit hours distributed as follows:

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X Directories

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Hagenhoff, Sister Mary Pelagia, M.S.C., Education, Associate Professor—A.B., Villanova University, 1927; M.A., Villanova University 1935; Ph.D., Catholic University of America, 1946.

Poirtr, S.M., Thomas Leo, Languages, Professor—B.S., University of Dayton, 1907; A.B., University of Dayton, 1911; B.S. Music, Extension Conserva-
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Anderson, Gladys M. (1960), Education, Associate Professor — B.S., Ball State Teachers College, 1945; M.A., Indiana University, 1946; Ph.D., Ohio State University, 1970.


Anderson, Philip J. (1969), History, Assistant Professor—B.S., St. Louis University, 1963; Ph.D., St. Louis University, 1969.


Arons, Peter L. (1965), English, Assistant Professor—A.B., New York University, 1957; M.A., Yale University, 1958; Ph.D., Yale University, 1964.


Averdick, Joseph E. (1954), Engineering Technology, Associate Professor—B.S., University of Dayton, 1924.

Back, Stanley J. (1959), Mathematics, Associate Professor—B.S., University of Dayton, 1957; M.S., Purdue University, 1959.


Bajpai, Praphulla K. (1964), Biology, Associate Professor—B.V.Sc. & Am., Agra University, 1958; M.V.Sc., Agra
University, 1960; M.Sc., Ohio State University, 1963; Ph.D., Ohio State University, 1965.

Baker, Richard R. (1947), Philosophy, Professor—A.B., University of Notre Dame, 1931; M.A., University of Notre Dame, 1934; Ph.D., University of Notre Dame, 1941.

Balachandran, Venkataraman (1969), Industrial Engineering, Assistant Professor—B.S., Annamalai University, 1959; M.S., Annamalai University, 1963; M.S.E., University of Dayton, 1968.

Balata, Barbara M. (1967), Physical and Health Education, Assistant Professor—B.S., Bowling Green State University, 1965; M.A., Northwestern University, 1966.


Barna, James D. (1969), Psychology, Assistant Professor—B.A., Mount St. Mary's, 1962; M.A., University of Detroit, 1964; Ph.D., St. Louis University, 1969.

Barnes, Michael H. (1968), Theological Studies, Assistant Professor—A.B., St. Louis University, 1961; Ph.L., St. Louis University, 1962.


Barrish, S.M., Andrew J. (1968), Performing and Visual Arts-Art, Assistant Professor—B.S. in Ed., University of Dayton, 1950; M.A., Ohio State University, 1957.


Bauer, Paul T. (1967), Mechanical Engineering, Assistant Professor—B.S., Parks College of St. Louis University, 1963; M.S. in M.E.; Oklahoma State University, 1965; Ph.D., Oklahoma State University, 1968.


Beauregard, Erving E. (1947), History, Professor—A.B., University of Chicago, 1942; M.A., University of Massachusetts, 1944.


Bell, Robert G. (1970), Chemistry, Assistant Professor—B.A., Bradley University, 1959; Ph.D., St. Louis University, 1964.


Ruhlman, S.M., Francis, Library, Associate Professor — B.A., University of Dayton, 1924; M.A., Our Lady of the Lake, 1936.

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Anderson, Gladys M. (1960), Education, Associate Professor — B.S., Ball State Teachers College, 1945; M.A., Indiana University, 1946; Ph.D., Ohio State University, 1970.


Anderson, Philip J. (1969), History, Assistant Professor — B.S., St. Louis University, 1963; Ph.D., St. Louis University, 1969.


Arons, Peter L. (1965), English, Assistant Professor — A.B., New York University, 1957; M.A., Yale University, 1958; Ph.D., Yale University, 1964.


Averdick, Joseph E. (1954), Engineering Technology, Associate Professor — B.S., University of Dayton, 1924.

Back, Stanley J. (1959), Mathematics, Associate Professor — B.S., University of Dayton, 1957; M.S., Purdue University, 1959.


Bajpai, Praphulla K. (1964), Biology, Associate Professor — B.V.Sc. & Am., Agra University, 1958; M.V.Sc., Agra
University, 1960; M.Sc., Ohio State University, 1963; Ph.D., Ohio State University, 1965.

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Tsui, James B. Y. (1965), Electrical Engineering, Associate Professor—B.S.E.E., National Taiwan University, 1957; M.S.E.E., Marquette University, 1961; Ph.D.E.E., University of Illinois, 1965.

Tsui, Susan L. (1965), Library, Assistant Professor—B.A., National Taiwan University, 1961; M.L.S., University of Illinois, 1964.


Updyke, Joseph F. (1947), Accounting, Associate Professor—B.S., University of Dayton, 1947.


Vigle, John B. (1959), Assistant Director of University Libraries, Associate Professor—A.B., University of Kentucky, 1949; M.S. in L.S., University of Kentucky, 1956.

Vincze, Mary (1962), Library, Instructor—B.S., Hungarian Royal Academy, 1933.


Walden, Esther (1964), Business Management, Professor—B.S., Ohio State University, 1941; M.B.A., Ohio State University, 1959; Ph.D., Ohio State University, 1962.


Walsh, Joseph H. (1962), Chemistry, Associate Professor—B.S., University of Dayton, 1956; Ph.D., Georgetown University, 1963.

Walter, Juergen H. (1967), Languages, Assistant Professor—B.A., Universitat Hamburg (Germany), 1964; M.A., Stanford University, 1966.


Weiss, Roger F. (1965), Civil Engineering, Assistant Professor — B.S.C.E., University of Dayton, 1965; M.S.E., University of Dayton, 1969.


Wesselkamper, Thomas C. (1968), Computer Science, Assistant Professor (on leave) — B.S., University of Dayton, 1957; M.S., University of Notre Dame, 1960.

Westerheide, John R. (1965), Research, Assistant Professor — B.M.E., University of Dayton, 1947.

Whalen, Jr., Charles W. (1952), Economics, Professor (on leave) — B.S., University of Dayton, 1942; M.B.A., Harvard University, 1946.


Wilder, Jesse H. (1953), Mechanical Engineering Technology, Professor — B.S.M.E., Duke University, 1947; M.S., State University of Iowa, 1949; Reg. Prof. Eng.

Willis, Gerald L. (1962), Biology, Assistant Professor — B.S., University of Dayton, 1959; M.S.T., Miami University, 1963.


Wottle, S.M., Vincent J. (1938), Chemistry, Associate Professor (on leave)—B.S., University of Dayton, 1936; M.S., Catholic University of America, 1938; Ph.D., Ohio State University, 1951.


Yaney, Perry P. (1965), Physics, Associate Professor—B.S.E.E., University of Cincinnati, 1954; M.S., University of Cincinnati, 1957; Ph.D., University of Cincinnati, 1963.


Zeinz, S.M., Rev. Joseph H. (1964), Languages, Associate Professor—A.B., Holy Cross College, 1938; M.A., Catholic University of America, 1941; Ph.D., Ohio State University, 1965.

PART TIME INSTRUCTORS

Abramson, William, M.D., Department of Chemistry
Askins, Donald R., B.Ch.E., Engineering Technology
Bankston, Thomas, M.S. in Ed., Department of Elementary Education
Baughan, Kathryn F., B.A., Department of Business Management
Becker, William J., Ph.D., Department of Chemistry
Bernhard, Martha V., M.A., Department of Home Economics
Black, Richard, B.A., Department of Performing and Visual Arts—Art
Cavally, Joan, Department of Performing and Visual Arts—Music
Cavally, Robert, Department of Performing and Visual Arts—Music
Dailey, Alan D., Ph.D., Department of Economics
Davis, William E., M.B.A., Department of Business Management
DeSando, Richard J., Ph.D., Department of Chemistry
Dillon, Mary Joyce, B.A., Department of Languages

Dorner, Gail, B.F.A., Department of Performing and Visual Arts—Art
Drew, Basil, Department of Performing and Visual Arts—Music
Drieshach, W. C., Jr., Department of Performing and Visual Arts—Art
Dunn, Louise, M.S., Department of Home Economics
Elbaum, Jerome K., B.S., Department of Mechanical Engineering
Emery, John, B.F.A., Department of Performing and Visual Arts—Art
Emerick, J. T., M.S., Department of Industrial Engineering Technology
Endres, Thomas E., M.S.E., Department of Mechanical Engineering
Enoch, Robert A., B.M., Department of Performing and Visual Arts—Music
Fleck, E. Roland, M.A., Department of Foundations of Education
Fornshell, Chad, M.S., Department of Elementary Education
Freed, John W., M.A., Engineering Technology
Freeman, Bella, M.S., Department of Home Economics
Gallico, Margaret, M.A., Department of Psychology
Gast, Sr. Cordelia, M.S. in Ed., Department of Performing and Visual Arts—Art
Gibson, John D., M.S., Department of Business Management
Gnauck, Brian, Ph.D., Department of Economics
Goodemote, John, B.S., Engineering Technology
Gordhammer, Eddie, M.B.A., Department of Business Management
Grismer, Charles C., C.P.A., Department of Accounting
Guarriello, Thomas, M.A., Department of Psychology
Hackman, Richard, M.S. in Ed., Department of Elementary Education
Halsey, Samuel A., Jr., M.B.A., Department of Accounting
Hamilton, Donald E., M.A., M.B.A., Department of Business Management
Hanes, Lewis F., Ph.D., Department of Psychology
Harshman, Everett E., B.S., Department of Industrial Engineering Technology
Heckman, Robert, Ph.D., Department of Business Management and Psychology
Herron, John R., M.A., Department of Geology
Hinkle, Russell, Department of Performing and Visual Arts—Music
Hoefling, Raymond, B.S., Department of Industrial Engineering Technology
Holland, Martin, M.B.A., Department of Business Management
Hughes, Howard, M.A., Department of Psychology
Jean, Evelyn, M.A., Department of Languages
Katz, Paul, D.Mus., Department of Performing and Visual Arts—Music
Lasater, Nancy, B.S., Home Economics
Levin, Alma J., M.A., Department of Education
Lokai, Clement B., Jr., M.B.A., Department of Computer Science
Luthman, Richard E., M.B.A., Department of Accounting
May, William, M.B.A., Department of Business Management
McWhirt, Mary C., M.A., Engineering Technology
Messina, Alfred, B.S., Engineering Technology
Miller, John A., M.B.A., Department of Industrial Engineering Technology
Moore, Jack B., M.S., Department of Industrial Engineering Technology
Moore, Thomas J., Ph.D., Department of Psychology
Murray, John, B.S., Department of Accounting
Nagle, Daniel A., L.L.B., Department of Industrial Engineering
Needham, Henry J., Department of Performing and Visual Arts—Music
Needham, Robert L., M.B.A., Department of Industrial Engineering Technology
Nelson, Gilbert H., Ph.D., Department of Chemistry
Nixon, Charles W., Ph.D., Department of Psychology
Opferkuch, Robert E., Jr., M.Ch., Department of Chemical Technology
Overly, Donald, D.Ed., Department of School Administration
Perkins, Betty A., M.A., Department of History
Perz, S.M., John R., Ph.D., Department of Languages
Petrovich, Rev. Dusan, M.Ed., Department of Performing and Visual Arts—Art
Quinn, Stephen R., LL.B., Department of Business Management
Reger, John, Department of Performing and Visual Arts—Music
Reingold, Irwin, B.A., Department of Communication Arts
Reynolds, Harold I., B.Ch., Department of Chemical Technology
Richeson, Warren, M.S., Engineering Technology
Riley, John E., M.A., Department of Psychology
Riley, William D., Department of Mechanical Engineering
Rogus, Joseph, Ph.D., Department of Secondary Education
Rosser, Eloise, M.S. in Ed., Department of Secondary Education
Roth, George J., B.M.E., Department of Mechanical Engineering
Rudolph, Sr. Cathering, O.S.F., M.S. in Ed., Department of Elementary Education
Saluke, William M., B.Ch., Department of Chemical Technology
Schneider, S.M., Francis W., M.A., Department of Performing and Visual Arts—Music
Sharkey, Gerald, B.A., Department of Business Management
Sikora, John, M.S., Department of Computer Science
Smith, David, M.S., Department of Performing and Visual Arts—Art
Spencer, W. William, Ph.D., Department of Chemistry
Spicer, Donald L., B.Ch., Department of Chemical Engineering
Steinlage, L. J., M.S., Department of Business Management
Stevenson, Hugh, M.B.A., Department of Business Management
Trentman, Donald J., B.S., Department of Industrial Engineering Technology
Tupper, Nathan G., M.S., Department of Mechanical Engineering
Vlahos, Lester L., M.S., Department of Communication Arts
Vongruenigen, Fred, M.A. in Ed., Department of Performing and Visual Arts—Art
Walker, John H., M.S., Department of Mechanical Engineering
Wendeln, Donald E., B.M.E., Department of Mechanical Engineering Technology
Wening, Genevieve, Department of Education
Werner, Walter, B.S., C.P.A., Department of Accounting
Whelan, Paul A., Ph.D., Department of History
Wiggenhorn, John, M.A., Department of Performing and Visual Arts—Music
Wildman, John, Department of Performing and Visual Arts—Music
Yaross, A.D., M.B.A., Department of Business Management

RESEARCH STAFF

Andrews, Charles R. (1952), Senior Research Engineer—B.M.E., University of Dayton, 1951; M.B.A., Xavier University, 1963; Registered Professional Engineer.
Berens, Alan P. (1969), *Research Statistician*—B.S., University of Dayton, 1955; M.S., Purdue University, 1957; Ph.D., Purdue University, 1963.


Busch, Gerald E. (1952), *Assistant to the Director, Research Institute*—B.S., University of Dayton, 1952; M.B.A., Xavier University, 1960.


Crouch, Jack G. (1969), *Principal Investigator*—B.S., West Point, 1945; M.S., University of Michigan, 1951; Ph.D., University of Michigan, 1968.

Davison, Joseph E. (1966), *Research Metallurgist*—B.S., St. Louis University, 1960; M.S., Iowa State University, 1964; Ph.D., Iowa State University, 1966.


Dueweke, Paul J. (1968), *Associate Research Physicist*—B.S., Wayne State University, 1966; M.S., University of Dayton, 1968.
Duvall, Donovan S. (1964), Research Chemist—B.S., Ohio State University, 1951.

Edmonds, Paul (On Leave of Absence), (1963), Associate Research Microbiologist—B.S., Kentucky State, 1955; B.S., Miami University, 1963; M.S., University of Dayton, 1968.

Engel, Olive G. (1970), Research Chemist—B.S., Florida State University, 1933; M.S., Florida State University, 1939; Ph.D., University of North Carolina, 1950.

Engler, Nicholas A. (1952), Senior Research Physicist—B.S., University of Dayton, 1947; M.S., University of Cincinnati, 1949.


Ford, Frederic E. (1969), Assistant Research Chemist—B.S., University of Vermont, 1941; M.S., University of Virginia, 1949.

Gerdeman, Dennis A. (1962), Associate Research Engineer—B.M.E., University of Dayton, 1962; Registered Professional Engineer.


Hecht, Norman L. (1963), Associate Research Ceramist—B.S.Cer.E., Alfred University, 1960; M.S., Alfred University, 1968.

Heyda, James F. (1970), Senior Research Mathematician—B.S., University of Chicago, 1935; M.A., Michigan State University, 1937; Ph.D., University of Illinois, 1940.

Hemmert, William F. (1969), Assistant to the Director, Research Institute—B.S., Ohio State University, 1964.


Hovey, William J. (1953), Research Engineer—B.S., University of Dayton, 1952; M.S., Ohio State University, 1967; Registered Professional Engineer.


Kahle, Donald A. (1955), Research Engineer—B.E.E., University of Dayton, 1951; Registered Professional Engineer.


Keller, Kathleen (1969), Assistant Research Chemist—B.S., Notre Dame College, 1965; M.S., Ohio State University, 1968.


Logan, J. David (1970), *Research Mathematician*—B.S., Ohio State University, 1966; M.S., Ohio State University, 1968; Ph.D., Ohio State University, 1970.


March, Jacqueline F. (1968), *Associate Research Chemist*—B.S., Flora Stone Mather College, 1937; M.S., Western Reserve, 1939.


Meese, Jon M. (1970), *Associate Research Physicist*—B.S., University of Cincinnati, 1961; M.S., Purdue University, 1964; Ph.D., Purdue University, 1970.


Militello, Joseph (1965), *Assistant to the Director, Research Institute*—B.S., University of Detroit, 1961; M.B.A., University of Dayton, 1970.


Peterson, Dart G. (1969), *Assistant to the Director, Research Institute*—B.A., Western Reserve University, 1948.


Reeves, Jerry B. (1967), Associate Research Physicist—B.S., North Texas State University, 1965; M.S., North Texas State University, 1967.
Ryan, Patrick J. (1966), Research Engineer—B.S., Iowa State University, 1947; M.S., Notre Dame University, 1958.
Scheffler, Frederic L. (1961), Research Engineer—B.S., Purdue University, 1957; M.S., University of Michigan, 1959.
Shirazi, Mehdi (1968), Associate Research Mathematician—B.S.M.E., University of Bombay, 1946; B.S.E.E., University of Bombay, 1947; M.A., University of Kansas, 1954.
Standage, Arthur E. (1967), Senior Research Chemist—B.S., University of Sheffield, 1953; Ph.D., University of Sheffield, 1957.
Trampus, Anthony (1970), Research Mathematician—B.S., Case Institute of Technology, 1951; M.S., George Washington University, 1953; Ph.D., Case Institute of Technology, 1957.
Whitford, Dale H. (1952), Senior Research Engineer—Aeronautical Engineer, University of Cincinnati, 1951; Registered Professional Engineer.
Wiff, Donald R. (1967), Associate Research Physicist—B.S., Capital University, 1958; M.S., Kent University, 1960; Ph.D., Texas A & M University, 1966.
Wurst, John C. (On Leave of Absence), (1957), Research Engineer—B.M.E., University of Dayton, 1957; Registered Professional Engineer; M.S.M.E., University of Dayton, 1968.

SUPPORTING RESEARCH STAFF

Charles Acton, Electro-Mechanical Technician; Charles Allen, Laboratory Technician; Robert J. Andrews, Junior Materials Technician; Frederick M. Azama, Senior Machinist; Michael S. Barger, Field Representative; Lester R. Bartimay, Electronics Technician; Arthur K. Behme, Plastics Technician; Charles E. Bell, Senior Mechanical Technician; Adolph T. Biermann, Senior Metallurgical Technician; Sarah J. Bintz, Junior Technical Illustrator; Sigmund W. Brzezicki, Senior Mechanical Technician; Jerald L. Burkett, Senior Chemical Technician; Byron Byrd, Junior Fibers Technician; William D. Cambron, Mechanical Technician; Paul J. Campbell, Electro-Mechanical Technician; William E. Click, Plastics Technician; Gary A. Clinehens, Senior Coatings Technician; Ronald Cornwell, Fibers Technician; Timothy J. Courney, Junior Coatings Technician; Henry A. DeMarey, Supervisor, Graphic Arts; David V. Dempsey, Senior Metallurgical Technician; Roland W. Ditmer, Elastomers Technician; Gary W. Doll, Chemical Technician; Walter L. Doughty, Mechanical Technician; John N. Dues, Plastics Technician; Duane E. Earley, Senior X-Ray Technician; John H. Eblin, Mechanical Technician; Richard N. Ely, Senior Electronics Technician; Howard B. Evans, Electronics Technician; Charles C. Fowler, Senior Plastics Technician; George W. Fultz, Lubricants Technician; Richard L. Fusek, Electro-Optical Technician; Robert E. Gooding, Senior Machinist; Philip A. Graf, Supervisor, Manual Data Processing; James L. Graham, Junior Research Technician; Richard A. Grant, Glassblowing Specialist; James E. Green, Senior Electro-Mechanical Technician; Terry L. Green, Chemical Technician; David A. Hahn, Senior Lubricants Technician; Stephen J. Hanchak, Senior Materials Technician; John T. Hartness, Plastics Technician; Thomas R. Henderson, Electro-Mechanical Technician; Jacque D. Henes, Physics Technician; James C. Holverstott, Chief Technician; Charles Humston, Junior
Technical Illustrator; Charles J. Hurley, Chief Coatings Technician; Charles D. Hutchins, Supervisor, General Laboratory; Jerome Ingram, Senior Technical Illustrator; Donald E. Johnson, Mechanical Specialist; John P. Jones, Machinist; Phillip Kern, Mechanical Technician; Keith Kettler, Senior Electronics Technician; John C. Kidd, Laboratory Technician; Andrew Kraus, Metallurgy Technician; Ronald J. Kuhbander, Senior Plastics Technician; Patrick Larger, Junior Metallurgy Technician; Russell D. Larson, Senior Electronics Technician; Robert E. Leasure, Metallurgical Technician; Robert Leese, Metallurgical Technician; Michael F. Lehman, Mechanical Technician; Charles Lovett, Junior Plastics Technician; Henry F. Maas, Coatings Technician; Samuel Macy, Electronics Technician; John Mansperger, Junior Field Technician; Richard J. Marton, Senior Electro-Mechanical Technician; David C. Maxwell, Senior Mechanical Technician; Mark Meister, Electronics Technician; Raymond J. Miller, Senior Plastics Technician; William C. Miller, Fibers Technician; Edward A. Moffett, Field Representative; John F. Moreau, Senior Photographic Technician; Ronald P. Mortimer, Elastomers Technician; David T. Mott, Electronics Technician; Louis A. Muhic, Senior Electronics Technician; Donald Mullen, Mechanical Technician; Peter Muth, Machinist; Dale E. McCullum, Senior Ceramics Technician; Susan McKee, Junior Draftsman; James C. McKiernan, Senior Polymers Technician; James W. Naughton, Senior Electro-Mechanical Technician; Nicholas J. Olson, Senior Plastics Technician; Dale S. Opela, Senior Electro-Mechanical Technician; Michael L. Parin, Mechanical Technician; Donnie Partin, Electronics Technician; Frederick J. Pestian, Supervisor, Fabrication Shop; Robert J. Petitt, Field Representative; L. Dee Pike, Chemical Technician; Howard W. Polley, Elastomers Technician; Gary E. Price, Electronics Technician; Paul L. Proshek, Senior Coatings Technician; Danny Ransom, Junior Electronics Technician; Lacy W. Ransom, Electronics Technician; Michael P. Riley, Junior Graphic Arts Technician; Richard A. Redman, Field Technician; Dorothy Sargent, Research Assistant, Biology; Jack Schmermund, Electronics Technician; Bruce F. Schreiber, Electro-Mechanical Technician; Charles W. Schroll, Ceramics Technician; Lawrence W. Sears, Electro-Mechanical Technician; Larry Shields, Junior Field Technician; Lewis A. Shiverdecker, Electro-Mechanical Specialist; Clyde E. Smith, Supervisor, Electronics Laboratory; Eugene J. Soltis, Senior Instrumentation Technician; Edward A. Strader, Instrumentation Technician; Rolland J. Strong, Photographic Technician; Henry R. Taylor, Senior Electro-Mechanical Technician; Francis W. Timbo, Mechanical Technician; Charles A. Tobin, Chemical Technician; Joseph F. Umina, Senior Electronics Technician; Roger L. Vissoc, Mechanical Technician; David A. Walsh, Senior Science Technician; David Weldy, Junior Materials Technician; LeRoy Whittaker, Metallurgical Technician; Thomas H. Wical, Senior Elastomers Technician; Guy S. Williams, Electronics Specialist; Lawrence A. Wogoman, Senior Electro-Mechanical Technician; Donald Woleslagle, Junior Field Technician; Hiram Woods, Senior Elastomers Technician; Walter Zorning, Junior Field Technician; Robert J. Zuehlke, Senior Electronics Technician.
OFFICE FOR COMPUTING ACTIVITIES

McAdams, Ronald L. (1959), Assistant Director—B.A., Manchester College, 1959
Goffena, Ida M. (1969), Secretary to the Director
Lacy, Karen (1969), Secretary to the Assistant Director

Administrative Systems Development
DeJarnette, Waltraud (1970), Systems Analyst
Borchers, Anne (1968), Programmer
Dalhamer, George (1970), Programmer/Analyst—B.S., Miami University, 1970
Hunter, Don (1964), Junior Programmer
Miller, Barbara (1970), Secretary—A.B., University of Dayton, 1968.

Operations
Zeh, Richard R. (1962), Systems Controller
Cron, Steve (1969), Programmer
Hitchcock, Karen (1969), Programmer
Michel, Daniel (1966), Programmer
Cox, David A. (1968), Senior Computer Operator
Cain, Candice (1969), Senior Computer Operator
Speaks, Bobbie (1969), Senior Computer Operator
Furlong, Toni (1970), Junior Computer Operator
Galbraith, Terry (1970), Junior Computer Operator
Baccus, Sandy (1967), Dispatcher

Data Services
Goodpastor, Patricia (1967), Supervisor of Data Preparation
Garner, Linda (1967), Secretary

Academic Service
Achstetter, Roberta (1970), Technician/Programmer

Systems Programming & Support
Pugh, John (1969), Manager—B.S., Ohio University, 1952.

Community Systems
Chico, Leo (1969), Manager—B.S., West Virginia University, 1951.
Meineke, Judy (1970), Secretary
CLERICAL
Cheryl Abell, Susan Amsbaugh, Karen Ashurst, Jeanne Aubry, Aretta Bailey, Lynda Bockrath, Doris Botkins, Joanda D’Antuono, Cynthia Dapore, Jane Duibley, Roberta Duwell, Veronica Forster, Carol Frisk, Saundra Fusek, Carol Garner, Laquita Garrison, F. Sue Geesen, Sue Gillette, Martha Haacke, Melinda Herold, Carolyn Hilliard, Jane Hogan, Barbara Horning, Patricia Karns, Dorothy Keyes, Judy Klosterman, Joyce Lightner, Carma Merkert, Jean McLean, Sally McLean, Nancy Mills, Janet O’Donnell, Vicki Oyler, M. Helen Rice, Margaret Roe, Audrey Sachs, Paula Saidleman, Gail St. Felix, Sheryl Stanaway, Carol Steele, Deborah Stoll, Jennie Swann, Beverly Todd, Cynthia Tooley, Mary Wright.

PSYCHOLOGICAL SERVICES CENTER STAFF
Rev. Andrew L. Seebold, S.M., Administrative Director; Lloyd A. Rensel, Director Testing Services; Charles H. Scheidler, Chief Psychologist; John E. Riley, Director Veterans Guidance and Counselor; Howard P. Stevens, Counselor; Eleanor Anderson, Counselor; Dennis Maloy, Counselor; Eileen A Myers, Supervisor, Psychometrist; Mary Ellen Donohue, Psychometrist; Mary Krueger, Supervisor Test Processing; Elaine Carey, Psychometrist; Bette Rensel, Psychometrist; John Ubbink, Psychometrist; Winifred E. Goodman, Psychometrist; Cynthia Matsumara, Psychometrist; Mary Helen Fussner, Secretary; Mary C. McGlone, Secretary; Barbara Hamberg, Receptionist; Christel Conrad, Clerical; LaDonna Ferrarro, Clerical.

ATHLETIC STAFF
Thomas J. Frericks, Director of Athletics; Harry C. Baujan, Assistant to the Chairman of the Board of Athletic Control; Donald J. Donoher, Head Basketball Coach; William B. Cassidy, Freshman Basketball Coach; Robert Hooper, Assistant Basketball Coach; John E. McVay, Head Football Coach; Joseph M. Eaglowski, Assistant Football Coach; Wallace Neel, Assistant Football Coach; Leonard J. Fontes, Assistant Football Coach; James Gruden, Assistant Football Coach; Mike McKeever, Freshmen Football Coach; Ted Uritis, Assistant Freshmen Football Coach; William Mayo, Assistant Freshmen Football Coach; Edward C. Kwest, Trainer; Ken Keck, Equipment Manager; Dr. George Rau and Dr. Edw. Leschansky, Team Physicians; Ted Uritis, Golf Coach; Shaw Emmons, Tennis Coach; Walt DeAnna, Ice Hockey Coach; Ray O’Hanlon, Soccer Coach; Stam Bulugaris, Wrestling Coach; Gene Schill, Director of Promotion and Public Relations; Gary McCans, Ticket Manager; Jack R. Brown, Consultant to the Ticket Office; Thomas G. Dowling, Business Manager of Athletics; Herbert J. Dintaman, Director of Intramurals and Director of Facilities; James W. Hoover, Administrative Assistant.
HEALTH SERVICE STAFF

Administration Director: Rev. Charles Collins, S.M.
Medical Director: John H. Dirckx, M.D.
Religious Services: Fr. Francis Langhirt, S.M.
Supervisor: Catherine Kirk, R.N.


XI Courses of Instruction

ACCOUNTING (ACC)

Edward W. Rodgers, Chairman
Professor: Hoben
Associate Professors: Clark, Eley, Ellis, Fioriti, Rodgers
Assistant Professors: Paperman, Sanford, Wise
Instructor: Nelson
Part-time Instructors: Grismer, Halsey, Luthman, Murray, Werner

Acc 203. Survey of Accounting
THREE CREDIT HOURS
An introduction to the basic principles and concepts of accounting and of the financial statements, with emphasis on understanding accounting terminology and the reasons for accounting conventions and practices; includes an introduction to management uses of accounting data and reports. This course is intended to furnish non-business graduates with a foundation in accounting necessary for graduate business study.

Acc 207-208. Principles of Accounting
SIX CREDIT HOURS
An introduction to accounting terminology, concepts, and conventions, for the business student. Develops an understanding of the purposes of all financial statements, including conventional published reports as well as other special reports for use by business managers. This is a prerequisite for all upper level accounting courses except Acc 301.

Acc 301. Financial Reporting and Administration
THREE CREDIT HOURS
An introduction to accounting and financial procedures, concepts, and terminology. The course is intended to serve non-business students, especially social science majors, with a usable introduction to financial statements and other accounting reports, including institutional budgets and financial control procedures.

Acc 303. Cost Accounting
THREE CREDIT HOURS
An introduction to the purposes and methods of cost accounting. Embraces methods for determining product costs, but emphasizes procedures for effecting control of costs and the use of cost accounting data for managerial decision making.

Acc 304. Advanced Cost Accounting
THREE CREDIT HOURS
This course explores the literature of cost accounting and managerial accounting, emphasizing concepts and the theoretical or philosophical basis of cost accounting methodology, and reconciles divergent views on controversial subjects. The relationship of cost accounting to economics and management concepts is also emphasized.

Acc 305-306. Intermediate Accounting I & II
SIX CREDIT HOURS
A deeper study of the elements of financial statements, along with coverage of alternative accounting procedures and practices. Emphasizes accounting concepts and principles, and relies upon current professional pronouncements. Gives comprehensive coverage of the most essential theories and practices as a basis for further accounting study.
ACC 308. ADVANCED ACCOUNTING
THREE CREDIT HOURS
This course introduces the student to some of the more specialized accounting subjects such as special sales procedures, insolvencies, estates and trusts, branch and home office, and consolidated statements.

ACC 312. GOVERNMENTAL ACCOUNTING
THREE CREDIT HOURS
Accounting for institutions, municipalities, and for state and federal governments; organization; procedure, budget, accounts and records, reports.

ACC 340. FUNDAMENTALS OF BUSINESS DATA PROCESSING
THREE CREDIT HOURS
Prerequisite Acc 207-208 and Bus 101. A course designed to give the student an understanding of the relationship between business systems and data processing equipment. Emphasis is placed on understanding business operations and the design of systems to provide business management with information useful in decision making.

ACC 341. MANAGEMENT INFORMATION SYSTEMS
THREE CREDIT HOURS
Prerequisite Acc 340. A study of simple and complex management information systems including electronic data processing applications, and the evolution of integrated systems; introduction of structured decision making functions into systems is emphasized.

ACC 401. AUDITING PRINCIPLES
THREE CREDIT HOURS
Introduction to standards for auditing procedures; accountants' reports and their implications; emphasis is on ethics and other aspects of public accounting practice, and on application of generally accepted accounting principles.

ACC 407. FEDERAL INCOME TAX ACCOUNTING
THREE CREDIT HOURS
A conceptual, rather than a procedural, interpretation of the income tax portions of the current Revenue Act. Emphasis is placed on provisions which influence the business decisions of individuals and business firms.

ACC 408. FEDERAL, STATE, AND LOCAL TAXES
THREE CREDIT HOURS
An interpretation of the social security, estate gift and excise tax portions of the current Revenue Act. A study of income, franchise, property, sales and payroll taxes currently typical in states (particularly Ohio) and municipalities.

ACC 413. ADVANCED ACCOUNTING PROBLEMS
THREE CREDIT HOURS
A comprehensive review of accounting principles with emphasis on solutions of specific problems. Useful as a guide for preparation for the C.P.A. examination.

ACC 414. SEMINAR IN ACCOUNTING
THREE CREDIT HOURS
Course consists of a study of current topics by individual reports, student panel discussions, open class discussions, case studies, and outside professional speakers. Recommended to seniors in accounting. Permission of instructor required.

Administrative Sciences (Adm)

ADM 100. SEMINAR
ONE TO SIX CREDIT HOURS
ADM 200. SEMINAR
ONE TO SIX CREDIT HOURS
ADM 300. SEMINAR
ONE TO SIX CREDIT HOURS
ADM 400. SEMINAR
ONE TO SIX CREDIT HOURS

Opportunities for students to explore interdisciplinary relationships between administration, its environment, and other fields.
African and Afro-American Studies (AAS)

Mr. Roderick John McDavis, Coordinator
Instructors: Gay, Vera, Brower Jr., Martin

AAS 300. AFRO-AMERICAN POETRY
Five major Black writers: Langston Hughes, Robert Hayden, Gwendolyn Brooks, M. B. Tolson, and LeRoi Jones.

AAS 310. BLACK NATIONALISM IN AMERICA
Development of Black Nationalism in Dayton, Ohio. History, purpose, activities, and individuals of Black Nationalism.

AAS 311. AFRO-AMERICAN POLITICS
The Revolution of the Black man, as well as the Revolution of all oppressed people. The philosophy of revolutionary change.

AAS 312. RACISM IN AMERICA
Institutional and personal racism, and how the individual perpetuates institutional racism. An attempt to make all persons AWARE—in terms of attacking conditioned learning processes of their personal racism. Racist system, which assigns negative valuations and prerogatives to non-white people and positive valuations and prerogatives to white society.

AAS 313. CIVIL LIBERTIES AND CONSTITUTIONAL LAW
Contemporary aspects of the American judicial system and its impact on the minority peoples of America.

AAS 320. CONTEMPORARY ECONOMIC PROBLEMS
An economic review of the problems present in the American economy, with an expanded consideration of policy formation and its effect on the poor in America.

AAS 330. ETHNOGRAPHY OF NORTH AFRICA
A comprehensive survey of the social character of African people, social organization and culture of the area in relationship to its social heritage and contribution to world civilization; local conditions and their international implications.

AAS 331. CULTURES OF AFRO-AMERICA
Variety of African-derived cultures in the Caribbean and elsewhere in the New World. Examination of social and scientific topics, such as effects of mother-centered families on personality, importance of verbal attitudes in these cultures, problems of I.Q. testing in cultures other than where the tests originate, economic adaptations, past and present political movements, religious cultures.

AAS 332. THE AFRO-AMERICAN FAMILY: A SOCIOLOGICAL INTERPRETATION
A compact survey of the main cultural and social structures of the Afro-American family system. Study of the black family as a separate entity.

AAS 340. AFRO-AMERICAN HISTORY SINCE 1865
Afro-American experience since 1865. Individual and group action on social, eco-
nomic, and political problems, a knowledge of which is essential to an understanding of contemporary America.

AAS 350. THEOLOGY AND BLACK POWER THREE CREDIT HOURS
Moral and ethical aspects of the Black Revolution as they relate to the major claim of the Christian religion. Dialectics of the Black-White experience, racism, Black Thought as reflected in significant documents, and recent developments in Black Theology. Demand made upon the Christian community in view of its commitment, and how the Christian community can relate to the Black Revolution.

AAS 400. BLACK STUDIES SEMINAR THREE CREDIT HOURS
The full sweep of the Black Experience. Students and the Instructor will develop a bibliography and/or syllabus. A problem-solving seminar. Knowledge gained in other AAS classes used to reach solutions to the social and human problems of contemporary America.

AAS 403. PRACTICUM IN COMMUNITY SERVICE II THREE CREDIT HOURS
Practicum experiences in the local community. Opportunity for students to pursue (in groups or individually) interests in community service through self-appropriated learning.

AAS 404. SEMINAR IN COMMUNITY SERVICE II ONE CREDIT HOUR
This seminar and the practicum in community service are integrated over one trimester. Problems encountered during the practicum and present problems in community service are treated.

American Studies (AmS)

Dr. Francis J. Henninger, Chairman
Assistant Professors: Anderson, Henninger

The course requirement for American Studies majors is 48 hours, distributed as follows:

(1) American Studies 300, 301, and 400 in sequence;

(2) American Studies majors must take courses in each of the three areas identified below as Groups A, B, and C, as follows:

a. An area of concentration must consist of 24 semester hours. (15 hours must be chosen from the recommended American courses as listed in Group A, B, or C below. The other 9 hours must be non-American courses in the same area chosen in consultation with the Chairman.)

b. A second area consisting of nine semester hours to be chosen from one of the two remaining groups listed below;
c. A third area consisting of six semester hours to be chosen from the remaining group.

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<th>GROUP A</th>
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No minor is required for American Studies majors.

AMS 300. AMERICAN CULTURES
A study of physical and literary artifacts in an attempt to discern the periods and places of development of America's general and sub-cultures.  
*First Term, 1971-1972*

AMS 301. INTERPRETATIONS OF AMERICAN CULTURE
A critical study of various interpretations of American culture through more than a hundred years.  
*Second Term, 1971-1972*

AMS 400. INTERDISCIPLINARY RESEARCH
A study of the principles of interdisciplinary scholarship as well as of what can and probably cannot be accomplished by it. Successful interdisciplinary accomplishments will also be studied, and the students will complete individual interdisciplinary projects.  
*Each Term, 1971-1972*
Biology (Bio)

Dr. George B. Noland, Chairman

Professors: Jaffee, Noland, Cooney

Associate Professors: Bajpai, Chantell, Faso, Geiger, Joly, Lachapelle, MacMahon, McDougall, Shay

Assistant Professors: Hayat, Laufersweiler, Ramsey, Willis

Instructor: Trigg

Bio 101. General Biology I

A study of the more important biological processes and principles through analysis and synthesis. Deals primarily with the organizational aspects of living matter.

Bio 101L. General Biology Laboratory I

Course to accompany Bio 101. One three-hour laboratory per week in which the investigational and experimental approach is stressed.

Bio 102. General Biology II


Bio 102L. General Biology Laboratory II (Honors)

Course to accompany Bio 102. One three-hour laboratory period per week.

Bio 114. Biological Science

An introduction to the various biological sciences for non-science majors. Stresses those principles which apply to all forms of life, taking examples from plant, animal and microbial life.

Bio 114L. Biological Science Laboratory

Laboratory course to demonstrate and emphasize those principles discussed in lecture. One two-hour lab per week.

Bio 207L. Human Anatomy Laboratory

A foundation study in the basic anatomy of the human body, consisting of study of the various organs and systems composing the body. Medical Technology majors only. One three hour lab per week. Prerequisites: Bio 101-102.

Bio 209. Comparative Anatomy of the Vertebrates

A study of the similarities and the differences in the anatomy of the different organ systems of the various vertebrate groups. Embryology, histology, and morphology play an important role in this study. Prerequisites: Bio 101-102.

Bio 209L. Comparative Anatomy Laboratory

Course to accompany Bio 209 lecture. Two three-hour periods per week.

Bio 303. Physiology

A study of the mammalian systems. Sufficient anatomy is introduced to give at least an elementary knowledge of the organs and organ systems. Prerequisites: Bio 101-102, Chm 123-124. Chm 313-314 recommended.
Bio 303L. Physiology Laboratory

Course to accompany Bio 303 lecture. One three-hour period per week.

Bio 310. Microtechnique and Histology

Fundamentals of cell morphology, microscopic structure of tissues and organs, and discussion of techniques in their study. Prerequisite: Bio 101-102.

Bio 310L. Microtechnique and Histology Laboratory

Fundamentals of fixing and processing various tissues in the preparation of slides; aims at recognition of microstructure of normal tissues. Prerequisite: Bio 101-102.

Bio 312. General Genetics

A study of the principles of variation and heredity covering both Mendelian and Molecular Genetics.

Bio 312L. General Genetics Laboratory

Course to accompany Bio 312. One two-hour period per week.

Bio 325. Parasitology

An introduction to the morphology, life history and significance of those organisms deriving their sustenance from the tissues of others. Bio 101-102.

Bio 325L. Parasitology Laboratory

Course to accompany Bio 325 lecture. One three-hour period per week. Stress the recognition of common parasites.

Bio 340. Cell Biology

A study of cell structure and function including ultrastructure, physical and chemical organization, metabolic processes in relation to structure, growth and specialization. Prerequisites: Bio 101-102.

Bio 342. Developmental Biology

Plant and animal ontogeny and morphogenesis; roles of genetic and environmental factors in growth and development; differentiation; aggregation; hormonal and other biochemical mechanisms of control and coordination. Prerequisites: Bio 101-102.

Bio 344L. Advanced Biology Laboratory I

Laboratory to supplement Bio 312 and 340. One three hour lab. per week. Prerequisites: Bio 101-102, Bio 340 and Bio 312. The latter may be taken concurrently.

Bio 345L. Advanced Biology Laboratory II

Laboratory to supplement Bio 342 and Bio 440. One three hour lab. per week. Prerequisites: Bio 101-102, Bio 340. The latter may be taken concurrently.

Bio 361. Invertebrate Zoology

A course designed to give the student a general knowledge of the structure, activities, life histories and relationships of the invertebrate animals, with some emphasis on their origin and development. Prerequisites: Bio 101, 102.
Bio 361L. Invertebrate Zoology Laboratory
Course to accompany Bio 330 lecture. Two three-hour laboratory periods per week.

Bio 399. The Biology of Man
A topic-oriented, student-directed course concerning man’s biological role in the world. Open only to non-biological science majors. Offered exclusively on a Pass-Fail basis. No prerequisites.

Bio 407. Embryology
The course considers the early stages of animal development, paying special attention to the study of the development of the chick and the pig. Prerequisites: Bio 101, 102 and 209.

Bio 407L. Embryology Laboratory
Course to accompany Bio 407 lecture. One four-hour period per week.

Bio 411. General Bacteriology
An introductory course in bacteriology stressing the physiology, cultivation, and classification of bacteria. Their role in medicine, agriculture and industry is emphasized. Prerequisites: Bio 101-102 and Chm 123-124. Chm 313-314 recommended.

Bio 411L. General Bacteriology Laboratory
Course to accompany Bio 441 lecture. Two two-hour periods per week.

Bio 420. Seminar
Practice in development, presentation, and discussion of papers dealing with biological problems. Prerequisite: Jr. and Sr. standing.

Bio 421. Biological Problems (Honors) (laboratory work)

Bio 422. Biological Problems (library work)

Bio 434. Higher Plants
A study of structure, function, reproduction and interrelations of tracheophyte plants.

Bio 434L. Higher Plants Laboratory
Course to accompany Bio 434. One three-hour laboratory per week.

Bio 436. Lower Plants
A course to provide familiarity with basic processes, structures, distribution and reproduction of Thallophyte and Bryophyte plants.

Bio 436L. Lower Plants Laboratory
Course to accompany Bio 436. One three-hour laboratory per week.

Bio 440. Environmental Biology
Ecosystems; cycles of energy and material; food chains; ecological aspects of natural selection; influences of physical environment, homeostasis and selection; populations and communities. Prerequisites: Bio 101, 102.
Bio 462. **ADVANCED GENETICS**
A consideration of the molecular aspect of genetics, taught from current literature. Topics of concern are: mechanisms of genetic recombination, the role of nucleic acids in protein synthesis, complementation and the regulation of gene expression. Pre-requisite: Bio 312, Chm 313.

Bio 462L. **ADVANCED GENETICS LABORATORY**
A laboratory to accompany Bio 462 employing an experimental approach to genetic problems. Students work the entire term on a project of their choice.

Bio 466. **PATHOGENIC BACTERIOLOGY AND SEROLOGY**
The nature of infectious diseases, host-parasite relationships in resistance and infection, defense mechanisms (antigen-antibody response) and a brief survey of the bacteria causing disease in man will be considered. Prerequisite: Bact 411 and 411L.

Bio 466L. **PATHOGENIC BACTERIOLOGY AND SEROLOGY LAB**
Laboratory to accompany Bio 466. 3 hours per week. Laboratory experiments to demonstrate immunological, serological, determinative and medical bacteriology.

**Business Management (Bus)**

Barth J. Snyder, *Chairman*

*Professors:* Darr, George, Snyder, Walden

*Associate Professors:* Buckenmyer, Holt

*Assistant Professors:* Berger, Casey, Ellerbrock, Fuszara, Kussman, Marrinan, Miller, Stough, White

*Instructor:* Myers

*Part-Time Instructors:* Baughan, Davis, Gibson, Gordhammer, Hamilton, Heckman, Holland, May, Quinn, Sharkey, Steinlage, Stevenson, Yaross.

**BUS. 102. AMERICAN BUSINESS ENVIRONMENT**
A survey of the environment of business. Historical determinants and present day influences on the business climate.

**BUS 108. FUNDAMENTALS OF MATHEMATICS**
Recommended for students with insufficient working knowledge of secondary mathematics. Three hours are added to graduation requirements of those taking this course.

**BUS 110-111. QUANTITATIVE ANALYSIS FOR BUSINESS**
Includes systems of equations and inequalities, an introduction to linear programming and matrix algebra, logarithms, compound interest and annuities, and an introduction to calculus. Prerequisite: Bus 108 or sufficient college preparatory mathematics.

**BUS 215. PRINCIPLES OF MANAGEMENT**
A basic course in the managerial functions of planning, organizing, assembling resources and directing operations for a business.
Bus 301. Corporation Finance
Three Credit Hours
Principles of financial organizations. A study of corporate securities; financial structures; financing of new and established corporations; management of corporate funds; corporate expansions, mergers and reorganizations.

Bus 303. Business Law I: Contracts
Three Credit Hours
The basic course in business law treating the nature and classification of law, the courts and court procedure and considering in some detail the law of contracts and agency.

Bus 304. Business Law II: Sales and Negotiable Instruments
Three Credit Hours
A consideration of the law of sales and negotiable instruments. Prerequisite: Bus 303.

Bus 313. Business Statistics
Three Credit Hours
A survey of statistical methods including sampling, tabulations, graphics, averages, dispersions, index numbers, time series, trends, and simple correlations.

Bus 314. Personnel Management
Three Credit Hours
A study of managerial principles and practices as they pertain to the total work force. Including selection, training, compensation, employee services and industrial relations.

Bus 316. Production Management
Three Credit Hours
Place of management, factors underlying management decisions; product designs, physical facilities, location, layout; job evaluation, classification; plant operation, output; control of purchases and inventories. Prerequisite: Bus 215.

Bus 318. Human Relations for Management
Three Credit Hours
Analysis of reactions, interactions, attitudes and activities of individuals and groups within a goal-seeking organization. Includes leadership, morale and goal oriented behavior.

Bus 322. Work Systems Design
Three Credit Hours
Approaches to Motion and Time study, work flow analysis, work and system analysis and related areas.

Bus 401. Investments
Three Credit Hours
A study of the basic features and principles underlying sound investments. Short term as well as long term investments, the bond and stock markets are considered.

Three Credit Hours
A treatment of the law of partnerships and corporations and the law of property. Prerequisite: Bus 303.

Three Credit Hours
The principles of letter writing and report writing are studied and applied in conformity with the best current practices in business.

Bus 412. Wage and Salary Administration
Three Credit Hours
A discussion of role of wages and salaries for individual, firm and society. Problems in determination of wage levels, structures, methods of compensation, fringe benefits, and general aspects of compensation. Prerequisite: Bus 314 or permission of instructor.
BUS 415. PRODUCTION METHODS AND CONTROL  THREE CREDIT HOURS
Principles and techniques used in production; current practices in production planning, routing, scheduling and dispatching; study of production standards, labor efficiency and costs; quantity and quality control. Prerequisite: Bus 316 or permission of instructor.

BUS 417. INDUSTRIAL RELATIONS  THREE CREDIT HOURS
Interrelationships and interaction of the employer and the employee in the public and private sectors in conflict and accommodation. The structure and nature of management-union relationships and agencies created by these relationships.

BUS 419. COLLECTIVE BARGAINING, MEDIATION AND ARBITRATION  THREE CREDIT HOURS
Meaning, practices, principles and organization of collective bargaining; techniques of mediation and agencies for effecting mediation; major economic problems involved in the adjustment of labor disputes.

BUS 420. LABOR LEGISLATION  THREE CREDIT HOURS
A study of the National Labor Relations Act as amended.

BUS 423. BUSINESS POLICIES AND MANAGEMENT  THREE CREDIT HOURS
Coordination and integration of knowledge and techniques acquired in previous courses in Business Administration. The case method is used. Prerequisite: Seniors only.

BUS 450. BUSINESS MANAGEMENT HONORS SEMINAR (HONORS) ONE TO SIX CREDIT HOURS
A course in research upon a subject within the student’s major. The course is open only to those who have attained a cumulative grade point average of 3.00 or above in their Sophomore and Junior years.

BUS 455. BUSINESS ETHICS  THREE CREDIT HOURS
Application of philosophy in the area of employee discipline with emphasis on rights, duties, and the purpose of discipline. Examination of arbitration cases in discipline.

BUS 492. TRAINING PROGRAM, GRADUATE ASSISTANT INSTRUCTORS ONE CREDIT HOUR
Lectures, readings, discussions, and pre-classroom practice directed toward preparing the Graduate Assistant to assume the role of instructor in introductory business subjects.

Chemical Engineering (Cme)

Dr. Michael A. Bobal, Chairman
Professor: Bobal
Assistant Professors: Olinger, Srinivasan
Instructor: Trogus

CME 203. MATERIAL AND ENERGY BALANCES  THREE CREDIT HOURS
An introduction to chemical engineering with lectures and problems on material and energy balances as applied to industrial processes. Prerequisites: Chm 123, Mth 118.

First Term, Each Year
CME 305. THERMODYNAMICS
Development of the fundamental principles of thermodynamics, particularly with respect to chemical engineering processes. Prerequisite: Mth 218.
Second Term, Each Year

CME 306. KINETICS
Reaction kinetics, catalysis and adsorption. Prerequisite: Cme 305.

CME 324. TRANSPORT PHENOMENA I
Topics include viscosity, shell momentum balances, isothermal equations of change, thermal conductivity, shell energy balances, non-isothermal equations of change, diffusivity, concentration profiles. Prerequisite: Mth 219. Corequisite: Cme 381.
First Term, Each Year

CME 325. TRANSPORT PHENOMENA II
Topics include friction factor, dimensionless correlations, isothermal macroscopic balances, Bernoulli's Equation, heat transfer coefficients, heat transfer correlations, heat exchangers, non-isothermal macroscopic balances. Prerequisite: Cme 324.
Second Term, Each Year

CME 326L. TRANSPORT PHENOMENA LABORATORY
Experiments cover viscosity, velocity profiles, temperature profiles, heat transfer coefficients, diffusivity, compressibility factors for gases. Prerequisite: Cme 324. Corequisite: Cme 325.
Second Term, Each Year

CME 333-4. PHYSICAL CHEMISTRY
A study of the laws of chemistry and physics as applied to gases, liquids, and solutions. Prerequisite: Mth 218.
Cme 333: First Term, Each Year
Cme 334: Second Term, Each Year

CME 333L-4L. PHYSICAL CHEMISTRY LABORATORY
Laboratory course to accompany Cme 333-4. One three hour laboratory period per week.

CME 381. APPLIED MATHEMATICS FOR CHEMICAL ENGINEERS
This course is designed to supply the mathematics to support transport phenomena and process control. Topics include vector calculus, solution of partial differential equations and Laplace transforms. Prerequisite: Mth 219.
First Term, Each Year

CME 411. UNIT OPERATIONS I
Topics include fluid mechanics, transportation of fluids, flow of heat, evaporation, filtration and mixing. Prerequisites: Cme 324-325.
First Term, Each Year

CME 412. UNIT OPERATIONS II
Continuation of Cme 411. Distillation, extraction, gas phase mass transfer, gas absorption, drying and crystallization. Prerequisite: Cme 411.
Second Term, Each Year

CME 413L. UNIT OPERATIONS LABORATORY
This course is designed to acquaint the students with Unit Operations equipment and its utilization. Prerequisite: Cme 324.
First Term, Each Year

CME 414L. UNIT OPERATIONS LABORATORY
Continuation of Cme 413L. Prerequisite: Cme 325.
Second Term, Each Year
CME 430. CHEMICAL ENGINEERING DESIGN
Study of the principles of process development, plant design and economics. Pre-
requisite: Cme 411. 
Second Term, Each Year

CME 452. PROCESS CONTROL
Topics include block diagrams, system transfer functions, feedback, transient and steady
state response, root locus method, frequency response, Bode diagrams, analog computer.
Prerequisite: Cme 381. 
First Term, Each Year

CME 453L. PROCESS CONTROL LABORATORY
Experiments cover analog computer programming, analog solution of differential equa-
tions, frequency response, Bode diagrams, computer simulation, open and closed loop
system response. Report writing emphasized. Prerequisites: Cme 452, Ele 322.
Second Term, Each Year

Chemical Engineering Electives
CME 499. SPECIAL PROBLEMS IN CHEMICAL
ENGINEERING (HONORS) 
TWO TO SIX CREDIT HOURS
Particular assignments to be arranged and approved by Chairman of the Department. 
Credit hours to be determined.

Chemistry (Chm)

Dr. John J. Lucier, S.M., Chairman
Professors: Chudd, Eveslage, Lucier, Michaelis
Associate Professors: Walsh
Assistant Professors: Bell, Fox, Fratini, Keil, Rogers
Adjunct Assistant Professors: Becker, DeSando, Nelson, Spencer

CHM 110. GENERAL CHEMISTRY 
THREE CREDIT HOURS
Fundamental principles of chemistry including a brief treatment of organic chemistry.
Three class periods each week.

CHM 110L. GENERAL CHEMISTRY LABORATORY 
ONE CREDIT HOUR
Course to accompany Chm 110 lecture. One two-hour laboratory period per week.

CHM 123-124. GENERAL CHEMISTRY 
SIX CREDIT HOURS
A comprehensive treatment of the fundamentals of general chemistry. Three class
periods per week. Prerequisite: high school Chemistry.

CHM 123L-124L. GENERAL CHEMISTRY LABORATORY 
TWO CREDIT HOURS
Course to accompany Chm 123-124 lecture. The laboratory work is devoted to semi-
micro qualitative analysis. One three-hour laboratory period per week.

CHM 126. QUANTITATIVE ANALYSIS LABORATORY 
TWO CREDIT HOURS
A laboratory course for chemistry majors. The fundamental techniques of gravimetric
and volumetric analysis is treated. One four-hour meeting per week. Prerequisite:
CHM 123 and one semester of college mathematics. 
Second Term, Each Year
CHM 201. QUANTITATIVE ANALYSIS
A course intended for premedical, predental, and medical technology students. Two class periods per week. Prerequisite: Chm 124.

CHM 201L. QUANTITATIVE ANALYSIS LABORATORY
Course to accompany Chm 201 lecture. One four-hour laboratory period per week.

CHM 302. PHYSICAL CHEMISTRY
A short course especially designed for premedical, predental, or biology majors. Three lectures per week. Prerequisite: Chm 124. First Term, Each Year

CHM 303-304. PHYSICAL CHEMISTRY
For chemistry majors and chemical engineers. Three lecture hours each week. Prerequisite: Chm 215 or equivalent. Corequisite: Mth 218.

CHM 303L-304L. PHYSICAL CHEMISTRY LABORATORY
Course to accompany Chm 303 lecture. One three-hour laboratory period each week.

CHM 309. CHEMICAL LITERATURE
The use of chemical literature, indexing methods, and patent procedure. Prerequisite: Ger 101-102. Second Term, Each Year

CHM 313-314. ORGANIC CHEMISTRY
This course is designed for premedical, predental, and medical technology students. A strong grounding in the fundamentals of Organic Chemistry is given. Three class periods per week. Prerequisite: Chm 124.

CHM 313L-314L. ORGANIC CHEMISTRY LABORATORY
Course to accompany Chm 313-314 lecture. One three-hour laboratory period each week.

CHM 315-316. ORGANIC CHEMISTRY
A study of aliphatic, aromatic, and heterocyclic compounds, including typical preparations, and basic techniques of organic chemistry; for chemistry majors and chemical engineers. Prerequisite: Chm 215.

CHM 315L-316L. ORGANIC CHEMISTRY LABORATORY
Course to accompany Chm 315-316. Two three-hour laboratory periods each week. Prerequisite: Chm 215.

CHM 404. SPECIAL TOPICS IN PHYSICAL CHEMISTRY
A thorough treatment is given to certain topics surveyed in Chm 303-304 such as macromolecules, spectroscopy, photochemistry and radiation chemistry. Prerequisite: Chm 304. Second Term, Each Year

CHM 405. QUALITATIVE ORGANIC ANALYSIS
A systematic study of the reactions of functional groups and of the physical properties which lead to the identification of organic compounds. One class period per week. Prerequisite: Chm 315-316, or Chm 313-314. Second Term, Each Year

CHM 405L. QUALITATIVE ORGANIC ANALYSIS LABORATORY
Course to accompany Chm 405 lecture. Two three-hour laboratory periods per week. Second Term, Each Year
CHM 412. **Intermediate Organic Chemistry**

This course provides an understanding of the modern theory of organic chemistry with emphasis on reaction mechanisms. Prerequisite: Senior standing. *First Term, Each Year*

CHM 415. **Analytical Chemistry**

Methods of analysis based on modern instrumentation. Prerequisites: Chm 215, 215L, 304.

CHM 415L. **Analytical Chemistry Laboratory**

This course accompanies Chm 415. Two three-hour laboratory sessions each week. Prerequisites: Chm 215, 215L, 304.

CHM 417. **Inorganic Chemistry**

Electron distribution in atoms, nature of the chemical bond, periodicity, nucleus and its reactions, coordination compounds. Prerequisite: Chm 303-304. *First Term, Each Year*

CHM 420. **Biochemistry**

A course dealing with the fundamentals of biochemistry. Prerequisite: Chm 314 or 316, and Chm 302 or 303.

CHM 497. **Seminar**

Required of all chemistry majors. One meeting each week. *First Term, Each Year*

CHM 499. **Research (Honors)**

An elective for Chemistry majors. Permission of Chairman of Department required. Prerequisite: Senior standing.

CHM 498-9. **Research (Honors)**

An elective for Chemistry majors. Permission of Chairman of Department required. Prerequisite: Senior standing.
Civil Engineering and Engineering Mechanics

Seymour J. Ryckman, Chairman
Professors: Driscoll, Ryckman, Thomson
Associate Professors: Bahramian, Kraft
Assistant Professors: McDaniel, Payne, Weiss
Instructors: Shaw

Civil Engineering (CIE)

CIE 205L. Surveying Field Practice  THREE CREDIT HOURS
Field work and computation in topography, highway surveying, triangulation, level net, celestial observations, evaluation of errors, and preparation of plans. Five eight-hour days a week for three weeks. Prerequisite: CIE 208. Summer

CIE 207. Surveying I  FOUR CREDIT HOURS
Theory of Measurements, computation and instrumentation. Boundary and construction surveys, celestial observations, triangulation and level net adjustments, elementary geodesy, and state coordinate systems. Corequisite: Mth 118. First Term, Each Year

CIE 208. Surveying II  THREE CREDIT HOURS
Study of photogrammetry, circular and spiral curves, vertical curves, grade lines, earthwork and mass diagram, slope and grade stakes, contour grading, and use of aerial photographs. Prerequisite: CIE 207. Second Term, Each Year

CIE 213. Plane Table Surveying  ONE CREDIT HOUR
General Principles of Surveying with emphasis on plane table mapping. Designed for students in Geology. Prerequisite: Mth 101.

CIE 213L. Plane Table Surveying Laboratory  TWO CREDIT HOURS
Field and laboratory work in application of principles of CIE 213. Corequisite: CIE 213.

CIE 306. Theory of Structures  FIVE CREDIT HOURS
The analytical and graphical methods of stress determination in statically determinate structures, together with a study of influence lines. Prerequisite: EGM 303. First Term, Each Year

CIE 307. Hydraulics  FOUR CREDIT HOURS
Principles of liquid statics and fluid flow including similitude, measuring devices, channel and pipe flow, turbines and pumps. Corequisites: CIE 307L, EGM 301. First Term, Each Year

CIE 307L. Hydraulics Laboratory  ONE CREDIT HOUR
Laboratory experiments and problems associated with CIE 307. Corequisite: CIE 307. First Term, Each Year

CIE 310L. Civil Engineering Laboratory  ONE CREDIT HOUR
Experiments and studies relating the engineering properties of certain building materials to their fundamental nature and composition. Prerequisite: EGM 303. Second Term, Each Year
CIE 312. **SOIL MECHANICS**
Principles of soil structures, classification, capillarity, permeability, flow nets, shear strength, consolidation, stress analysis, slope stability, lateral pressure, bearing capacity, and piles. Corequisites: Cie 312L, Egm 304.

CIE 312L. **SOIL MECHANICS LABORATORY**
Laboratory test to evaluate and identify soil properties for engineering purposes. Design problems are included. Corequisite: Cie 312.

CIE 313. **HYDRAULICS**
Principles of liquid statics and fluid flow including similitude, measuring devices, channel and pipe flow, turbines and pumps. Corequisites: Cie 313L, Egm 301.

CIE 313L. **HYDRAULICS LABORATORY**
Laboratory experiments and problems associated with Cie 313. Corequisite: Cie 313.

CIE 314. **THEORY OF STRUCTURES**
The analytical and graphical methods of stress determination in statically determinate structures, together with a study of influence lines. Prerequisite: Egm 303.

CIE 315. **THEORY OF STRUCTURES**
The analytical and graphical methods of force determination in statically determinate structures, together with a study of influence lines. Prerequisite: Egm 303.

CIE 390. **ENVIRONMENTAL POLLUTION CONTROL I**
A study of environmental pollution problems relating to air, water and land resources. Includes pollution causes and effects as well as technology for solving the problems. Legal and political considerations. For junior and senior students other than Civil Engineering. Credit may not be applied for Civil Engineering degree. Prerequisite: some chemistry knowledge.

CIE 402. **STRUCTURAL DESIGN II**
Concentrated loads on slabs, beams; composite construction, rigid frames, flat slabs as rigid frames, plastic design of rectangular and tee beams. Prerequisites: Cie 407, Cie 415. Corequisite: Cie 402L.

CIE 402L. **STRUCTURAL DESIGN LABORATORY II**
Assigned problems illustrating and affording practice in the design covered in Cie 402. Corequisite: Cie 402.

CIE 405. **HIGHWAY ENGINEERING**
Fundamentals of highway design, construction maintenance, and economics with illustrative practical problems. Prerequisites: Cie 208, Cie 310L.

CIE 406. **INDETERMINATE STRUCTURES**
The determination of stresses and deflections of statically indeterminate frames and trusses by the classic and modern methods, including Castigliano's theorem, least work, moment and shear distribution. Prerequisite: Cie 407.

CIE 407. **REINFORCED CONCRETE**
The first course in the theory and design of reinforced concrete structures; the study of earth pressure; design of retaining walls and footings. Prerequisite: Cie 306, or Cie 314.
CIE 408A. Seminar
Practice in the presentation and discussion of papers; lectures by staff and prominent
engineers. Attendance required by Civil Engineering second term seniors only.

CIE 408B. Seminar
Practice in the presentation and discussion of papers; lectures by staff and prominent
engineers. Attendance required by Civil Engineering sophomores, juniors, and first term
seniors.

CIE 415. Structural Design I
A study of rolled beams, plate girders, columns and steel trusses with emphasis on
typical connections and splices both riveted and welded, together with assigned
problems. Prerequisite: Cie 306 or Cie 314. Corequisite: Egm 304. First Term, Each Year

CIE 417. Reinforced Concrete
The first course in the theory and design of reinforced concrete structures; the study
of earth pressure; design of retaining walls and footings. Prerequisite: Cie 315.

CIE 418. Structural Design II
Concentrated loads on slabs, beams; composite construction, rigid frames, flat slabs as
rigid frames, plastic design of rectangular and tee beams. Prerequisites: Cie 415, Cie 417.

CIE 433. Sanitary Engineering I
An integrated study of the principles of water sanitation, water supply, stream pollution
abatement and waste water disposal systems. Prerequisites: Cie 307, Cie 307L, or
Cie 313, Cie 313L. First Term, Each Year

CIE 434. Sanitary Engineering II
A continuation of Cie 433 and with brief considerations of municipal and rural sani-
tation. Prerequisite: Cie 433. Second Term, Each Year

Civil Engineering Electives
In addition to courses listed below, students may select with departmental approval
Civil Engineering and Engineering Mechanics courses in the five hundred series listed in
Graduate School Catalog including such courses as: experimental stress analysis, ad-
vanced soil mechanics, advanced structural analysis, traffic engineering, prestressed
concrete, and foundation design.

CIE 421. Construction Engineering
Organization, planning and control of construction projects. Includes: a study of the use
of machinery, economics of equipment, methods, materials, estimates, cost controls, and
fundamentals of Cpm and Pert.

CIE 499. Special Problems in Civil Engineering
Particular assignments to be arranged and approved by Chairman of the Department.
Credit hours to be determined.
Engineering Mechanics (Egm)

Egm 101. Mechanics I
Three Credit Hours
The principles of mechanics; force systems, free body diagrams, resultants and equilibrium, centroids and centers of gravity; application to trusses, frames, and beams; friction; moments of inertia. Prerequisite: Phy 196. Corequisite: Mth 119.

Egm 202. Statics
Three Credit Hours
The principles of mechanics; force systems, resultants and equilibrium; centroids and centers of gravity; application to trusses, frames, and beams; friction; virtual work; moments of inertia. Prerequisite: Phy 206. Corequisite: Mth 218.

Egm 301. Dynamics
Three Credit Hours
Kinematics, including translation, rotation, plane motion, and relative motion; kinetics of particles and bodies by the methods of force—mass—acceleration, work—energy, and impulse—momentum. Prerequisite: Egm 101 or Egm 202.

Egm 303. Strength of Materials
Three Credit Hours
The study of stresses and strains in tension, compression, shear, flexure and torsion; riveted and welded joints; shear and moment diagrams; stresses and deflections of beams and analysis of columns. Prerequisite: Egm 101 or Egm 202.

Egm 303L. Strength of Materials Laboratory
One Credit Hour
Action of metals, timber and concrete under load, verification of theories of mechanics. Prerequisite: Egm 303.

Egm 304. Advanced Strength of Materials
Three Credit Hours
Stresses and strains at a point; shear center; unsymmetrical bending; curved beams; approximate analysis of flat plates; torsion of non-circular bars; thick-walled cylinders. Prerequisite: Egm 303.

Communication Arts

George C. Biersack, Chairman
Professor: Staats
Associate Professors: Biersack, Knittel
Assistant Professor: Brundage
Instructors: Devine, Dougherty, Harwood, Kiernan, O'Hara, Tiedge, Weatherly, Wolfe, Ray, Giglia
Part-time Instructors: Vlahos, Reingold

The course requirements for Communication Arts majors is 24 upper level credit hours distributed as follows:

FOR GENERAL MAJOR IN COMMUNICATION ARTS:

(1) Speech 101 and 200 (Introduction to Mass Communications).

(2) At least one upper level course in each of the following: Speech, Broadcasting, Journalism, and Allied Areas, and electives in the field selected through
consultation with the Department Chairman.

(3) Seminar in Communication Arts.

FOR CONCENTRATED MAJOR IN COMMUNICATION ARTS:

(1) Speech 101 and appropriate 200 level course.

(2) 21 credit hours of upper level courses with a minimum of 15 hours in Speech, or Broadcasting-Journalism.

(3) Seminar in Communication Arts.

Minors in Communication Arts must have Spe 101 plus 12 hours of upper level courses selected through consultation with the department counselors.

The department sponsors three co-curricular activities, the University Debaters, and the Flyer News.

Speech 101 is a Prerequisite for all courses listed as 200 or above.

Speech

Spe 101. Fundamentals of Effective Speaking
Introductory course in fundamental skills of speaking. Self-confidence is developed through speaking opportunities, with special attention given to poise, vocal variety, physical animation, and the communication of ideas.

Spe 201. Speaking Techniques
Covers area of oral communication in professional situations. Adapts principles of effective speaking to specific audiences and occasions. Student prepares and delivers informational, problem-solving, good-will, and special occasion speeches.

Spe 300. Voice and Diction
Course treating the four phases of speech production: proper breathing, phonation, resonance, and articulation. Projection, quality, and clarity of speech are emphasized. Student's voice is analyzed through tape recordings.

Spe 301. Speech Composition
Study of speech structure and composition. Critical analysis of model speeches, in conjunction with the preparation and presentation of original speeches on current public questions.

Spe 302. Fundamentals of Debate
Application of the principles of argument through extensive practice in several forms of debate. Consideration of analysis, evidence, reasoning, inference and fallacy.

Spe 307. Conference and Discussion
The guiding principles used by participants and leaders in the preparation and conducting of conferences and discussions. Exploratory, problem-solving, and policy-making conferences are staged.

Spe 310. Interpretative Reading I
Oral interpretation of poetry and prose. Combines a study of vocal modulations, pitch, inflection, and tone color with intellectual and emotional analysis of selections to develop a deeper appreciation of literature.
SPE 312. PERSUASION  THREE CREDIT HOURS
Analysis of the motivations which lead to belief and action of individuals and audiences. Study in the techniques of achieving persuasive purposes. Delivery of speeches in the application of the theory.

SPE 320. INTERPRETATIVE READING II  THREE CREDIT HOURS
A continuation of Spe 310, with a deeper penetration into the field of oral interpretation. Individual problems are given more particular attention. Impromptu reading. Prerequisite: Spe 310.

SPE 400. SPEECH CORRECTION  THREE CREDIT HOURS
Investigates the theory of speech and hearing handicaps in elementary and secondary school pupils. Examples of such defects are explored clinically and methods of correction applied. Includes demonstrations with children.

SPE 402. FORENSICS  THREE CREDIT HOURS
A course designed to employ the values inherent in competitive speaking, and to relate those values in an alert, aggressive citizenship. Classroom experience in the various forms of debate, discussion, original oratory.

SPE 430. SEMINAR IN THE SPEECH ARTS  THREE CREDIT HOURS
Individual research and report on a problem in the field of speech, theater, or broadcasting. Students will do research in the area of his interest. Communication Arts majors or minors only, with permission.

Theater—See Performing and Visual Arts

Broadcasting

SPE 306. RADIO FUNDAMENTALS  THREE CREDIT HOURS
A workshop course in microphone technique as applied to straight announcing, commercials, and newscasting. Development of articulation and tone for broadcasting purposes is emphasized. Station organization is discussed.

SPE 309. FUNDAMENTALS OF TELEVISION  THREE CREDIT HOURS
Principles and practices of television broadcasting, studio layout, equipment, personnel, organization of channels, and networks, educational and closed circuit television. Students participate in various programming projects.

SPE 316. RADIO WORKSHOP  THREE CREDIT HOURS
Designed to develop voice, articulation, and reading skills. Exercises in microphone techniques. Development of radio stations' staff requirements and responsibilities. Project shows are taped for analysis.

SPE 409. TELEVISION PRODUCTION  THREE CREDIT HOURS
Intensive practice in preparation and production of TV programs. Camera technique, floor set-ups, and direction of crews and talent demonstrated through actual participation in TV shows. Prerequisite: Spe 309, or with permission.
Journalism

Majors in Journalism must take Jrn 200 plus 18 semester hours in Jrn and Com 300-400 courses, plus 6 semester hours from 300-400 offerings in the Department of English, selected in consultation with the Chairman. Minors in Journalism 12 semester hours from 300-400 courses.

**JRN 200. INTRODUCTION TO MASS COMMUNICATIONS MEDIA** THREE CREDIT HOURS
Covers nature and purpose of mass communicative field. Emphasis on newspapers, television and radio, occupational opportunities, organizational structure of modern newspaper and news facets of television and radio.

**JRN 300. REPORTING AND WRITING FOR NEWS MEDIA** THREE CREDIT HOURS
Determining news values. Structure of a news story. Techniques of gathering news for all media and how this material is applied to newspapers, television and radio. Prerequisite: Jrn 200.

**JRN 301. ADVANCED NEWS STORY WRITING** THREE CREDIT HOURS
Advanced reporting and news writing. Analysis of feature story techniques and structure in all areas, especially columns and specialized reporting. Prerequisites: Jrn 200 and 300.

**JRN 302. THE LAW AND NEWS MEDIA** THREE CREDIT HOURS

**JRN 398-399. JOURNALISM WORKSHOP** ONE CREDIT HOUR PER SEMESTER
A practical participation in Journalism activity with a recognized and approved journalistic organization. Available to students at the Sophomore level and above, to a maximum of six (6) credit hours, three (3) of which may be applied to a Communication Arts or Journalism Major.

**JRN 400. EDITING AND COPYREADING** THREE CREDIT HOURS
The copy desk on large and small newspapers, editing, headline writing, page makeup, uses of pictures and type. Prerequisite: Jrn 300 or permission of instructor.

**JRN 401. EDITORIAL WRITING** THREE CREDIT HOURS
Study of the methods used in preparing and writing newspaper editorials—editorial conferences to discuss topics, research necessary.

**JRN 404. NEWSPAPER MANAGEMENT PROBLEMS** THREE CREDIT HOURS
Non-editorial operations—problems of business, circulation, advertising and printing departments as they affect operations of the news department. Special emphasis on small dailies and weeklies.

**JRN 430. HISTORY OF JOURNALISM** THREE CREDIT HOURS
Critical study of development of the English language press. Emphasis on the American press and its role in political and economic progress of this country. The outstanding editors and their newspapers.
Allied Areas

**COM 301. Product**ion of Audio-VisuaL Aids  
Production of various types of audio-visual aids used in communications. Designing and producing audio-visual aids will be required.

**COM 302. Uses of Audio-VisuaL Aids**  
Investigates areas of communication where audio-visual aids are used to great advantage. Deals primarily with developing techniques and skills in using audio-visual aids.

**COM 303. Free-Lance Writing**  

**COM 304. Advertising**  
Nature and functions of advertising; preparation of layouts, writing of copy; selection and evaluation of media. Coordination of advertising with other marketing efforts. Social implications of advertising. (See Mkt 421.)

**COM 305. Propaganda Analysis**  
Use and abuse of propaganda. Editorial persuasion. Propaganda devices and techniques. An application of the principles of Aristotelian logic to the field of mass communication.

**COM 306. Report Writing**  
The principles of letter writing and report writing are studied and applied in conformity with the best current practices in business. (See Bus 409.)

**COM 307. Technical Writing**  

**COM 401. Publicity and Public Relations**  
For students (business, education, personnel management, etc.) who expect to direct publicity campaigns or write news releases in their future work. Explains nature, organization, and problems of newspaper publishing.

**COM 411. Communication in Modern Society**  
A study of some communication problems in modern organizations, institutions, cultures, and in interpersonal relationships.

**Computer Science (Cps)**

Thomas A. Schoen, S.M., Chairman  
Associate Professors: Jehn, Schoen  
Assistant Professors: Cada, Kalmey, Kester, Loveman (visiting), Wesselkamper (on leave)

Instructor: Keim  
Part-time Instructors: Lokai, Sikora

**CPS 107. Computing—General Survey**  
A non-technical introduction to the history and organization of digital computers.

**CPS 133. FORTRAN PROGRAMMING**
Two Credit Hours
General programming techniques; grammar and syntax of the Fortran IV compiler; programming in Fortran. Not open to students who have taken Cps 141 or Cps 147. Corequisite: Mth 101 or equivalent.

**CPS 141. ALGOL PROGRAMMING**
Two Credit Hours
General programming techniques; grammar and syntax of the Algol 60 compiler; programming in Algol. Not open to students who have taken Cps 133 or Cps 147. Corequisite: Mth 101 or equivalent.

**CPS 147. PL/I PROGRAMMING**
Two Credit Hours
General programming techniques; grammar and syntax of the PL/I compiler; programming in PL/I. Not open to students who have taken Cps 133 or Cps 141. Corequisite: Mth 101 or equivalent.

**CPS 203. DATA PROCESSING SYSTEMS**
Two Credit Hours
Material applicable to data processing problems; applications requiring consideration or use of peripheral equipment.

**CPS 232. COBOL PROGRAMMING**
Two Credit Hours
General programming techniques; grammar and syntax of the Cobol compiler; programming data processing problems in Cobol. Corequisite: Mth 101 or equivalent.

**CPS 245. ASSEMBLER PROGRAMMING**
Three Credit Hours
Programming in machine language and with an assembler; input/output techniques; introductory topics in compiler organization. Prerequisite: Cps 133, 141, or 147.

**CPS 346. OPERATING SYSTEM**
Three Credit Hours
Study of OS/360 or similar system and its functions of data, job, and task management. Prerequisite: Cps 245.

**CPS 353-354. NUMERICAL METHODS**
Six Credit Hours
Solution of nonlinear equations, interpolation and approximation, differentiation and integration, curve fitting, numerical filtering and data smoothing, matrices and systems of linear equations, eigenvalues and eigenvectors; solution of difference, differential, and integral equations; boundary value problems in ordinary differential equations, elementary statistics. Emphasis placed on applications. Prerequisite: Cps 133, 141 or 147, and Mth 218 or 228. Recommended corequisite: Mth 219 or 229.

**CPS 383. LOGIC AND SET THEORY**
Three Credit Hours
Propositional and predicate calculus, formal and informal proofs, basic concepts of set theory, operations on sets, relations, functions. Corequisite: Mth 119 or 129.

**CPS 387. LOGICAL DESIGN**
Three Credit Hours
Minimization of Boolean functions, error detecting and error correcting codes; principles of design for arithmetic operations, including a survey of functional units for implemen-
tation; memory devices, central processing units, and input-output equipment. Prereq-
quisite: Cps 133, 141 or 147, Mth 218 or 228.

Cps 405. COMPUTER TECHNIQUES FOR BUSINESS APPLICATIONS  THREE CREDIT HOURS
Linear programming, network analysis including PERT, game theory, queuing theory,
inventory theory, Markov chains, simulation and other topics. Prerequisite: Cps 133,
141 or 147, Mth 362, Mth 367 or equivalent.

Cps 415. INTRODUCTION TO ANALOG COMPUTATION AND SIMULATION  THREE CREDIT HOURS
Basic principles of analog computation, analog solution of linear and non-linear
differential equations, simulation, function generation. Applications to science and
engineering. Two lectures and one lab per week. Prerequisite: Mth 219 or 229.

Cps 416. PARALLEL HYBRID COMPUTATION  THREE CREDIT HOURS
Basic principles of parallel hybrid computers, elementary logic components and their
use, combinatorial logic, Boolean operations, sequential logic and synchronization,
microprograms. Two lectures and one lab per week. Prerequisite: Cps 415.

Cps 441-442. ADVANCED PROGRAMMING  SIX CREDIT HOURS
Analysis of compilers and their construction; programming techniques discussed in the
current literature; advanced computer applications in both mathematical and non-
ummeric areas. Prerequisite: Cps 346.

Cps 455-456. NUMERICAL ANALYSIS  SIX CREDIT HOURS
Quadrature methods and the numerical solution of ordinary differential equations;
matrices and large scale linear systems; norms and spectral radii of matrices; modern
iterative matrix methods, including the successive overrelaxation method; numerical
solution of partial differential equations. Prerequisite: Cps 353, Mth 362.

Cps 481. MATHEMATICAL LOGIC  THREE CREDIT HOURS
Formalization of propositional calculus, first order theories including predicate calculi,
formal number theory, recursive functions, Goedel's incompleteness theorem. Pre-
quisite: Cps 383 or Mth 390.

Cps 482. AUTOMATA THEORY  THREE CREDIT HOURS
Finite automata, sequential machines, Turing machines, computability, existence of self-
reproducing machines. Prerequisite: Cps 481.

Cps 488. PROBLEMS IN (NAMED AREA)  ONE TO THREE CREDIT HOURS
Individual readings and research in a specialized area (see Cps 499.) May be taken
more than once for additional credit. Prerequisite: permission of the department.

By arrangement

Cps 499. (SPECIAL TOPICS)  ONE TO THREE CREDIT HOURS
Lectures and/or laboratory experience in such specialized areas as those listed below.
May be taken more than once for additional credit. Prerequisite: permission of the
department.

By arrangement
artificial intelligence  numerical analysis
formal languages  programming languages
informational retrieval  sequential machines
linguistic analysis  simulation languages
logical design  supervisory systems
microprogramming  utility programs

Economics (Eco)

Dr. George E. Matlin, Chairman
Professor: Matlin, Whalen (on leave)
Associate Professor: Louis
Assistant Professors: Weiler, Ou, Raney, Degnan, Winger, Barrett, Stewart
Part-time Instructors: Dailey, Gnauck

Eco 201-202 are prerequisites for all advanced courses in Economics. Minors are required to take Eco 340, 341, and two electives.

ECO 201. PRINCIPLES OF ECONOMICS I  THREE CREDIT HOURS
Basic economic principles. Analyzes American economy—business organization, industrial relations, the economic role of government, money and banking in the productive process, determination of aggregate level of national income and employment.

ECO 201H. PRINCIPLES OF ECONOMICS I (HONORS)  THREE CREDIT HOURS
Intended as a substitute for Eco 201. May be elected by students with a cumulative average of 3.00 or above, or with permission of the instructor.

ECO 202. PRINCIPLES OF ECONOMICS II  THREE CREDIT HOURS
Examines pricing of production factors under conditions of perfect and imperfect competition. Considers distribution of income, principles of international trade, problems of economic development, and alternative economic systems.

ECO 202H. PRINCIPLES OF ECONOMICS II (HONORS)  THREE CREDIT HOURS
Intended as a substitute for Eco 202. May be elected by students with a cumulative average of 3.00 or above, or with permission of the instructor.

ECO 333. STATISTICS (ARTS & SCIENCES ONLY)  THREE CREDIT HOURS
Analysis of central tendencies and dispersion, elementary probability and the normal curve, hypotheses tests, time-series analysis, index numbers, and regression and correlation measurements.

ECO 340. MICRO ECONOMIC ANALYSIS  THREE CREDIT HOURS
Analyzes theory of consumer behavior; production theory; equilibrium of the firm; market structures; monopoly, monopolistic competition, and oligopoly; allocation of resources; distribution of income.

ECO 341. MACRO ECONOMIC ANALYSIS  THREE CREDIT HOURS
National income and determination of level of income and employment. Keynesian vs. classical systems. Role of government in economy; foreign trade and price levels; theory of economic growth; Keynesian and post-Keynesian theory.
Eco 342. **Money, Banking, and Monetary Policy**

Three credit hours

Considers principles of money and monetary systems; commercial banking and role of the Federal Reserve System; monetary theory and policy; the mechanism of international payments.

Eco 345. **Public Finance**

Three credit hours

Examines the economic aspects of government finance at the local, state and especially national level. Emphasizes the behavioral effects of various taxes, efficiency in spending, the changing role of the U.S. government, fiscal policy and intergovernmental revenue and expenditure programs. Particular attention is given to relating analytical tools to current developments.

Eco 360. **International Economics**

Three credit hours

Studies international trade theory, issues, and problems. Examines national income and trade, foreign exchange, balance of payments, trade barriers, international economic organizations, and recent movements toward free trade.

Eco 371. **Labor Economics**

Three credit hours

Considers wage theory, determinants of wage rates and employment. Examines union policy, economic stability and growth. Analyzes the economics of private governmental welfare and security programs.

Eco 430. **History of Economic Thought**

Three credit hours

Surveys early philosophers. Examines various schools and systems of economic thought (Mercantilists, Physiocrats, Classicals, Historicals, Marginalists, Neo-classicals, Keynesians) and current economic theories with emphasis upon American developments.

Eco 441. **Econometrics**

Three credit hours

Study of simple and multiple regression analysis; statistical inference; properties of the estimators; identification problems; model building; simultaneous estimating technique.

Eco 450. **Comparative Economic Systems**

Three credit hours

Analyzes principal types of economic systems in the world today. Stresses their development in the United Kingdom, the Soviet Union, China, and India. Contrasts foreign systems with American capitalism.

Eco 460. **Economic Development and Growth**

Three credit hours

Inquiries into the nature of economic growth in both pre-industrial and industrial societies within their individual institutional framework. Analyzes theories of growth, domestic and international policy issues.

Eco 480. **Current Economic Problems**

Three credit hours

Analyzes current economic issues including the problems of agriculture, employment and economic growth, inflation, budgetary policy, public debt, international balance of payments, and underdeveloped economies.
Eco 490. Seminar in (Topic to be Selected) Three to Six Credit Hours
An in-depth analysis of a selected area of economics. The area chosen for examination may be ascertained from the current university composite. The course may be elected a second time for additional credit.

Eco 498H. Honor Studies in Economics One to Six Credit Hours
Directed Readings and research in selected fields of Economics. The number of credit hours will depend on the amount of work chosen. The course will involve periodic discussions with other students and faculty in the program. May be taken more than once for additional credit. Prerequisite: 3.0 average in Economics.

Education

Foundations of Education (EdF)
M. Audrey Bourgeois, Chairman
Professors: Panzer, Faerber
Associate Professors: Bourgeois, Britt, Anderson, Rupp
Assistant Professors: Emling, Petit, Gray
Instructor: Geiger
Part-time Instructors: Wening, Fleck

EDF 205. Child Growth and Development Three Credit Hours
Professional education course designed to study growth and development in childhood with emphasis on the elementary school child. Knowledge gained will be made relevant for successful classroom practice in the elementary school.

EDF 206. Adolescent Growth and Development Three Credit Hours
Professional education course designed to study growth and development in adolescence with emphasis on the junior and senior high school student. Content will be made relevant for successful classroom practice in high school.

EDF 207. Human Growth and Development Three Credit Hours
Professional education course designed to study growth and development in childhood and adolescence. Intended for the teacher, the knowledge will be made relevant for successful classroom practice.

EDF 208. Educational Psychology II: The Learning Process Three Credit Hours
The aim of this course is two-fold: (1) to treat the learning process; and (2) to treat topics dealing with factors which vitally affect the learning process. Prerequisite: EdF 205; EdF 206, or EdF 207.

EDF 419. Philosophy of Education Three Credit Hours
Culminating education course. By interrelating the principal concepts pertaining to man, society, and the school, the student should develop a constructive philosophy of education. Accredited in Philosophy. Prerequisites: EdF 205, EdF 206, or EdF 207; and EdF 208.
EdF 423. Philosophy of Education: Catholic  
Three Credit Hours
The educand, the aims and agencies of education, the philosophy of the curriculum are studied in the light of Catholic theology and philosophy. The course may be taken in lieu of EdF 419. Prerequisite: EdF 205, 206, or 207; and EdF 208.

EdF 440. Honors Seminar  
Two Credit Hours
Concerns itself with the great issues and problems of education. Permission of chairman of foundations of education necessary.

Elementary Education (EdE)

Dr. Simon Chavez, Chairman  
Professors: Chavez, O'Donnell  
Associate Professors: Klosterman, Frye  
Assistant Professors: Anderson, Fuchs, Mathews, Miles, Waters, Weaver, Windell, Daily, Lutz, Uncapher, Unkel  
Part-time Instructors: Bankston, Fornshell, Hackman, Rudolph

EdE 109. Professional-Personal Development of the Elementary School  
One Credit Hour
This is the first course in the professional education sequence. It is designed to help the student define his professional goals and to assess his strengths and weaknesses in light of competencies deemed essential for an elementary school teacher.

EdE 110. Professional-Personal Development of the Elementary School  
Two Credit Hours
A continuation of 109. Practicum experiences on campus and in local area schools are provided to help the student explore his interests and to test whether or not he is willing to commit himself to the teaching profession. A block of time of 3 hrs. one day a week is required for this.

EdE 219. Kindergarten—Primary Instruction  
Three Credit Hours
Deals both with the theory and the necessary practical skills to meet the needs of children in the Kindergarten. Observation in Kindergarten is included. Required for Kindergarten-Primary certification.

EdE 303. Reading in the Elementary School  
Three Credit Hours
Treats reading-readiness, experience reading, methods of meeting individual differences, functional reading, diagnosis in reading, and remedial measures. Prerequisite: EdF 205, EdE 324. Restricted to students who have had teaching experience in an Elementary School.  
Summer

EdE 320. Reading and Language Arts in Elementary School  
Five Credit Hours
An integrated language arts course with reading as its core subject. Acquisition of a certificate in handwriting required. One half day per week devoted to field experience. Prerequisite: EdF 205.
EdE 324. **Language in the Elementary School**
TWO CREDIT HOURS
Stresses the expressional phase of elementary school language, including oral and written
expression, spelling and handwriting. Also treats instructional methods. Acquisition of
certificate in handwriting is required. Prerequisite: EdE 303.

**Summer**

EdE 325. **Social Studies in the Elementary School**
THREE CREDIT HOURS
Function of the social studies in the elementary school; appraisal of teaching procedures
in the field; formulation of definite principles; testing the results of instruction. Prereq­
quisite: EdF 208.

**Summer**

EdE 330. **Religion in CCD (Elementary)**
TWO CREDIT HOURS
Principles and techniques for the effective teaching of religion. Prepares the student to
teach Catholic pupils from the public elementary schools. Prerequisite: Four semester
hours of Theology.

EdE 333. **Religious Instruction in CCD Program**
TWO CREDIT HOURS
Designed to prepare the student to teach Catholic pupils from the public elementary
schools. Prerequisite: Eight semester hours of Theology.

EdE 350. **The Elementary School: Purposes and Practices**
THREE CREDIT HOURS
Deals with objectives, organization, curricula, community relationships, and the practical
aspects of teaching in the elementary schools. Visitation of schools for observation. Prereq­
quisites: EdF 205, EdF 208 or equivalents.

EdE 360. **Children’s Literature**
THREE CREDIT HOURS
Treats the history of children’s literature, poetry for different age levels, folk tales, story
telling. Required of and limited to students in Elementary Education.

EdE 400. **Religion in the Elementary School**
TWO CREDIT HOURS
Methods and materials of instruction; employment of the principles of adaptation to the
practical needs of elementary school children in the Catholic schools. Observation of
teaching. Prerequisites EdF 205, EdF 208.

EdE 403. **Mathematics in the Elementary School**
THREE CREDIT HOURS
Deals with distribution of content according to grade levels; methods of presentation;
diagnosis of learning difficulties; remedial instruction; testing. Directed observation of
teaching. Prerequisite: Mth 204. In addition, Mth 205 required for students desiring a
standard certificate or a minor in Mth.

EdE 412. **Student Teaching—Summer**
SIX CREDIT HOURS
Supervised teaching in actual classroom situations during the summer period. A seminar
on campus twice a week. Restricted to students who have had previous full-time teaching
experience. Prerequisite: Special permission of the Dean.

EdE 413. **Student Teaching (Elementary)**
SIX-TWELVE CREDIT HOURS
Consists of teaching in actual classroom situations for full semester under close supervision.
A seminar is held once a week. Prerequisite: Formal admission to student teaching a full semester in advance; also EdE 320, EdE 350 or 352, and EdE 403.
EDE 431. VISUAL AND OTHER SENSORY AIDS IN EDUCATION TWO CREDIT HOURS
Studies the aims and psychological bases of the use of visual and other sensory aids in the classroom. Includes demonstration lessons applying sensory methods to the subjects of the curriculum. Involves laboratory experience.

EDE 451. ADVANCED KINDERGARTEN-PRIMARY INSTRUCTION THREE CREDIT HOURS
Deals with current problems and practices of kindergarten through the third grade in relation to child and curriculum. Prerequisite: Ede 219.

EDE 460. SCIENCE IN THE ELEMENTARY SCHOOL THREE CREDIT HOURS
Understanding the challenge of the newer developments of science for the elementary school program. Study of the objectives of elementary science and of the selection and grade placement of subject matter.

Special Education

EDE 390. PSYCHOLOGY OF EXCEPTIONAL CHILDREN THREE CREDIT HOURS
A survey course dealing with the nature and characteristics of handicapping conditions in children.

EDE 411. STUDENT TEACHING (SPECIAL EDUCATION) SIX CREDIT HOURS
Consists of teaching in an actual classroom situation under supervision. Includes a seminar. Prerequisites: Ede 390, Ede 480, Ede 489, Ede 490.

EDE 480. PSYCHOLOGY AND EDUCATION OF THE RETARDED THREE CREDIT HOURS
A survey course giving a broad overview of mental retardation. Prerequisite Ede 390.

EDE 487. OCCUPATIONAL ORIENTATION AND JOB TRAINING FOR THE E.M.R. TWO CREDIT HOURS
Principles and practices in the guidance, training, and placement of adolescent and young adult retarded persons. Prerequisite Ede 480.

EDE 488. MATERIALS OF INSTRUCTION FOR E.M.R. TWO CREDIT HOURS
Adaptation of materials to be used in the teaching of the mentally retarded. Prerequisite special permission.

EDE 489. EDUCATIONAL PRACTICES FOR EDUCABLE MENTALLY RETARDED THREE CREDIT HOURS
Objectives, methods, and materials for teaching arithmetic, reading, language arts, and social studies to the E.M.R.; participation of ½ day per week required. Two semester sequence (3 credit hrs. per semester) Prerequisite Ede 390 and Ede 480.

EDE 490. EDUCATIONAL PRACTICES FOR EDUCABLE MENTALLY RETARDED THREE CREDIT HOURS
Continuation of Ede 489.
Secondary Education (EdS)

Dr. Ellis Joseph, Chairman
Professor: Joseph
Associate Professors: Edgington, Morton, Kreigbaum, Metzger
Assistant Professors: Joseph Jansen, Gay, Petit, Taylor, Willis, Rock, McNally, Mathews
Instructor: Griesemer
Part-time Instructors: Levin, Rogus, Rosser

EdS 109. PERSONAL AND PROFESSIONAL DEVELOPMENT OF SECONDARY TEACHERS I TWO CREDITS HOURS
This is the first experience in the professional education sequence. It is designed to help the student define his professional goals and to assess his personal strengths and weaknesses in the light of competencies that are deemed essential for secondary school teaching. Practicum experiences on campus and in local area schools are provided to enable the student to explore his interests and to test whether or not he is willing to commit himself to the teaching profession. This experience is required of all first year students in secondary education, and they should be prepared to devote one afternoon a week to practicum experiences.

First Term, 1970-1971

EdS 110. PERSONAL AND PROFESSIONAL DEVELOPMENT OF SECONDARY TEACHERS II TWO CREDIT HOURS
A continuation of the emphases in EdS 109. Required of all first year students in secondary education. Students should be prepared to devote one afternoon a week to practicum experiences.

Second Term

EdS 327. BUSINESS EDUCATION IN THE SECONDARY SCHOOL THREE CREDIT HOURS
Principles and techniques of teaching business education subjects in high school, including both the social business and secretarial subjects. Students should be prepared to devote one half a day each week to practicum experiences. Prerequisite: EdF 208.

First Term, Each Year

EdS 331. RELIGION IN CCD (HIGH SCHOOL) TWO CREDIT HOURS
Concentrates on principles and techniques of religious instruction for high school students and follows the program of the Confraternity of Christian Doctrine. Prerequisite: Eight semester hours of Theology.

EdS 333. RELIGIOUS INSTRUCTION IN CCD PROGRAM TWO CREDIT HOURS
Designed to prepare the student to teach Catholic pupils from the public secondary schools. Prerequisite: Eight semester hours of Theology.

EdS 351. THE SECONDARY SCHOOL, SELF, AND SOCIETY THREE CREDIT HOURS
An examination of the interrelationships between school, self, and society utilizing group procedures when possible. Students should be prepared to devote one afternoon each week to practicum experiences. Prerequisite: EdF 208.
EdS 404. LATIN IN THE SECONDARY SCHOOL 
THREE CREDIT HOURS
Considers the functions and values of the study of Latin; courses of study; organization of materials; conventional and progressive methods. Students should be prepared to devote one half a day each week to practicum experiences. Prerequisite: EdF 208.

EdS 405. ENGLISH IN THE SECONDARY SCHOOL 
THREE CREDIT HOURS
Ways and means whereby the teacher can make his teaching more functional in the lives of students. Students should be prepared to devote one half a day each week to practicum experiences. Prerequisite: EdF 208. First and Second Term, Each Year

EdS 406. SOCIAL STUDIES IN SECONDARY SCHOOL 
THREE CREDIT HOURS
Aims and values of social studies in high school. General method and special techniques in the social studies field. Students should be prepared to devote one half a day each week to practicum experiences. Prerequisite: EdF 208. First and Second Term, Each Year

EdS 408. MODERN LANGUAGE IN THE SECONDARY SCHOOL 
THREE CREDIT HOURS
Considers the functions and values of language study; courses of study; organization of materials; conventional and progressive methods. Students should be prepared to devote one half a day each week to practicum experiences. Prerequisite: EdF 208. Second Term, Evening

EdS 409. MATHEMATICS IN THE SECONDARY SCHOOL 
THREE CREDIT HOURS
The objectives of high school mathematics; sequence and correlation of subject matter; methods of teaching. Students should be prepared to devote one half a day each week to practicum experiences. Prerequisite EdF 208. Second Term, Each Year

EdS 410. RELIGION IN THE SECONDARY SCHOOL 
TWO CREDIT HOURS
Presents the teacher of religion with modern methods of instruction with view to the practical needs of adolescents. Prerequisite: EdF 208.

EdS 411. SCIENCE IN THE SECONDARY SCHOOL 
THREE CREDIT HOURS
Deals with instructional methods and materials in the modern science program. Includes the selection of objectives on the basis of reliable criteria, and the development of an integral science program. Students should be prepared to devote one half a day each week to practicum experiences. Prerequisite: EdF 208. Second Term, Each Year

EdS 412. STUDENT TEACHING—SUMMER 
SIX CREDIT HOURS
Supervised teaching in actual classroom situations during the summer period. A seminar on campus twice a week. Restricted to students who have had previous full-time teaching experience. Prerequisite: Special permission of the Dean and EdS 351.

EdS 414. STUDENT TEACHING (SECONDARY) 
SIX-TWELVE CREDIT HOURS
Consists of teaching in actual classroom situations for full semester under close supervision. A seminar is held once a week. Prerequisite: Formal admission to student teaching a full semester in advance and EdS 351.

EdS 415. STUDENT TEACHING (SPECIAL) 
SIX-TWELVE CREDIT HOURS
Consists of teaching under close supervision in the specialized subject area in both elementary and high school grades for a minimum of twelve weeks. A seminar is held once a week. Prerequisite: Formal admission to student teaching a full semester in advance and EdS 351.
EdS 416. THE TEACHING INTERNSHIP  
For beginning Marianist teachers in Marianist secondary schools. Supervised experiences under an administrator and a master teacher. Prerequisite: EdS 351.

EdS 455. PRACTICUM IN HIGH SCHOOL READING IMPROVEMENT  
Diagnosis and cause of reading disabilities. Study of techniques applicable to delayed readers. Implementing the high school developmental reading program.  
First Term, Each Year

EdS 456. INDEPENDENT STUDY  
An opportunity for students to pursue (in groups or individually) various interests in education through self-appropriated learning. Prerequisite: permission of the chairman.

Physical and Health Education (EdP)

James B. LaVanche, Chairman  
Philip Stanley, Director of Men’s Division  
Associate Professor: LaVanche  
Assistant Professors: Stanley, Schleppi, Landis  
Instructors: Donoher, Frericks, McVay, Morefield, Wanke  
Doris Drees, Director of Women’s Division  
Associate Professor: Drees  
Assistant Professors: Siciliano, Balata, Dreidame, Roberts  
Instructors: Crissey, Uritus

General Program (Men)

EdP 101. SPORTS APPRECIATION  
Lecture and practical course dealing with the student’s present physical fitness level and assisting them in developing their personal fitness program. Open as an elective to all students.  
First Term, Each Year

EdP 102. HEALTH  
Personal health knowledge for college students. Open as an elective to all students.  
Second Term, Each Year

EdP 105. BEGINNING SWIMMING  
A basic swimming course which includes strokes, diving, elementary forms of rescue and water safety knowledge. Open as an elective to all students.

EdP 201-202. PHYSICAL EDUCATION ACTIVITIES  
Provision of fundamental skills and knowledge of sports activities. Open as an elective to all students.

EdP 201A-202A. ADAPTIVE PHYSICAL EDUCATION ACTIVITIES  
Provision of fundamental skills and knowledge of sports activities for those limited in participation by ruling of University Health Service.
General Program (Women)

EdP 105. BEGINNING SWIMMING
A basic swimming course which includes strokes, diving, elementary forms of rescue and water safety knowledge. Open as an elective to all students.

EdP 130-131. PHYSICAL EDUCATION ACTIVITIES
Fundamentals of Physical Activities. The program includes knowledges and skills of team and individual sports, gymnastics, dance and body mechanics. Open as an elective to all students.

EdP 130A-131A. ADAPTIVE PHYSICAL EDUCATION ACTIVITIES
The teaching of recreational skills and limited motor activity. Designed for the student not able to take part in the regular activities course. (Medical recommendation from Health Center required.)

EdP 140. PERSONAL AND COMMUNITY HEALTH
Lectures and discussions concerning personal and community health.

Professional Program—Men's Division

EdP 103-104(M). FUNDAMENTALS OF PHYSICAL EDUCATION ACTIVITIES
Fundamentals of physical activities for physical education majors. Development of skills and knowledge needed to teach team and individual sports. Prerequisite to EdP 200.

EdP 203-204(M). FUNDAMENTALS OF PHYSICAL EDUCATION ACTIVITIES
Continuation of EdP 103-104(M). Prerequisite to EdP 300 and EdP 324.

EdP 303-304M. ADVANCED SKILLS OF PHYSICAL EDUCATION ACTIVITIES
Advanced skills and strategies of physical education activities. May be repeated when activities change. Prerequisite: EdP 103, 104, 203, 204.

EdP 212. COACHING BASEBALL, TRACK AND FIELD, AND WRESTLING
The theory, skills, strategies and methods of coaching baseball, track and field, and wrestling. Second Term, Each Year

EdP 300. METHODS OF TEACHING TEAM AND INDIVIDUAL SPORTS
Methods to teach individual and team activities in the physical education classes. Practicum.

EdP 310. COACHING BASKETBALL
The theory, skills, strategies and methods of coaching basketball. First Term, Each Year

EdP 312. COACHING FOOTBALL
The theory, skills, strategies and methods of coaching football. Second Term, Each Year
EdP 319M.  **Theory and Techniques of Officiating Football and Basketball** (elective)  
One credit hour each term  
An application of the rules and techniques of officiating to game situations. Students are required to officiate in intramurals. Opportunity for taking O.H.S.A.A. Officials Examination.  
*First Term, Every Other Year*

EdP 320M.  **Theory and Techniques of Officiating Baseball and Wrestling** (electives)  
One credit hour each term  
An application of the rules and techniques of officiating to game situations. Students are required to officiate in intramurals. Opportunity for taking O.H.S.A.A. Officials Examination.  
*Second Term, Every Other Year*

**Professional Program—Women's Division**

EdP 103-104W.  **Fundamentals of Physical Education Activities**  
One credit hour each term  
Development of skills, knowledge and strategy of team and individual sport activities for physical education majors.

EdP 203-204W.  **Fundamentals of Physical Education Activities**  
One credit hour each term  
Continuation of EdP 103-104. Prerequisite to EdP 217 and EdP 324.

EdP 303-304W.  **Advanced Skills of Physical Education Activities**  
One credit hour each term  
Advanced skills and strategies of physical education activities. May be repeated when activities change. Prerequisite: EdP 103, 104, 203, 204.

EdP 217.  **Methods of Teaching Team Sports**  
Three credit hours  
Methods and skills essential to teach and coach various team sports. Prerequisite: EdP 103-104. Practicum.  
*First Term, Each Year*

EdP 245.  **Modern Dance**  
Two credit hours  
Emphasis on basic and intermediate technique involved in modern dance directed toward methods and composition.  
*Second Term, Each Year*

EdP 315W.  **Coaching** (elective)  
Two credit hours  
The study of skills, strategy, and theory necessary to coach Women's basketball and volleyball.  
*Second Term, Every Other Year*

EdP 319W.  **Theory and Techniques of Officiating Field Hockey and Basketball** (elective)  
One credit hour each term  
An application of the rules and techniques of officiating to game situations. Students are required to officiate in intramurals. Prerequisite: EdP 103-104W.  
*First Term, Every Other Year*

EdP 320W.  **Theory and Techniques of Officiating, Volleyball, Softball, and Tennis** (elective)  
One credit hour each term  
An application of the rules and techniques of officiating to game situations. Students are required to officiate in intramurals. Prerequisite: EdP 103-104W.  
*Second Term, Every Other Year*
EdP 334. Methods of Teaching Individual Sports
Methods and skills essential to teach and coach individual and dual sports. Prerequisites: EdP 203-204W.

EdP 346. Problems in Physical Education for Women
Theory and practice in the organization and administration of extra-curricular responsibilities.

Professional Program (Men and Women)

EdP 109-110. Professional and Personal Development of the Physical Education Teacher
This is the first course in the professional education sequence. It is designed to help the student define his professional goals and to assess his personal strengths and weaknesses in the light of competencies that are deemed essential for a physical education teacher. Practicum experiences on campus and in local area schools are provided to enable the student to explore his interests and to test whether or not he is willing to commit himself to the teaching position.

EdP 116. Personal Health
The establishment of proper health attitudes, habits, and knowledge by studying the human body and its environment.

EdP 118. Community Health
Prevention and control of disease in the family, school and community.

EdP 205-206. Human Anatomy and Physiology
A study of the human body with emphasis on the interdependent relationships of structure and function. (Bio 101-102 prerequisite) Prerequisite to EdP 350 and EdP 408.

EdP 213. Principles of Physical Education
A study of the aims, scope, and biological aspects of physical education in regards to its role in the educational process.

EdP 251. Organization and Administration of Health Education
The organization and administration of a school health program with emphasis on principles of health education, health services, healthful school living and physical inspection.

EdP 309. Methods and Materials of Health Education
Application of principles of methodology to health education in the elementary and secondary schools.

EdP 317. Organization and Administration of Camping
Study and practice of the basic skills essential in planning and conducting a camping program.
EdP 324. **Principles and Practices of Physical Education in the Elementary School**

Basic theory, techniques and methods of teaching physical education in the elementary school. Practicum.

EdP 325. **Methods of Teaching Dance**

Materials and methods for teaching folk, square and ballroom dancing in elementary and secondary schools.

EdP 336. **Safety Education and First Aid**

Prevention and care of injuries occurring from accidents in the home, school and community. The National Red Cross Standard, Advanced, and Instructors Certificates may be obtained.

EdP 348. **Organization and Administration of Recreation**

Study of the philosophy, leadership, standards, facilities and programs of recreation.

*Second Term, Each Year*

EdP 350. **Kinesiology**

The investigation and analysis of human motion based on anatomical, physiological and mechanical principles. Prerequisites: EdP 205-206.

EdP 402. **Organization and Administration of Physical Education**

Organization and administration of programs in physical education.

EdP 405. **Tests and Measurements in Physical Education**

This course is designed to present a direct relationship of tests and measurements to the teaching situation.

*First Term, Each Year*

EdP 407. **Modern Problems in Public Health**

A seminar study of current health problems with special emphasis on preventive medicine and epidemiology.

EdP 408. **Physiology of Exercise**

Detailed study of the effects of exercise on human functions; thus providing a basis for the study of physical fitness, motor skills, and athletic training.

*First Term, Each Year*

EdP 410. **Adaptive Physical Education**

A study of the atypical child in order to organize and administer a program which will meet each individual's needs.

EdP 413. **Health Education in the Elementary School**

A study of the total school health program. The Standard First Aid Course is given. Elementary Education majors only.

EdP 414. **Physical Education in the Elementary School**

Designed to equip the elementary education major with basic theory, techniques and methods for conducting a physical education program for the elementary students.
EdP 417. STUDENT TEACHING (COMPREHENSIVE AND SPECIAL)

SIX-TWELVE CREDIT HOURS
Consists of teaching under close supervision in the specialized subject area in both elementary and high school grades for a minimum of twelve weeks. A seminar is held once a week. Prerequisite: Formal admission to student teaching a full semester in advance.

EdP 418. STUDENT TEACHING (PRINCIPAL TEACHING FIELD)

SIX-TWELVE CREDIT HOURS
Consists of teaching under close supervision in the specialized subject area in high school grades only for a minimum of twelve weeks. A seminar is held once a week. Prerequisite: Formal admission to student teaching a full semester in advance.

EdP 420. AQUATICS (ELECTIVE)
TWO CREDIT HOURS
The American Red Cross Senior Life Saving and the Water Safety Instructor's Course. 
Prerequisite: Advanced Swimming. Second Term, Each Year

EdP 433. GYMNASTICS
TWO CREDIT HOURS
The practice and methods of beginning and intermediate gymnastic skills essential to effective teaching.

EdP 440. DRIVER EDUCATION
THREE CREDIT HOURS
Teacher preparation with practical teaching experience in Driver and Traffic Safety Education. First Term, Each Year

EdP 450. SELECTED STUDIES IN PHYSICAL EDUCATION, HEALTH AND EDUCATION
ONE-THREE CREDIT HOURS
Investigating, analyzing, and reporting on a problem in the areas of physical education, recreation or health education.

EdP CORRECTIVE THERAPY CLINICAL TRAINING
NO CREDIT
Corrective therapy clinical training program is offered students who major in health and physical education. Involves 400 clock hours of directed clinical training at the Veterans Administration Center, Dayton and Veteran Administration Center, Brecksville, Ohio.

Counselor Education (EdC)
Dr. Eugene K. Moulin, Chairman
Professor: Campanelle
Associate Professor: Diethorn
Assistant Professor: Anderson

Courses are listed in the Graduate Catalog Issue of the Bulletin.

School Administration (EdA)
Dr. John O'Donnell, Chairman
Professor: O'Donnell
Associate Professors: Edgington, Morton
Part-time Instructor: Overly

Courses are listed in the Graduate Catalog Issue of the Bulletin.
Electrical Engineering (ELE)

Dr. Bernhard M. Schmidt, Chairman
Professors: Holian, Morgan, Rose, Schmidt, Strnat
Associate Professors: Evers, Kubach, Lewis, Tsui
Assistant Professors: Fitz, Moon

ELE 231. CIRCUIT THEORY I
Three Credit Hours
Principles of linear circuit theory. Analysis of resistive circuits having constant or time
varying sources. Analysis of transient and steady state behavior of simple circuits con­
taining R, L, and C. Introduction to ECAP. Prerequisite: Mth 119.

ELE 232. CIRCUIT THEORY II
Three Credit Hours
Sinusoidal analysis: sinusoidal forcing function, phasor concept, steady-state response,
resonance, average power and rms values, magnetically coupled circuits, polyphase
circuits. Prerequisite: ELE 231.

ELE 233. FIELD THEORY I
Three Credit Hours
Vector calculus, static electric fields, conductors, dielectric materials, boundary condi­
tions, field mapping, steady electric currents and their magnetic fields, motion of charged
particles. Prerequisite: Mth 218.

ELE 312. ENGINEERING ELECTRONICS I
Three Credit Hours
A first course on the terminal behavior of electron devices. Topics include qualitative
physical description, volt ampere curves, graphical solutions. Formulation of incremental
and piecewise linear models. Analysis of simple amplifier circuits. Prerequisite: ELE 232.

ELE 313. ENGINEERING ELECTRONICS II
Three Credit Hours
Cascaded amplifiers, feedback amplifiers, linear integrated circuits; including steady
state and transient response. Oscillators. Digital and switching circuits. Prerequisite: ELE
312. Corequisite: ELE 331.

ELE 321. BASIC ELECTRIC THEORY
Three Credit Hours
For Chemical, Civil, Mechanical and Industrial Engineering students. Fundamental
methods of analysis in DC and AC circuits. Prerequisites: Phy 207, Mth 218.

ELE 322. FUNDAMENTAL ENGINEERING ELECTRONICS
Two Credit Hours
An introduction to electron devices and electronic circuits leading to applications that
emphasize instrumentation and control. For students not majoring in electrical engineer­
ing. Prerequisite: Ele 321 or equivalent background in DC and AC circuit theory.

ELE 322L. FUNDAMENTAL ENGINEERING ELECTRONICS LABORATORY
One Credit Hour
Experiments dealing with electronics, instrumentation, transducers, and automatic con­
trol. Corequisite: Ele 322.

ELE 331. CIRCUIT THEORY III
Three Credit Hours
Analysis of electrical circuits excited with non-sinusoidal sources. Fourier series. Ramp,
step and impulse functions. Impulse response and convolution integral. Fourier integral
and transforms. Prerequisites: Ele 232, Mth 219.
ELE 332. CIRCUIT THEORY IV
Application of Laplace-transform techniques to the specification and design of frequency-selective networks; two-terminal networks; filters; impedance matching. Prerequisite: Ele 331.

ELE 333. FIELD THEORY II
Ferromagnetic materials, time changing electric and magnetic fields, Maxwell's equations, relations between field and circuit theory, plane waves, Poynting vector, energy relations. Prerequisite: Ele 233.

ELE 334. FIELD THEORY III
Boundary value problems, retarded potentials, radiation and propagation in isotropic and anisotropic media. Prerequisite: Ele 333.

ELE 335L. ELECTRICAL ENGINEERING LABORATORY I
Experimental situations stressing familiarization with electrical engineering concepts, hardware, devices, instrumentation, and techniques. Corequisite: Ele 232.

ELE 336L. ELECTRICAL ENGINEERING LABORATORY II
Quantitative experiments dealing with resonance, coupled circuits, magnetic circuits, instrumentation, and measurements. Prerequisite: Ele 335L.

ELE 338L. ELECTRICAL ENGINEERING LABORATORY III
Electron devices, amplifiers, feedback circuits, switching circuits, power electronics. Prerequisite: Ele 312.

ELE 410A. SEMINAR
Presentation of papers on contemporary electrical engineering by the students and lectures by engineers in active practice. A required course for second term seniors.

ELE 410B. SEMINAR
Presentation of papers on contemporary electrical engineering by the students and lectures by engineers in active practice. A required course for juniors and first term seniors.

ELE 413. COMMUNICATION ENGINEERING
Amplitude, angle and pulse modulation systems. Generation, deletion, and analysis of modulated signals. Power and bandwidth considerations. Introduction to information theory. Prerequisite: Ele 331.

ELE 431. ENERGY CONVERSION
ELE 432. AUTOMATIC CONTROL SYSTEMS  THREE CREDIT HOURS
Open and closed-loop systems, mathematical models for control systems, representation of feedback control systems, servomechanism characteristics, stability analysis. Prerequisite: Ele 332. Corequisite: Ele 431.

ELE 435L. ELECTRICAL ENGINEERING LABORATORY IV  ONE CREDIT HOUR
Digital logic, passive and active filters, networks transmission lines. Prerequisites: Ele 313, Ele 338L.

ELE 436L. ELECTRICAL ENGINEERING LABORATORY V  ONE CREDIT HOUR
Modulation, detection, communication electronics, communication subsystems. Prerequisite: Ele 435L.

ELE 437L. ELECTRICAL ENGINEERING LABORATORY VI  ONE CREDIT HOUR
Experiments dealing with operating and performance characteristics of electromechanical energy converters, application of electronic control to power machinery, and operating and performance characteristics of automatic control systems. Corequisite: Ele 431.

Electrical Engineering Electives*

ELE 415. MICROWAVE ENGINEERING  THREE CREDIT HOURS
Microwave transmission lines, cavity resonators; microwave circuits and devices; microwave generators; applications of microwaves. Prerequisite: Ele 334.

ELE 417. THESIS  THREE CREDIT HOURS
Independent project in a field selected by the student and approved by the faculty. Open to seniors in the second semester.

ELE 440. PHYSICAL ELECTRONICS  THREE CREDIT HOURS
Introduction to wave mechanics; electron ballistics; theory of metals and semiconductors; electron emission, space charge flow; modern electron devices. Prerequisite: Mth 219.

ELE 441. PULSE AND DIGITAL CIRCUITS  THREE CREDIT HOURS
Transmission networks, differentiating circuits, clippers, comparators, clampers, the transistor as a switch, logic circuits, multivibrators, time base generators and pulse amplification. Emphasis on application of modern semiconductor devices. Prerequisite: Ele 313.

ELE 499. SPECIAL PROBLEMS IN ELECTRICAL ENGINEERING  TWO TO SIX CREDIT HOURS
Particular assignments to be arranged and approved by Chairman of the Department.

*Refer to Graduate Catalog for other Electrical Engineering courses open for undergraduate enrollment.
English (ENG)

Dr. B. J. Bedard, Chairman
Dr. Michael H. Means, Assistant Chairman

Professors: Bedard, Lees, O'Donnell

Associate Professors: August, Cochran, Macklin, McCarthy, Means, Patrouch, Ruff, Sturm

Assistant Professors: Arons, Cameron, Deboo, Farrelly, Geibel, Henninger, Horst, Kimbrough, Labadie, LaBriola, Marré, Martin, McNally, Mundell, Murphy, Palumbo, Pic; Rougier, Stockum

Instructors: Bozdech, Columbus, Kleine-Kreutzmann

Eng 101 and Eng 106 are normally prerequisites for all courses listed as 200 or above. In addition to 12 hrs. of freshman and sophomore courses majors must take 316, 318, or 428; 405 or 431; 490; a semester of Shakespeare; a period survey each from sequence 412 to 435 and 438 to 442; a semester of American literature from the sequence 450 to 456; and one additional elective from 300-400 level offerings. Majors should consult the departmental chairman for advisor assignment. In addition to Freshman and Sophomore courses minors must take one course from the 300 level and three from the 400 level. Minors should consult the departmental chairman regarding the program of study when there is a question involved.

The Department sponsors one co-curricular activity, ORPHEUS, the literary magazine of the University.

Students for whom English is a second language, in their first term, will be required to enroll in English 90, A Review of American English, offered through the Office of Special Sessions before their initial enrollment in Eng 101, unless they demonstrate sufficient proficiency in an examination given during Orientation Week.

**ENG 101. LANGUAGE AND THOUGHT**
THREE CREDIT HOURS
An analysis of the logical and linguistic structure of exposition and argument. Practical application aimed at developing perceptive readers and responsible writers. Required conferences. Required of every student.

**ENG 106. LANGUAGE AND LITERATURE**
THREE CREDIT HOURS
An analysis of the major literary forms with emphasis on precision in the use of language. Papers required involve the student with problems of language and structure. Required conferences. Prerequisite: Eng 101.

**ENG 106H. LANGUAGE AND LITERATURE**
THREE CREDIT HOURS
Specific honors sections for first semester freshmen who show proficiency in the English Composition Test. Prerequisite: Superior scores in entrance exams.

**ENG 108. TOPICS IN COMPOSITION**
THREE CREDIT HOURS
Exploration of subjects in composition or related problems in developing writing skills. This course may be substituted for Eng 101 or Eng 106 under special circumstances.
ENG 203. MAJOR BRITISH WRITERS
A study of four or five writers representative of the principal periods in English literature. Prerequisite: Eng 106.

ENG 204. MAJOR AMERICAN WRITERS
A study of four or five writers representative of the principal periods in American literature. Prerequisite: Eng 106.

ENG 205. MAJOR WORLD WRITERS
An examination of significant writings from the Western world, exclusive of English and American literature. Prerequisite: Eng 106.

ENG 208. TOPICS IN LITERATURE
Exploration of varying approaches to the study of literature. This course may, under special circumstances, be substituted for the other 200 level courses in fulfilling a sophomore requirement. Prerequisite: Eng 106.

ENG 210. POETRY
A study of representative examples of a major literary genre. Not open normally to students who have had Eng 201. Prerequisite: Eng 106.

ENG 212. DRAMA
A study of representative examples of a major literary genre. Not open normally to students who have had Eng 202. Prerequisite: Eng 106.

ENG 214. FICTION
A study of representative examples of short fiction and the novel. Not normally open to students who have had Eng 201 or 202. Prerequisite: Eng 106.

ENG 240H-241H. SOPHOMORE HONORS
A seminar in which selected works from the literature of western civilization would be studied. Prerequisite: Sophomore standing in Arts. By invitation only.

ENG 301. SURVEY OF EARLY ENGLISH LITERATURE
A survey of English literature from the medieval period to the end of the eighteenth century. Prerequisite: Nine hours of English.

ENG 302. SURVEY OF LATER ENGLISH LITERATURE
A survey of English literature from the beginning of the Romantic period to the present day. Eng 301 is not the prerequisite. Prerequisite: Nine hours of English.

ENG 305. SURVEY OF AMERICAN LITERATURE
A survey of American literature from the Colonial period to the present day. Prerequisite: Nine hours of English.

ENG 307. INTRODUCTION TO LINGUISTICS
An introduction to the basic concepts and procedures of general linguistics, including language description, history, variation, theory, and acquisition. Prerequisite: completion of intermediate level in a language or junior standing.
ENG 316. ADVANCED COMPOSITION
THREE CREDIT HOURS
Offers intensive practice in the standard forms of theme writing, with emphasis on the formal, rhythmic, and thought patterns of the sentence, the paragraph, and the total composition. Prerequisite: Twelve hours of English.

ENG 318. CREATIVE WRITING
THREE CREDIT HOURS
The principles for writing the short story, the informal and formal essay, and the biographical sketch. Prerequisite: Eng 316 or permission.

ENG 321. EUROPEAN LITERATURE OF THE MIDDLE AGES
THREE CREDIT HOURS
A consideration of selected literary masterpieces of Western civilization in the Middle Ages. Prerequisite: Twelve hours of English.

ENG 322. WORLD LITERATURE
THREE CREDIT HOURS
A survey of the literature of continental Europe and of Asia, from its beginning up to the twentieth century. Not open to students who have had Eng 205. Prerequisite: Twelve hours of English.

ENG 323. DANTE
THREE CREDIT HOURS
A comprehensive study of the three Canticles of the Divine Comedy; Inferno, Purgatorio, and Paradiso. Prerequisite: Twelve hours of English.

ENG 329. SHORT STORY
THREE CREDIT HOURS
A study of the techniques employed in the writing of the short story. Various models of the short story will be analyzed. Not open normally to students who have had Eng. 202 or Eng 214. Prerequisite: Twelve hours of English.

ENG 330. DEVELOPMENT OF DRAMA
THREE CREDIT HOURS
A study of the historical development of the drama from its beginnings in the Classic Age to the nineteenth century. Selected plays from each significant period are read and analyzed. Not open normally to students who have had Eng 202 or Eng 210.

ENG 332. MODERN DRAMA
THREE CREDIT HOURS
A selected number of dramas, representing the best of world theater by the foremost playwrights of the modern period. Prerequisite: Twelve hours of English.

ENG 348. MODERN IRISH LITERATURE
THREE CREDIT HOURS
A consideration principally of the Irish literary revival of the late nineteenth and early twentieth century with appropriate background material. Prerequisite: Twelve hours of English.

ENG 352. TOPICS IN MODERN LITERATURE
THREE CREDIT HOURS
A study of selected Continental, English, and American writers with a background of discussion of the significant forces shaping the literature of the twentieth century. Prerequisite: Twelve hours of English.

ENG 362. SHAKESPEARE
THREE CREDIT HOURS
A study of selected plays of Shakespeare. Some of these are discussed intensively in class; others are assigned for outside reading. Prerequisite: Twelve hours of English.
ENG 368. NEWMAN: THE IDEA OF A UNIVERSITY  THREE CREDIT HOURS
The primary objective of this course is to cultivate a consciousness of the "philosophical habit of the mind," as set forth by Cardinal Newman in the Discourses on the Idea of a University. Prerequisite: Twelve hours of English.

ENG 370. FRANCIS THOMPSON  THREE CREDIT HOURS
A study of his poems toward the discernment of their manifold spiritual and autobiographical implications. Prerequisite: Twelve hours of English.

ENG 375. STUDIES IN LITERATURE  ONE TO SIX CREDIT HOURS
A study of special topics or themes in literature. Could be repeated under special circumstances. Prerequisite: Twelve hours of English.

ENG 382. DIRECTED READINGS  TWO CREDIT HOURS
A program of professionally oriented readings and reports in humanities and social sciences, utilizing seminars and individual conferences. Required of Juniors in Business Administration. Prerequisite: Six hours of English.

ENG 395H. JUNIOR HONORS TUTORIAL  THREE CREDIT HOURS
Independent directed study on special topics for selected students. May be repeated when topic or instructor changes. Permission required.

ENG 405. CHAUCER  THREE CREDIT HOURS
A study of the life, the times, and the language of Chaucer. The main concentration is on The Canterbury Tales as rendered in Middle English. Prerequisite: Twelve hours in English.

ENG 407. MEDIEVAL ENGLISH LITERATURE  THREE CREDIT HOURS
A study of the dominant types in the literature of England from the beginning to 1500. Prerequisite: Twelve hours in English.

ENG 412. EARLY RENAISSANCE LITERATURE  THREE CREDIT HOURS
A survey of the non-dramatic literature of the sixteenth century from Thomas More to Sidney and Spenser. Prerequisite: Twelve hours in English.

ENG 413. LATER RENAISSANCE LITERATURE  THREE CREDIT HOURS
A survey of the non-dramatic literature of the early seventeenth century from Bacon, Jonson, and Donne, to Marvell, exclusive of Milton. Prerequisite: Twelve hours in English.

ENG 420. RENAISSANCE DRAMA  THREE CREDIT HOURS
A study of the drama of the Elizabethan, Jacobean, and Caroline periods, exclusive of Shakespeare. Prerequisite: Twelve hours in English.

ENG 428. LITERARY CRITICISM  THREE CREDIT HOURS
A study of the history and development of literary criticism. It includes a study of fundamental principles of literary structure and style, together with the various theories advanced. Prerequisite: Twelve hours of English.
ENG 431.  MILTON  
A study of the major and minor poems and of selected prose of Milton. Prerequisite: Twelve hours of English.

ENG 434.  AGE OF WIT AND SATIRE  
The concern of the course is with the literature from Dryden to Pope, Addison, and Steele. Prerequisite: Twelve hours of English.

ENG 435.  ENGLISH LITERATURE OF THE EIGHTEENTH CENTURY  
A study of the most representative works in prose and poetry from Swift to Johnson. Prerequisite: Twelve hours of English.

ENG 437.  THE ENGLISH NOVEL  
A study of the development of the English novel from its beginning in the middle of the eighteenth century to the end of the nineteenth century. Prerequisite: Twelve hours of English.

ENG 438.  THE AGE OF ROMANTICISM  
A study of the major poets and critics of the Romantic Age. Prerequisite: Twelve hours of English.

ENG 441.  THE VICTORIAN AGE I  
A study of the major British poets from Tennyson to Housman. Prerequisite: Twelve hours of English.

ENG 442.  THE VICTORIAN AGE II  
English prose writers from Carlyle to Pater. Eng 441 is not a prerequisite. Prerequisite: Twelve hours of English.

ENG 445.  MODERN BRITISH FICTION  
A consideration of significant developments in the novel and short fiction from Joyce to the present day. Prerequisite: Twelve hours of English.

ENG 446.  MODERN ENGLISH POETRY  
A study of tradition and innovation in English poetry from Yeats to the present day. Prerequisite: Twelve hours of English.

ENG 450.  NINETEENTH CENTURY AMERICAN POETRY AND PROSE  
A survey of the significant developments in American literature, exclusive of fiction, from Bryant and Poe to Whitman and Henry Adams. Prerequisite: Twelve hours of English.

ENG 452.  AMERICAN FICTION OF THE NINETEENTH CENTURY  
A study of developments in the novel and short fiction from Washington Irving to Mark Twain and Stephen Crane. Prerequisite: Twelve hours of English.

ENG 454.  MODERN AMERICAN FICTION  
A treatment of significant movements in the novel and in the theory of fiction in twentieth century American literature. Prerequisite: Twelve hours of English.
ENG 456. MODERN AMERICAN POETRY
A study of the technique of modern poetry in America from Robinson, Jeffers, and Frost to the present. Prerequisite: Twelve hours of English.

ENG 470. HISTORY OF ENGLISH
Stages in the development of the English language and influences shaping its development are studied to show what happened to the English language from the beginning to the present time. Prerequisite: Eng 307.

ENG 472. THE STRUCTURE OF ENGLISH
Studies in grammatical structure of modern English in the light of historical development. Traditional and modern linguistic points of view considered. Prerequisite: Eng 307.

ENG 474. DESCRIPTIVE LINGUISTICS
The scientific description of language. Intended primarily for students interested in linguistics as an academic discipline, attention is directed to articulatory and acoustic phonetics, phonemics, morphology, and field methods. Prerequisite: Eng 307.

ENG 476. DIALECTOLOGY
A survey of the methods and results of linguistic geography and modern sociological dialectology with particular emphasis on American English and non-standard dialect problems in society and the classroom. Prerequisite: Eng 307.

ENG 480. INDEPENDENT STUDY
Individual investigations of special topics under faculty direction. With permission. May be repeated under special circumstances. Prerequisite: At least eighteen hours of English.

ENG 490. SEMINAR
Concentration on one literary figure, genre, or period for purposes of research and analysis. Reports are read at sessions. Required of all majors in English. With permission. Prerequisite: Thirty hours of English.

ENG 495H. SENIOR HONORS TUTORIAL
Independent directed study on special topics for selected students. May be repeated when topic or instructor changes. Permission required.

Fine Arts—See Performing and Visual Arts

Geology (GEO)

George H. Springer, Chairman
Professor: Springer
Associate Professor: Horvath
Assistant Professors: Gray, Murtaugh, Ritter, Stricker
Assistant Instructor: Cella
Part-time Instructor: Herron
GEO 103. **PRINCIPLES OF GEOGRAPHY**  
THREE CREDIT HOURS  
An analysis of the physical factors of the earth's environment; weather, climate, rocks, land forms, oceans. Does not satisfy science requirement for Arts and Sciences.

GEO 109. **GENERAL GEOLOGY**  
THREE CREDIT HOURS  
An introduction to the earth as a planet, its composition, structure, and evolutionary development; a brief consideration of the life of the past. Designed for the non-science major.

GEO 109L. **GENERAL GEOLOGY LABORATORY**  
ONE CREDIT HOUR  
Course to accompany Geo 109. Two hours per week.

GEO 115. **PHYSICAL GEOLOGY**  
THREE CREDIT HOURS  
An introductory course in geologic principles; the composition and structure of the earth, its land forms, and the agencies active in their production.

GEO 115L. **PHYSICAL GEOLOGY LABORATORY**  
ONE CREDIT HOUR  
Course to accompany Geo 115. Two hours per week.

GEO 116. **HISTORICAL GEOLOGY**  
THREE CREDIT HOURS  
A comprehensive study of earth history as interpreted from the rocks of the crust. Prerequisite: Geo 115.

GEO 116L. **HISTORICAL GEOLOGY LABORATORY**  
ONE CREDIT HOUR  
Course to accompany Geo 116. Two hours per week.

GEO 201L. **MINERALOGY LABORATORY**  
ONE CREDIT HOUR  
Course to accompany Geo 201. Three hours per week.  
*First Term, Each Year*

GEO 204. **OPTICAL MINERALOGY**  
TWO CREDIT HOURS  
Mineral determination through the use of the petrographic microscope employing crushed grains and thin sections. Prerequisite: Geo 201.  
*Second Term, Each Year*

GEO 204L. **OPTICAL MINERALOGY LABORATORY**  
TWO CREDIT HOURS  
Course to accompany Geo 204. Four hours per week.  
*Second Term, Each Year*

GEO 218. **ENGINEERING GEOLOGY**  
THREE CREDIT HOURS  
A comprehensive study of geologic principles applicable to civil engineering practices.  
*Second Term, Each Year*

GEO 301. **STRUCTURAL GEOLOGY**  
THREE CREDIT HOURS  
The origin and development of structural features of the earth's crust; folding, faulting, volcanism, mountain building, and metamorphism. Prerequisites: Geo 115, 116, 201, 204.  
*Second Term, 1971-1972*

GEO 301L. **STRUCTURAL GEOLOGY LABORATORY**  
ONE CREDIT HOUR  
Course to accompany Geo 301. Two hours per week.  
*Second Term, 1971-1972*
GEO 302. Glacial Geology THREE CREDIT HOURS
The origin of mountain and continental glaciers; their depositional features and erosive activity; history of glaciation in geologic past with special emphasis upon North American Pleistocene ice advances. Prerequisites: Geo 115, 116. First Term, 1971-1972

GEO 302L. Glacial Geology Laboratory ONE CREDIT HOUR
Course to accompany Geo 302. Two hours per week. First Term, 1971-1972

GEO 303. Field Geology SIX CREDIT HOURS
Six weeks summer study of structural and age relationship problems in areas containing abundant crystalline and sedimentary exposures. Prerequisites: Geo 115, 116, and 301. Summer

GEO 305. Environmental Geology FOUR CREDIT HOURS
A study of the relationship of geologic factors to the problems of water supply, pollution, erosion, land use, and earth resources.

GEO 307. Geomorphology THREE CREDIT HOURS
A detailed study of landforms and the erosional processes that develop them. Prerequisites: Geo 115, 116, and 301. Second Term, 1971-1972

GEO 307L. Geomorphology Laboratory ONE CREDIT HOUR
Course to accompany Geo 307. Two hours per week. Second Term, 1971-1972

GEO 309. Petrography THREE CREDIT HOURS
A study of the composition of igneous, sedimentary, and metamorphic rocks through the use of thin sections and hand specimens. Prerequisites: Geo 204. First Term, Each Year

GEO 309L. Petrography Laboratory ONE CREDIT HOUR
Course to accompany Geo 309. Four hours per week. First Term, Each Year

GEO 310. Stratigraphy THREE CREDIT HOURS
The interpretation of specific lithotypes and the synthesis of the stratigraphic record. Prerequisites: Geo 116, 301. Second Term, 1972-1973

GEO 310L. Stratigraphy Laboratory ONE CREDIT HOUR
Course to accompany Geo 310. Two hours per week. Second Term, 1972-1973

GEO 401. Paleontology THREE CREDIT HOURS
A study of animal life of the geologic past as shown by the fossil record. First Term, 1971-1972

GEO 401L. Paleontology Laboratory ONE CREDIT HOUR
Course to accompany Geo 401. Two hours per week. First Term, 1971-1972

GEO 403. Sedimentation THREE CREDIT HOURS
Detailed study of sediments; their sources, environments of deposition, and methods of consolidation. Sedimentary rock classifications and analyses. Prerequisites: Geo 201, 204, 301. First Term, 1972-1973
**GEO 403L. SEDIMENTATION LABORATORY**
Course to accompany Geo 403. Two hours per week.  
*First Term, 1972-1973*

**GEO 404. PROBLEMS IN GEOLOGY**
A consideration of special problems involving advanced work in the laboratory and library; arranged to meet the needs of individual students.  
*TWO CREDIT HOURS*

**GEO 411. IGNEOUS PETROLOGY**
A study of the formation of igneous rocks. Prerequisites: Geo 201, 204, 309.  
*SECOND TERM, EACH YEAR*

**GEO 411L. IGNEOUS PETROLOGY LABORATORY**
Course to accompany Geo 411. Two hours per week.  
*SECOND TERM, EACH YEAR*

**History (HST)**

Dr. Leroy V. Eid, *Acting Chairman*

*Professors: Beauregard, Donatelli, Ruppel, Steiner*

*Associate Professors: King, Mathias, Soffer*

*Assistant Professors: Anderson, Bannan, Eid, Jegen, Rhee, Taylor, Yaple*

*Instructors: Alexander, Edwards, Gorie, Ridgway, Van Tuyl, Vines*

*Part-time Instructors: Perkins, Whelan*

History courses in the 100-200 series are prerequisite courses and may not be applied toward a major or a minor.

The course requirement for History majors is 26 credit hours, distributed as follows:

1. Four courses (12 credit hours) should be selected from the 300-350 and 402-450 sequences;
2. Four courses (12 credit hours) should be selected from the 351-399 and 451-495 sequences;
3. History 401—2 credit hours;
4. Honors Tutorial courses (Hst 497 and 498) may be substituted for any course except History 401.

The course requirement for History minors is 12 credit hours. Two courses should be selected from the 300-350 and 402-450 sequences, and two courses from the 351-399 and 451-495 sequences.

**HST 101. HISTORY OF CIVILIZATION**
A survey of mankind from earliest times to 1660 A.D. The course stresses the social and cultural aspects of the prehistoric, ancient, medieval, and early modern eras.  
*THREE CREDIT HOURS*

**HST 102. HISTORY OF CIVILIZATION**
A survey of mankind from 1660 A.D. to the present. Emphasis on the Old Regime, the French Revolution and Napoleonic Age, the Era of Nationalism and Liberalism, the New Industrialism and Imperialism.  
*THREE CREDIT HOURS*
HST 120. History of England
This course is designed to acquaint undergraduate students with the major forces and trends in the history of England from earliest times to the present.

HST 125. History of Russia
The development of the Russian state from earliest times to the present. This course is concerned with the origins of the Russian state, political and economic growth, and the development of the modern Soviet state.

HST 130. History of the Far East
Brief review of the early historical development of the Far East, and a study of China and Japan in the 19th and 20th centuries. Emphasis on political, religious, cultural, and economic growth of China and Japan.

HST 135. History of Africa
Attuned to the new approach to African history, this survey, covering early times to the present, aims to display Africa's significance by examples of political grandeur, commercial ingenuity, intellectual ferment, and religious revolutions.

HST 251. American History to 1865
A general survey of the development of the American nation from colonial times to 1865. Due consideration is given to political trends, but the economic and social foundations of American institutions are also emphasized.

HST 252. American History Since 1865
This course carries forward the story of the nation and its development after the Civil War. Stress is on those social, economic, and political problems, a knowledge of which is essential to an understanding of contemporary America.

HST 260. Social and Cultural History of the United States
Social and cultural development of the American people. Emphasis upon the growth of national spirit, the impact of expansion, conflict over slavery, and problems of industrialization and urbanization.

HST 265. Diplomatic History of the United States
Beginning with an explanation of the foundations of American foreign policy this course continues with the diplomacy of continental expansion through the 19th century. Emphasis is placed on diplomatic problems since 1898.

HST 270. Economic History of the United States
A survey of the economic theories and institutions peculiar to the United States with special reference to their influence on social and political development.

HST 275. Latin American History
A study of developing nations in search of cultural identity, social justice and political stability.

HST 306. Intellectual and Cultural History of Modern Europe
Close analysis of men, ideas, and principal cultural developments in the period beginning with the Renaissance and extending into the 20th century.
HST 318. FRENCH REVOLUTION AND NAPOLEONIC ERA 
THREE CREDIT HOURS
Concentration on the ideological, economic, social and political background of the Revolution; an analysis of the Revolutionary governments; the resulting international wars; the rise and fall of Napoleon.

HST 319. FRANCE SINCE 1815 
THREE CREDIT HOURS
A study of French history from the Bourbon Restoration to the establishment of the 20th century Fifth Republic, with special emphasis on the intellectual, social economic, political, and diplomatic trends.

HST 321. HISTORY OF ENGLAND SINCE 1688 
THREE CREDIT HOURS
A study of England and Great Britain from the Restoration to the present time. The aim of the course is to study the economic, political, and cultural developments of the Hanoverian, Victorian and modern periods.

HST 323. BRITISH EMPIRE AND COMMONWEALTH 
THREE CREDIT HOURS
An over-all view from Empire to Commonwealth, 1783 to the present. Option of in-depth area studies gives scope for cultural and sociological as well as political problems.

HST 328. HISTORY OF EASTERN EUROPE 
THREE CREDIT HOURS
The course surveys the history of the nations lying between Germany and the Soviet Union, the Baltic and Aegean Seas. Medieval and early modern background will be stressed as a foundation for understanding the profound trends of contemporary history.

HST 329. MODERN GERMANY 
THREE CREDIT HOURS
Analysis of the development of the German state from 1848 through the period of unification, Second Empire, Weimar Republic, Third Reich, the post World War II Germanies.

HST 332. SOCIAL AND CULTURAL HISTORY OF THE MIDDLE EAST 
THREE CREDIT HOURS
Social and cultural development of the Middle-Eastern people. Emphasis upon the growth of national spirit, the impact of westernization and industrialization, stressing transition and innovation in social and cultural traits.

HST 357. LATIN AMERICA IN 20TH CENTURY 
THREE CREDIT HOURS
An intensive examination of revolution and reaction in today's Latin America and the implications for those who formulate United States foreign policy.

HST 358. INTELLECTUAL AND CULTURAL HISTORY OF THE U.S. 
THREE CREDIT HOURS
The course explores themes that contemporary historians of the American intellectual experience consider to be particularly important. Emphasis is placed on the relevant historiographical techniques and assumptions.

HST 359. U.S. CONSTITUTIONAL HISTORY 
THREE CREDIT HOURS
A historical analysis of the origin and evolution of the American Constitution, constitutional theory and constitutional practice.

HST 364. HISTORY OF OHIO 
THREE CREDIT HOURS
Political, economic, and cultural history of the state will be explained in relation to the parallel growth of the United States. Recommended for elementary and secondary school teachers.
HST 390. THE WESTWARD MOVEMENT  THREE CREDIT HOURS
A history of the expansion of settlement in the U.S. since 1783. Topics include explorations, Indian relations, land policy, transportation, types of frontier settlements, and Western influence on American ideals and institutions.

HST 396. HISTORY OF THE NEGRO IN THE NEW WORLD  THREE CREDIT HOURS
A study of the role of the Negro in the history of the New World, stressing the problems of integration, race relations, and the achievements and contributions of the Negro.

HST 401. PRO-SEMINAR IN HISTORY  TWO CREDIT HOURS
An introduction to historiography and the study of research and writing in History. A term paper is required. Prerequisite: 6 credit hours of upper level history.

HST 402. MAIN CURRENTS IN ANCIENT HISTORY  THREE CREDIT HOURS
Aspects of the civilizations of the Ancient Near East, Greece, and Rome selected because of their integration into Western Civilization. Emphasized topics: the Hebrew world view and value system, Greek democracy, Roman political and social institutions.

HST 404. EARLY EUROPE  THREE CREDIT HOURS
From the Diocletian reform of the Roman Empire to the Mid-eleventh century, the course examines the decline of Rome and the construction of European Civilization. Emphasized topics: Byzantine and Islamic contributions, barbarian migrations, development of Christianity and the institutional Church, Carolingian Empire and the revival of learning, and the emergence of European monarchies.

HST 406. THE RISE OF EUROPEAN STATES  THREE CREDIT HOURS
Political and social aspects from the mid-eleventh to the mid-fourteenth century. Topics include: evolution of towns and commerce, crusading movement, rise of universities, medieval art and culture, and political construction and interaction of European monarchies.

HST 407. RENAISSANCE AND REFORMATION  THREE CREDIT HOURS
The development of European history from the 14th to the middle of the 17th century. Emphasis on the economic, political, social, and religious aspects of the Renaissance, Protestant Revolution, and Catholic Reformation.

HST 408. EARLY MODERN SPAIN AND PORTUGAL  THREE CREDIT HOURS
A history of Spain and Portugal from the 15th century to the 18th century; Catholic Kings, Charles V, and Phillip II, Henry the Navigator; and the later Hapsburgs will be dealt with in detail; Spain and Portugal in Europe and the wider world.

HST 411. ERA OF ABSolutISM, ENLIGHTENMENT  THREE CREDIT HOURS
Designed to bridge the gap between the later Reformation and the era of the French Revolution. Intellectual and cultural development will be covered, with emphasis on political, economic and social trends of the Old Regime.

HST 413. THE REVOLUTIONARY ERA, 1789-1918  THREE CREDIT HOURS
A historical analysis of the European nations and peoples emphasizing the themes of War and Revolution. The course covers the revolutions of the period as well as ideological, scientific, and technological developments.
Hst 414. **Twentieth Century Europe**

**Three Credit Hours**

Topics included: causes and outcome of World War I; internal policies of nations between the two World Wars; diplomatic actions leading to World War II; and the impact of World War II.

Hst 415. **Soviet Union Since 1917**

**Three Credit Hours**

A detailed survey and analysis of the historical development of the USSR from the Revolution of 1917 to the present time.

Hst 416. **Military History Since 1789**

**Three Credit Hours**

This course touches upon the evolving concept and philosophy of war, the development and inter-relationships of weapons, tactics and strategy, and the role of military affairs in politics.

Hst 424. **The Parliamentary Concept in English History**

**Three Credit Hours**

A study of the origins and development of common law and parliamentary government in England, stressing the medieval period.

Hst 426. **Tudor-Stuart England**

**Three Credit Hours**

A study of England—1485 to 1714. For the Tudor period, chief emphasis will be given to the development of the national state, royal absolutism, and the Reformation. The evolution of the constitutional question will be the main theme in the treatment of the Stuart era and Cromwellian Interregnum. The social, economic and cultural aspects of the period, as well as its diplomacy, will be fully covered.

Hst 427. **England in the 18th Century**

**Three Credit Hours**

A survey of the changes in British political, social and economic institutions. The neoclassical and Romantic movements, Wesleyism, and the beginnings of Evangelicalism will be studied.

Hst 432. **North Africa in Modern Times**

**Three Credit Hours**

A study of Morocco, Algeria, Tunisia, and Libya since the 16th century. Stress is placed on the institutional histories of these countries which enabled them ultimately to expel European imperialism.

Hst 436. **South Africa in Modern Times**

**Three Credit Hours**

The establishment of the Bantu people and institutions and their subjection to assaults by Boers and British. Such study seeks to illuminate the present dominant governmental policy of apartheid.

Hst 437. **West Africa in Modern Times**

**Three Credit Hours**

West Africa’s significance since the 18th century, with special references to the slave trade, the commercial revolution, religious ferment, imperialistic rivalry, and the recent independence movement.

Hst 438. **The Middle East, 19th and 20th Centuries**

**Three Credit Hours**

A survey of the Ottoman Empire, Iran, Egypt, and the modern states of the Middle East, emphasizing the development of nationalism and the place of the Middle East in international politics.

Hst 443. **Modern China**

**Three Credit Hours**

A survey of the political, cultural and international developments in China from the eighteenth century to the present.
HST 446. SOUTHEAST ASIA
A survey of the cultural and political history of Southeast Asian countries, emphasizing recent developments.

HST 447. DIPLOMATIC HISTORY OF THE FAR EAST SINCE 1840
A survey of the diplomatic relations of China, Korea, and Japan among themselves and with other powers. The course selects major diplomatic events from 1840 to the present.

HST 448. JAPAN SINCE PERRY
A historical study of the economic, social, and political developments of modern Japan from the end of the "Seclusion" to the present time.

HST 452. REVOLUTION AND CONFEDERATION
The course will treat the following topics: the problems of empire-relationships since 1754; the causes, conduct, and consequences of the American Revolution; the postwar problems leading to the adoption of the Federal Constitution.

HST 453. AMERICAN COLONIAL HISTORY
A study of the foundations of American Nationality: European background of America, development of the colonial system, transplanting of ideas and institutions from the Old World, growth of democratic tendencies.

HST 454. THE AGE OF JEFFERSON AND JACKSON
Emphasizes the whole range of historical, cultural, social and political trends that are traditionally associated with the presidencies of Jefferson and Jackson. The period covered extends from the 1790's to the 1850's.

HST 455. THE OLD SOUTH
A study of political, social, economic, and cultural history, emphasizing presiding themes of pre-Civil War Southern life — ruralism, cotton culture, extractive economics, slavery, developing political minority status in the nation. A general knowledge of American History is a prerequisite.

HST 456. CIVIL WAR AND RECONSTRUCTION
Remote and immediate causes of the Civil War, especially from 1850 to 1861: problems of North and South during the war; consequences of the war, efforts to create a new Union, 1865 to 1877; problems created by those efforts.

HST 472. APPALACHIA AND THE NEW SOUTH
A study and appraisal of the internal and external forces that have shaped the Southern states since the Civil War. All aspects of Southern life will be considered.

HST 474. THE GILDED AGE, 1877-1900
A study in the political, diplomatic, economic, social, and cultural developments of the age. The rise of big business, organized labor, and the Populist revolt will be studied.

HST 475. THE PROGRESSIVE PERIOD, 1900-1920.
A study in depth of the major historical trends that dominated these years which saw the universal acceptance of America's claim to world power. Due attention will be placed on cultural as well as political developments.
HST 476. BETWEEN THE WARS  
Three credit hours
Intensive study of chief facets of United States history from 1919 to 1941. Topics emphasized include: Normalcy, the Depression, the evolving New Deal, and the approach to World War II.

HST 477. CONTEMPORARY AMERICAN HISTORY  
Three credit hours
A study of the immediate background of contemporary political, social and economic problems. Topics discussed: Impact of World War II on the United States, Cold War, New Frontier, and Johnson Administration.

HST 478. INTERPRETATIONS IN AMERICAN HISTORY  
Three credit hours
Specific topics will be chosen for investigation and interpretation as determined by the instructor. The objective of the course is to study new interpretations of historical events. A general knowledge of American History is a prerequisite.

HST 482. THE HISTORY OF MEXICO  
Three credit hours
Study of Mexican history since 1820. Origins of revolution of 1910 and its development to the present emphasize Mexico's struggle for democracy. Diplomatic and cultural relations between Mexico and the U.S. are considered.

HST 483. HISTORY OF BRAZIL  
Three credit hours
A history of Brazil since 1808 emphasizing the Empire, slavery, the early Republic, Getulio Vargas, and the contemporary scene. Economic and social history will be stressed.

HST 484. CARIBBEAN SINCE 1801  
Three credit hours
Study of the cultural, social, economic and political history of the islands and the northern shore of South America in modern times, stressing areas that have gained independence or autonomy.

HST 497. HONORS TUTORIAL I  
One to three credit hours
A course devoted to the study of a special topic to be selected by the instructor. Applicants will be admitted on the basis of academic record.

HST 498. HONORS TUTORIAL II  
One to three credit hours
A course devoted to the study of a special topic to be selected by the instructor. Applicants will be admitted on the basis of academic record.

Home Economics (HEC)

Elizabeth L. Payne, Chairman  
Associate Professors: Metzger, Payne  
Assistant Professor: Streithau  
Instructors: Lefler, Maul  
Part-time: Freeman

HEC 101. CLOTHING I  
Two credit hours
A study of clothing selection and construction of simple garments using commercial patterns with emphasis on fitting, dressmaking, details and finishing procedures. Two lecture periods per week.
HEC 101L. CLOTHING I LABORATORY
A course to accompany Hec 101 lecture. One three-hour period per week.

HEC 105. INTRODUCTION TO RELATED ART
A study of the fundamentals of design and color and their application in selection and arrangement. Three lecture periods per week.

HEC 200. INTRODUCTORY FOODS
Application of scientific principles to food preparation and evaluation. Two lecture periods per week.

HEC 200L. INTRODUCTORY FOODS LABORATORY
A course to accompany Hec 200 lecture. Two two-hour periods per week.

HEC 211. CLOTHING II
Detailed emphasis on principles of fitting and creating construction of underlined & lined garments. Two lecture periods per week. Prerequisite: Hec 101 or equivalent.

HEC 211L. CLOTHING II LABORATORY
Course to accompany Hec 211 lecture. One three-hour laboratory per week.

HEC 214. TEXTILES
A study of the natural, thermoplastic and non-thermoplastic fibers including the construction and finishing of fabrics for their use and care. Three class periods per week.

HEC 221. CONSUMER EDUCATION AND HOME MANAGEMENT
A study of home management and the use of resources to promote the development of home and family life. The resources of time, energy, money and material goods are stressed from the consumer standpoint. Three lecture periods per week.

HEC 225. CHILD DEVELOPMENT I
Developmental study of prenatal, infancy and early childhood. Observation and work in nursery school arranged. Two lecture periods per week.

HEC 300. CULTURAL ASPECTS OF FOOD
A study of the effect of culture and food resources on food patterns and food preparation. Historical evolution of food, especially U.S. Regional food habits, is also included. Two lecture periods per week.

HEC 300L. CULTURAL ASPECTS OF FOOD LABORATORY
A course to accompany Hec 300 lecture. One three-hour period per week.

HEC 303. NUTRITION AND HEALTH
Fundamental principles of human nutrition, including requirements of the body for the nutritive essentials, the composition of foods and the planning of adequate diets for health. Three class periods per week.
HEC 304. QUANTITY FOOD PRODUCTION
Basic steps of Quantity Food Production methods. An Independent Study Program to initiate the student into the process of self-learning. Includes faculty conferences, student-led seminars, library research and laboratory investigations. Hours arranged.

HEC 308. INSTITUTIONAL BUYING
Equipment selection, maintenance and layout.

HEC 309. HOUSEHOLD EQUIPMENT
A study of the principles involved in the selection, construction, operation and care of household equipment and its relation to the well-being of the family. Three lecture periods per week. Prerequisites: Hec 102, 201 or equivalent.

HEC 318. FAMILY LIVING
Developmental tasks, socio-economic and cultural influences on family interaction at each stage of the life cycle.

HEC 323. DEMONSTRATION TECHNIQUES
A study of lecture-demonstration techniques. Emphasis is placed upon students giving lecture-demonstrations. Two class periods per week.

HEC 327. EXPERIMENTAL FOODS
Comparative and experimental approach to food preparation as it affects quality. Introduction to the standard experimental procedures leading to independent project of student’s choice. Prerequisite: Hec 200.

HEC 327L. EXPERIMENTAL FOODS LABORATORY
Course to accompany Hec 327 lecture. One three-hour laboratory period per week. Second Term, Each Year

HEC 328. HOUSING AND HOME FURNISHINGS
A study of housing and exterior design and the selection of furnishings for the home, including arrangements, furniture styles and decorative details. Three lecture periods per week. Prerequisite: Hec 105 or equivalent. Second Term, Each Year

HEC 329. CHILD DEVELOPMENT II
An evaluation of the growth of children; case study and nursery school participation arranged. Two lecture periods, plus observation. Prerequisite: Hec 225. Second Term, Each Year

HEC 401. ADVANCED NUTRITION
Aims to extend the student’s knowledge of the science of nutrition, stressing the metabolism of food constituents and the recent advances in the field of nutrition. Three class periods per week. Prerequisites: Hec 303, Chm 420. Second Term, Each Year

HEC 402. DIET THERAPY
A study of the value of good nutrition in the prevention and effective treatment of disease.
HEC 405. Teaching of Home Economics in Schools  THREE CREDIT HOURS
A study of Vocational Home Economics philosophy and Techniques of Teaching. Planning and preparing scope and sequence units and lessons for different grade levels. Three class periods per week.

HEC 406. Home Management II  ONE CREDIT HOUR
Planning experience in managing a home on a minimum budget. One lecture period per week. Prerequisite: Hec 221.

HEC 406L. Home Management II Laboratory  TWO CREDIT HOURS
Course to accompany Hec 406 lecture.

HEC 407. Institutional Organization and Management  THREE CREDIT HOURS
Principles and problems of feeding institutional groups, including personnel management, organization and administration. Three class periods per week.  As Needed

HEC 415. Tailoring  ONE CREDIT HOUR
Tailoring construction as applied in the making of coats and suits. One lecture period per week. Prerequisites: Hec 101, 105, 211 or equivalent.  Second Term, Each Year

HEC 415L. Tailoring Laboratory  TWO CREDIT HOURS
Course to accompany Hec 415 lecture. Two two-hour periods per week.  Second Term, Each Year

HEC 430. Problems in Home Furnishings  TWO CREDIT HOURS
Individual problems in home furnishings—upholstering, slip covering, draperies, etc. Assessment of fabrics, buying, use and care of tools, techniques and materials. Two class periods per week. Prerequisite: Hec 105.  First Term, Each Year

HEC 430L. Home Furnishings Laboratory  ONE CREDIT HOUR
Course to accompany Hec 430 lecture. One three-hour period per week.  First Term, Each Year

HEC 436. Independent Study  THREE TO SIX CREDIT HOURS
This independent study is to allow students to concentrate on a special interest to them. Original investigation, independent conferences and reports are required. Approval of Department Chairman and instructor.

HEC 437. Meal Management  TWO CREDIT HOURS
To develop the ability to plan, prepare and serve palatable, nutritious and attractive meals at various economic levels. Two lecture periods per week. Prerequisite: Hec 200.  As Needed

HEC 437L. Meal Management Laboratory  ONE CREDIT HOUR
Course to accompany Hec 437 lecture. One two-hour period per week.  As Needed
Industrial Engineering (INE)

Robert I. Mitchell, Chairman
Professors: Gephart, Schmid
Associate Professors: Kovacs, Mitchell
Assistant Professor: Balachandran

*INE 201. Industrial Engineering Fundamentals
THREE CREDIT HOURS
A study of the development of industrial engineering, the scope of its function, its relationship to other professions, organizing for industrial engineering, and methods for utilizing industrial engineering techniques.

*INE 202. Engineering Economy
THREE CREDIT HOURS
Emphasizes rational, scientific methods of economic analysis for engineering and management decision-making. Prerequisite: Mth 118.

*INE 220-221. Statistical Methods for Engineers I and II
SIX CREDIT HOURS
Discrete and continuous probability distributions, parameter and interval estimations, tests of hypothesis, regression, analysis of variance and experimental designs, non-parametric methods. Emphasizes application to Engineering problems. Prerequisite: Mth 119.

*INE 313. Engineering Law
TWO CREDIT HOURS
Legal principles applied to engineering.

*INE 320-321. Management Systems Design I and II
SIX CREDIT HOURS
The application of design concepts to the development of simple systems which involve purposeful human industry with special attention to the integration of scientific and engineering methods with those of the applied psychologists or social scientists.

THREE CREDIT HOURS
The basic principles underlying the operation of digital and analog computing machines are presented with emphasis on the functions computers play in the overall design of engineering systems. Two lectures, one laboratory. Prerequisite: Knowledge of a computer language and consent of instructor.

INE 341. Work Design I
THREE CREDIT HOURS
Introduction to design and analysis of work systems. Application of models to work study. Study of symbolic chart models, physical analog models, mathematical and statistical models. Prerequisites: Cps 133, Ine 220.

*Recommended to students from other departments as appropriate elective.
INE 410. Seminar
One Credit Hour
Full time students other than those classified as freshmen are required to enroll in Ine 410 each semester until they graduate regardless of the number of such courses for which they receive credit. Section A — Formal presentation and defense of Engineering project. Section B — Participation in professional development seminars, plant tours, society activities.

Both Terms, Each Year

INE 411. Personnel Administration
Three Credit Hours
A study of the contributions of the behavioral sciences to the design of complex, management systems which require effective integration of human resources. Prerequisite: Ine 320.

INE 412. Wage Administration
Three Credit Hours
A study of financial remuneration; theory, philosophy, and practice. An interdisciplinary approach involving economics, psychology, sociology, engineering and management as they are related to the design of management systems. Prerequisites: Ine 320 and 321.

*INE 421. Reliability Theory
Three Credit Hours
Applications of statistical theory to engineering reliability design. Testing methods for determining reliability. Design of components and assemblies for reliability. Prerequisite: Ine 221.

Second Term, Each Year

*INE 422. Reliability Application
Three Credit Hours
The application of reliability theories to the design of complex, integrated systems. Prerequisite: Ine 421.

First Term, Each Year

INE 423. Quality Control
Three Credit Hours
Principles of statistical quality control. Application of p-charts, x and R charts and attribute and variable acceptance sampling plans. Design of quality control systems and procedures. Two lectures, one laboratory.

INE 428. Design and Analysis of Engineering Experiments
Three Credit Hours
Emphasis will be on establishment of test conditions for a complex engineering experiment designed to answer predetermined specific objectives and to analyze the random response through statistical methods. Two lectures, one laboratory. Prerequisite: Mth 367 or equivalent.

INE 430. Engineering Systems Design I
Three Credit Hours
Emphasizing the total systems concept for solving engineering design problems reasoning from general principles or laws to their application to achieve specific objectives. An introduction to the theory of control with emphasis upon general principles as contrasted with a detailed study of specific control systems. Prerequisite: Ine 220.

*Recommended to students from other departments as appropriate elective.
INE 431. ENGINEERING SYSTEMS DESIGN II THREE CREDIT HOURS
The use of industrial engineering concepts in research and development undertakings including the design of products, programming of effort, assigning probabilities to event, time or cost schedules. Prerequisite: Ine 220.

INE 442. WORK DESIGN II TWO CREDIT HOURS
Advanced studies of work systems. Development and analysis of techniques to standardize and measure work. Development of standards through the use of MTM, time study and WMS. Development of standard data and applications of its use in production control and work systems. Prerequisite: Ine 341.

INE 442L. WORK DESIGN LABORATORY II ONE CREDIT HOUR
Practice in the application of MTM, time study, and WMS. Development of rating and its application to time study. WMS and work sampling. Studies conducted under both actual and simulated industrial conditions. Corequisite: Ine 442.

INE 443. WORK DESIGN III TWO CREDIT HOURS
Application of work design techniques to the development of work systems. Studies of computerized techniques to design and control work systems. Application of simulation and O.R. optimizing techniques to production scheduling, inventory control and plant layout problems. Prerequisites: Ine 442, 442L.

INE 443L. WORK DESIGN LABORATORY III ONE CREDIT HOUR
Practice in the development and application of models (mainly, but not limited to, computerized statistical models) to the solution of typical industrial problems in work design. Corequisite: Ine 443.

INE 499. SPECIAL PROBLEMS IN INDUSTRIAL ENGINEERING TWO TO SIX CREDIT HOURS
Particular assignments to be arranged and approved by Chairman of the Department.

Interdisciplinary Studies

ASI 101 FRESHMAN INTERDISCIPLINARY STUDIES NINE CREDIT HOURS
An innovative experimental course which explores three ideas as key themes in the development of Western Civilization, and includes some study of non-Western cultures and civilizations. This course substitutes for English 101, History 101 and Theology 112.

ASI 102. FRESHMAN HONORS INTERDISCIPLINARY THREE CREDIT HOURS
An honors seminar whose main theme is “Developing Values in Education”. It is the core of the Freshman Honors Program, and is designed to assist the students in discovering options for goals and alternate means of pursuing their education. Enrollment is by invitation.

ASI 204. COMMUNITY AND COMMUNAL LIVING FOUR CREDIT HOURS
A study of all facets of community through readings and group seminars in the communal living situation. The topic “Community” is studied on two levels: the basic principles or foundations and the many facets such as community in a Capitalistic Society, the roll of the individual in the community, group dynamics, interpersonal relationships, education in community, and theological dimensions of community, human facilitation.
ASI 302. Appalachian Studies  THREE CREDIT HOURS
A study of Appalachian culture in a manner involving the disciplines of history, political science, economics, psychology, sociology, and religion. Topics to be studied are: Appalachia History and its influence on the present, the problems and solutions of recent events in Appalachia, the influence of local government and federal programs on the people of Appalachia, the economic problems of underprivileged peoples and the future of industrial development in the region, the ecology of the Appalachia region, the literature, art and music of the area, psychology of social change and community development, laws of social justice as they apply to underdeveloped regions, science of planned change, and the traditional Baptist religion.

ASI 407. Developing Values in Education  FOUR CREDIT HOURS
A coordination of and participation in Asi 102 the core of the Freshman Honors Program. The goal of Asi 102 is to establish a sense of self-motivation in the students so that they can create a personal value system of education. Registrants serve to encourage and stimulate the freshman students participating for the pursuit of academic excellence. They will participate in the seminar and coordinate it and they will conduct workshops and offer guidance throughout the term.

UDI 301-302. The Future: An Interdisciplinary Approach  SIX CREDIT HOURS
Futurism, a way of thinking and acting. An introduction to a new breed of men that have emerged in our time: the futurists, who explore and make the future. Management and Systems in relation to the future. Revolutionary transformation and change. Economic development of the world. Evolution of Technology. Ethics and value, the theology of the future, the phenomenology of religion. Growth, environment and peace—projects of the future.

UDI 310. Planning for the Seventies: Creating the Future of the University  TWO CREDIT HOURS
Offered in conjunction with the University-wide effort of institutional planning for the 1970's. It is designed to educate the university community about a methodology of planned educational change which realistically considers the forces in society that are shaping the future for education. It involves lectures-discussions, seminars with the educational community of the Dayton-Miami Valley region, and the actual experience of innovative planning for the future of the University of Dayton. Enrollment is open to students, faculty and administrators.

UDI 320. The City as Community  THREE CREDIT HOURS
Problem-focused, multi-contextual, and interdisciplinary in approach. The purpose of this course is to focus the resources of the University on the present and future crisis of our cities. Particular stress is placed on the human needs of the urban community and the skills necessary to be an effective agent for change and human development.

UDI 351. Environmental Quality  THREE CREDIT HOURS
Studies the relationship between public health and air pollution. Surveys of the community involve data collecting, correlation of information and report writing, under the direction of outside consultants.
Program of Judaic Studies (JUD)

Liaison: Fr. John Kelley, S.M.

The Program of Judaic Studies brings Jewish scholars to our campus for specialized offerings relative to the literature of the Hebrew scriptures, the archeology and history of Israel, the Hebrew language and culture. Scholarship funds from the Joseph and Pearl Thai Scholarship Fund (1966) are available for deserving students.

Visiting Instructors: Rabbi Herbert Brichto, Dr. Samuel Greengus, Rabbi Alvin Reines, Dr. Ellis Rivkin, Rabbi Ezra Spicehandler

JUD 320. HISTORY OF ISRAEL
A survey of the history of the chosen people from Abraham unto modern times with stress on biblical history and the contemporaneous resurgence of a national state.

First Term

JUD 321. BIBLICAL VIEW OF HISTORY
Seminar dealing with the biblical view of history.

First Term

JUD 330. JUDAIC LITERATURE
An introduction to and overview of the field of Judaic literature with emphasis upon literary forms.

Third Term

JUD 331. SELECTED TEXTS FROM JEWISH LITERATURE
Seminar discussing selected texts of Judaic literature.

Third Term

JUD 340. ARCHAEOLOGY AND THE BIBLE
An historical and synthetic analysis of the development of archaeology in Palestine and the subsequent impact upon the understanding of the culture of Judaism.

Second Term

JUD 341. SEMINAR: MODERN DEVELOPMENTS IN ARCHAEOLOGY

Second Term

JUD 350. MARTIN BUBER, LIFE AND WORK
An overview of the life and writings of Martin Buber and the significance of his work for philosophy, sociology and psychology, as well as his contribution to the dialog of Christian and Jew.

Third Term

JUD 351. SEMINAR: SELECTED WRITINGS OF MARTIN BUBER
Examination of texts from I and Thou and other writings.

Third Term

JUD 360. JUDAISM AND ISLAM
An historical and comparative analysis of the development of Islam from Judaic and Christian elements; a survey of the Koran in its literary dependence on scripture.

To be announced

JUD 361. SEMINAR: THE BIBLE AND THE KORAN

To be announced

JUD 370. THE WORLD OF THE PSALMIST
A general course on the psalms in the world of the Hebrew bible. The conceptual world of the Hebrew scriptures reflected in the book of Psalms, and the relation of the Psalms to religious life today.

First Term
JUD 371. SEMINAR: PROBLEMS OF THE PSALMS
Selection of passages in the psalms which present special difficulties in understanding the sacred songs. (No student will be permitted to take Jud 371 without taking Jud 370.)

First Term

LANGUAGES

Dr. James M. Ferrigno, Chairman
Dr. Gordon A. Neufang, Jr., Assistant to the Chairman
Professor: Ferrigno
Associate Professors: McKenzie, Saquel, Zeinz
Assistant Professors: Boenninghofen, Castello-Lamas, Conard, Galeano, Neufang, Rock, Rus, Sory, Walter*
Instructors: Chiodo, Frederick, Greely, Hasham, Posteau, Romaguera, Thompson
Part-time Instructors: Dillon, Jean, Perz

A language major may arrange his courses, with the approval of the department chairman, in one of these two forms of concentration: (A) Major in a single language, requiring 24 hours in upper level courses (300-400); (B) Composite major, requiring a minimum of 18 hours in each of two languages (any level).

It is recommended that students of either category elect a minor in languages as well. For a language minor, students in category A are required to do 12 hours of upper level work not in their major language, and students in category B are required to add 18 hours (any level) preferably in a language or languages other than those of their composite major.

A composite major in Classical Languages (Greek and Latin) may be earned by completing the following program:
(a) minimum of 24 credit hours of courses in the Latin Language at the 300-400 level;
(b) minimum of 12 credit hours of courses in the Greek Language at any level;
(c) electives to minimum total of 42 credit hours, such electives to be chosen from courses in Greek or Roman History, Ancient Philosophy, Greek, or Latin.

French (FRN)

FRN 101, 102. ELEMENTARY FRENCH I, II THREE CREDIT HOURS EACH TERM
Basic elements of the French language with emphasis on audio-oral skills. Language Laboratory required.

FRN 201, 202. INTERMEDIATE FRENCH I, II THREE CREDIT HOURS EACH TERM
Intensive review of French grammar, selected readings in French literature or culture, practice in spoken and written language skills. Language Laboratory required.

*With UD students on Junior Year Abroad in Hamburg, Germany 1970-1971
NOTE: Frn 301 and Frn 302 are prerequisites for all other upper level courses in French.

FRN 301. French Conversation
Three credit hours
Intensive drill for development of audio-oral skills. Gradual expansion by vocabulary
development, pattern drills and use of idioms into discussions centered around typical
French life and cultural situations. Required of all French majors and prospective
teachers. Language Laboratory required. First Term, Each Year

FRN 302. Advanced French Composition
Three credit hours
Practice in composition based on topics dealing with various aspects of French life
and culture. Systematic vocabulary enrichment. Basic grasp of stylistics through literary
texts. Required of French majors and prospective teachers. Second Term, Each Year

FRN 303. French Phonetics and Diction
Two credit hours
Formation of the sounds of French, rules of pronunciation, use of phonemic transcription,
practical exercises in reading and interpreting French texts. Required of all French
majors and prospective teachers. Language Laboratory required. First Term, Each Year

FRN 304. French Civilization
Two credit hours
Introduction to the study of French Civilization with emphasis on the interrelation of
cultural trends in the arts and thought of France. Required of all French majors and
prospective teachers. Second Term, Each Year

FRN 305. Explication de Textes
Three credit hours
Introduction to method of analyzing literary texts by observing and doing analyses of
French prose and poetry. Elements of French versification. Required of all French
majors and prospective teachers. First Term, Each Year

FRN 313, 314. Survey of French Literature
Three credit hours each term
Major texts, trends and authors from the Middle Ages to the present, showing the
influences and continuity between the various periods. Lectures, discussions, oral and
written reports. Required of all French majors and prospective teachers.

FRN 409. French Literature of the Middle Ages
Two credit hours
Studies in French literature from the Serment de Strasbourg through the poetry of
Villon. Lectures, discussions, oral and written reports. First Term, 1972-1973

FRN 410. French Literature of the Renaissance
Two credit hours
The world of the Sixteenth Century as revealed in the writings of Rabelais, the Pléiade,
Montaigne, etc. Lectures, discussions, oral and written reports. Second Term, 1972-1973

FRN 411. French Classicism
Two credit hours
The development of the Classical Ideal in French theater, poetry and prose. Lectures,
discussions, oral and written reports. First Term, 1971-1972

FRN 412. The Enlightenment
Three credit hours
The spirit of rationalism from the fall of Louis XIV to the French Revolution. Enlightenments concepts of man, religion and society in the works of the French philosophes
and their contemporaries. Lectures, discussions, oral and written reports. Second Term, 1971-1972

FRN 413. Nineteenth Century French Prose Writers
Three credit hours
Major trends in Nineteenth Century French prose as reflected in the works of Chateaubriand, Hugo, George Sand, Emile Zola, Balzac, Flaubert, Stendhal, etc.
Lectures, discussions, oral and written reports. Offered as needed
FRN 414. Poetry and Drama of the Nineteenth Century  three credit hours
The major trends of Nineteenth Century French poetry from romanticism through symbolism, including a survey of the Romantic Theater. Lectures, discussions, oral and written reports. Offered as needed

FRN 415. Twentieth Century French Prose Writers  three credit hours
The development of the French novel from Proust to the nouveau roman. Style and thought in prose works in history, philosophy, criticism, etc. Lectures, discussions, oral and written reports. Offered as needed

FRN 416. Twentieth Century French Poetry  two credit hours
The direction taken by French poetry from the inheritors of the Symbolist tradition to the present time. Lectures, discussions, oral and written reports. Offered as needed

FRN 417. Twentieth Century French Drama  two credit hours
Trends in the French theater from turn-of-the-century drama to the present day. Lectures, discussions, oral and written reports. Second Term, 1972-1973

FRN 418H. Honors Seminar  two credit hours
Special seminar for French majors only. Concentration on a certain aspect of French language or literature, the subject to be determined by the teacher. 1972-1973

German (GER)

GER 101, 102. Elementary German I, II  three credit hours, each term
Basic elements of German language with emphasis upon pronunciation, speaking, reading, and grammar. Language Laboratory required. No prerequisite.

GER 201. Intermediate German  three credit hours
Systematic grammar review. Increased use of the language in written exercises and classroom discussions based upon selected readings from modern authors. Prerequisite: successful completion of German 102 or equivalent.

GER 202. Intermediate German II  three credit hours
Continuation of German 201. The student is exposed to the development of German civilization and culture. Reading, conversation and composition. Prerequisite: successful completion of German 201 or equivalent.

GER 201S, 202S. German for Science Majors I, II  three credit hours, each term
In this course the student is exposed to prose of the various scientific fields. The stress here is on translating and understanding the peculiarities of scientific, expository German, its grammar and vocabulary. Prerequisite: successful completion of German 102 or equivalent.

GER 305. Advanced Composition and Conversation  three credit hours
Further stress on mastery of syntax and morphology, enlarging vocabulary. Discussion of readings on German Culture and civilization. Required for German majors and minors. First Term, Each Year
GER 306. **BIBLIOGRAPHY AND METHODS**
An intensive course in methods of literary criticism. A study of the development of German literary history. The student learns to use the standard reference works. Required for German majors and minors.

*Second Term, Each Year*

GER 405. **SURVEY OF GERMAN LITERATURE**
German Literature and its development from 750 A.D. to end of the Baroque period. The student is exposed to exemplary works of each century and period and gets an understanding of literary movements and trends. Required for German majors.

*First Term, 1971-1972*

GER 406. **SURVEY OF GERMAN LITERATURE**
Continuation of German 405. German Literature from the end of the Baroque period to the death of Goethe, excluding Romanticism. Required for German majors.

*Second Term, 1971-1972*

GER 409. **GERMAN LITERATURE OF THE NINETEENTH CENTURY**
A survey of nineteenth century German literature, including a study of literary movements, outstanding authors and works. Lectures, discussions and reports on assigned readings.

*First Term, 1971-1972*

GER 410. **GERMAN LITERATURE OF THE NINETEENTH CENTURY**
A continuation of German Literature of the Nineteenth Century, Ger 409.

*Second Term, 1971-1972*

GER 411. **TWENTIETH CENTURY GERMAN LITERATURE**
A survey of the outstanding authors and works in the first half of the present century up to World War II. Lectures, discussions and reports on assigned readings.

*First Term, 1972-1973*

GER 412. **TWENTIETH CENTURY GERMAN LITERATURE**
Continuation of German 411; German literature since 1945. Lectures, discussions and reports on assigned readings.

*Second Term, 1972-1973*

GER 413. **THE CLASSICAL PERIOD**
A study of the principal authors of this period, with emphasis on Schiller.

*First Term, 1972-1973*

GER 414. **THE CLASSICAL PERIOD**
Continuation of German 413, with emphasis on Goethe.

*Second Term, 1972-1973*

GER 415. **MODERN GERMAN DRAMA**
A study of the Modern German Theater with emphasis on Brecht.

*Offered as needed*

GER 416. **MODERN GERMAN DRAMA**
The German Theater since Brecht.

*Offered as needed*

GER 417. **KAFKA**
Study of Kafka's works, with emphasis on Kafka as the forerunner of the absurd, and how his world-view developed.

*Offered as needed*

GER 418. **MODERN GERMAN PROSE AFTER KAFKA**
German literary reaction to the two wars; influences of Kafka, Hemingway, Dos
Passos, Faulkner, Joyce, and Camus on Dooblin, Kasack, Koeppen, Andresch, Böll, and Lind; the *nouveau roman* illustrated by Johnson and one work by Grass.

*Offered as needed*

**GER 495. Seminar**
The Medieval German Epic

**TWO CREDIT HOURS**

*First Term, 1971-1972*

**GER 496. Seminar**
The Medieval German Lyric

**TWO CREDIT HOURS**

*Second Term, 1971-1972*

**Greek (GRK)**

**GRK 101, 102. Elementary Greek I, II**
A study of the essentials of classical Greek grammar with exercises and readings.

**THREE CREDIT HOURS, EACH TERM**

**GRK 201. Intermediate Greek**
Continuation of the study of grammar, Readings from Herodotus, Xenophon, and Plato. Prerequisite: Grk 102.

**THREE CREDIT HOURS**

*First Term, Each Year*

**GRK 303. Plato**
The *Apologia* is read and selections from the rest of Plato’s works. Plato’s contribution to the history of ideas as emphasized and illustrated through extensive supplementary reading in Jowett.

**THREE CREDIT HOURS**

**GRK 304. Homer**
Readings from the *Iliad* and the *Odyssey*.

**THREE CREDIT HOURS**

*Second Term, Each Term*

**GRK 305. The Septuagint**
Extensive readings. Comparison with the Vulgate. Excursions into the field of Biblical science.

**THREE CREDIT HOURS**

*To be announced*

**GRK 306. The New Testament**
Similar to Grk 305. Comparison of the Greek and Latin texts with modern renditions.

**THREE CREDIT HOURS**

**GRK 403. Greek Drama**
Readings of Sophocles’ *Oedipus Rex* and *Antigone* with a study of the origin and development of Greek drama.

**THREE CREDIT HOURS**

**Hebrew (HEB)**

**HEB 101. Elementary Hebrew**
Brief history of the language. Basic grammar; nouns and adjectives with their pronominal suffixes; regular verbs in the seven ordinary conjugations; prepositions and their suffixes. Reading, translation, writing, and conversation.

**THREE CREDIT HOURS**

*First Term, Each Year*

**HEB 102. Introduction to Classical Hebrew**

**THREE CREDIT HOURS**

*Second Term, Each Year*
Italian (ITA)

**ITA 101, 102. ELEMENTARY ITALIAN I, II**
THREE CREDIT HOURS, EACH TERM
Elements of Italian, including pronunciation, reading, translation, grammar, dictation and conversation.

**ITA 201, 202. INTERMEDIATE ITALIAN I, II**
THREE CREDIT HOURS, EACH TERM
Grammar review, selected readings from modern authors, exercises in composition and conversation. Prerequisite: Ita 102.

**ITA 301, 302. MASTERPIECES OF ITALIAN LITERATURE**
THREE CREDIT HOURS, EACH TERM
Major works from Dante to D'Annunzio, presented in literary-historical perspective. Prerequisite: Ita 202 or permission of the Department. 1971-1972

**ITA 307. ADVANCED ITALIAN COMPOSITION AND CONVERSATION**
THREE CREDIT HOURS
Practice in composition based on area material. Intensive drill in the aural-oral aspects of the language. Discussions, reports, debates. Three class hours and two laboratory hours. Prerequisite: Ita 202 or permission of the Department. 1972-1973

**ITA 308. ADVANCED ITALIAN COMPOSITION AND CONVERSATION II**
THREE CREDIT HOURS
Continuation of Ita 307. 1972-1973

Latin (LAT)

**LAT 101, 102. ELEMENTARY LATIN I, II**
THREE CREDIT HOURS, EACH TERM
A college course in Latin fundamentals.

**LAT 201, 202. INTERMEDIATE LATIN I, II**
THREE CREDIT HOURS, EACH TERM
Second year course in Latin. Readings from classical authors of the pre-Christian periods. Prerequisite: Lat 102.

**LAT 301. LATIN COMPOSITION AND CONVERSATION**
THREE CREDIT HOURS
This course aims to give an intensive review of inflections and syntax with emphasis on original style and fluency of expression. Second Term, Each Year

**LAT 302. INTENSIVE LATIN**
EIGHT CREDIT HOURS
An intensive course in Latin Composition and Conversation with special emphasis on philosophical and ecclesiastical Latin. Prerequisite: Latin 301. Summer

**LAT 304. VERGIL**
THREE CREDIT HOURS
A survey of the work of Vergil, with special attention to the literary art of the *Aeneid* and the nature and development of the Roman epic. Second Term, Each Year

**LAT 305. MEDIEVAL LATIN**
THREE CREDIT HOURS
An outline of the main course of Latin literature from 400 A.D. to 1500 A.D., with special attention being given to the classical heritage of the Middle Ages.

**LAT 306. HORACE**
THREE CREDIT HOURS
Readings of selected Odes and Epodes, and the *Ars Poetica* of Horace; a study of his lyric quality, workmanship, and meters. First Term, Each Year
LAT 307. **Readings in Latin Literature**
This course embraces the reading of excerpts from a wide range of Latin authors.
*First Term, Each Year*

LAT 309. **Cicero**
A study of *De Amicitia* and *De Senectute* or other works of Cicero.
*Second Term, Each Year*

LAT 310. **Selected Letters of Pliny**
A study of the Latin letter as a literary form. The men and the world of the times of Pliny are revealed by his letters.

LAT 313. **Ovid**
Intensive readings in the *Metamorphoses* with emphasis on the influence of the mythological epic on some of the modern literatures.

LAT 314. **Livy**
This course comprises readings from Books I, XXI, and XXII of Livy's History and an examination of his historical methods and literary form.

LAT 335. **Roman Satire**
Origins, development and influence of Roman satire. Reading in the original of selections from the chief writers of Roman satire, with emphasis on Horace and Juvenal.

LAT 401. **Advanced Latin Composition**
An intensive course in Latin composition, with special attention to the classical type of Cicero.

LAT 403. **Seneca**
A study of Seneca's philosophical style and the ethical teaching of Stoicism as revealed in his *Moral Epistles* and *Essays*.

LAT 405-406-407. **Philosophical Latin**
Translation of Latin philosophical works. Lat. 405: *Logica et Ontologia*; Lat 406: *Cosmologia et Psychologia*; Lat 407: *Theodicea et Ethica*.
*Summer*

LAT 412. **Ecclesiastical Latin**
The object of this course is to acquaint students for the priesthood with the Latin of theologians.
*Summer*

LAT 413. **The Confessions of St. Augustine**
Excerpts are taken from the first Nine Books.

LAT 414. **Patristic Latin**
Selections from St. Augustine, Tertullian, St. Cyprian, Lactantius, St. Ambrose, St. Jerome, and other Fathers.

**Classics (CLA)**

CLA 201. **Classical Greek Civilization**
An introduction to ancient Greek civilization, concentrating upon important facets of literature, history, art, and archaeology.
**CLA 202. CLASSICAL ROMAN CIVILIZATION**
Two credit hours
An introduction to the civilization of ancient Rome, concentrating upon important facets of literature, history, art, and archaeology.

**CLA 203. CLASSICAL MYTHOLOGY**
Two credit hours
An introduction to the principal cycles of Greek and Roman mythology, with special emphasis on the influence of classical mythology upon the literature and art of the Western World.

**CLA 301. GREEK LITERATURE IN TRANSLATION**
Three credit hours
Development of Greek ideas and ideals in the principal works of Greek literature. Study of various literary genres which have influenced world literature.

**CLA 302. LATIN LITERATURE IN TRANSLATION**
Three credit hours
The Roman contribution to world literature as seen in the principal literary works in the Latin language. Study of the principal literary genres and authors.

**Russian (RUS)**

**RUS 101, 102. ELEMENTARY RUSSIAN I, II**
Three credit hours, each term
Designed to familiarize the beginner with the essentials of the spoken and written language. Vocabulary practice, simple sentence structure, conversational drills, and reading, stress on pronunciation and handwriting.

**RUS 201, 202. INTERMEDIATE RUSSIAN I, II**
Three credit hours, each term
Review of the essentials or grammar, intensive conversational and comprehension exercises, reading of graded modern and contemporary prose and poetry. Prerequisite: Rus 101-102, or equivalent.

**RUS 301, 302. RUSSIAN READING AND CONVERSATION I, II**
Three credit hours, each term
For students who possess a general knowledge of Russian, but lack practical experience of the spoken language. Conversation is based on more advanced reading material. Prerequisite: Rus 201-202, or equivalent.

**RUS 303. ADVANCED RUSSIAN GRAMMAR AND COMPOSITION**
Three credit hours
Phonology and Morphology. A thorough treatment, entirely in Russian, of pronunciation and the parts of speech including a basic treatment of the verb. Recommended for future teachers or graduate students.

**RUS 304. ADVANCED RUSSIAN GRAMMAR AND COMPOSITION**
Three credit hours
Specialized Morphology. Syntax. A treatment, like that of Rus 303, of verb aspects, word structure and sentence structure. Entirely in Russian. May be taken independently of Rus 303.

**RUS 305. RUSSIAN CULTURE AND CIVILIZATION**
Three credit hours
Survey in Russian of the country's history, politics, religion, music, art, geography and literature. Emphasis on key ideas and basic terminology. Useful as background for other Russian courses or a summation of courses, readings. Prerequisite: Rus 202 or equivalent. Third term (1), each year.
RUS 403. EARLY RUSSIAN LITERATURE  
THREE CREDIT HOURS  
Short review of the beginnings of Russian literature, the early forms of literature, the post-Peter I period, and the outstanding authors. Introduction to techniques of translation. Conducted in Russian.

RUS 404. LATER RUSSIAN LITERATURE  
THREE CREDIT HOURS  
The literature of the late 18th Century. Reading of outstanding works. Literature of 19th and 20th Centuries (outstanding works and authors). Scientific translation. Course conducted in Russian.

RUS 405. PUSHKIN  
THREE CREDIT HOURS  
Survey of Pushkin’s life, work and influence. Extensive readings in his works and readings in selected authors, contemporary or later, who show his influence. Course conducted in Russian.

RUS 406. L. N. TOLSTOY  
THREE CREDIT HOURS  
Survey of Tolstoy’s life, work and influence. Extensive readings in his works and readings in selected authors, contemporary or later, who show his influence. Course conducted in Russian.

Spanish (SPN)

SPN 101, 102. ELEMENTARY SPANISH I, II  
THREE CREDIT HOURS, EACH TERM  
Elements of Spanish, including pronunciation, reading, translation, grammar, dictation and conversation.

SPN 201, 202. INTERMEDIATE SPANISH I, II  
THREE CREDIT HOURS, EACH TERM  
Grammar review, selected readings from modern authors, exercises in composition and conversation. Prerequisite: Spn 102.

Note: Spanish 307 and Spanish 308 are prerequisites for all other upper level Spanish courses.

SPN 301, 302. SPANISH LITERATURE I, II  
THREE CREDIT HOURS, EACH TERM  
A survey of Spanish literature, with special emphasis on the Golden Age and the modern period. Lectures, discussions and reports on assigned readings.

SPN 303, 304. SPANISH-AMERICAN LITERATURE I, II  
THREE CREDIT HOURS, EACH TERM  
A study of the principal authors and works of the colonial, revolutionary and modern periods. Lectures, discussions and reports on assigned readings.

SPN 307. ADVANCED SPANISH COMPOSITION AND CONVERSATION  
THREE CREDIT HOURS  
Practice in composition based on area material. Intensive drill in aural and oral use of the language.  
First Term, Each Year

SPN 308. ADVANCED SPANISH COMPOSITION AND CONVERSATION II  
THREE CREDIT HOURS  
Continuation of Spn 307.  
Second Term, Each Year

SPN 403. MODERN SPANISH DRAMATISTS  
THREE CREDIT HOURS  
A study of the important dramatists from 1830 to the present time. Lectures, discussions and reports on assigned readings.  
First Term, 1971-1972
SPN 404. DRAMA OF THE GOLDEN AGE THREE CREDIT HOURS
A study of the significance and principal works of the great dramatists of the sixteenth and seventeenth centuries. Lectures, discussions and reports on assigned readings.

Second Term, 1971-1972

SPN 405. SPANISH LITERATURE OF THE TWENTIETH CENTURY THREE CREDIT HOURS
A study of the principal Spanish and Spanish-American authors and works of the present century. Lectures, discussions, and reports on assigned readings.

First Term, 1972-1973

SPN 406. SPANISH NOVELISTS OF THE NINETEENTH CENTURY THREE CREDIT HOURS
A study of the more important works of the principal novelists of this period. Lectures, discussions and reports on assigned readings.

Second Term, 1972-1973

Criminal Justice (CRJ)

James A. Adamitis, Director

Students in other degree programs at the University of Dayton may minor in criminal justice. A minor requires 12 semester hours of 300-400 level courses which is to include CrJ 300, Principles of Criminal Justice and CrJ 313, Criminal Law.

CrJ 300. PRINCIPLES OF CRIMINAL JUSTICE TWO CREDIT HOURS
An introduction to the field of criminal justice. Stresses the theoretical foundations, origin, nature, methods and limitations of criminal justice as a college curriculum.

CrJ 313. CRIMINAL LAW THREE CREDIT HOURS
Principles of criminal liability; preparation of case materials; court procedures and case disposition.

CrJ 320. LAW OF EVIDENCE AND PROCEDURE TWO CREDIT HOURS
A comprehensive study of the rules of evidence; evaluation of evidence and proof; physical evidence; testimony. Prerequisite: a course in Criminal Law.

CrJ 322. CORRECTIONS THREE CREDIT HOURS
The administration of correctional institutions and other detention facilities with emphasis on probation and parole systems, and the rehabilitation and treatment of the psychiatrically incarcerated.

CrJ 325. COMMUNITY AND PUBLIC RELATIONS THREE CREDIT HOURS
Contemporary problems of police-community relations; training programs, image development and policy implementation of releasing information to the mass media.

CrJ 330. ORGANIZED CRIME THREE CREDIT HOURS
Considers the social-psychological factors characterizing criminal careers and surveys the regional, political, and financial factors influencing organized crimes.
CrJ 400. CIVIL DISORDER AND PUBLIC SAFETY  
THREE CREDIT HOURS  
Examines the continuum between violence and non-violence as a consequence of competing interests reflected in the form of social revolution, campus dissent, political assassination and mob rule and discusses the roles of criminal justice and law enforcement agencies in maintaining public safety.

CrJ 440. INDEPENDENT STUDY AND RESEARCH  
THREE CREDIT HOURS  
Directed study and research on selected topics of significant academic publications in law enforcement and criminal justice. Prerequisite: permission of instructor.

CrJ 447. CONTEMPORARY ISSUES IN JUSTICE ADMINISTRATION  
THREE CREDIT HOURS  
Seminar to identify and discuss the contemporary issues in justice administration. Prerequisite: permission of instructor.

CrJ 495. INTERNSHIP IN CRIMINAL JUSTICE  
THREE CREDIT HOURS  
Supervised experience in a criminal justice or law enforcement agency solely in a civilian capacity. Open to pre-service students only. Prerequisite: permission of the Director.

*Students who specifically qualify for the Forensic Science internship in Criminal Justice will be with the Miami Valley Regional Crime Laboratory and Sinclair Community College in conjunction with the University of Dayton.

Marketing (MKT)

Harry C. Murphy, Chairman  
Professor: Murphy  
Associate Professors: Comer, Densmore  
Assistant Professors: Jain, Kline, Royer  
Instructor: Metzger

Mkt 205. PRINCIPLES OF MARKETING  
THREE CREDIT HOURS  
The general principles and practices underlying the processes of marketing. An analysis of the problems of the manufacturer, wholesaler, retailer and other marketing agencies. Principles, trends, methods and policies with relation to marketing efficiency.

Mkt 310. SALESMANSHIP  
THREE CREDIT HOURS  
A study of the basic principles underlying all selling and their practical application to specific cases.

Mkt 315. RETAIL MERCHANDISING  
THREE CREDIT HOURS  
Surveys basic merchandising principles and problems of large and small retail stores. Includes organization, location, buying and selling, cost reductions, current practices and trends. Prerequisite: Mkt 205.

Mkt 318. RETAIL ADVERTISING AND SALES PROMOTION  
THREE CREDIT HOURS  
Principles and practices of retail advertising and other sales promotional activities; where, when, and what to promote; budgeting and planning of special events and activities; emphasis upon coordination. Prerequisite: Mkt 315.
Mkt 335. **Advanced Marketing**  
Applications of the principles of marketing; marketing policies of manufacturers and/or wholesalers; analysis of current problems and literature relating to marketing efficiency. Prerequisite: Mkt 205.

Mkt 340. **Industrial Marketing**  
Fundamental basis and problems of marketing industrial goods and services. Analysis of the industrial market, channels of distribution, industrial sales, promotional practices, research, and marketing policies. Illustrative case studies utilized. Prerequisite: Mkt 205.

Mkt 405. **Consumer Behavior**  
The consumer-firm relationship studied in terms of concepts drawn from contemporary social sciences as related to present and prospective business activities.

Mkt 411. **Sales Management**  
The structure of the sales organization, determination of sales policies, the selection, training, and motivation of salesmen, the establishing of sales territories and quotas. Prerequisite: Mkt 205.

Mkt 417. **Retail Buying and Merchandising**  
Determining what to buy, how much, market resources, and model stocks, as well as the mathematic principles involved in purchase planning, planning initial markup, terms and dating, stockturn, inventory methods. Prerequisite: Mkt 315.

Mkt 420. **Marketing Communications**  
Problems of marketing considered as problems of effective communication in such functional areas as advertising, personal selling, packaging, research, display and pricing. Prerequisite: Mkt 205.

Mkt 421. **Advertising**  
Nature and functions of advertising; the preparation of layouts; the writing of copy; selection and evaluation of media. The coordination of advertising with other marketing efforts. Social implications of advertising are discussed.

Mkt 430. **Marketing Research**  
A study of the application of the scientific method to the definition and solution of marketing problems. Examines the range of activities and the problems faced in market research. Prerequisite: Mkt 205.

Mkt 450. **Market Development, Programming and Policies**  
Marketing responsibilities approached from the managerial perspective utilizing the systems view of today's complex business organization. Comprehensive discussion of cases involving a variety of products and environmental circumstances. Prerequisites: Six hours of Marketing including Mkt 205.

Mkt 499H. **Problems in Marketing (Honors Credit)**  
A study of one or more specific aspects of the marketing process with emphasis on individual student reading and research. Subject matter to be determined by the instructor on the basis of interest and need of the student. Enrollment limited.
HONORS PROGRAM

The honors committee of the department of mathematics will, upon review, extend invitations to second semester freshmen with a minimum 3.5 average in mathematics and a minimum 3.0 cumulative average. Students entering with advanced placement would be considered as exceptional cases and would be reviewed by the committee.

**MTH 245H. Sophomore Honors Mathematics**

Finite dimensional vector spaces, linear transformations and matrices, linear differential equations. Prerequisites: Mth 129 and the permission of the honors committee of the department.

**MTH 246H. Sophomore Honors Mathematics**

Multidimensional calculus, exterior derivatives, Stokes' theorem, Jordan canonical form, bilinear forms. Prerequisite: Mth 245 and the permission of the honors committee of the department.

**MTH 345H. Junior Honors Mathematics**

Introduction to real analysis: real number system, convergence, series, sequences, derivatives, and integration. Prerequisite: Permission of the honors committee of the department.

**MTH 346H. Junior Honors Mathematics**

Continuation of real analysis. Introduction to the theory of functions of a complex variable. Cauchy integral theorems. Prerequisite: Mth 345 and the permission of the honors committee of the department.

**MTH 445H. (Special Topics in Named Area)**

Lectures in the specialized areas listed below. May be taken more than once for additional credit. Prerequisite: permission of the honors committee of the department.

1. Abstract algebra 7. Game theory
5. Functional analysis 11. Real variables
6. Galois theory 12. Topological groups

In his senior year, each student in the Honors Program will be required to enroll in one graduate course.
GENERAL OFFERINGS OF THE DEPARTMENT:

MATH 101. PRECALCULUS MATHEMATICS FOUR CREDIT HOURS
For students whose achievement in mathematics is insufficient to profit from instruction in Mathematics 112, Mathematics 118, or Mathematics 128. Topics from algebra and trigonometry chosen to satisfy the needs of the class.

MTH 107. FUNDAMENTALS OF MATHEMATICS THREE CREDIT HOURS
Sets, functions and graphs, exponents and logarithms, polynomials and algebraic equations, systems of equations. Prerequisite: High school algebra and geometry.

MTH 111. MATHEMATICS AND ITS CULTURAL ASPECTS THREE CREDIT HOURS
Historical development of mathematics, the axiomatic approach, various mathematical systems, applications. Prerequisite: High school algebra and geometry.

MTH 112-113. INTRODUCTORY MATHEMATICAL ANALYSIS THREE CREDIT HOURS
Sets, systems of numbers, functions and the mapping process, sequences, limits, continuous functions, derivative function, exponential and logarithmic functions, definite integral, applications to life sciences and behavior sciences. Prerequisite: Satisfactory score on prescribed placement test.

MTH 118. ANALYTICAL GEOMETRY AND CALCULUS I FOUR CREDIT HOURS
Fundamentals of analytic geometry, differentiation of algebraic functions with applications to geometry and physics, indefinite and definite integrals with application to geometry and physics and engineering. A more applied presentation than is followed in Mth 128. Prerequisite: Satisfactory score on prescribed placement test.

MTH 119. ANALYTICAL GEOMETRY AND CALCULUS II FOUR CREDIT HOURS
Continuation of Math 118. Conic sections, differentiation of transcendental functions with applications to geometry and physics, indefinite and definite integrals with applications to geometry and physics and engineering. Prerequisite: Mth 118.

MTH 128. ANALYTICAL GEOMETRY AND CALCULUS I FOUR CREDIT HOURS
The material in this course is equivalent to Mth 128. It is presented with greater rigor and is designed for students in the mathematical and physical sciences. Prerequisite: Satisfactory score on prescribed placement test.

MTH 129. ANALYTICAL GEOMETRY AND CALCULUS II FOUR CREDIT HOURS
Continuation of Mth 128. Essentially the material is equivalent to Mth 119, but presented with a greater degree of abstraction. Prerequisite: Mth 128.

MTH 204. MATHEMATICAL CONCEPTS I THREE CREDIT HOURS
Concepts necessary for an understanding of the structure of arithmetic and its algorithms. Prerequisite: One year of high school algebra and one year of high school geometry.

MTH 205. MATHEMATICAL CONCEPTS II THREE CREDIT HOURS
Concepts necessary for an understanding of operations and structure of algebra and geometry. Prerequisite: Mth 204.
MTH 207. **Statistical Methods for the Behavioral Sciences** **Three credit hours**
Measures of central tendency and variability, frequency distributions, probability, the binomial distribution, normal distribution, inferences from sample means, curve fitting, correlation, analysis of variance. Prerequisite: Two years of high school algebra.

MTH 215. **Basic Statistics for the Biomedical Sciences** **Three credit hours**
A discussion of probability, sample, normal distribution, confidence intervals, tests of hypotheses, proportions, chi-square test. F-distribution, regression & correlation. Prerequisite: Mth 113 or consent of instructor.

MTH 218. **Analytical Geometry and Calculus III** **Four credit hours**
Continuation of Mth 119. Improper integrals, infinite series, expansion of functions, solid analytic geometry, partial differentiation, multiple integrals. Prerequisite: Mth 119.

MTH 219. **Applied Differential Equations** **Three credit hours**
Linear differential equations of higher order with constant coefficients, power series solutions, Bessel's equation. Legendre's equation, the Laplace transformation, applications to problems in engineering. Prerequisite: Mth 218.

MTH 228. **Analytical Geometry and Calculus III** **Four credit hours**
Continuation of Mth 129. The material is essentially equivalent to Mth 218, but presented with a greater degree of abstraction. Prerequisite: Mth 129.

MTH 229. **Differential Equations** **Three credit hours**
Linear differential equations with constant or variable coefficients, numerical methods. Existence theorems. First order equations. Applications. Corequisite: Mth 218 or Mth 228.

MTH 361. **Introduction to Abstract Algebra** **Three credit hours**
Introductory treatment of the various number systems of elementary algebra, fundamental concepts of groups, rings, integral domains and fields. Prerequisite: Mth 218 or 228.

MTH 362. **Introduction to Linear Algebra and Matrices** **Three credit hours**
Fundamental concepts of vector spaces, systems of linear equation, determinants, linear transformations and matrices. Corequisite: Mth 218 or Mth 228.

MTH 367. **Statistical Methods I** **Three credit hours**
Probability distributions including the binomial, hyper-geometric, Poisson, and normal. Monte Carlo methods, computer simulation, estimation of population mean and standard deviation. Confidence intervals and tests of hypotheses using t-, Chi-square, and F-statistics. Prerequisite: Mth 218 or Mth 228.

MTH 368. **Statistical Methods II** **Three credit hours**

MTH 370. **Introduction to Higher Geometry** **Three credit hours**
Euclidean, projective, affine, and metric geometries using synthetic and analytic methods. Prerequisite: Mth 218 or Mth 228.
MTH 383. LOGIC AND SET THEORY
Three Credit Hours
See Cps 383. Corequisite: Mth 119 or 129.

MTH 390. INTRODUCTION TO THE FOUNDATIONS OF MATHEMATICS
Three Credit Hours
Introduction to mathematical logic and set theory, the history and development of the various schools of mathematical thought. Prerequisite: Mth 218 or 228 and Mth 361.

MTH 403. APPLIED ANALYSIS I
Three Credit Hours
Introduction to vector integral calculus, line and surface integrals, Green's theorem, Stokes' theorem, the divergence theorem. The Sturm-Liouville problem. Orthogonal functions. Prerequisite: Mth 219 or 229.

MTH 404. APPLIED ANALYSIS II
Three Credit Hours
Introduction to functions of a complex variable, conformal mapping, solution of real integrals by contour integration. Special functions. Calculus of variations. Prerequisite: Mth 403.

MTH 411. PROBABILITY AND STATISTICS I
Three Credit Hours
Mathematical probability, stochastic variables, joint distributions. Bayes' theorem, moments, Chebyshev's inequality, limit theorems including the laws of large numbers and Central limit theorem. Prerequisite: Mth 218 or Mth 228.

MTH 412. PROBABILITY AND STATISTICS II
Three Credit Hours
Random sampling, estimation of parameters including maximum likelihood, methods of moments, and Bayes' estimate, confidence intervals, tests of hypotheses, regression, sampling from a normal population. Prerequisite: Mth 411.

MTH 413. PROBABILITY AND STATISTICS III
Three Credit Hours
Statistical decision theory, partitioning of sums and squares, analysis of variance, regression on several independent variables, multiple regression approach to analysis of variance, design of experiments. Prerequisite: Mth 412.

MTH 421. ADVANCED CALCULUS I
Three Credit Hours
The number system, sequences and series, functions of a real variable, functions of several variables. Prerequisite: Mth 218 or 228. First Term, Each Year

MTH 422. ADVANCED CALCULUS II
Three Credit Hours
The definite integral, improper integrals, line integrals, multiple integrals, and uniform convergence. Prerequisite: Mth 421. Second Term, Each Year

MTH 455-456. NUMERICAL ANALYSIS
Six Credit Hours
See Cps 455-456.

MTH 461. INTRODUCTION TO THE THEORY OF FUNCTIONS OF A COMPLEX VARIABLE
Three Credit Hours
Fundamental concepts, Cauchy integral theorem, analytic functions, analytic continuation, conformal transformations, the calculus of residues, applications to physics and engineering. Prerequisite: Mth 218 or 228.
MTH 471. **Topology**

Calculus of point sets. Hausdorff and other topological spaces. Completeness, compactness, metrics, Euclidean spaces, connectedness, partial ordering, axiom of choice, homeomorphisms and continuous functions. Prerequisite: Mth 218 or 228.

MTH 481. **Mathematical Logic**

See Cps 481.

MTH 482. **Automata Theory**

See Cps 482. Prerequisite: Mth 481.

MTH 490. **Readings in (Named Area)**

Individual study in specialized areas carried out under the supervision of a staff member. May be taken more than once for additional credit. Prerequisite: Permission of the Department.

MTH 499. **Junior-Senior Seminar**

Special lectures and individual readings for majors in their junior and senior years.

**Mechanical Engineering (MEE)**

Dr. Howard E. Smith, *Chairman*

*Professor:* Smith

*Associate Professors:* Chuang, Crouch, Minardi, Nielsen, Ray, Thorne

*Assistant Professors:* Bauer, Boehman, Bogner, Browne, Davison, Luming, Schauer, Schmall, Wood

*Instructor:* Scott

MEE 106L. **Engineering Graphics I**

Fundamentals of engineering graphics and the part that graphical communication plays in engineering.

MEE 207L. **Engineering Graphics II**

Training in the analysis and graphical solution of fundamental problems involving three dimensions and the application of these solutions to engineering problems. Prerequisite: Mee 106L.

MEE 211. **Materials and Processes**

Crystalline nature of solids, work hardening, mechanical properties of metals, common industrial processes, metal cutting, economics of machining and processing. Prerequisites: Chm 123, Mee 106L, Phy 196; Corequisite: Mee 211L.

MEE 211L. **Materials and Processes Laboratory**

Study of machining processes and machine tools; shaping and planing, drilling, turning, milling, broaching and grinding. Basic experiments in metal cutting. Experiments in workshop metrology. Corequisite: Mee 211.

MEE 221. **Theory of Machines**

Kinematic and dynamic analysis of mechanisms and machines; study of machine ele-
ments such as linkages, cams, gears, differentials; analog computing mechanisms; balancing; flywheels. Prerequisites: Cps 133, Egm 301; Corequisites: Mee 221L, Mee 301.

MEE 221L. **THEORY OF MACHINES LABORATORY**
Two credit hours
Laboratory exercises based on the principles covered in Mee 221. Prerequisites: Cps 133, Egm 301; Corequisites: Mee 221, Mee 301.

MEE 227L. **ENGINEERING GRAPHICS II**
One credit hour
Training in the analysis and graphical solution of fundamental problems involving three dimensions and the applications of these solutions to the engineering problems. Pre-requisite: Mee 106L.

MEE 301. **THERMODYNAMICS I**
Three credit hours
The zeroth, first and second laws of thermodynamics for both closed systems and control volumes; properties and processes of gases and vapors. Prerequisite: Mth 218.

MEE 302. **THERMODYNAMICS II**
Three credit hours
Review of second law and entropy. Treatment of irreversibility and availability; mixtures and solutions; chemical reactions; chemical phase equilibrium. Prerequisite: Mee 301.

MEE 303. **METALLURGY**
Two credit hours
Electronic structure, bonding, crystal structure, imperfections in crystals, strengthening mechanisms, phase transformations, equilibrium diagrams, heat treatment, mechanical behavior and corrosion. Prerequisites: Mee 211, or permission of instructor.

MEE 303L. **METALLURGY LABORATORY**
One credit hour

MEE 305L. **MECHANICAL ENGINEERING LABORATORY I**
One credit hour
Purpose and planning of experimental projects; measurements, data analysis and error estimation; techniques of selection, application and calibration of instruments used for the measurement of fundamental quantities, such as pressure, temperature, shaft speed, fluid flow rate, frequency, torque, power, area, and sound level. Prerequisite: Mee 211L.

MEE 308. **FLUID MECHANICS**
Three credit hours
Laws and theory relative to incompressible fluids; continuity, momentum and energy relations in flow situations; internal and external flow in laminar and turbulent regimes. Prerequisite: Mee 301.

MEE 312L. **MECHANICAL ENGINEERING LABORATORY II**
One credit hour
Determination of thermodynamic and physical properties of fuels and lubricants, study of energy release or transfer mechanisms, such as, combustion and measurement of fluid flow. Prerequisite: Mee 305L.

MEE 316. **MECHANICAL ENGINEERING ANALYSIS**
Three credit hours
Mathematical modeling and simulation of engineering systems. Solutions and evaluation by digital and analog methods. Prerequisite: Mth 219.

MEE 319. **MECHANICAL VIBRATIONS**
Three credit hours
Undamped free vibration; damped free vibration; forced vibration; vibration isolation
and absorption; vibrations of systems with several degrees of freedom; mechanical and electrical models of vibration systems. Prerequisites: Egm 301, Mee 316.

MEE 320. THERMAL ENGINEERING I  
TWO CREDIT HOURS  
Steam power plants; fossil and nuclear fuels; introduction to power reactors, gas turbine power plants, total energy concept, and direct energy conversion devices. Prerequisite: Mee 301.

MEE 321. THEORY OF MACHINES  
TWO CREDIT HOURS  
Kinematic and dynamic analysis of mechanisms and machines; study of machine elements such as linkages, cams, gears, differentials; analog computing mechanisms; balancing; flywheels. Prerequisites: Cps 133, Egm 301; Corequisites: Mee 301, Mee 321L.

MEE 321L. THEORY OF MACHINES LABORATORY  
ONE CREDIT HOUR  
Laboratory exercises based on the principles covered in Mee 321. Prerequisites: Cps 133, Egm 301; Corequisites: Mee 301, Mee 321.

MEE 402. ENERGY CONVERSION SYSTEMS  
THREE CREDIT HOURS  
Introduction to direct energy conversion systems; advanced steam power plants; fossil and nuclear fuels; power reactors; aviation and industrial gas turbines; total energy concept: thermoelectric cooling. Prerequisite: Mee 302; Corequisite: Mee 410.

MEE 407. MACHINE DESIGN I  
TWO CREDIT HOURS  
Development of mathematical equations for analysis and design of static and dynamic machine members. Prerequisites: Egm 304, Mee 221 or Mee 321; Corequisite: Mee 407L.

MEE 407L. MACHINE DESIGN LABORATORY I  
ONE CREDIT HOUR  
Problems involving the application of principles covered in Mee 407. Solution of complex problems involving statics, dynamics and strength of materials to develop engineering judgment. Corequisite: Mee 407.

MEE 408. MACHINE DESIGN II  
TWO CREDIT HOURS  
Continuation of Mee 407. Prerequisite: Mee 407; Corequisite: Mee 408L.

MEE 408L. MACHINE DESIGN LABORATORY II  
ONE CREDIT HOUR  
Problems involving the application of principles covered in Mee 407 and Mee 408. Solution of complex problems with emphasis on synthesis and creative design of mechanical systems. Corequisite: Mee 408.

MEE 410. HEAT TRANSFER  
THREE CREDIT HOURS  
Laws of conduction, radiation and convection; heat transfer to boiling liquids and condensing vapors; steady state and variable flow heat transfer. Prerequisites: Mee 308, Mee 316.

MEE 414A. SEMINAR  
ONE CREDIT HOUR  
Presentation of papers by students and lectures by engineers in active practice. Registration required by all students in their last term prior to graduation.

MEE 414B. SEMINAR  
ZERO CREDIT HOURS  
Presentation of papers by the students and lectures by engineers in active practice. Registration required by all junior and senior students not registered in Mee 414A.
MEE 417. THERMAL ENGINEERING II THREE CREDIT HOURS
A study of combustion and energy release processes; theoretical flame temperature, degree of dissociation and ionization, reaction rates. Applications to spark and compression ignition systems, thermal jet and rocket engines, gas turbine power plants; fuel requirements for each. Engine testing. Prerequisites: Mee 302, Mee 320; Corequisite: Mee 312L.

MEE 418. ADVANCED FLUID MECHANICS THREE CREDIT HOURS
Application of fundamental fluid mechanics and thermodynamic laws and auxiliary equations to compressible flows. Isentropic flows; normal and oblique shock waves; convection heat transfer. Prerequisites: Mee 308, Mth 219; Corequisite: Mee 410.

MEE 420. ENVIRONMENTAL CONTROL THREE CREDIT HOURS
Application of thermodynamics, heat flow and fluid flow to the investigation and design of thermal environmental control systems and subsystems. Prerequisite: Mee 302; Corequisite: Mee 410.

MEE 424L. MECHANICAL ENGINEERING LABORATORY III ONE CREDIT HOUR
Analysis and testing of selected power generation devices and turbo-machinery, such as turbines, internal combustion engines, pumps, fans, fuel cells, solar cells, thermoelectric and thermionic power generators. Prerequisite: Mee 305L; Corequisites: Mee 410, Mee 417.

MEE 425L. MECHANICAL ENGINEERING LABORATORY IV ONE CREDIT HOUR
Analysis and testing of heat transfer devices involving principles of conduction, convection, condensation, and refrigeration; gas dynamics experiments. Prerequisites: Mee 305L, Mee 410, Mee 418.

MEE 427. MECHANICAL DESIGN I THREE CREDIT HOURS
Development of mathematical equations for analysis and design of static and dynamic machine members. Prerequisite: Mee 321; Corequisite: Mee 427L.

MEE 427L. MECHANICAL DESIGN LABORATORY I ONE CREDIT HOUR
Problems involving the application of principles covered in Mee 427. Solution of complex problems involving statics, dynamics and strength of materials to develop engineering judgment. Corequisite: Mee 427.

MEE 428. MECHANICAL DESIGN II THREE CREDIT HOURS
Continuation of Mee 427. Prerequisite: Mee 427; Corequisite: Mee 428L.

MEE 428L. MECHANICAL DESIGN LABORATORY II ONE CREDIT HOUR
Problems involving the application of principles covered in Mee 427 and Mee 428. Solution of complex problems with emphasis on synthesis and creative design of mechanical systems. Corequisite: Mee 428.

MEE 430. PRODUCTION CONTROL AND PROCESSES THREE CREDIT HOURS
Introduction to statistics, quality control, and reliability. Production methods and processes; automation. Prerequisites: Mth 218, Mee 211.

MEE 435. FEEDBACK CONTROL SYSTEMS THREE CREDIT HOURS
Introduction to analysis and design of automatic control systems. Component analysis. Time domain analysis and frequency domain analysis. Stability of complex feedback control systems. Prerequisite: Mee 316.
MEE 499. Special Problems in Mechanical Engineering  one to six credit hours
Particular assignments to be arranged and approved by Chairman of the Department.

Medical Technology (MET)

Dr. R. C. Lachapelle, University Advisor
Dr. W. Abramson, Director (St. Elizabeth Hospital)
Dr. R. Van der Hoeven, Director (Good Samaritan Hospital)
Dr. J. W. Funkhouser, Director (Miami Valley Hospital)
Dr. R. H. Seasly, Director (Kettering Memorial Hospital)

The courses taken at the University of Dayton are listed under Program S-8. See individual departments for descriptions. The senior year in Medical Technology is done at St. Elizabeth Hospital, Good Samaritan Hospital, Miami Valley Hospital or Kettering Memorial Hospital. The courses are conducted by the respective hospital faculties.

MET 380. Medical Technology Seminar  one credit hour
Discussion to relate academic courses and clinical laboratory sciences. Prerequisite: Junior standing.

MET 481. Introduction to Medical Technology  four credit hours
A study of basic hospital and laboratory routine, Medical Terminology, Laboratory Ethics, Laboratory Mathematics.

MET 482. Urinalysis and Renal Function  four credit hours
Instruction in various methods of performing these tests with correlation based on anatomical and physiological functions of the organs.

MET 483. Hematology  six credit hours
Instruction in the morphology of the blood and blood-forming tissues and practice in the association studies. Correlation of findings based on anatomical and physiological functions of the cellular components of the blood.

MET 484. Bacteriology, Parasitology, Mycology  seven credit hours
Instruction in various methods of microbiological examination of the body tissues, fluids, secretions, and excretions; tests for reaction of the body to specific diseases; tests for and study of various parasites found as pathologic organisms in the human body.

MET 485. Chemistry and Gastric Analysis  eight credit hours
Instruction in biochemical analysis and the chemical changes in the body due to disease; procedures for analyzing gastric fluid.

MET 486. Histology and Cytology  three credit hours
Instruction in various methods of preparation for sectioning and staining of tissues in preparation for microscopic examination.
MILITARY SCIENCE

MET 487. SEROLOGY AND SPINAL FLUID
THREE CREDIT HOURS
Instruction in antigen-antibody reaction in vitro and the performance of the associated tests; procedures for analyzing cerebrospinal fluid.

MET 488. BLOOD BANKING
THREE CREDIT HOURS
Instruction in blood typing and crossmatching of blood for administration of transfusions. Techniques in withdrawing blood from donors is included.

MET 489. LABORATORY MANAGEMENT
NO CREDIT
The student familiarizes himself with the ordering of supplies, office procedures, and with basal metabolism techniques.

MET 490. NORMAL PATHOLOGIC PHYSIOLOGY
NO CREDIT
A series of lectures stressing the correlation of theory and practical laboratory testing as it relates to disease states.

Military Science (MIL)

LTC Edward H. Effertz, Chairman
Professor: Effertz
Assistant Professors: Brown, Fawcett, Kwieciak, MacLellan, Sullivan, Devlin

Students desiring to obtain a commission as an officer in the United States Army are required successfully to complete four years of Military Science and be awarded a Bachelor's Degree from the University.

MIL 101-102. FUNDAMENTALS OF LEADERSHIP AND MANAGEMENT
Organization of the Army and ROTC, with emphasis on the local ROTC program and career opportunities for ROTC graduates. The military as a profession. Historical growth and development of the Army, stressing the magnitude of management implications. Significance of military courtesy, discipline, customs and traditions of the service. Development of leadership abilities through practical exercises to include an introduction to the service weapon.

MIL 201-202. APPLIED LEADERSHIP AND MANAGEMENT
Operations of the basic military team to include military geography and the use of maps and aerial photographs. The functions, duties, and responsibilities of junior leaders. Continuing development of leadership through practical exercises.

MIL 301-302. ADVANCED LEADERSHIP AND MANAGEMENT
Case studies in leadership and management. Delegation of authority and responsibility, span of control, planning, coordinating, and decision making. Development of the student's ability to express himself clearly and accurately with emphasis on analysis of military problems, the evaluation of situations, and preparation and delivery of logical solutions. Analysis of the leader's role in directing and coordinating the efforts of individuals and small units in the execution of offensive and defensive tactical missions, to include military geography, weapons systems, communication systems, intelligence gathering capabilities, and role of the various branches of the Army. Applicatory work
emphasizing the duties and responsibilities of junior leaders including supervision of the use and maintenance of service weapons. Discussion of the military environment in garrison and in the field.

MIL 401-402. THEOREY AND DYNAMICS OF THE MILITARY TEAM
Study of combat operations and the various military teams to include military geography; the coordination and planning necessary between the elements of the team.

SEMINAR IN LEADERSHIP AND MANAGEMENT
Analysis of selected leadership and management problems involved in unit administration, military justice, and the Army Readiness Program. The position of the United States in the contemporary world scene discussed in the light of its impact on leadership and management problems of the military services. Application of leadership principles, stressing responsibilities of the leader and affording experience through practical exercises. Obligations and responsibilities of an officer on active duty; chain of command; officer-enlisted relationships.

Performing and Visual Arts (PVA)
Patrick S. Gilvary, Chairman

Fine Arts (ART)

Dr. Bernard E. Plogman, Division Head
Assistant Professors: Barrish, Plogman, Weber
Instructors: Fiehler, Richardson
Part-time Instructors: Black, Dorner, Dreisbach, Emery, Petrovich, Smith, Vongruenigen, Gast

The Fine Arts3 Division offers three degree programs:
1. Bachelor of Fine Arts
2. Bachelor of Arts with a Major in Fine Arts
3. Bachelor of Science in Art Education

Minors are required to take 19 credit hours in art, 4 hours of which must be in upper level courses. All art students, regardless of their programs, are required to take Art 101-102 Introductory Drawing, and Art 111-112 Principles of Design before taking intermediate and advanced courses.

Students entering degree programs are required to present an art portfolio of at least five pieces of work. Transfer students entering a BFA program must present a few samples of artwork to chairman. Seniors must present to the full-time faculty a portfolio of at least ten pieces of their best work as a requirement for graduation. Three dimensional work will also qualify.

ART 101-102. INTRODUCTORY DRAWING FOUR CREDIT HOURS
Introduction to drawing from a variety of objects, as well as from the imagination, as a means of visual communication. Contact with a wide range of drawing media is encouraged to develop capabilities. One two hour course each week.
ART 111-112.  PRINCIPLES OF DESIGN  FOUR CREDIT HOURS
A study of the underlying elements and principles of design as they are applied to
surface pattern. Color theories and their use in creative design are a part of the course.
One two-hour course each week Prerequisite for Art 112 at Art 111 or permission.

ART 181.  ENJOYMENT OF ART  THREE CREDIT HOURS
The course is designed to develop in the student a greater capacity to enjoy as well as
understand contemporary art expression. Major emphasis will be given to understanding
the creative process, and investigating the artist's point of view as well as his relationship
to his audience. The course is open to students from all disciplines. One three-hour
course each week.

ART 191-192.  LETTERING AND CALLIGRAPHY  FOUR CREDIT HOURS
The same rules governing other aspects of art apply also to lettering. Application of the
drawn letter and the designed letter to poster, books, inscriptions and manuscripts
through class assignments and projects will be required. One two-hour course each week.
Prerequisite for Art 192 is Art 191 or permission.

ART 208-209.  INTERMEDIATE DRAWING  FOUR CREDIT HOURS
Studio course offering further disciplined study in various drawing media such as pencil,
crayon, charcoal, and ink as a means of expression. One two-hour course each week.
Prerequisite for Art 209 is Art 208 or permission.

ART 217-218.  THREE DIMENSIONAL DESIGN  FOUR CREDIT HOURS
The application of the principles of design and aesthetic factors to the development of
form; creative use of a wide variety of materials experimentally; development of the
knowledge, skills, and techniques necessary to design within limitations imposed by
materials. Art 101-102 Introductory Drawing, and Art 111-112 Principles of Design
are prerequisites for this course.

ART 226-227.  INTRODUCTORY PAINTING  FOUR CREDIT HOURS
Painting in oil and water color from still life, landscape and floral subjects. Emphasis is
placed on composition and application of art theories. Use of imaginative subject matter
will also be encouraged. One two-hour course each week.
Prerequisite for Art 227 is Art 226 or permission.

ART 228-229.  WATERCOLOR.  FOUR CREDIT HOURS
In this course the basic principles and techniques of transparent watercolors are studied.
Emphasis is placed on picture composition, value and color sketching as preparatory
steps in painting.

In the second course, varying expressions and interpretations of subject material are
encouraged. Prerequisites are: Art 101-102 Drawing, Art 111-112 Design, and Art
226-227 Introductory Painting. One two-hour course each week.

ART 231-232.  SCULPTURE  FOUR CREDIT HOURS
Consideration of forms as a means of developing an understanding of mass, shape, and
control of medium. Direct use of the widest possible range of materials with special
emphasis on the integration of their characteristics with the expression. One two-hour
course each week. Prerequisite for Art 232 is Art 231 or permission.
ART 251. GRAPHICS ARTS  
TWO CREDIT HOURS  
Basic principles of relief printing as applied to the lino cut and the woodcut are treated. Registration, the use of color and the aesthetics of the relief print are explored. Discussion on printing papers, inks, proper matting procedures and new relief techniques are encouraged. One two-hour course each week.

ART 252. GRAPHICS ARTS  
TWO CREDIT HOURS  
The intaglio printing process as it is applied to acid etching is studied. Exercises in the use of hard and soft ground etching, the art of the aquatint are presented. Emphasis is placed on working procedures, the use of the intaglio press, choice of paper and inks and proper presentation of the completed print. One two-hour course each.

ART 263-264 JEWELRY: INTRODUCTORY CASTING  
FOUR CREDIT HOURS  
Original pieces of jewelry are produced. They are first modeled in wax with an emphasis on sculptural design. In preparing a piece for casting a student is taught how to sprue, invest and burn-out. After casting, the work is cleaned up in preparation for final finishing and polishing. The course prerequisites are Art 101-102 Introductory Drawing, and Art 111-112 Principles of Design. These courses must be taken in sequence. One two-hour course each week.

ART 261-262. INTRODUCTORY ENAMELING  
FOUR CREDIT HOURS  
Basic principles and techniques of enameling on copper are studied. The student works out original pieces using the more common processes. In the second term the student progresses to more advanced enameling processes. The course prerequisites are Art 101-102 Introductory Drawing and Art 111-112 Principles of Design. These courses must be taken in sequence.

ART 281. PRACTICAL ARTS—PRIMARY GRADES  
TWO CREDIT HOURS  
An exploration of materials, media and techniques. Major emphasis being placed on experimentation and development of the students own creative potential and its relationship to teaching art at the primary level. Required for all primary school teachers. One two-hour course each week.

ART 282. PRACTICAL ARTS—INTERMEDIATE GRADES  
TWO CREDIT HOURS  
Same as Art 281, with emphasis on the students creative development as related to teaching art in the intermediate grades. Required of all intermediate elementary school teachers. One two-hour course each week.

ART 301. CHRISTIAN ART  
TWO CREDIT HOURS  
A study of the best examples of sacred art as representative expositions of Christian theology and religious tradition; correlations with Church history, theology, music, literature.

ART 303-304. ADVANCED DRAWING  
FOUR CREDIT HOURS  
Observational and expressive drawing. The use of accumulated knowledge from previous drawing experiences in the introductory program, to assist in the development of an individual creativity and original style. One two-hour course each week.

ART 317-318. INTERMEDIATE DESIGN  
FOUR CREDIT HOURS  
Principles and practices in the application of design to the Fine Arts as well as the Practical Arts. The assignments are designed to motivate the student in design solutions
of projects requiring research into original concepts. The project-oriented program includes assignments in the areas of graphic design, and product design. One two-hour course each week.

**ART 321-322-323-324. ADVANCED PAINTING**

EIGHT CREDIT HOURS

A Continuation of Art 221-222 Introductory Painting, with increased emphasis on the personal interpretation of the subject. The use of various painting media are encouraged, such as oils, water color, opaque water color, and synthetic paints. These courses must be taken in sequence.

**ART 331-332. ADVANCED SCULPTURE**

FOUR CREDIT HOURS

Contemporary consideration of sculptural form. Individual expression, employing the use of modern techniques and experimental as well as traditional materials. One two-hour course each week. Prerequisites for this course are Art 231-232.

**ART 355-356. SILK SCREEN—SERIGRAPHY**

FOUR CREDIT HOURS

Basic principles and techniques of the silk screen process exploiting the unique characteristics of the medium as a creative expression. All operations of screen printing are covered including stencil and resist techniques, selecting and preparing the color material, printing and displaying the finished print.

**ART 371. HISTORY OF ANCIENT ART**

THREE CREDIT HOURS

A Study of great art and the masters of art and the influences upon their work beginning with the ancient period and continuing through the medieval and Gothic periods.

**ART 372. RENAISSANCE ART**

THREE CREDIT HOURS

A continuation of Art 271, beginning with the Renaissance and continuing through the Baroque and Rococo periods.

**ART 411-412. ADVANCED DESIGN**

FOUR CREDIT HOURS

The widest possible latitude for experimentation and development of the student's own direction is provided during this third year of study. At this time the student is considered mature enough to have developed certain convictions about his work. One two-hour course each week.

**ART 471. DEVELOPMENT OF MODERN ART**

THREE CREDIT HOURS

New art forms are studied in the development of art history in the late 18th Century and the complete flowering in the 19th Century throughout Europe and the Americas.

**ART 472. ART IN THE TWENTIETH CENTURY**

THREE CREDIT HOURS

lettering, and the mural. Accredited in Education. One two-hour course each week. The development of twentieth century art from 1900 to the present, covering the early cubistic movement, abstract expressionism, and the various aspects of other minor art movements to the present.

**ART 481. CREATIVITY IN TEACHING ART**

TWO CREDIT HOURS

Use of art elements and principles as the basis for creative approach; organization of units of work, including drawing, painting, design, color, modeling, block printing.

**ART 482. TEACHING ART IN SECONDARY SCHOOLS**

TWO CREDIT HOURS

Basic principles of teaching art more creatively at the secondary school level. The
elements of teaching techniques, art student learning processes, creative personality involvement, and creative art performance will be explored. The course is required of all prospective secondary school art teachers and is open to interested art teachers in service. One two-hour course each week.

**ART 483W. ELEMENTARY SCHOOL ART**
**THREE CREDIT HOURS**
A workshop designed to give the regular classroom teacher on the elementary level new and practical ideas on the employment of art materials and techniques in relation to seasonal interests of pupils and to holiday observances. May substitute for Art 281 or Art 282.

**ART 484W. CREATIVITY IN TEACHING HIGH SCHOOL ART**
**THREE CREDIT HOURS**
Intended primarily for the art teacher on the high school level; creative art expression, use of materials, study of handwork and organization of units of work. May substitute for Art 481.

**ART 490. SPECIAL PROBLEMS**
**TWO TO SIX CREDIT HOURS**
A course reserved for art students devoted to advanced or specialized work in art. Permission must be granted by the chairman. Students work privately under the supervision of full time staff. They are encouraged to explore advanced problems in such areas as drawing, painting, design, graphics, crafts, sculpture, art education and art research.

**Music (MUS)**

**Lawrence E. Tagg, Division Head**

*Professors: Berk, Reichard*

*Associate Professors: Tagg, Zech*

*Assistant Professors: Faust, Ritter*

*Instructors: Baxter, Carlson, Minton*

*Part-time Instructors: Schneider, Wiggenhorn*


Students intending to major in music must have an audition preliminary to curriculum placement. Inquire at the Music Division concerning details.

**MUS 101. FUNDAMENTALS OF MUSIC**
**TWO CREDIT HOURS**
For the student with no previous experience with the theory of music. Notation of music, key and time signatures, fundamental harmonic progression, and an introduction to the piano keyboard. Elementary ear training and dictation. Open to all university students.

**MUS 103. MUSIC APPRECIATION**
**TWO CREDIT HOURS**
A study of the masterpieces of music with special reference to the listener: includes compositions of value to the classroom teacher. Open to all university students.
MUS 108. Introduction to Music Literature  
Two credit hours  
A study of the masterpieces in music aimed at developing a broad understanding and an intelligent discrimination of music. For music majors only. Not open to students who have credit for Mus 103.

MUS 151-152. First Year Theory  
Eight credit hours  
Formation of scales and intervals; progression of triads and seventh chords; simple modulation; basic technique of dictation, sight singing, and rhythmic reading. Prerequisite: Knowledge of the fundamentals of music.

MUS 231. Teaching Music in Grades 1, 2, and 3  
Two credit hours  
Materials to be used in music for the first three grades and their presentation; problems and possibilities of the primary school music program. Prerequisite: Knowledge of the fundamentals of music equivalent to Mus 101.

MUS 232. Teaching Music in Grades 4, 5, and 6  
Two credit hours  
Materials to be used in music for the intermediate grades and their presentation; problems and possibilities of the elementary school music program. Prerequisite: Equivalent of Mus 101.

MUS 235-236. Voice Class  
Four credit hours  
Principles of good singing; development of the voice; vocal literature. May be repeated to a total of eight credit hours. Minimum of four students required for class. Open to all university students with permission of the instructor.

MUS 251. Second Year Theory  
Four credit hours  
Continuation of Mus 151-152; more advanced sight-singing and dictation; analysis and writing of advanced seventh chords, modulation. Non-harmonic tones, and altered chords. Prerequisite: Mus 152.  
First Term, Each Year

MUS 262. Musical Form  
Two credit hours  
A study of the structural designs used in musical composition; a study of all polyphonic, homophonic, and the larger forms. Prerequisite: Mus 251.  
Second Term, Each Year

MUS 272. Keyboard Harmony  
Two credit hours  
A study of diatonic chord progressions, including simple modulations, at the keyboard; their use in accompaniment of melodies; improvisation; modern chord terminology. Prerequisite: Mus 251; four credit hours in Piano.  
Second Term, Each Year

MUS 296. Applied Music—Class Piano I  
One credit hour  
Beginners in piano are assigned to Class Piano. Open to all university students.

MUS 297. Applied Music—Class Piano II  
One credit hour

MUS 298. Applied Music—Class Piano III  
One credit hour

MUS 299. Applied Music—Class Piano IV  
One credit hour

MUS 301. History of Music I  
Three credit hours  
The development of Western music to 1750. The relationship of music to the other arts and to broad movements in society and civilization. Open to any university student with junior or senior standing.  
First Term, Each Year
Mus 302. History of Music II  
Three Credit Hours  
The development of Western music from 1750 to the early twentieth century. The relationship of music to social and cultural movements. Open to any university student with junior or senior standing.  
Second Term, Each Year

Mus 304. History of American Music  
Three Credit Hours  
Development of music in America dating from its early psalmody of the 17th century to its present day forms and styles. Open to all university students.

Mus 305. Contemporary Trends in American Music  
Three Credit Hours  
Survey of the contemporary American composers and their styles. The relationship of American music to the other arts. Open to all university students.

Mus 308. Contemporary Music  
Two Credit Hours  
A survey of contemporary music; its relationship to modernism in the other arts and to present-day society. For music majors only.

Mus 310. Introduction to Contemporary Music  
Two Credit Hours  
A survey of twentieth century music. Its relation to the other arts and to society. Mixed media performances, improvisation, electronic music and rock music will be included. For non-music majors only.
Second Term, Each Year

Mus 311-312. Eighteenth Century Counterpoint  
Four Credit Hours  
A study of the contrapuntal technique of the eighteenth century particularly as used in the instrumental works of Johann Sebastian Bach. Original compositions in the forms of the Invention and the Fugue. Prerequisite: Mus 251.

Mus 315. The Opera  
Two Credit Hours  
A survey of operas written in classical, romantic, and modern periods; particular attention is given to works currently performed by major opera companies.

Mus 321. Instrumental Conducting  
Two Credit Hours  
Techniques of conducting instrumental music in orchestra, band and other ensembles. Practical experience with campus instrumental groups. Prerequisite: Junior standing in music and permission of the instructor.
First Term, Each Year

Mus 322. Instrumentation and Orchestration  
Three Credit Hours  
Scoring for instruments in small combinations and full orchestra and symphonic band; emphasis on the needs of school music organizations. Prerequisite: Junior standing in music and permission of the instructor.
Second Term, Each Year

Mus 325. Stringed Instruments I  
Two Credit Hours  
Class instruction in violin, viola, cello, bass. Teaching stringed instruments in the schools. Open to any qualified university students. Prerequisite: Ability to read music and permission of the instructor.
First Term, Each Year

Mus 326. Reed and Woodwind Instruments  
One Credit Hour  
Class instruction in reed and woodwind instruments. Teaching of reeds and woodwinds in the schools. Open to any qualified university student. Prerequisite: Ability to read music and permission of the instructor.
Second Term, Each Year
MUS 327. **Brass Instruments**  
Class instruction in brass instruments. Teaching of brass instruments in the schools. Open to any qualified university student. Prerequisite: Ability to read music and permission of the instructor.  
*First Term, Each Year*

MUS 328. **Percussion Instruments**  
Class instruction in percussion instruments. Teaching of percussion instruments in the schools. Open to any university qualified music student. Prerequisite: Ability to read music and permission of the instructor.  
*Second Term, Each Year*

MUS 329. **Stringed Instruments II**  
Continuation of Stringed Instruments I to further skills in teaching and performance. Concentration on one instrument. Prerequisite: Music 325 or equivalent. Permission of the instructor.  

MUS 331. **Vocal Music in the High School**  
Methods and materials for large and small ensembles. Prerequisite: Junior standing in Music Education.  
*Second Term, Each Year*

MUS 332. **The School Band and Orchestra**  
A general course in the organization and teaching of instrumental music in the schools; materials; survey of equipment and facilities necessary for the instrumental music program. Prerequisite: Junior standing in Music Education.  
*Second Term, Each Year*

MUS 335. **Music in the Elementary Grades**  
The music education program in the elementary grades; materials and their presentation; problems and responsibilities of the music teacher. Prerequisite: Sophomore standing in music education.  
*First Term, Each Year*

MUS 351. **Choral Conducting**  
Development of conducting skills, with concentration on choral techniques. Practical experience with campus choral ensembles. Prerequisite: Junior standing in music and permission of the instructor.  

MUS 361. **Piano Pedagogy I**  
A systematic preparation for the development of piano technique and tone: a survey and study of graded teaching material of Grades I and II. Prerequisite: Four terms of piano study or the equivalent.  
*First Term, Each Year*

MUS 362. **Piano Pedagogy II**  
A continuation of Piano Pedagogy I through the material of Grades III and IV. Prerequisite: Piano Pedagogy I or five terms of piano study or equivalent.  

MUS 371. **Piano Literature I**  
A comprehensive survey of literature for the piano from the early keyboard music to the Romantic period. Required of piano majors. Prerequisite: Permission of the instructor.  

MUS 372. **Piano Literature II**  
Continuation of a comprehensive survey of literature of keyboard music from the Romantic period to the present day. Required of piano majors. Prerequisite: Permission of the instructor.
Mus 399. Applied Music
Private instruction in piano, voice, organ, violin, viola, cello, bass, flute, oboe, clarinet, bassoon, saxophone, trumpet-cornet, french horn, trombone, baritone, tuba, percussion, guitar.

Mus 411-412. Musical Composition
Prerequisites: Mus 152 or equivalent; other prerequisites to be determined in consideration of the aims and objectives of the student; permission of the instructor.

Mus 415-416. 19th and 20th Century Styles
Analysis of the harmonic and contrapuntal devices used after Bach with special emphasis on contemporary music and composers. Prerequisite: Junior standing in music; permission of the instructor.

Mus 417-18. Sixteenth Century Counterpoint
A study of the medieval modes and the vocal polyphony of the motet and the Mass, up to and including five-part writing; original student compositions. Prerequisite: Permission of the instructor.

Mus 421-422. Laboratory in Orchestration
Advanced work in orchestration; special problems in scoring for full orchestra, symphonic band or ensembles; transcription of orchestral works for band. Prerequisite: Mus 322, permission of instructor.

Mus 425-426. Problems in Instrumental Music
Practical problems and experience in instrumental music in teaching or other professional situations approved by the Music Division. Prerequisite: Senior standing in Music or in Music Education. Approval of instructor.

Mus 429. Marching Band Techniques
Materials and methods of organization and instruction for the Marching Band. Prerequisite: Participation in the Marching Band. First Term, Each Year

Mus 431-432. Problems in Vocal Music
Practical experience in a vocal or choral project approved by the Music Division. Prerequisite: Senior standing in Music or in Music Education; approval of the instructor.

Mus 441-442. Laboratory in Composition
Advanced work in musical composition; writing multi-movement forms of both vocal and instrumental music. Prerequisite: Mus 411 and 412; permission of the instructor.

Mus 451-452. Chamber Music and Symphony
Formal and harmonic analysis of Chamber Music and the symphonies of the Classicists, the Romanticists, and the Impressionists. Prerequisite: Mus 251, 262.

Mus 499. Applied Music (for Majors in Applied Music)
Private instruction in Piano, Voice, Organ, Orchestral Instruments, admission by permission of instructor-advisor.

Major in Applied Music: Twenty four credit hours for Bachelor of Music degree; sixteen to twenty credit hours for Bachelor of Science in Music Education degree.
APPLIED MUSIC

In order to register for credit toward a major in Applied Music, students must have studied preparatory material which is the equivalent of that contained in Ohio Music Education Association contest lists.

In piano this should include ability to play major and minor scales in a moderate tempo in parallel motion; ability to play major and minor triads in arpeggio form in all keys. The student should have studied Hanon, Vol. 1; Pischna; Czerny, Op. 299, or their equivalent; some of teh Mozart and Haydn sonatas; Mendelssohn (Songs Without Words; Little Preludes and Fugues or Two- and three-part Inventions by Bach; Lyric Pieces” by Grieg, or their equivalent.

APPLIED MUSIC FEES.

Mus 296 to 299  Class Piano .................................................................Term Fee $10.00
Mus 399  Piano, Organ, Voice, Strings, Reed, Woodwind or Brass Instruments .................................................................Term Fee $20.00
Mus 499 Four-credit hour courses for Applied Music Majors...........Term Fee $40.00
N.B. Applied Music courses which involve private study with special teachers who are not full-time members of the University faculty must incur private lesson fees paid to the instructor .................................................................Term Fee $40.00 to $80.00

ENSEMBLES

Orchestra (Dayton Philharmonic Youth Orchestra)
Band (Marching Band, Concert Band)
Choir (Mixed Chorus)
Small Ensembles (String, Woodwind, Brass, Vocal)

Ensembles are open to all students by audition. One-half credit per term may be granted if the student completes a music course on his degree program, and if he satisfies ensemble attendance requirements. Students do not register for ensemble and no grades are given. Candidates for music degrees must participate in at least one ensemble each term. The total requirement is determined by the degree and/or Ohio requirements for teacher-certification.

Theater (THR)

Lawrence Selka, Division Head
Associate Professor: Gilvary
Instructors: Ruben, Selka

Theatre Majors contact the Theatre Division for required audition information. Theatre Division offers the degree of Bachelor of Arts in Theatre.

THR 100. THEATRE LABORATORY ...................................................ONE CREDIT HOUR
Credit allowance for role playing and/or play production in major productions. Fifty hours of work minimum for one credit. Repeatable up to three credits in the Freshman-
Sophomore year. All registration retroactive. No advance registration. Required of all majors.

**THR 105**  **Introduction to the Theatre**  **Three Credit Hours**
(Spe 204)
Analyzes the nature of theatre, its origin and development, from the standpoint of the play, the physical theatre, and its place in our culture. Open to all university students.

**THR 202. Stage Makeup**  **Two Credit Hours**
To acquaint the student with the basic principles of the art and technique of makeup so that he may use them creatively in design and execution thereby assisting him to develop and project the character. Open to all university students.  *First Semester, Each Year*

**THR 205. Theatre Stagecraft**  **Three Credit Hours**
Study and application of scene construction, rigging, backstage organization, production analysis and technician-designer relationship. Required of all theatre majors. Open to all university students.  *First Term, Each Year*

**THR 207. Lighting for the Stage**  **Three Credit Hours**
Study and application of the basics of designing the lighting for the stage. Covers instruments, control, sources, elements of electricity and lighting design.

**THR 210. Acting I**  **Three Credit Hours**
(Spe 313)
Affords study and practice in the fundamentals of acting, with stress upon the physical, mental, and emotional background of characterization. Prerequisite: 105 or permission. Open to all university students. Required of all theatre majors.

**THR 220. Selected Readings in Theatre**  **One-three Credit Hours**
An introduction to the vast bibliography in the theatre by means of pre-selected topics for in-depth investigation. A different topic each term. One credit, repeatable up to three credits. Prerequisite Thr 105 or permission.

**THR 300. Theatre Laboratory**  **One Credit Hour**
The third and fourth year level of credit allowance for role playing and/or play production. Requirements and registration same as Theatre 100.

**THR 304. Theatre Production Workshop**  **Three Credit Hours**
(Spe 304)
Principles and practical application of theatre production: including play analysis, stagecraft, lighting, stage blocking and rehearsal process. Students work on selected plays and with full stage and shop facilities.

**THR 323. Acting II**  **Three Credit Hours**
(Spe 323)
A further development and practice of fundamental principles set down in the elementary course in acting, Thr 210. Emphasis is placed on more specialized character portrayal. Prerequisite: Thr 105, Thr 210 or with permission.
THR 325. LITERATURE OF THE THEATRE I
Survey of representative plays as a basis for theatrical production and dramatic criticism for the classical to neo-classical periods. Required of all theatre majors. Prerequisite: Thr 105.

THR 326. LITERATURE OF THE THEATRE II
Continuation of Theatre 325 from Romantic to modern periods. Required of theatre majors. Prerequisite: Thr 105.

THR 330. CONCEPTS IN STAGE DESIGN
Studies in the principles of design; selection of elements, scale and proportion. Use of the design imagination through assignments in various styles and periods. Required for all theatre majors. Prerequisite: Thr 205.

THR 340. THE DIRECTOR IN THE THEATRE
A study of the evolvement of director in theatrical history and a study of the modern director's scope. Some lab directing included. Required for all majors. Prerequisite: Thr 105, 205, 210.

THR 350. THEATRE STYLES
An examination of the relationships between playwright, audience, actor, designer, and director in the development of major theatre styles of expression. Required of theatre majors.

THR 414. DESIGNING FOR THE STAGE
(Spe 414)
Individual development through advanced research and study in stage design. Design and implementation of a major production in scale or full dimension. Prerequisite: Thr 205, 207, 330 or permission.

THR 415. HISTORY OF THE THEATRE I
(Spe 415)
A History of Theatre from Pre-Grecian through Elizabethan, with emphasis on the physical theatre as a reflection of and an influence on man utilizing pictorial and literary evidence. Required of all theatre majors.

THR 424. PLAY DIRECTING
(Spe 424)
Treats the basic functions of a Director in the production of a play; blocking of scenes, timing, characterization, and continuity. Includes all aspects of production and direction of a one-act play.

THR 425. HISTORY OF THEATRE II
(Spe 425)
A continuance of Thr 415 from French Renaissance to present day. Required of all theatre majors.

THR 440. PROBLEMS IN THEATRE PRODUCTION AND DESIGN
Individual research and project work of the student's selection under the direct supervision of faculty. Innovation and creativeness will be emphasized. Prerequisite: Thr 205, 207, 330, 414 or permission.
THR 485. THEATRE SEMINAR
THREE CREDIT HOURS
Concentration on one theatrical figure, genre, or period for research and analysis. Alternative requirement with Thr 490 for all theatre majors. Second semester every other year. Repeatable up to six credits.

THR 490. SPECIAL PROBLEMS IN THEATRE
THREE-FIVE CREDIT HOURS
Individual research and report on a topic of the student's choice in the field of theatre under direct supervision of faculty/staff. Alternative requirement with Thr 485 for all majors. Repeatable up to 15 credit hours.

Participation in each major production is required of all theatre majors for the Bachelor's Degree. Credit for participation is received in Thr 100 and Thr 300.

Philosophy (PHL)

Dr. Richard R. Baker, Chairman
Professors: Baker, Dieska
Associate Professors: Nersoyan, Rhodes
Assistant Professors: Bloemer, Cartegenova, Chrisman, Dombro, Edelenyi, Greene, Herbenick, Kunkel, Monasterio, Opalek, Quinn, Richards, Rinderly, Seman, Thompson, Tibbetts, Ulrich, Wening

Courses required for a major: Phl 101, 201 plus 24 semester hours of upper division courses. A minimum of 15 semester hours must be on the 400 level.

Courses required for a minor: Phl 101, 201 plus 12 semester hours of upper division courses. A minimum of 6 semester hours must be on the 400 level.

Students should consult the chairman concerning electives.

Phl 101 and Phl 201 are prerequisites for all 300 and 400 courses.

PHL 101. BASIC PROBLEMS IN PHILOSOPHY I
THREE CREDIT HOURS
An introduction to the problem of the nature of philosophic inquiry, the problem of man, the problem of morality, and to such problems in politics, aesthetics, education, etc., as chosen by the instructor.

PHL 201. BASIC PROBLEMS IN PHILOSOPHY II
THREE CREDIT HOURS
An introduction to the problem of knowledge, the problem of being and the problem of God.

PHL 301. LOGIC
THREE CREDIT HOURS
Correct methods of defining and dividing concepts and terms; analysis of propositions and their immediate implications; rules for valid inference; introduction to symbolic logic; induction; fallacies.

PHL 303. PHILOSOPHY OF NATURE
THREE CREDIT HOURS
A consideration of the fundamental problems inherent in the physical universe and a critique of various solutions. An examination of the philosophical presuppositions and implications of contemporary physical theories. A philosophical analysis of such phenomena as motion, quantity, time and space.
PHL 304. PHILosophy of Man
An examination of the nature of life in general; the relationship of man to the world; human interactions; the dignity and destiny of man.

PHL 306. Philosophy of Knowledge
A critical examination of the validity of sensory and intellectual knowledge; the problem of the sources of knowledge as approached by skepticism, idealism, realism, empiricism, and relativism; the possibility of attaining truth.

PHL 308. Philosophy of Being
An examination of the historical positions on the problem of reality and appearance; the nature of ultimate reality; the possibility of metaphysical judgments.

PHL 310. Philosophy of God
The existence and nature of God as discoverable by natural reason; the divine causality; the relation of the universe to God; the problem of evil; criticism of the arguments advanced by the atheist and the agnostic.

PHL 311. Philosophy of Religion
An examination of the main issues involved in religious belief and practice, such as the relationship between reason and revelation. A critical presentation of the views of the main writers in the field from the 18th century to the present.

PHL 312. Ethics
A systematic examination of the various types of moral and ethical theory in the Western tradition and of the major problems involved; the extent of human responsibility; the conditions for making ethical judgments.

PHL 313. Business Ethics
Application of philosophy in the area of employee discipline with emphasis on rights, duties, and the purpose of discipline. Examination of arbitration cases in discipline.

PHL 314. Philosophy of Law
Nature of law; natural and positive law; implications and juridical origin and effect of law; justice; genetic origin of law.

PHL 317. History of Political Theory
A study of the principle political opinions of the Western philosophers; Plato, Aristotle, and the leading Roman, medieval, and modern political philosophers. Required of all political science majors.

PHL 320. Philosophy of Art
An analysis of the principles of aesthetics expressed by philosophers and application of these principles within a given historical period. It is intended to facilitate in the student the ability to criticize the effectiveness of these principles as historically concretized and gives him the opportunity to create in the different art media.

PHL 321. The Philosophy of Creativity
An analysis of the concept of ‘creation’ in the symbolic forms of culture, language and artistic symbols. An opportunity for practical self-involvement by an investigation of the methods, techniques, and suggestions for enriching the creative dimension of one’s life.
PHL 322. AESTHETICS OF THE CINEMA  THREE CREDIT HOURS
A general discussion of the aesthetics of the cinema, using films and criticism for
analysis, from Chaplin’s “aesthetic existence” to the formalism of Alain Resnais. Parti-
ticular attention will be given to the contemporary dichotomy between style and con-
tent. Prerequisite: Permission of Instructor.

PHL 323. PHILOSOPHY OF LITERATURE  THREE CREDIT HOURS
An analysis of the structure, the creation, and the criteria of literature, with a selective
study of some of the philosophical implications which underlie certain influential works
from antiquity to the present.

PHL 330. PHILOSOPHY OF SCIENCE  THREE CREDIT HOURS
A logical examination of the aims and methods of the physical and behavioral sciences.
Topics include: concepts, theories, models, laws, observations, discoveries, experiments,
measurements, statistics, and inferences.

PHL 340. SPECIAL PROBLEMS IN PHILOSOPHY  THREE CREDIT HOURS
The objective of this seminar is to gain insight into the perennial and contemporary
problems of philosophy. Permission to take this course must be obtained from the in-
structor. May be repeated when topic varies.

PHL 350. HISTORY OF GREEK PHILOSOPHY  THREE CREDIT HOURS
A survey of the beginnings and later development of philosophical speculation by the
Greek philosophers from Thales to Plotinus.

PHL 351. HISTORY OF MEDIEVAL PHILOSOPHY  THREE CREDIT HOURS
A survey of the course of philosophical thought from the Patristic Period to the end
of the Scholastic era in the 14th century.

PHL 352. HISTORY OF MODERN PHILOSOPHY  THREE CREDIT HOURS
A consideration of the rise and development of modern philosophic thought from the
Renaissance to the 20th century.

PHL 355. INTRODUCTION TO EASTERN PHILOSOPHY  THREE CREDIT HOURS
An introduction to the ways of Asian wisdom, considering the Oriental view of philos-
ophy as a specialized learning directed to the attainment of a higher state of being.

PHL 391. SPECIAL SEMINAR  THREE CREDIT HOURS
This course is applicable to student-initiated group-learning experiences in an area of
philosophy which is not covered by specific course offerings. It allows for educational
innovation with a philosophical orientation which would be structured by a group of
interested students and carried out with a departmental member. Prerequisite: Per-
mission of the Chairman.

PHL 401H. HONORS COURSE IN METAPHYSICS  THREE CREDIT HOURS
An investigation of such special problems as the possibility and conditions of meta-
physical inquiry, the proper object of metaphysics, and the methodology proper to
metaphysics.

PHL 402H. HONORS COURSE IN EPISTEMOLOGY  THREE CREDIT HOURS
A study of the basic issues in epistemology in their historical context, together with
some of the major developments in contemporary epistemology.
**PHILOSOPHY 339**

**PHL 420. NINETEENTH CENTURY GERMAN THOUGHT**  **THREE CREDIT HOURS**
A critical examination of the major areas of philosophic interest in nineteenth century Germany: the split of Hegelianism into right-wing and left-wing; renewed interest and controversy over the soul; the role of consciousness in nature and history; the problem of value experience.

**PHL 422. NINETEENTH CENTURY PHILOSOPHIC AND SCIENTIFIC THOUGHT**  **THREE CREDIT HOURS**
A study of the major scientific and philosophical developments from the 1830's to the early 1900's, concentrating on naturalism, positivism, and pragmatism in the writings of Comte, Spencer, T. H. Huxley, Mach and James, among others.

**PHL 431. PHILOSOPHY OF PLATO AND ARISTOTLE**  **THREE CREDIT HOURS**
Readings and classroom discussion of selections from Plato's dialogues and the basic works of Aristotle, comparing their doctrines on such fundamental problems as Being, Man, Knowledge, Morality, etc.

**PHL 434. ST. THOMAS AQUINAS**  **THREE CREDIT HOURS**
A careful reading of basic texts in the *Summa Theologica* and the *Summa Contra Gentiles* devoted to the existence and nature of God, the nature and end of Man, Law, Habit, and Virtue.

**PHL 451. SEMINAR IN INDIVIDUAL PHILOSOPHERS**  **THREE CREDIT HOURS**
The objective of this seminar is to study in depth the thought of an individual philosopher of sufficient importance to warrant special study. May be repeated when topic varies.

**PHL 452. CONTEMPORARY PROCESS PHILOSOPHY**  **THREE CREDIT HOURS**
A study of the metaphysical positions which resulted from the impact of evolutionary thought upon Western philosophy. Special emphasis will be given to Bergson and Whitehead, and constant attention will be paid to the question of compatibility between evolutionary and classical thought. Prerequisite: Consent of the Instructor.

**PHL 459. LINGUISTIC ANALYSIS**  **THREE CREDIT HOURS**
An introduction to the various schools of linguistic analysis, with concentration on the problems of meaning and truth, in order to demonstrate the use of the technique of analysis on particular problems in philosophy.

**PHL 470. CLASSICAL AMERICAN PHILOSOPHY**  **THREE CREDIT HOURS**
An introduction to some of the influential writings of the American pragmatists Peirce, James, and Dewey. The richness and variety within the pragmatic movement will be stressed. A comparison with the philosophical views of Royce, Santayana, and Whitehead will be included.

**PHL 476. CONTEMPORARY PROBLEMS IN THE PHILOSOPHY OF GOD**  **THREE CREDIT HOURS**
A seminar dedicated to reading, analysis, and discussion of the works in contemporary philosophies of God: Existentialism, Neo-Thomism, Philosophy of Process, Naturalism, Personalism, Linguistic Analysis. Prerequisite: Consent of the Instructor.

**PHL 490. DIRECTED READINGS**  **ONE TO FOUR CREDIT HOURS**
Primarily for philosophy majors but open to anyone who has completed twelve hours
in philosophy. Normally, three semester hours credit will be granted. In certain cases
the chairman may approve one, two, or four credit hours. This course may be repeated
when the topic varies.

Physics (PHY)

Dr. Joseph J. Kepes, Chairman

Professors: Bueche, Kepes, L. Mann

Associate Professors: Cothern, R. Mann, Schick, Schneider, Yaney

Assistant Professors: Crivello, Deye, Frank, Graham, Johnston, O'Hare

A major in Physics should have completed as a minimum 24 hours (12 hours from
Group I below and 12 hours from Group II) of upper level course work in Physics. In
particular circumstances, substitutions in other disciplines can be made in the Group II
courses with permission of the Department Chairman. Students may fulfill the minor
requirement by taking at least 12 hours from the Group II and III courses below. Nor­
mally students going to do graduate study in Physics will follow this latter program, i.e.,
courses in Groups I, II, III (Recommended open electives in Mathematics and Com­
puter Science are listed in Group IV).

A major in Physics should have completed as a minimum 24 hours (15 hours from
Group I below and 9 hours from Group II) of upper level course work in Physics plus
at least 12 hours of course work in a minor field. In particular circumstances, substi­
tutions in other disciplines can be made in the Group II courses with permission of the
Department Chairman. Students may also fulfill the minor requirement by taking at
least 12 hours from the Group II and III courses below. Normally students going to do
graduate study in Physics will follow this latter program, i.e., courses in Groups I, II, III
(Recommended open electives in Mathematics are listed in Group IV).

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<th>Group I</th>
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The minor can be chosen from any Department in the University with the provision
that the student have the permission of the Physics Chairman and the Chairman in the
minor field. Students planning graduate work in Medicine, Modern Engineering, Ap­
plied Mathematics, Computer Science, Business, etc., should use the minor and open
elective to gain competence in the discipline of interest.

PHY 100. SEMINAR

The student has an opportunity to acquaint himself with the broad spectrum of modern
science through periodic meetings with the entire department. Films, talks, book reviews,
and informal discussions. Required of Freshmen in physics.
Phys 105. The Physical Sciences

Applies fundamental principles of nature to physics, chemistry, astronomy, meteorology. Gives the student a broad understanding of man's physical environment. Four class periods per week.

Phys 151. General Physics

Designed to give (non-science) students an appreciation of physics, and approaches mechanics and heat from a point of view with a minimum of mathematics. Three class periods per week. Prerequisite: Elementary algebra. First Term, Each Year

Phys 151L. General Physics Laboratory

A course designed to accompany Phy 151. Designed to verify and apply theory through a selected program of experiments and demonstrations. Corequisite: Phy 151. One two-hour period per week. First Term, Each Year

Phys 152. General Physics

This course is a continuation of Phy 151 and includes electricity, light and sound with some discussion of the most recent developments of physics. Three class periods per week. Prerequisite: Phy 151. Second Term, Each Year

Phys 152L. General Physics Laboratory

A course designed to accompany Phy 152. Designed to verify and apply theory through a selected program of experiments. Corequisite: Phy 152. One two-hour period per week. Second Term, Each Year

Phys 196. General Physics I Mechanics

An introductory course in Mechanics using the calculus. Three lectures, one and 1/4 hours recitation per week. Corequisite: Mth 118 or Mth 128.

Phys 196H. General Physics I Mechanics (Honors)

An introductory course in Mechanics for students with a strong background in Physics. Three lectures, one and 1/4 hours recitation per week. By invitation only.

Phys 196L. General Physics Laboratory I

Introduction to laboratory methods, handling of data, analysis, experiments in classical mechanics for students in Science. One three hour period per week. Corequisite: Phy 196.

Phys 201. General Physics

A discussion of mechanics and heat without the formalism of the calculus. Three class periods per week.

Phys 201L. General Physics Laboratory

Accompanying laboratory course to Phy 201. Designed to verify and apply theory, and to teach scientific techniques. One two-hour period per week.

Phys 202. General Physics

A continuation of Phy 201, covering the fields of magnetism, electricity, sound and light. Three class periods per week. Prerequisite: Phy 201.

Phys 202L. General Physics Laboratory

A continuation of Phy 201L, with experiments in magnetism, electricity, sound and light. One two-hour period per week. Prerequisite: Phy 201L.
PHY 207. General Physics II Electricity and Magnetism (Honors)  Three Credit Hours
The basic principles of electricity and magnetism are studied. Three lectures, one and 1/4 hours recitation per week. Prerequisite: Phy 196, Mth 128.

PHY 207L. General Physics Laboratory II  One Credit Hour
Open-ended experiments in mechanics and electricity and magnetism, tailored to the background of students. One three hour period per week. Prerequisite: Phy 196L; Corequisite: Phy 207.

PHY 208. General Physics III Mechanics of Waves  Three Credit Hours
Introduction to wave phenomena including sound, light and matter waves leading to basic concepts in Modern Physics. Three lectures per week. Prerequisite: Phy 207, Mth 129.

PHY 208H. General Physics III Mechanics of Waves (Honors)  Three Credit Hours
An introduction to Modern Physics through a study of wave phenomena including sound, light and matter waves. Three class meetings per week. By invitation only.

PHY 208L. General Physics Laboratory III  One Credit Hour
The students perform a number of experiments emphasizing Modern Physics. One three-hour period per week. Prerequisite: Phy 207L; Corequisite: Phy 208.

PHY 301. Statistical Thermodynamics  Three Credit Hours
The thermodynamical description of many particles systems obtained from microscopic statistical considerations. Topics include: laws of thermodynamics, kinetic theory of dilute gases and Fermi-Dirac and Bose-Einstein statistics. Three class periods per week. Corequisite: Mth 219 or Mth 229.  First Term, Each Year

PHY 303. Intermediate Mechanics I  Three Credit Hours
The fundamental concepts of mechanics. The topics covered include virtual work, kinematics, special theory of relativity, Lagrange's equation and central forces, particle dynamics. Three class periods per week. Corequisite: Mth 219 or Mth 229.  First Term, Each Year

PHY 304. Intermediate Mechanics II  Three Credit Hours
A continuation of Phy 303. Topics include scattering of particles, fluid flow, rotating systems, rigid bodies, small oscillations and transition to wave mechanics. Three class periods per week. Prerequisite: Phy 303.  Second Term, Each Year

PHY 351. Introduction to Astronomy  Three Credit Hours
History of astronomy, apparent motions of celestial bodies, planetary systems, spectral classifications, multiple systems, variable stars, structure of the Universe. Prerequisites: Mth 228, Phy 208.

PHY 390. Introduction to Quantum Mechanics  Three Credit Hours
Basic postulates of Quantum Mechanics, applications made to atomic physics. Prerequisite: Phy 303, or consent of instructor.  Second Term, Each Year
PHY 404. PHYSICAL OPTICS
THREE CREDIT HOURS
This course discusses the wave theory of light, interference, diffraction, dispersion, polarization, velocity of light and electromagnetic theory of light. Three class periods per week. Prerequisite: Phy 208; Corequisite: Mth 229.

PHY 408. INTERMEDIATE ELECTRICITY AND MAGNETISM I
THREE CREDIT HOURS
Electrostatics, Coulomb's and Gauss' laws and the Laplace and Poisson equations, dielectrics, electrostatic energy methods, scalar and vector potential. Three class periods per week. Prerequisite: Phy 207.

PHY 409. INTERMEDIATE ELECTRICITY AND MAGNETISM II
THREE CREDIT HOURS

PHY 411. THEORETICAL PHYSICS I
THREE CREDIT HOURS
Topics can include calculational techniques in Modern Physics, complex variable theory, dispersion relations, linear vector spaces, operators, matrix mechanics, eigenvalue equations. Prerequisites: Mth 403-4, or consent of department.

PHY 412. THEORETICAL PHYSICS II
THREE CREDIT HOURS
Topics can include Orthogonal functions, Dirac delta function, Laplace's equation, Poisson's equation, D'Alembert's equation, transformation theorems, Green's function, Group theory. Prerequisites: Mth 403-4, or consent of department.

PHY 420. INTRODUCTION TO SOLID STATE
THREE CREDIT HOURS
Classification of solids, definition of crystals and crystal structures, survey of lattice properties. Free electron theory, band theory of solids, semi-conductors and crystal imperfections. Prerequisite: Phy 390 or consent of department.

PHY 421. NUCLEAR PHYSICS
THREE CREDIT HOURS
Radioactivity, particle accelerators, the interaction of nuclear radiation with matter, particle detection, fission, and cosmic rays. Three class periods a week. Prerequisites: Phy 208 or consent of instructor.

PHY 430. ADVANCED LABORATORY I
TWO CREDIT HOURS
A laboratory course in basic electronic circuit elements and devices. One four hour period per week.

PHY 430H. INDEPENDENT RESEARCH I
TWO CREDIT HOURS
Student performs independent experiments in electronics. Approximately four hours per week. Prerequisite: Previous experience in circuitry, permission of departmental chairman required.

PHY 431. ADVANCED LABORATORY II
TWO CREDIT HOURS
A laboratory course in which the student performs advanced experiments in optics, mechanics, electricity and magnetism, and modern physics. One four-hour period per week. Corequisite: an advanced course in physics.

PHY 431H. INDEPENDENT RESEARCH II
TWO CREDIT HOURS
Student performs independent experiments in classical physics. Approximately four hours per week. By invitation only.
PHY 432. ADVANCED LABORATORY III  
TWO CREDIT HOURS  
A continuation of Phy 431 with emphasis on solid state physics but may be taken without having had Phy 431. One four-hour period per week. Corequisite: an advanced course in physics.

PHY 432H. INDEPENDENT RESEARCH III  
TWO CREDIT HOURS  
Senior thesis, a laboratory problem in solid state, nuclear physics or other modern research areas. By invitation only.

PHY 433. ADVANCED LABORATORY IV  
TWO CREDIT HOURS  
A continuation of Phy 431, 432, but may be taken without having had either. Basic experiments in Nuclear Physics. One four-hour period per week. Corequisite: an advanced course in physics.

PHY 433H. INDEPENDENT RESEARCH IV  
TWO CREDIT HOURS  
Senior thesis, a laboratory problem in solid state, nuclear physics or other modern research areas. By invitation only.

PHY 437. MODERN PHYSICS  
THREE CREDIT HOURS  
Basic postulates of Quantum Mechanics, Special Relativity with practical application to Atomic, Nuclear and Solid State Physics. Prerequisite: Phy 208 or equivalent.

PHY 440. X-RAYS  
THREE CREDIT HOURS  
Nature, production and properties of x-rays and their interaction with matter. Applications and x-ray spectroscopy. Three class periods per week. Prerequisite: Phy 390 or consent of instructor.

PHY 441. TOPICS IN MODERN PHYSICS  
THREE CREDIT HOURS  
Includes elements of Modern Optics, Solid State and other selected subjects. Prerequisite: Phy 390 or equivalent, consult chairman of department.

PHY 450. ADVANCED ASTRONOMY  
THREE CREDIT HOURS  
Orbits, celestial mechanics, spectroscopic theory and analysis, ionization theory, radiation transfer, nuclear reactions, atmospheres, star models. Three class periods per week. Prerequisites: Phy 301, 303, 351, 390, or consent of department.

PHY 451. INTERMEDIATE PHYSICS I  
FOUR CREDIT HOURS  
The practical nature of matter; application to classical mechanics, astronomy, special relativity and modern physics. Three hours of lecture and three hours of laboratory experience, demonstrations and presentation of topical reports. Prerequisite: Phy 208 and Mth 219 or equivalent.

PHY 452. INTERMEDIATE PHYSICS II  
FOUR CREDIT HOURS  
The electrical and magnetic nature of the universe; problems in basic electricity and electronics with applications made first to modern circuits and atomic physics. Three hours of lecture and three hours of laboratory experience and demonstrations. Corequisite: Phy 451.

PHY 453. INTERMEDIATE PHYSICS III  
FOUR CREDIT HOURS  
The nature of waves as applied to optics, quantum mechanics, nuclear physics and elementary particles. Three hours of lecture and three hours of laboratory experience, demonstrations and presentation of optical reports. Prerequisite: Phy 451-2.
PHY 460. Seminar
Presentation of papers by undergraduate students, faculty and guest lecturers on topics of concern to the modern physicist. Reviews of books and films appropriate to the group are also given. Two meetings per week. Required of Juniors and Seniors.

PHY 499. Special Problems in (Named Area) Honors
Laboratory, tutorial or library work in one of the selected topics (a) Solid State Physics (b) Polymer (c) X-Rays (d) Nuclear Physics (e) Modern Optics (f) Theoretical Physics (g) General Physics. Taken with permission of department chairman.

Political Science (POL)

Dr. Antonio E. Lapitan, Chairman
Professors: Rose, Steinbicker
Associate Professors: Brockman, Lapitan, Liebler, Patyk
Assistant Professors: Abbott, Kerns, Korb

A major in Political Science includes Pol 201, Pol 202, Pol 317, and Pol 431, plus six advanced courses. The six advanced courses must be chosen by the student in consultation with his advisor and in accordance with his academic or career objective. Students concentrating in Pre-Law or Public Administration are encouraged to take Pol 495, Internship.

A minor in Political Science includes Pol 201 and any four advanced courses.

Pol 201. The American Political System
A functional study of the origin, organization, and operations of the national government with a rapid survey of the American system of state and local governments.

Pol 201H. The American Political System (Honors)
By permission only. Limited enrollment.

Pol 202. Comparative Political Analysis
Analysis of major concepts and approaches in the study of comparative government and politics.

Pol 301. The American Judicial Process
A study of the American judicial system, with emphasis on the courts and the bar. The criminal and civil legal processes are taken in detail.

Pol 303. State and Local Governments
A comparative survey of the governments of the states and their local jurisdictions, with emphasis on current developments and issues. Local government is treated within the context of the federal system.

Pol 305. Introduction to Public Administration
A study of basic principles of organization and management in executive departments of government at all levels. Questions of planning, leadership, and control are also considered.
POL 310. PARTIES AND INTEREST GROUPS  THREE CREDIT HOURS
A descriptive analysis of the nature and interaction of parties and interest groups, and their role in the American political system.

POL 311  PUBLIC OPINION AND PROPAGANDA
Analysis of the nature and function of public opinion and propaganda; problems in the measurement and analysis of public opinion.

POL 312. THE LEGISLATIVE PROCESS  THREE CREDIT HOURS
A detailed treatment of the organization, powers, functions, procedures of, and influences on Congress in federal legislation.

POL 313. THE AMERICAN PRESIDENCY  THREE CREDIT HOURS
An expository approach to the United States Presidency, as the most powerful elective political office in the world today.

POL 314. PRINCIPLES OF INTERNATIONAL RELATIONS  THREE CREDIT HOURS
An analysis of the dynamic forces influencing nations in their conduct of world affairs.

POL 320-326  COMPARATIVE POLITICS  THREE CREDIT HOURS
Analysis of governmental institutions and processes of selected countries in each of the following areas.

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<td>Pol 320</td>
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<td>Pol 321</td>
<td>Russia and Eastern Europe</td>
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<td>Pol 326</td>
<td>Africa</td>
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POL 360. URBAN POLITICS  THREE CREDIT HOURS
Examination of contemporary urban problems and the response of the governmental and political system. Locus of power and decision-making; community mobilization; citizen participation.

POL 400. INTERNATIONAL LAW  THREE CREDIT HOURS
An analysis of the development of international law, its theory and application to the various phases of international relations.

POL 404. INTERNATIONAL ORGANIZATIONS  THREE CREDIT HOURS
A study of the origins and evolution of organized international collaboration with an emphasis on the United Nations.

POL 407. POLITICAL GEOGRAPHY  THREE CREDIT HOURS
This course includes the geopolitical aspects of land, sea, outer space, communications, transportation, military strategy and the contributions of geography to international problems.

POL 408. AMERICAN FOREIGN POLICY  THREE CREDIT HOURS
An analytic study of policies and methods followed by the State Department in its relations with other countries in its conducting of United States relations.
POL 411. **Constitutional Law**
An exposition of the fundamental principles inherent in the Constitution, Common Law, delegated powers of government, and other areas, with application to contemporary situations.

POL 413. **The American Bureaucracy**
An examination of the nature and meaning of bureaucracy in contemporary American society and the devices for its evaluation and control.

POL 415. **Ohio Government and Politics**
An examination of the state and local governments, and politics of Ohio with special reference to Montgomery County and the City of Dayton.

POL 418. **History of Political Theory**
Principal political opinions of the Western philosophers drawn from original sources. Political doctrines of Plato and Aristotle, leading Roman and Medieval thinkers, and modern political philosophies. Accredited in Philosophy.

POL 421. **Seminar in Political Science**
Seminar on current problems and issues in Political Science. May be taken once when the content changes. Prerequisite: Permission of professor.

POL 431. **Independent Study and Research**
Individual research on selected topics, under the direction of a member of the faculty. May be taken only once and open to seniors only.

POL 450. **Civil Liberties**
An analytical examination of civil liberties in the United States with special emphasis upon the Supreme Court as arbiter in the endless conflict between the demand for individual liberty and the needs of constitutional authority.

POL 475. **American Political Thought**
A careful study of the significant ideas that have shaped the American political system as it is today. Concentration on the impact of puritanism, the American Revolution, Hamiltonianism, Jeffersonianism, racism, nativism, social Darwinism, the New Deal and contemporary liberal and conservatism.

POL 480. **Political Behavior**
A survey of the important literature and an analysis of the relevant concepts and techniques in the behavioral approach to political science. Emphasis on the importance of surveys, quantitative analysis and the psychology of political relationships.

POL 495. **Internship**
Supervised experience in government agencies and programs. Pre-law students are assigned to law firms and judicial chambers. Prerequisite: permission of supervising professor.
Psychology majors must complete the required courses as follows: Psy 201, 302, and 310. In addition to these basic courses, the student must elect in consultation with his advisor, elective credits in Psychology corresponding to the program he selects. Majors will be assigned to individual advisors. They should contact the department chairman for assignments as soon as possible. A Psychology major will be advised to follow one of three psychology programs. The first leads to a B.S. degree, the second to a B.S. degree with Biological emphasis and the third to a B.A. degree which provides general training and allows for an allied minor in an Arts & Sciences department. Students with a minor in Psychology are required to complete a minimum of 15 credit hours in psychology courses, including Introductory Psychology.

All 400 level courses are open for graduate credit to candidates for a Master's degree in Psychology upon permission of advisor, but not to exceed six (6) credit hours.

**PSY 201. INTRODUCTORY PSYCHOLOGY**

Three Credit Hours

Studies man as an integrated personality including development, motivation, emotion, adjustment, learning, perception, thinking, and the general application of psychological principles to personal, social, and industrial problems. Required of all Psychology majors. Prerequisite: Psy 201 or equivalent.

**PSY 302. ELEMENTARY STATISTICS**

Three Credit Hours

Measures of central tendency, dispersion and correlation. Basic concepts involved in estimating parameters and testing hypotheses. Presumes high school training in mathematics. Required of all Psychology majors. Prerequisite: Psy 201 or equivalent. For minors or majors only. Math 107 or equivalent recommended.

**PSY 303. EXPERIMENTAL DESIGN AND INFERENCE**

Three Credit Hours

Develops rationale for the design and interpretation of experiments, including analysis of variance, correlational analyses, and data transformations. Prerequisite: Psy 302 or equivalent.

**PSY 304. ADOLESCENT PSYCHOLOGY**

Three Credit Hours

Treats interrelated physical, social, and emotional development of adolescents. Child Psychology is recommended as prerequisite though not required. Prerequisite: Psy 201 or equivalent.

**PSY 306. CHILD PSYCHOLOGY**

Three Credit Hours

A longitudinal study of childhood from birth to 12 years stressing the importance of developmental sequences in motor, emotional, social, language, intelligence and imaginative life. Concentrates on recent research findings in this field. Prerequisite: Psy 201.
PSY 310. EXPERIMENTAL PSYCHOLOGY  
FOUR CREDIT HOURS
Introduces the student to the basic concepts of scientific methods as applied to psychological problems. Experiments are conducted to familiarize student with the application of scientific methodology to the study of psychological processes of man. Required of all Psychology majors. Prerequisite: Psy 302.

PSY 311. DYNAMICS OF ADJUSTMENT  
THREE CREDIT HOURS
Explains the continuous adjustment process through an examination of psychological, social, biological, philosophical and other interrelated conceptions. Emphasizes personality dynamics and effective behavior. Prerequisite: Psy 201.

PSY 313. BEHAVIOR DISORDERS  
THREE CREDIT HOURS
Examines patterns of disordered behavior. Discusses cultural, social, psychological and biological relationships and approaches to behavior modification. Prerequisite: Psy 201.

PSY 314. COGNITIVE PROCESSES  
THREE CREDIT HOURS
The information processing approach to attention, perception, memory imagery, and thought. Theoretical structures including neuron modeling of higher cognitive and experiential process. Prerequisite: Psy 201.

PSY 315. PERSONALITY  
THREE CREDIT HOURS
Introduction to the scientific study of personality as reflected in both clinical and experimental findings. Prerequisite: Psy 201.

PSY 322. LEARNING  
THREE CREDIT HOURS
The foundations of the learning process. Classical and instrumental and variants of each are considered prior to investigations of complex learning. Prerequisite: Psy 201.

PSY 402. PSYCHOLOGICAL TESTS AND MEASUREMENTS  
THREE CREDIT HOURS
Historical background of testing and the ethics involved. Concentrates on the requirements of acceptable tests in general. Reviews principal tests of intelligence, personality, and aptitude. Prerequisite: Psy 302 or equivalent.

PSY 403. COGNITIVE DEVELOPMENT IN CHILDREN  
THREE CREDIT HOURS
An investigation of those factors which are assumed to influence cognitive development in children. Topics will include early experience, the structure of the intellect, intervention programs, concept formation, probability learning, mediation theory and parental influences. In addition, Piaget's theory will receive close examination. Prerequisite: Permission of instructor.

PSY 404. RESEARCH IN EXPERIMENTAL CHILD PSYCHOLOGY  
THREE CREDIT HOURS
Each student will design, run, and evaluate a research problem in the area of child development. Although the major emphasis will be on the laboratory experimental approach, other methods will also be considered. Prerequisite: Permission of instructor.

PSY 406. COMMUNITY PROBLEMS AND PSYCHOLOGY I  
THREE CREDIT HOURS
A more advanced course in the practical application of psychology to the home, industry, marketing and advertising, law, criminology, social relations, medicine, music, art and welfare. Prerequisite: Psy 408 and permission of instructor.
PSY 407. PSYCHOLOGY OF EXCEPTIONAL CHILDREN
THREE CREDIT HOURS
An evaluation of the field of atypicalities existing throughout childhood. This includes intellectual superiority and mental retardation. Stress is placed on deviations existing because of organic pathology resulting in varying kinds of mental and physical aberrations. Etiology, diagnosis, and testing techniques are included. Prerequisite: Psy 306.

PSY 408. SOCIAL PSYCHOLOGY
THREE CREDIT HOURS
Presents systematic treatment of social forces affecting human behavior. Emphasizes methods of social psychology. Prerequisite: Psy 201.

PSY 409. HISTORY OF PSYCHOLOGY
THREE CREDIT HOURS
Considers modern psychology from the vantage point of its origins in philosophy and science. Emphasizes an evaluation of systems and schools in the history of psychology. For seniors in psychology or with permission of instructor.

PSY 410. COMMUNITY PROBLEMS AND PSYCHOLOGY II
THREE CREDIT HOURS
Extension of Psy 406 to permit currently enrolled students to continue development of project throughout an additional semester. It has been found that in a given semester the community problem or issue being investigated and worked on requires more time to culminate in a useful and positive experience for both student and/or community agency being worked with. Prerequisite: Psy 406.

PSY 412. INTERVIEWING AND COUNSELING
THREE CREDIT HOURS
Theories and techniques of interviewing and counseling are discussed and evaluated. Practice provided by role playing and by case study. Permission of the instructor or chairman is required. For seniors only.

PSY 412L. INTERVIEWING AND COUNSELING LABORATORY
ONE CREDIT HOUR
Demonstrations, role-play and interviewing practice are used to give students meaningful experiences in this area. Two hours per week. Must be taken with lecture course (Psy 412).

PSY 415. SMALL GROUP DYNAMICS
TWO CREDIT HOURS
Experimental and experiential analysis of the dynamics of small group behavior. Interpersonal behavior at various levels and in differing settings will be investigated, e.g., school, work, family; formal and informal organization. Introduction to sensitivity training and group therapy. Permission of instructor required.

PSY 415L. LABORATORY IN SMALL GROUP DYNAMICS
ONE CREDIT HOUR
Designed to provide demonstrations and experiences in group dynamics, group therapy, sensitivity training and the diagnosis and restructuring of group behavior. Limited to ten students. One two-hour lab period per week.

PSY 418. HUMAN FACTORS
THREE CREDIT HOURS
Designed to provide engineer and psychologist with essential psychological concepts and methods to optimize use of men and equipment. Principles governing design of equipment which account for the capacities and limitations of human processes are outlined, and discussed within the framework of prevailing man-machine systems. Prerequisite: Psy 302.
PSYCHOLOGY

Psy 418L. Human Factors Laboratory
Selected experiments on display and other equipment to illustrate the application of human factors principles to design of equipment. Must be taken with lecture course. One two-hour laboratory period each week. Prerequisite: Psy 302.

Psy 420. Industrial Psychology
Introduces modern efforts to improve human performance in industrial organization and society. Studies selection and placement of employees, morale, training, and incentives. Prerequisite: Psy 302.

Psy 432. Behavior Modification
Integrative account of behavioral modification—its procedures, terminology and goals—to serve as a focal point for the traditionally separated courses of learning, abnormal behavior and psychotherapy. Prerequisite: Permission of instructor.

Psy 434. Introduction to Mental Retardation
Will include following topics with reference to mental retardation: history, definitions, incidence, etiology, classification, psychological theories, and special research problems. There will be no consideration of these areas as they apply to treatment of the retarded. The central interest will be how theories of mental retardation enlarge our understanding of behavior in general. Prerequisite: Psy 306 or Psy 403, or permission of instructor.

Psy 436. Psycholinguistics
An examination of recent theoretical issues and selected empirical findings pertaining to the acquisition and use of structured language. Prerequisites: Psy 201, Psy 302.

Psy 451. Differential Psychology
Discusses the problems, methods and results of differential psychology, including the nature and distribution of individual differences, role of heredity and environment, organization of psychological traits, sex differences, and characteristics of racial, national and other common groups. Prerequisite: Psy 302.

Psy 454. Physiological Psychology
Study of neurological structure and function emphasizing role of nervous and glandular systems in the study of behavior. Prerequisite: Psy 201.

Psy 493. Research and Field Study
Problems of special interest to the student are investigated under direction of psychology staff members. Permission of instructor is required. May be taken more than one time, but not to exceed six credit hours.
PSY 494. Readings in Psychology

Directed readings in some specific phase of psychology are done under the supervision of a staff member. A written or oral report will be required. May be repeated but not to exceed six credit hours. Permission of instructor is required.

Executive Secretarial Studies (SEC)

Velma M. Miller, Chairman
Associate Professors: M. Civille, V. Miller
Instructors: J. Huff, J. Webster

During registration week, the department of Secretarial Studies offers tests in both shorthand and typewriting to assist in proper placement of students desiring to continue work in either or both fields. These tests are required of all students who have had prior work in shorthand or typewriting and expect to continue in these fields, whether for teaching purposes, professional reasons, or personal use.

SEC 101. Fundamental Shorthand

Gregg Shorthand is the method employed in this course. Using the Diamond Jubilee series, the entire theory is covered during the first semester. Transcription is introduced. Five class periods a week.

SEC 101A. Fundamental Shorthand (Refresher)

Shorthand Review. Emphasis is placed upon the mastery of the basic principles, brief forms, and phrasing of Gregg Diamond Jubilee shorthand through immediate reading and writing practice. Transcription is introduced. Five class periods a week.

SEC 102. Intermediate Shorthand

Gregg theory is reviewed. Reading practice continues but transcription is emphasized. Five class periods a week.

SEC 103. Elementary Typewriting

The keyboard is mastered. Additional emphasis is placed on the function and care of various models and makes of typewriters. Manuscript writing, tabulation, and letter writing are introduced. Five class periods a week.
SEC 103A. **Fundamental Typewriting (Refresher)**

Thorough review of the keyboard and its operative parts is followed by a careful analysis of typewriting techniques and work habits. Manuscript writing, tabulation, and letter writing are introduced. Five class periods a week.

SEC 104. **Intermediate Typewriting**

The development of further basic skill in the operation of the typewriter. Introduces basic office typing problems and stresses fundamentals needed in office employment. Five class periods a week.

SEC 107. **Personal Typewriting**

Students are taught typing for personal use—this includes knowledge of the typewriter, preparing outlines, manuscript writing, business letters, fill-in forms, rough drafts, etc. Three class periods a week.

SEC 110. **Secretarial Mathematics**

Review and practice of essential mathematical computations common to business offices; development of proficiency in these functions.

SEC 201. **Dictation and Transcription**

Gregg principles are reviewed. Rapid reading is emphasized. Sustained writing periods are increased. Practical office dictation speeds are employed. Five class periods a week.

SEC 202. **Advanced Dictation and Transcription**

This course is intended to develop greater competency in dictation and transcription. It qualifies the student for high-level positions of responsibility. Five class periods a week.

SEC 203. **Advanced Typewriting**

Prepares for employment in the office occupations. Stresses advanced typing problems and emphasizes techniques, knowledges, and skills involved in office work. Five class periods a week.

SEC 204. **Production Typewriting**

Specifically designed for job preparation in high-level office employment. Five class periods a week.

SEC 205. **Administrative Secretarial Practicum**

A study of filing techniques and duplicating processes. Dictating-transcribing machines are used; principles of data processing are introduced. Supervised work experience. Four class periods a week. Prerequisite: Intermediate Typewriting.

SEC 206. **Advanced Administrative Secretarial Practicum**

Advanced training in duplicating processes, dictating-transcribing machines, and communications. Supervised work experience. Four class periods a week. Prerequisite: Sec 205 (Administrative Secretarial Practicum)
SEC 207. BUSINESS MACHINES
The student is given the opportunity to become acquainted with and correctly use the principal types of ten key adding machines, full-bank adding machines, printing calculators, rotary calculators, and key-driven calculators. Three class periods a week. Prerequisite: Sec 110 (Secretarial Mathematics) or equivalent.

SEC 208. SECRETARIAL ACCOUNTING
A short course in accounting especially designed for private secretaries; covers the fundamental principles of accounting as applied to mercantile and personal service enterprises operated by sole proprietors. Three class periods a week. Prerequisite: Sec 110 (Secretarial Mathematics) or equivalent.

SEC 209. SECRETARIAL ACCOUNTING
This course develops further the accrual basis of accounting for mercantile enterprises, with emphasis on partnership transactions, but with an introduction to corporation accounting. Three class periods a week.

SEC 210. INTRODUCTION TO BUSINESS DATA PROCESSING
An overview of punch card equipment and the computer. The student will gain an understanding of business procedures and the various interrelationships that exist. The student will be required to analyze, code and key punch business transactions which will then be run on the computer. Two class periods per week. Prerequisite: Sec 208 & 209 or equivalent.

Sociology, Anthropology, and Social Work
Rev. John G. Dickson, S.M., Chairman
Professor Jack McDonald, Assistant Chairman (for Social Work)
Full-time Faculty:
Professor: S. Hetzler
Associate Professor: J. Dickson, H. Fakhouri, M. Huth
Assistant Professor: J. Bregenzer, J. McDonald
Instructor: G. Fornaciari, F. Pavelka, D. Vest

STATEMENT OF PURPOSES: The curriculum of the Department of Sociology, Anthropology, and Social Work is organized to cluster around the five basic social institutions: the family, religion, economics, politics and education. To this end, courses will be in all the necessary major fields such as anthropology, pre-professional social work, social organization, social disorganization, social change, population and ecology, methods, and sociological theory. The department's objectives are: (1) to promote understanding of the social character of human life in both primitive and advanced societies through an analysis of social structures, interaction processes and institutions; (2) to present a balanced perspective of current social issues and problems; and (3) to en-
courage the objective study of society by instruction in scientific research methods. Courses in the Department of Sociology, Anthropology, and Social Work are designed for various groups of students: (1) those desiring scientific knowledge of social relationships as a part of their general equipment for living; (2) those planning to enter a public service profession such as social work, nursing, medicine, dentistry and law; (3) those expecting to engage in a form of public relations work that will require a broad grasp of the nature of society, public opinion, and social change; (4) those anticipating a career in social research and planning; (5) those looking forward to the teaching of social studies, social work, sociology or anthropology; and (6) those intending to pursue graduate training in social work, sociology or anthropology.

REQUIREMENTS FOR MAJORS AND MINORS

Major or Minor in Sociology: Majors and Minors in Sociology should consult the chairman of the department in planning their course programs. They must complete, during their Freshman and Sophomore years, the general requirements for the B.A. degree. Majors must complete 30 hours of course work in the department, including Sociology 205, 401, 415, 420 or 422; Soc 204 and any 300 or 400 level sociology or anthropology courses may be chosen to complete the remaining 18 hours. Minors must complete 12 hours of upper level courses in the department, and Sociology 205.

Major or Minor in Anthropology: Majors and Minors in Anthropology should consult the chairman of the department in planning their course programs. They must complete, during their Freshman and Sophomore years, the general requirements for the B.A. degree. Majors must complete 30 hours of course work in the department, including Anthropology 210, 321, 322, and 408.1, 2, or 3; Soc 415 or Soc/Ant 439, and Soc 401. Minors must complete 9 hours of upper level courses in the department, and Anthropology 210 and 321.

Major or Minor in Social Work: The Department of Sociology, Anthropology, and Social Work is a Constituent Member of the Council on Social Work Education, an international accrediting agency for Schools of Social Work in the United States and Canada. Majors in Social Work should consult the chairman of the department in planning their course programs. A minimum of 46 hours of course work must be completed in the department, including Soc 205 and 401; Ant 210; and SWK 206 and 206L, SWK 304, 337, 376, 418, 421, 431. Those wishing to receive a minor in Social Work must have SWK 206 and 206L, 376, 418, and Soc 205 and Ant 210.

Each Freshman Major and Minor is urged to make out a tentative plan covering all four years at the University. This plan can be changed or updated as needed in the course of the following semesters. It is possible for a Major in Sociology to Minor in Anthropology or Social Work; Anthropology Majors may Minor in Sociology or Social Work.

SOCIOLOGY COURSES

Soc 204. Modern Social Problems
The study of the extent, causes, prevention and treatment of abnormal conditions affecting contemporary society. Offered each semester each year.
SOC 205. PRINCIPLES OF SOCIOLOGY
The basic course in the principles of sociology: an introduction to the fundamental concepts of sociology. Restricted to Sociology Majors and Minors and to Social Work Majors and Minors for whom the course is required. Offered each semester each year.

SOC 301. MARRIAGE AND THE FAMILY
A fundamental course concerned with mate selection, husband-wife relationships, parenthood, family disorganization and rehabilitation. Offered each semester each year.

SOC 303. POPULATION
The study of population growth, composition, distribution, problems and theory, with special reference to the United States. Offered the first semester each year.

SOC 307. CRIMINOLOGY AND PENOLOGY
The study of crime: its extent, etiology, prevention and treatment; probation and parole; punishment theory and practice in historical perspective; prison reform and the objectives of modern penology. Offered the first semester each year.

SOC 309. SOCIOLOGY OF EDUCATION
Structural and social psychological analyses of institutionalized educational patterns within the context of professional community. Studies in the social aspects of education, including education as a socialization process, the social structure of education, and the role of the school in social change. Offered the second semester each year.

SOC 310. SOCIAL GERONTOLOGY
An examination of recent theoretical issues and selected empirical findings pertaining to the study of aged in their relationship to society. An introduction to the inclusive field embracing the entire study of the aged. Offered the second semester each year.

SOC 311. SOCIOLOGY OF RELIGION
Objective analysis of the interrelations between religious phenomena and social institutions, social structure and behavior. Offered the first semester each year.

SOC 313. JUVENILE DELINQUENCY
Analysis of the relationship of the home, school, church, peer group, neighborhood, mass media and other elements in the community—the child guidance clinic, detention home, and juvenile court—to delinquency as regards its causes, prevention and treatment. Offered the second semester each year.

SOC 315. INDUSTRIAL SOCIOLOGY
An analysis of the characteristics of industrial society; occupational roles and relationships; technological progress and its repercussions; industrial relations problems. Offered the first semester each year.

SOC 318. SOCIAL CLASS IN AMERICA
Status, class, and social mobility in selected societies; conditions affecting the flexibility of a society's stratification system; the influence of class position on life habits; implications for research and social policy. Offered the first semester each year.

SOC 323. SOCIOLOGY OF LAW AND POLITICS
Analysis of law and the legal structure in its social context, with emphasis on the Anglo-
American legal system; the factors which influence political structure, such as social class, religion, and military power will be dealt with. Offered the first semester each year.

**Soc 328. Collective Behavior**

THREE CREDIT HOURS

The nature of crowds, mobs, manias, panics, fads, social movements, reforms, and revolutions; consideration of public opinion and propaganda in relation to these phenomena. Offered the second semester each year.

**Soc 330. Sociology of Mass Communication**

THREE CREDIT HOURS

Seminar on social aspects of mass communication; the impact of cultural values on the mass media; the effects of the mass media on a variety of social groups and institutions. Offered the second semester each year.

**Soc 332. Urban Sociology**

THREE CREDIT HOURS

Physical and social characteristics of urban areas; urban ecology; major problems of urban life; urban planning and renewal. Offered the second semester each year.

**Soc 401. Social Research Methods**

THREE CREDIT HOURS

Principal methodological approaches and basic statistical techniques in social research. Required of Sociology, Anthropology, and Social Work Majors. Offered each semester each year.

**Soc 402. Statistics**

THREE CREDIT HOURS

Optional for Majors. A further and more detailed study of statistical techniques in social research. Offered as often as needed.

**Soc 415. Senior Seminar in Sociology**

THREE CREDIT HOURS

Individual and group projects developed around such topics as: Marriage and Family Problems, Urban Renewal, and Deviant Behavior. Required of Sociology Majors. Offered the first semester each year.

**Soc 420. Classical Sociology Theory**

THREE CREDIT HOURS

Examination of the important questions concerning man's relationship to society, drawing upon the classical literature of the Western tradition. Either Soc 420 or Soc 422 is required of Sociology Majors. Offered the first semester each year.

**Soc 422. Contemporary Sociology Theory**

THREE CREDIT HOURS

Consideration of leading sociological theorists' works and of major trends in sociological thought during the 19th and 20th centuries. Either Soc 420 or Soc 422 is required of Sociology Majors. Offered the second semester each year.

**Soc 435W. Human Relations Workshop**

SIX CREDIT HOURS

The objective of this workshop is to provide an opportunity for gaining greater knowledge and understanding of the principles and techniques leading to good human relations. Causes of tension and conflict in American society are examined and effective solutions for interpersonal and intergroup problems will be studied and evaluated. Lectures by the workshop staff and by community leaders, discussions in small groups, individual projects, demonstration of audio-visual materials, field trips, library research, daily lunch together and a picnic are all considered integral facets of the workshop process. Third Term each year.
SOC 440. INDEPENDENT STUDY
Research problems or special readings that are of interest to the student are investigated under the guidance of a sociology staff member. Permission of the chairman is necessary. Not to be taken for more than three credit hours. Offered each semester each year.

ANTHROPOLOGY COURSES

ANT 210. INTRODUCTION TO CULTURAL ANTHROPOLOGY
Survey of man's adaptation to, and creation of his environment by means of culture. A prerequisite for all specialized courses in Anthropology, except 321; required of Anthropology Majors and Minors and of Social Work Majors. Offered each semester each year.

ANT 321. EVOLUTION OF MAN AND CULTURE
Survey of man's biological and cultural evolution from pre-human ancestors until the development of settled city-states. Required of Anthropology Majors. Offered the first semester each year.

ANT 322. CULTURE AND PERSONALITY
The development of personality in relation to patterns of culture and subcultures in which one grows up; materials are drawn from both literate and non-literate societies. Required of Anthropology Majors. Offered the first semester each year.

ANT 400. LANGUAGE AND CULTURE
Introduction to the scientific study of language and its relationship to other aspects of human behavior. Offered the second semester each year.

ANT 403. PRIMITIVE RELIGION
Comparative study of the religious beliefs and practices of non-literate peoples of the world. Offered the second semester each year.

ANT 408.1, .2, .3. CULTURE AREA STUDIES
One major cultural area of the world—Mexico (1), Africa (2), the Middle East (3)—is studied each time the course is offered. May be taken more than once, but only one term required of Anthropology Majors.

ANT 433. ANTHROPOLOGICAL FIELD WORK
Formulation and carrying out of a research design in archaeology, physical anthropology. Prerequisite: consent of instructor. Third Term each year.

SOCIOLOGY OR ANTHROPOLOGY COURSES

SOC/Ant 325. AMERICAN ETHNIC AND RACIAL MINORITIES
The studies of the cultures of the major immigrant and racial groups in the United States and of their assimilation into the dominant culture. Offered the first semester each year.

SOC and Ant 406. SOCIAL CHANGE
The process of social change in the modern world; culture lag and conflict of norms; individual and social problems arising from conflicting systems of values and norms. Offered the second semester each year.
SOC/ANT 439. **Seminar in Community Development**

This seminar will introduce the student to the basic concepts of community, with a focus on their application to community planning and action. Offered the second semester each year.

**SOCIAL WORK COURSES**

**SWK 206. Introduction to Social Work**

A comprehensive survey of social work, including social casework, social group work, community organization, social research, social action, and social administration. A prerequisite for all courses in Social Work. Offered each semester each year.

**SWK 206L. Introduction to Social Work Lab**

An observational survey of social welfare institutions and agencies and their function within the community. Students will be required to spend two hours per week either in agency visitation or seminar meetings. Must be taken with the lecture course, SWK 206. A prerequisite for all courses in Social Work.

**SWK 304. Social Work Methods**

An introduction to the basic principles and processes involved in helping people solve their problems; the relationship between social workers and their clients, and the community; a critical evaluation of referral and treatment plans. Required of all Social Work Majors. Offered each semester each year.

**SWK 337. Public Welfare**

A historical survey of public welfare; the nature of social and economic dependency; analysis of current public welfare policies and programs. Required of all Social Work Majors. Prerequisite: Pol 201 and 303. Offered the first semester each year.

**SWK 376. Approaches to Social Problems**

Exploration of social workers' collaborative role with other professionals in planned institutional change. Study of selected problems in Social Welfare; mobilization of resources, designing and evaluating approaches to the alleviation of social problems. Required of all Social Work Majors. Offered the first semester each year.

**SWK 418. Community Organization**

The mobilization of community resources to meet community needs; methods for developing, maintaining, extending, and coordinating social welfare agencies. Required of all Social Work Majors. Offered the first semester each year.

**SWK 421. Senior Seminar in Social Work**

A seminar to permit in-depth study of special problems within the field of Social Work. Required of all Social Work Majors. Offered the second semester each year.

**SWK 423. Social Work Seminar in Political Systems and Structures**

The philosophy, development, and administration of federal, state, and local public welfare programs. Analysis of the distribution of social services, the allocation of finances, procedures of lobbying and taxation. Prerequisite: SWK 206 and 418. Offered the second semester each year.
SWK 431. SOCIAL WORK FIELD EXPERIENCE  
SIX CREDIT HOURS

Students majoring in Social Work are required to complete an internship involving 10 hours of service each week for one term in a local community welfare agency or institution under the combined supervision of the University of Dayton's full-time Field Experience Director and an agency staff member. The former will have frequent individual conferences with each student in the Field Experience Program during the first few weeks of placement to correct any difficulties as soon as possible. Field experience will enable the student to gain firsthand knowledge of the operation of health and welfare services; to observe social workers in their professional roles; to assess their own interest in, and motivation for, a career in Social Welfare; and to test their capacity to enter the Social Work profession directly after graduation or to undertake graduate social work education. A second term may be elected with the approval of the Field Experience Director. Prerequisites: Swk 206 and 206L, Swk 304, Swk 418.

SWK 432. SOCIAL WORK FIELD EXPERIENCE  
SIX CREDIT HOURS

Students with a major in Social Work have an option to participate in an additional term of field experience if they so desire. The student is expected to meet the same requirements as outlined for Swk 431. The purpose for this course is to give students an added and more intensive exposure to social welfare and to provide opportunity for expanded client-worker involvement. Experience gained through a second term field placement will broaden and enrich the student's previous internship and will more fully acquaint him with the social work profession. Note that this course is not required. Prerequisites: Swk 206 and 206L, Swk 304, Swk 418, Swk 431.

Theological Studies (THL)

Rev. Matthew F. Kohmescher, S.M., Chairman
Professor: Cole
Associate Professors: Boulet, Burns, Kohmescher, Middendorf
Assistant Professors: Anderson, Barnes, Brady, Fox, Friedland, Griffin, Kelber, L'Heureux, Lumpp, Maloy, Martin, Murray, Richards, Rolwing, Ryan, Vrasdonk, Weber

The Department of Theological Studies, while not neglecting the scientific requirements of the intellectual discipline known as Theology, purposes to meet actual needs of Christian students preparing for life in the 20th century. Hence, the Department strives in its curriculum of courses to offer the student that "broad knowledge" and to foster those "basic intellectual habits" in Theology which are relative to, and fundamental for, a Christian intellectual life.

Six credits in Theology are required of all Catholic students. Freshmen ordinarily take Thl 112 or Thl 195H. Thl 112 may be waived for students with a superior background in religious studies. These students may then take any 6 credits in Theology on the 200-300-400 levels.

In addition to the special Honors Seminars and Reading courses qualified students may arrange to take almost any course offered by the department on a Directed Study basis.
Majors (33 credits including Thl 112, 210, 490) and minors (18 credits including Thl 112) should consult the chairman.

THL 112. FOUNDATIONS IN THEOLOGY
An introduction to the basic elements involved in theological reflection (i.e., the biblical, historical, philosophical, ethical, cultural, and psychological elements) and the way they are related in contemporary reflection about religious issues.

THL 195H. THEOLOGY HONORS I
A seminar covering the same content as Thl 112. By permission only.

THL 295H. THEOLOGY HONORS II
A seminar in which selected topics in Theology are studied. By permission only.

THL 395H. THEOLOGY HONORS III
A seminar in which selected topics in Theology are studied. By permission only.

THL 399. READINGS IN THEOLOGY
Directed readings in a specific area of Theology are done under the supervision of a staff member. A written or oral report is required. May be taken more than once. By permission only.

THL 490. SEMINAR
A seminar devoted to the future theological needs of the students enrolled, such as areas of research, bibliography, and teaching. Required of all theology majors; suggested for Theology minors; open to others. Non-majors need permission of instructor.

THL 492. INTERDISCIPLINARY SEMINAR
A seminar in which the perspectives of various academic disciplines are brought to bear on specific issues. By permission only.

THL 495H. THEOLOGY HONORS IV
Directed study for students with high academic achievement and particular areas of interest. Prerequisite: 9 hours in Theology. By permission only.

THL 498. EUROPEAN DIALOGUE
An opportunity to meet and dialogue with selected students and professors at several European universities. Offered only in May-June. Prerequisites: 9 hours in Theology, 9 hours in Philosophy. By permission only.

HISTORY OF RELIGIONS

THL 200. ASIAN RELIGIONS
An introduction to the study of the major religions of the Far East, such as Hinduism, Buddhism, Confucianism, Taoism, Shinto.

THL 305. ANCIENT NEAR EASTERN RELIGIONS
An examination of the religions of the ancient Near East, with special attention to their relation to the Old Testament.
THL 307. Judaism
Three Credit Hours
A basic introduction to Judaism: its history, its faith, its worship.

THL 308. Eastern Orthodoxy
Three Credit Hours
A basic introduction to Eastern Orthodoxy: its history, its faith, its worship.

THL 406. Jewish Thought
Three Credit Hours
An historical development of Jewish thought from the close of the Old Testament canon down to modern times, with emphasis on selected movements and/or thinkers.

THL 408. Issues in the History of Religions
Three Credit Hours
An examination of current issues in the study of the History of Religions. May be repeated when a different issue is discussed.

BIBLICAL STUDIES

THL 210. The Bible in Modern Scholarship
Three Credit Hours
An introduction into the content of the Bible and the literary, historical and theological scholarship which has arisen around it. Both will be studied in order to evaluate the significance of biblical traditions for the 20th century man.

THL 310. Origins of the Biblical Traditions
Three Credit Hours
A variety of oral and written traditions were brought together to form what we now call the Pentateuch, the first five books of the Old Testament. A discussion of this process of formation can be informative to contemporary man’s understanding of his relationship to the past.

THL 313. Biblical View of History
Three Credit Hours
An examination into the origins, the understandings, and the development of Israel’s understanding of history. This will present an opportunity to gain some insight into the ancient’s view of history and how 20th century man can understand his place in history.

THL 314. History of Israel
Three Credit Hours
An examination of the history of Israel as it can be reconstructed from Israelite as well as non-Israelite sources. Special attention will be given to problems of methodology.

THL 316. Synoptic Gospels: Early Lives of Jesus
Three Credit Hours
Each of the Synoptic Gospels offers a distinct view of the life and ministry of Jesus. An attempt will be made to both compare and differentiate the Markan, Matthean, and Lukan interpretations of the person of Jesus, his function in the community, and his message to the people.

Three Credit Hours
The Gospel of John proclaims the total fulfillment of God’s promises and man’s expectations in Jesus Christ. The theological argumentations of the fourth gospel will be analyzed, as well as the significance of the Johannine position in view of the current theology of hope.
THEOLOGICAL STUDIES 363

THL 318. STUDIES IN ST. PAUL: MODELS OF SALVATION  THREE CREDIT HOURS
St. Paul's theology is the product of a man who was exposed to a diversity of religions, cultures and ideologies. A discussion of a variety of topics, motifs, symbols and structures exhibited in Pauline theology will disclose numerous possibilities for a Christian approach to life and death.

THL 319. HISTORY OF EARLY CHRISTIANITY  THREE CREDIT HOURS
An examination of the formative years of the Early Christian Church (AD 30-130) in the context of the political, social, and economic developments of the time.

THL 411. THE PROPHETS: RADICAL TRADITIONALISTS  THREE CREDIT HOURS
The prophetic traditions of the Old Testament represent an attempt to say that tradition can function in times of crisis. The course will attempt to understand the prophets and then to question their validity for the contemporary situation.

THL 412. WISDOM LITERATURE: CHAOS AND COSMOS  THREE CREDIT HOURS
The wisdom books—Job, Ecclesiastes, Wisdom of Solomon, etc.—raise such issues as the relationship between Hebrew and Greek thought, religion and arts, the function of personification, and the relationship between nature and history.

THL 413. SONG, RITUAL AND WORSHIP IN ISRAEL  THREE CREDIT HOURS
An examination of Israel's sacred and profane poetic traditions. This will include questions about primitive worship, Hebrew poetry, and basic modes of speech.

THL 418. BIBLICAL ISSUES  THREE CREDIT HOURS
An examination of specific biblical themes, motifs, problems and traditions. May be repeated when a different issue is discussed.

HISTORICAL THEOLOGY

THL 221. THE DEVELOPMENT OF THEOLOGY  THREE CREDIT HOURS
An attempt to show the way in which Christian theology develops as a response to specific cultural-historical situations. Certain prominent issues will be discussed and analyzed as being illustrative of this process, e.g., the christological problem in the early church, the problem of authority in the age of the Reformation, or the rise of scepticism in the age of secularism in the modern period.

THL 321. THE CHURCH BEGINS  THREE CREDIT HOURS
An examination of the origins of the primitive Christian community and her evolution into the first centuries of this era. Attention will be given to various theories on how doctrine develops, the early cultus, the first "dogmas," and their expression.

THL 326. PROTESTANT CHRISTIANITY  THREE CREDIT HOURS
A survey of the development of Protestant thought from the Reformation.

THL 428. ISSUES IN HISTORICAL THEOLOGY  THREE CREDIT HOURS
An examination of a specific issue in the development of Christian thought, such as Fathers of the Church, Reformation Theology, Modernism, Vatican II, etc. May be repeated when a different issue is discussed.
SYSTEMATIC THEOLOGY

THL 243. MODERN THEOLOGY
An attempt to help the student become more aware of the major schools of theological thought in modern times, the basic changes in modern theology on which the various schools agree, and the issues on which there are major disagreements.

THL 330. MODERN RELIGIOUS THINKERS
Reading and discussion of one or several modern religious thinkers.

THL 331. NATURE OF MAN
An exploration of the nature of man seen in theological perspective. Will include such issues as: a comparison of the Judaeo-Christian view of man with naturalistic, romantic and idealist views; the impact of the modern sciences on the image of man; the inter­relations between one's view of the divine, the world, and man.

THL 341. SIGNIFICANCE OF JESUS
An historical discussion of what has been thought about the person and significance of Jesus in the past with emphasis upon modern assessments of Jesus.

THL 346. SACRAMENT AND SECULARITY
A consideration of the biblical and historical development of Christian sacramentality and its secularity with a view to its relevance and renewal for contemporary man.

THL 347. THE CHURCH TODAY
Contemporary theology of the mystery of the church: its nature, its constitution, its mission. Special treatment of current issues: authority, collegiality, membership, etc.

THL 348. THE LITURGY
An historical and theological study of the worship life of the church with special consideration of current problems.

THL 438. CONTEMPORARY THEOLOGIES
An examination of one or more of the major current schools of thought, such as Process Theology, Theology of Hope, Neo-Thomism, Christian Existentialism. May be repeated when a different issue is discussed.

THL 441. THEOLOGY OF MARY
Study of the place of the Mother of God in the great truths of faith in the light of chapter eight of the Constitution on the Church.

THL 442. PROBLEM OF GOD
A study of some recent contributions made by theology, philosophy, psychology and the humanities to the current discussion of God's existence, nature and relationship to man.

THL 448. ISSUES IN THEOLOGY
An examination of a selected issue or major theme of the Christian faith in the light of modern knowledge and sensibilities, such as faith and doubt, science and religion, theology of death, etc. May be repeated when a different issue is discussed.
CHRISTIAN ETHICS — RELIGION AND CULTURE

THL 265. CHRISTIAN ETHICS
Three Credit Hours
An introduction to the reflection upon Christian morality. Includes a discussion of various approaches in Christian Ethics, the elements involved in ethical judgments, and some specific ethical issues.

THL 270. RELIGION AND CULTURE
Three Credit Hours
A general discussion of the ways in which religion influences a culture and the ways in which a culture influences religion; also a more specific examination of the interaction between Christian and Western Culture.

THL 363. CURRENT SOCIAL ISSUES
Three Credit Hours
An examination of one or more social issues on the current scene, such as the Theology of Revolution, World Peace, Race Relations, etc. May be repeated when a different issue is discussed.

THL 364. CURRENT ETHICAL ISSUES
Three Credit Hours
An examination of one or more issues in contemporary reflection on the Christian moral life, such as the New Morality, City Without God, Faith and Moral Problems, etc. May be repeated when a different issue is discussed.

THL 370. RELEVANCE OF THEOLOGY
Three Credit Hours
The relation between doctrines and systems of theology and the contemporary problems and issues of life; how theology applies to life and how it grows out of the human situation.

THL 465. THEOLOGY OF MARRIAGE
Three Credit Hours
Analysis of the sanctifying dignity of Christian marriage as a sacrament and commitment to share in the divine creative plan.

THL 473. THEOLOGY AND MODERN LITERATURE
Three Credit Hours
A joint study of literature and theology, seeking the sacred in the secular, discussing the doctrines of man and of God in major modern writings, especially those of current collegiate interest.

THL 478. THEOLOGY AND CULTURE
Three Credit Hours
An examination of a specific issue in Western culture, especially American culture, in light of the Judaeo-Christian tradition, such as theology and art, theology and the film, theology and mass-media. May be repeated when a different issue is discussed.

Engineering Technology

Director: James L. McGraw

Chemical Technology (CTI)

G. William Lawless, Chairman
Assistant Professor: Lawless
Instructor: Shaw

CTI 122. GENERAL CHEMISTRY
Three Credit Hours
A survey of the general principles of chemistry including elements and their simpler compounds. Special emphasis on topics of importance in industrial activities.
CTI 122L. General Chemistry Laboratory
To accompany CTI 122. Three hours of laboratory a week.

CTI 125. Inorganic Chemistry
A comprehensive treatment of the fundamentals of general chemistry, with emphasis on their application to the essential groups of elements in the periodic table. Laboratory work is devoted to semi-micro qualitative analysis. Prerequisite: CTI 122.

CTI 125L. Inorganic Chemistry Laboratory
To accompany CTI 125. Three hours of laboratory a week.

CTI 202. Quantitative Analysis
The fundamental principles and techniques involved in exact analysis. Gravimetric, volumetric, and colorimetric analyses are stressed along with the techniques that accompany these operations such as weighings and separations. Prerequisite: CTI 125.

CTI 202L. Quantitative Analysis Laboratory
To accompany CTI 202. Six hours of laboratory a week.

CTI 203. Physical Chemistry
A study of the properties of matter in its different states. Includes such topics as thermodynamics, solutions, electrochemistry, radioactivity, adsorption.

CTI 203L. Physical Chemistry Laboratory
To accompany CTI 203. Three hours of laboratory a week.

CTI 206. Instrumentation
Study of various specialized instruments used in industry for analysis. Prerequisite: CTI 202.

CTI 208-209. Organic Chemistry
A study of aliphatic, aromatic, and heterocyclic compounds, including reactions, properties, and applications of organic substances. Prerequisite: CTI 125.

CTI 208L-209L. Organic Chemistry Laboratory
Laboratory course to accompany CTI 208-209. Three hours of laboratory per week.

CTI 305. Materials Science
An introduction to engineering materials and their properties and behavior. Covers such areas as metallurgy, corrosion, ferrous, non-ferrous, and organic materials and composites.

CTI 308. Chemical Engineering Technology
An introduction to the unit operations, unit processes, and materials of chemical engineering.

CTI 308L. Chemical Engineering Technology Laboratory
Designed to acquaint the student with Unit Operations equipment and its utilization. To accompany CTI 302.

CTI 309. Chemical Engineering Technology Calculations
A calculations course designed to acquaint the student with the fundamentals of process variables, material and energy balances, and equilibrium conditions in chemistry and chemical engineering.
CTI 400. SELECTED CHEMICAL TOPICS  
Investigation and discussion of current technical topics in chemical technology. May be taken more than once. Prerequisite: Permission of the department chairman.

Electronic Engineering Technology (ETI)

Richard R. Hazen, Chairman  
Associate Professors: Hazen, Hanneman  
Assistant Professors: Farren, Rooney  
Instructor: Fischer

ETI 110. ELECTRICAL CIRCUITS I  
THREE CREDIT HOURS  
Practical concepts of D.C. Circuits; resistance, resistivity, power and magnetism. Circuit calculations using basic formulas. Prerequisite: Sti 107.

ETI 111. ELECTRICAL CIRCUITS II  
THREE CREDIT HOURS  
Practical concepts of A.C. Circuits; inductance, capacitance, reactance, impedance, phase, power and power factor. Circuit calculations utilizing vectors and complex quantities. Prerequisite: Eti 110, Sti 108.

ETI 111L. ELECTRICAL CIRCUITS LABORATORY  
ONE CREDIT HOUR  
To accompany Eti 111. Three hours of laboratory a week.

ETI 201. FUNDAMENTALS OF ELECTRONIC TECHNOLOGY  
THREE CREDIT HOURS  

ETI 204. ELECTRICAL MEASUREMENTS  
tWO CREDIT HOURS  
Fundamentals of direct and alternating current measuring instruments and methods of measurement, with particular emphasis on industrial applications. Corequisite: Eti 111, Sti 207.

ETI 204L. ELECTRICAL MEASUREMENTS LABORATORY  
ONE CREDIT HOUR  
To accompany Eti 204. Three hours of laboratory a week.

ETI 205. ELECTRONIC MEASUREMENTS  
THREE CREDIT HOURS  
Study of modern electronic measuring instruments and systems including oscilloscopes, counters, and telemetry. Prerequisite: Eti 204. Corequisite: Eti 206.

ETI 205L. ELECTRONIC MEASUREMENTS LABORATORY  
ONE CREDIT HOUR  
To accompany Eti 205. Three hours of laboratory a week.

ETI 206. ELECTRON DEVICES I  
THREE CREDIT HOURS  
Fundamentals of vacuum tubes, gas tubes, semi-conductor diodes and their associated circuits. Prerequisite: Eti 111, Sti 207.

ETI 206L. ELECTRON DEVICES I LABORATORY  
ONE CREDIT HOUR  
To accompany Eti 206. Three hours of laboratory a week.
ETI 210. ELECTRICAL MACHINERY
THREE CREDIT HOURS
Fundamentals of the construction and application of direct current and alternating current machines and apparatus to industrial uses. Prerequisite: Eti 111. Evening classes only.

ETI 210L. ELECTRICAL MACHINERY LABORATORY
ONE CREDIT HOUR
To accompany Eti 210. Three hours of laboratory a week. Evening classes only.

ETI 211. MOTOR CONTROL
THREE CREDIT HOURS
Industrial uses of standard controllers for electric motors. Prerequisite: Eti 210. Evening classes only.

ETI 211L. MOTOR CONTROL LABORATORY
ONE CREDIT HOUR
To accompany Eti 211. Three hours of laboratory a week. Evening classes only.

ETI 222L. ELECTRONIC CIRCUIT DIAGRAMS
ONE CREDIT HOUR
Standards and symbols used on electronic circuit diagrams. Three hours of laboratory a week.

ETI 226. INTRODUCTION TO ANALOG COMPUTERS AND SERVOMECHANISMS
THREE CREDIT HOURS
Fundamentals and design of synchros and related error detectors, rate generators, magnetic amplifiers and friction dampers. Prerequisite: Eti 206.

ETI 226L. ANALOG COMPUTER AND SERVOMECHANISM LABORATORY
ONE CREDIT HOUR
To accompany Eti 226. Three hours of laboratory a week.

ETI 300. SEMINAR
ZERO CREDIT HOURS
An exchange of ideas in the area of electronics which includes student lectures, guest lectures, and industrial visitations. Required of all Eti students enrolled in, or who have taken Eti 111.

ETI 306. ELECTRON DEVICES II
THREE CREDIT HOURS
Fundamentals of transistors, photoelectric devices, silicon controlled rectifiers and their associated circuits. Prerequisite: Eti 206.

ETI 306L. ELECTRON DEVICES II LABORATORY
ONE CREDIT HOUR
To accompany Eti 306. Three hours of laboratory a week.

ETI 324. DIGITAL COMPUTER FUNDAMENTALS
THREE CREDIT HOURS
Fundamental theory and techniques of electronic data-processing to include binary arithmetic, switching theory (Boolean algebra) and basic circuitry (gates, adders, registers and memory). Prerequisite: Eti 201 or Eti 111.

ETI 327. PULSE CIRCUITS
THREE CREDIT HOURS
Selected topics relating to radar, television, and computer circuits including integrators, differentiators, blocking oscillators, multivibrators and time-base generators. Prerequisite: Eti 206 and Eti 324.

ETI 327L. PULSE CIRCUITS LABORATORY
ONE CREDIT HOUR
To accompany Eti 327. Three hours of laboratory a week.
ETI 328. ELECTRONIC COMMUNICATIONS THREE CREDIT HOURS
Principles of operation of filters, modulators, demodulators and converters. Prerequisite: Eti 206.

ETI 328L. ELECTRONIC COMMUNICATIONS LABORATORY ONE CREDIT HOUR
To accompany Eti 328. Three hours of laboratory a week.

ETI 330. SPECIAL ELECTRICAL PROJECTS ONE CREDIT HOUR
Laboratory work and outside reading associated with a phase of electricity selected by the student and approved by chairman of the department. Prerequisite: Eti 206.

ETI 400. SELECTED ELECTRONIC TOPICS ONE-FOUR CREDIT HOURS
Investigation and discussion of current technical topics in Electronic Engineering Technology. May be taken more than once. Prerequisite: Permission of department chairman.

Industrial Engineering Technology (ITI)

Raymond B. Puckett, Chairman
Associate Professor: Puckett
Assistant Professor: Staudter
Instructor: Iselin

ITI 101. INDUSTRIAL ORGANIZATION AND PRODUCTION THREE CREDIT HOURS
A survey of the operational, financial, marketing and accounting activities of industrial organization. Also included is a detailed survey of the duties of management as related to the production function of planning, control, personnel and human factors.

ITI 104. INDUSTRIAL MATERIALS AND PROCESSES THREE CREDIT HOURS
A study of modern industrial materials with emphasis on their chemical and physical properties, and methods by which they may be processed.

ITI 108. PRODUCTION METHODS AND CONTROL THREE CREDIT HOURS
Principles and the techniques used in production; current practices in production planning, routing, scheduling and dispatching; study of production standards, labor efficiency and costs; quantity and quality control. Prerequisites: Iti 101 and Iti 104.

ITI 203. ELEMENTS OF SUPERVISION TWO CREDIT HOURS
A study of the supervisor's relation to his men and his place in developing an effective production team. Prerequisites: Iti 101.

ITI 215. ELEMENTS OF COST CONTROL TWO CREDIT HOURS
A survey of the methods of breakdown and cost analysis of labor, material and overhead. All related to modern industrial practices. Prerequisite: Iti 101.

ITI 216. QUANTITATIVE METHODS IN I.E.T. THREE CREDIT HOURS
An introduction to the application of mathematics to decision-making in industry. Prerequisite: Sti 108.
ITI 217. **Industrial Economic Analysis**

An introduction to the economics of tools, equipment and machinery, including an elementary study of compound interest and depreciation. Prerequisite: Sti 108.

**ITI 230. Motion and Time Study**

Fundamentals of work simplification and motion economy using the techniques of motion and time study for the development of effective methods of production. Prerequisites: Iti 101 and Sti 107.

**ITI 230L. Motion and Time Study Laboratory I**

To accompany Iti 230. Three hours of laboratory a week.

**ITI 305. Labor and Wage Administration**

Brief history of labor unionism and labor legislation. Survey of collective bargaining contracts, grievances and arbitration. Wage administration including job evaluation, wage structures, wage incentives and employee evaluation. Prerequisite: Iti 101.

**ITI 318. Statistical Quality Control**

An introduction to the techniques of industrial process control using statistical methods. Prerequisite: Sti 107.

**ITI 331. Motion and Time Study II**

A study of the techniques used in work measurement and in setting time standards; including stop watch time study, and work sampling. An introduction to predetermined time systems and to standard data. Prerequisite: Iti 230.

**ITI 331L. Motion and Time Study Laboratory II**

To accompany Iti 331. Three hours of laboratory a week.

**ITI 332. Plant Layout**

A study of the economical arrangement of stocks, machines and layout of aisles for efficient material handling and production. Prerequisites: Iti 108 and Mti 103L.

**ITI 332L. Plant Layout Laboratory**

To accompany Iti 332. Three hours of laboratory a week.

**ITI 400. Selected Industrial Topics**

Investigation and discussion of current technical topics in industrial engineering technology. May be taken more than once. Prerequisite: Permission of department chairman.

**Mechanical Engineering Technology (MTI)**

Jesse H. Wilder, Chairman

Professor: Wilder

Associate Professor: Golden

Assistant Professors: Kretzler, Morgana, Mott, Rolle, Wolff

**MTI 103L. Technical Drawing**

An introduction to technical drawing with emphasis on orthographic projection and
conventional industrial practices in producing technical sketches and completed detail drawings. Six hours of laboratory a week.

**MTI 104L. Graphical Computations**
Two credit hours
Descriptive geometry drawing problems involving points, lines, planes and geometric shapes presented and solved in orthographic projection form. Six hours of laboratory per week. Prerequisite: Mti 103L.

**MTI 106L. Testing and Measurements**
One credit hour
Theory and practice of precision dimensional metrology, and standard mechanical testing equipment. Three hours of laboratory a week. Corequisite: Iti 104.

**MTI 108L. Manufacturing Processes I, Laboratory**
One credit hour
Basic concepts of cutting and non-cutting metal removal processes, metal cutting theory, forming, joining, and production and general-purpose machines.

**MTI 213. Industrial Mechanisms**
Three credit hours
Applications and mechanical advantages of gears, cams, pulleys, linkages and levers as used in industrial work simplification devices. For industrial engineering technology. Prerequisite: Sti 115.

**MTI 215. Statics**
Three credit hours
Force systems, resultants and equilibrium, centroids of areas and centers of gravity of bodies, trusses, frames, beams, friction and moments of inertia of areas and bodies. Three hours of class per week. Prerequisite: Sti 115.

**MTI 220. Mechanics: Statics and Dynamics**
Three credit hours
Principles of applied engineering mechanics. Three hours of class per week. Prerequisites: Sti 108 and Sti 115.

**MTI 221. Strength of Materials**
Three credit hours
Principles of applied strength of materials primarily with reference to mechanical design. Three hours of class per week. Prerequisites: Mti 220 or Mti 215, Sti 207.

**MTI 225. Dynamics**
Two credit hours
Principles of applied engineering dynamics. Two hours of class per week. Corequisite: Mti 215.

**MTI 226L. Mechanisms**
Two credit hours
Motions, displacements, velocities, friction wheels, flexible connectors, cams, linkages and gears. One hour of class and three hours of laboratory a week. Prerequisite: Mti 103L; Corequisite: Mti 220 or Mti 225.

**MTI 231. Fluid Mechanics**
Three credit hours
Property of fluids, hydrostatic and buoyant forces, Bernoulli's equation, energy equation, flow of real fluids in pipes, friction losses, measurement flow. Prerequisite: Sti 207.

**MTI 232. Thermodynamics**
Three credit hours
General laws of thermodynamics, properties and processes of gases, vapor and gas-vapor mixtures; cycles; and the flow of fluids, application of thermodynamics to machines such as engines. Prerequisites: Sti 216, Sti 207.
MTI 321L. DIEs, JIGs AND FixTuRES    TWO CREDIT HOURS
Design calculation and sketching of dies, jigs and fixtures used in industrial production. One hour of class and three hours of laboratory a week. Corequisite: MTI 221.

MTI 323. MACHINE DESIGN    THREE CREDIT HOURS
Analytical design of springs, shafts, couplings, bearings, gears; applying laws governing simple, variable and combined stresses. Two hours class and three hours laboratory a week. Prerequisites: MTI 221, MTI 226L, STI 207.

MTI 328. INDUSTRIAL AUTOMATION ACTUATION    THREE CREDIT HOURS
Application of hydraulic, pneumatic, and electric actuators in the design of industrial automation for production systems. Two hours class and three hours laboratory a week. Prerequisites: MTI 231, MTI 232.

MTI 400. SELECTED MECHANICAL TOPICS    ONE TO FOUR CREDIT HOURS
Investigations and discussion of current technical topics in mechanical engineering technology. May be taken more than once. Prerequisite: Permission of the department chairman.

Engineering Technology Service Courses

Associate Professors: Averdick, Strange
Assistant Professors: Fehlmann, Patrick, Staub
Instructors: Barsalou, Schoen

STI 101. INDUSTRIAL MATHEMATICS    THREE CREDIT HOURS
A review of the fundamentals of arithmetic and a study of selected topics from geometry and algebra with application to industrial problems.

STI 105. TECHNICAL INSTITUTE MATHEMATICS    THREE CREDIT HOURS
Fundamental processes of algebra to include factoring, fractions, exponents and radicals, linear and quadratic equations, determinants, and logarithms. Introduction to trigonometry to include angular measure, interpolation, identities, and graphs.

STI 106. ADVANCED TECHNICAL INSTITUTE MATHEMATICS    THREE CREDIT HOURS
Additional topics in trigonometry to include: solution of right triangles, solution of oblique triangles, and functions of composite angles. Selected topics in analytic geometry and differential calculus. Prerequisite: STI 105.

STI 107. ENGINEERING TECHNOLOGY MATHEMATICS I    FOUR CREDIT HOURS
Fundamental processes of algebra to include factoring, fractions, exponents and radicals, linear and quadratic equations, determinants, and logarithms. Introduction to trigonometry to include angular measure, interpolation, identities, and graphs.

STI 108. ENGINEERING TECHNOLOGY MATHEMATICS II    FOUR CREDIT HOURS
Additional topics in trigonometry to include: solution of right triangles, solution of oblique triangles, and functions of composite angles. Selected topics in analytic geometry and differential calculus. Prerequisite: STI 107.
STI 115. **PHYSICS: MECHANICS**
TWO CREDIT HOURS
A study of the laws of simple machines, forces, linear and angular motion, conditions of equilibrium and fluids. Corequisite: Sti 108.

STI 115L. **PHYSICS: MECHANICS LABORATORY**
ONE CREDIT HOUR
To accompany Sti 115. Two hours of laboratory a week.

STI 134. **EFFECTIVE SPEAKING**
TWO CREDIT HOURS
Organization and presentation of spoken materials with special emphasis on voice and physical delivery and audience reaction.

STI 150. **INTRODUCTION TO ENGINEERING TECHNOLOGY**
ONE CREDIT HOUR
The environment of engineering technology and an introduction to problem solving techniques and to the design process.

STI 207. **ENGINEERING TECHNOLOGY MATHEMATICS III**
FOUR CREDIT HOURS
Applications of selected topics in differential and integral calculus to Engineering Technology. Prerequisite: Sti 108.

STI 215. **PHYSICS: ELECTRICITY**
TWO CREDIT HOURS
The basic principles of electricity and their application in industry. Prerequisite: Sti 115.

STI 215L. **PHYSICS: ELECTRICITY LABORATORY**
ONE CREDIT HOUR
To accompany Sti 215. Two hours of laboratory a week.

STI 216. **PHYSICS: HEAT, LIGHT AND SOUND**
TWO CREDIT HOURS
The elementary principles of heat, light and sound with particular emphasis on industrial application. Prerequisite: Sti 115.

STI 216L. **PHYSICS: HEAT, LIGHT AND SOUND LABORATORY**
ONE CREDIT HOUR
To accompany Sti 216. Two hours of laboratory a week.

STI 234. **REPORT WRITING**
TWO CREDIT HOURS
The preparation and presentation of industrial reports. Prerequisite: Eng 101.

STI 251. **ECONOMICS OF INDUSTRY**
THREE CREDIT HOURS
Basic economic principles as applied to major industrial problems.

STI 252. **AMERICAN POLITICAL IDEAS AND PRACTICES**
THREE CREDIT HOURS
Fundamentals of democratic processes in government and the practices in which they function.

STI 306. **ENGINEERING TECHNOLOGY MATHEMATICS IV**
THREE CREDIT HOURS
Selected topics from ordinary differential equations with an emphasis on operational methods of solution. Stress problems encountered in engineering technology. Prerequisite: Sti 207.

STI 499. **SEMINAR**
ONE CREDIT HOUR
Selected technical and occupational topics. Required of all Bachelor of Technology students in the second term of their senior year.
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