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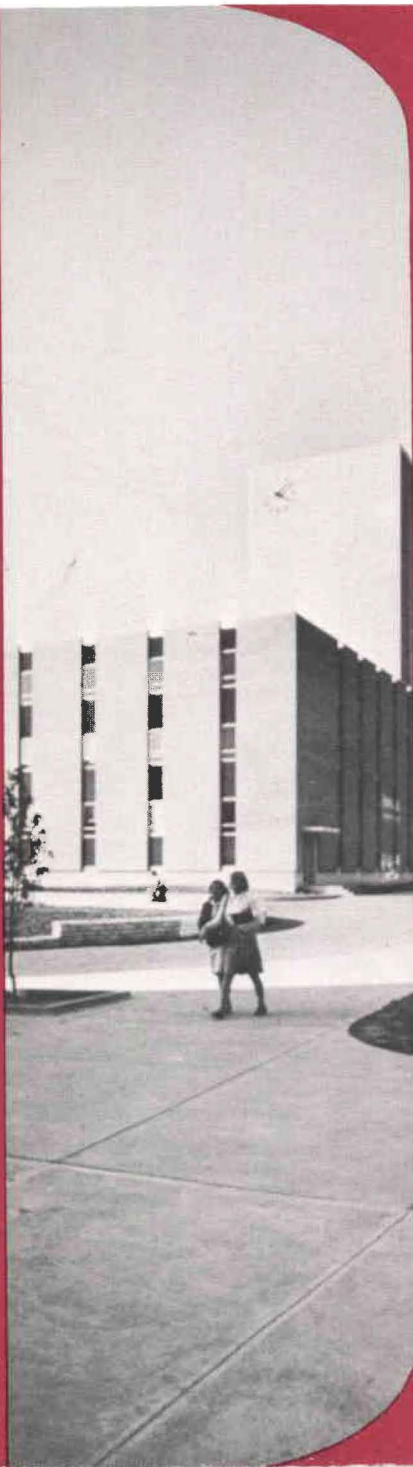
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University of Dayton Bulletin

UNDERGRADUATE CATALOG ISSUE 1967-1968





DAYTON, OHIO 45409

THE UNIVERSITY OF DAYTON BULLETIN

VOLUME LXXVIII

JANUARY, 1967

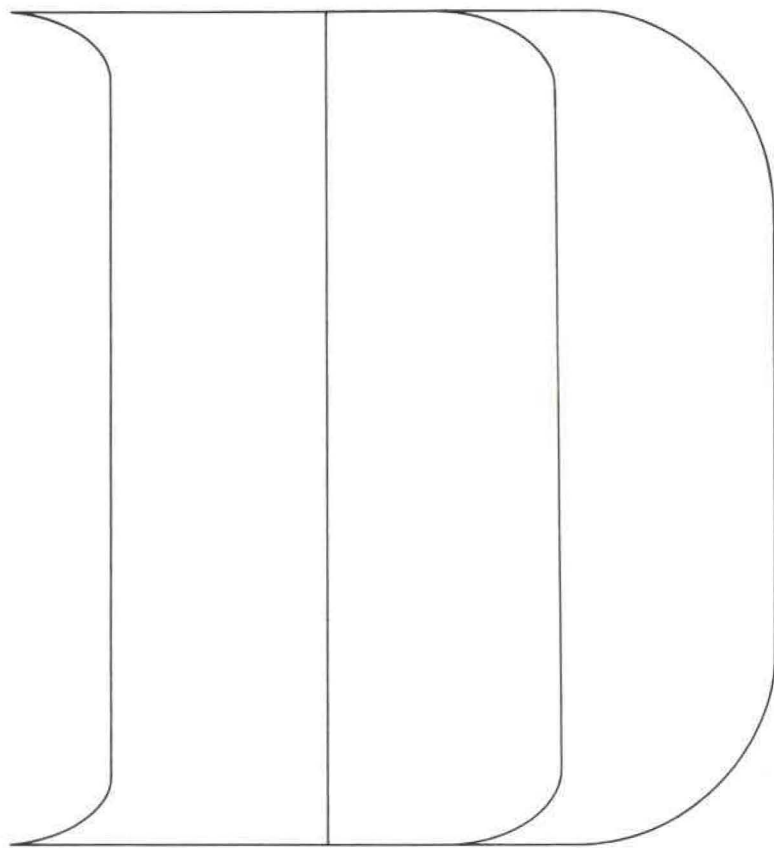
NUMBER 2

Published by the University of Dayton, 300 College Park Avenue, Dayton, Ohio 45409. Issued five times a year: twice in January, once in December, once in April, 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.

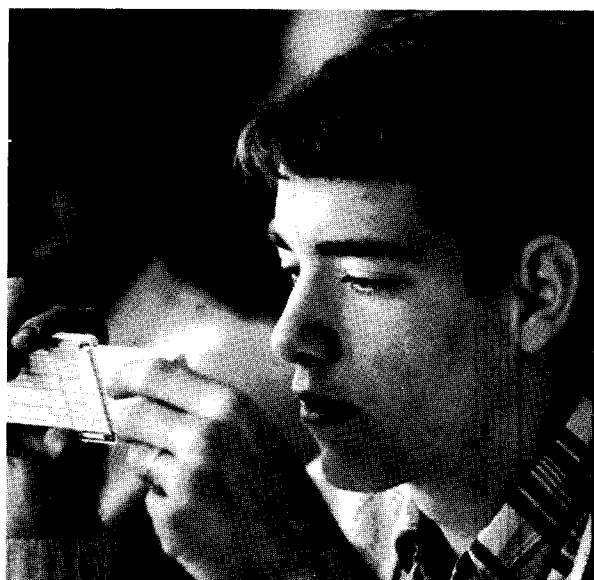
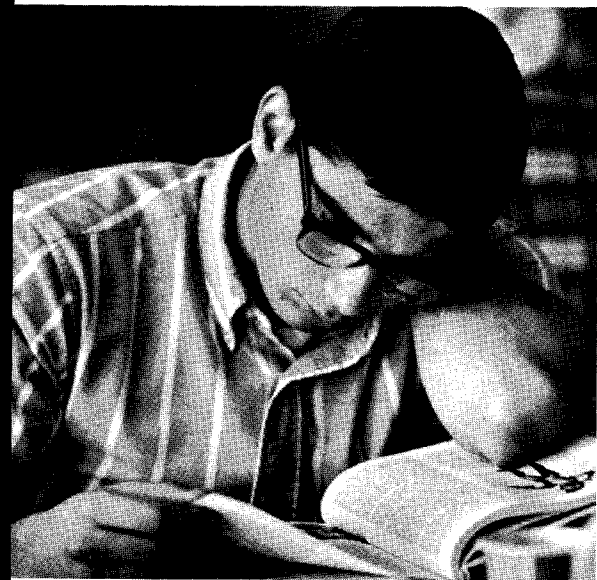
The provisions of the various issues of this Bulletin are to be considered directive in character and not as an irrevocable contract between the student and the University. The University reserves the right to make any changes that seem necessary or desirable.

The current number of any of these publications may be obtained by applying to the office of the Provost.



University of Dayton Bulletin
Undergraduate Catalog Issue
1967-1968

DAYTON, OHIO 45409





Academic Calendar

1967-1968

- | | | |
|----------|--------|---|
| Aug. 28 | Mon. | Registration: Part-time and graduate students
Orientation Week for freshmen—required for new freshmen; optional for transfer students. |
| Aug. 29 | Tues. | Registration: Part-time and graduate students |
| Aug. 30 | Wed. | Registration: Returning full-time students |
| Aug. 31 | Thurs. | Registration: New freshmen |
| Sept. 1 | Fri. | Registration: New freshmen and transfer students
Registration closes at 4 p.m. |
| Sept. 5 | Tues. | Mass in honor of the Holy Spirit at 9 a.m.
Classes begin at 11 a.m. |
| Sept. 12 | Tues. | Last day for changes in schedules |
| Sept. 25 | Mon. | Last day to withdraw without record |
| Sept. 26 | Tues. | From this date all withdrawals from class for academic difficulty are recorded as F |

1967-1968

Oct. 21	Sat.	Homecoming (graduate and Saturday only classes held)
Oct. 23	Mon.	Mid-term progress grades due in Registrar's office
Nov. 1	Wed.	Feast of All Saints (no classes)
Nov. 22	Wed.	Thanksgiving recess begins after last evening class
Nov. 27	Mon.	All classes resume
Dec. 8	Fri.	Feast of the Immaculate Conception (no classes)
Dec. 11	Mon.	Registration: For Second Term—Part-time evening and graduate students (in the evening)
Dec. 12	Tues.	Registration: For Second Term—Part-time evening and graduate students (in the evening)
Dec. 13	Wed.	Registration: For Second Term—Part-time evening and graduate students (in the evening)
Dec. 17	Sun.	Diploma Exercises
Dec. 19	Tues.	Term ends after last class

SECOND TERM

Jan. 3	Wed.	Registration: Returning day students Full or Part-time
Jan. 4	Thurs.	Registration: Returning day students Full or Part-time
Jan. 5	Fri.	Registration: Returning day students Full or Part-time
Jan. 6	Sat.	Registration: New freshmen and new transfer students (in the morning)
Jan. 8	Mon.	Classes begin
Jan. 15	Mon.	Last day for change in schedules
Jan. 29	Mon.	Last day to withdraw without record
Jan. 30	Tues.	From this date all withdrawals from class for academic difficulty are recorded as F
Feb. 26	Mon.	Mid-term progress grades due in Registrar's office
Mar. 6	Wed.	Honors Day
Apr. 9	Tues.	Easter recess begins after last evening class
Apr. 16	Tues.	All classes resume
Apr. 16	Tues.	Registration: Part-time and graduate students for the Third Term (in the evening)
Apr. 17	Wed.	Registration: Part-time and graduate students for the Third Term (in the evening)
Apr. 21	Sun.	Commencement exercise
Apr. 23	Tues.	Term ends after last class

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THIRD TERM (First Session)

Apr. 30	Tues.	Registration: All Seniors and Juniors
May 1	Wed.	Registration: All Sophomores and Freshmen
May 2	Thurs.	Classes begin
May 9	Thurs.	Last day for change in schedules
May 10	Fri.	Last day to withdraw without record
May 13	Mon.	From this date all withdrawals from class for academic difficulty are recorded as F
May 23	Thurs.	Feast of the Ascension (no day classes)
May 30	Thurs.	Memorial Day (no day classes)
June 14	Fri.	Term ends after last class

THIRD TERM (Summer Session)

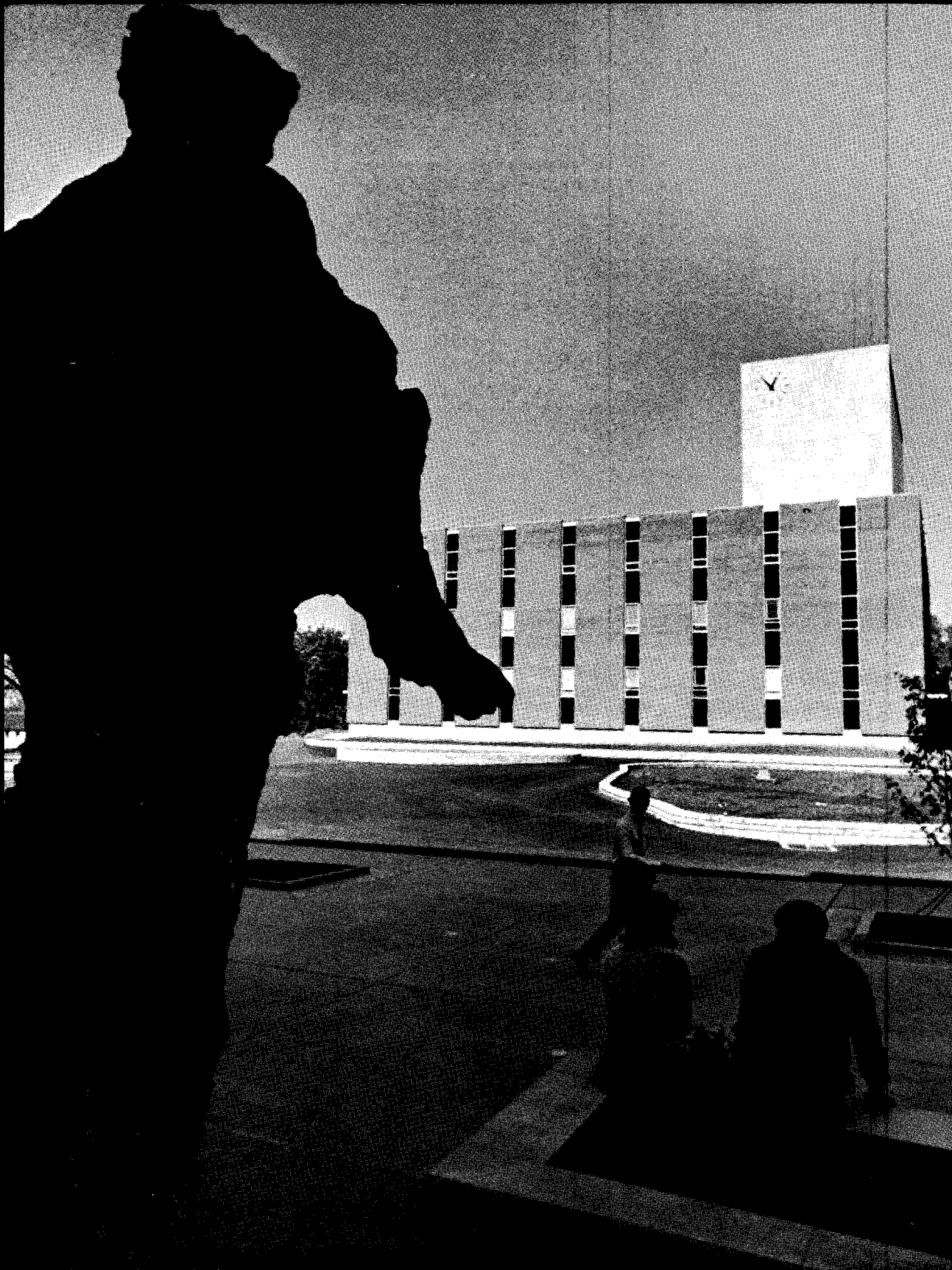
June 19	Wed.	Registration
June 20	Thurs.	Registration
June 21	Fri.	Classes begin
June 26	Wed.	Last day for change in schedules
July 1	Mon.	Last day to withdraw without record
July 2	Tues.	From this date all withdrawals from class for academic difficulty are recorded as F
July 4	Thurs.	Independence Day (no day classes)
Aug. 2	Fri.	Term ends after last class
Aug. 3	Sat.	Diploma Exercises





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I 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 seven thousand, the University of Dayton is ranked seventh in size among the nation's Catholic colleges. It includes four schools and colleges 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 several 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.

A well-qualified faculty of priests, Brothers, Sisters, and laymen provides the student the "competent instruction, tempered discipline, and prudent counseling" which the University sees as one of its principal aims.

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

Education, which has as its ultimate aim to prepare man for what he must be and what he must do here on earth in order to attain the sublime end for which he was created, is necessarily a lifelong process in which many agencies participate. As one of these agencies, concentrating its efforts in the area of higher education, the University of Dayton professes to provide an academic atmosphere in which Christian principles of thought and action are the essential integrating and dynamic forces impelling the student to pursue, to cherish, and to disseminate what is true, good, and beautiful.

In promoting this formation the University envisions the harmonious development of the student's natural and supernatural capacities and contributes to this objective by helping him to acquire and develop sound religious and moral convictions, broad knowledge and basic intellectual habits, physical vigor and emotional stability, keen awareness of social responsibility, specialized professional attitudes and competencies.

To assure the achievement of these objectives the University endeavors to provide for all its students competent instruction, tempered discipline, and prudent counseling, together with appropriate physical surroundings and opportunities for participation in a variety of curricular and extracurricular activities.

The University is convinced that, by imparting such a well-rounded education to as many students as possible, it is preparing worthy members for both the Church and the State. Moreover, by offering to these institutions its physical and human resources for the discovery and dissemination of truth and for the rendering of those specialized educational services that fall within the area of its competence, the University seeks to fulfill as fully as possible the mission to which it is committed by its official motto—*Pro Deo et Patria*, For God and Country.

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 1966, 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-seventeenth academic year, the University of Dayton includes the College of Arts and Sciences, School of Business Administration, School of Education, School of Engineering, and Technical Institute. In all, thirty-eight departments of instruction function on the campus, awarding twenty-four different degrees on the associate, baccalaureate, and graduate levels. These degrees are:

Bachelor of Arts	Bachelor of Civil Engineering
Bachelor of Science	Bachelor of Electrical Engineering
Bachelor of Fine Arts	Bachelor of Industrial Engineering
Bachelor of Music	Bachelor of Mechanical Engineering
Bachelor of Social Science	Bachelor of Technology
Associate in Police Administration	Associate in Technology
Bachelor of Science in Home Economics	Master of Arts
Bachelor of Science in Medical Technology	Master of Public Administration
Bachelor of Science in Business Administration	Master of Business Administration
Associate in Business Administration	Master of Science
Bachelor of Science in Education	Master of Science in Education
Bachelor of Chemical Engineering	Master of Science in Engineering

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 civil, electrical, and mechanical engineering curricula, and for electronic, industrial, and mechanical engineering technology programs), and the Council on Social Work Education (for sociology). 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).

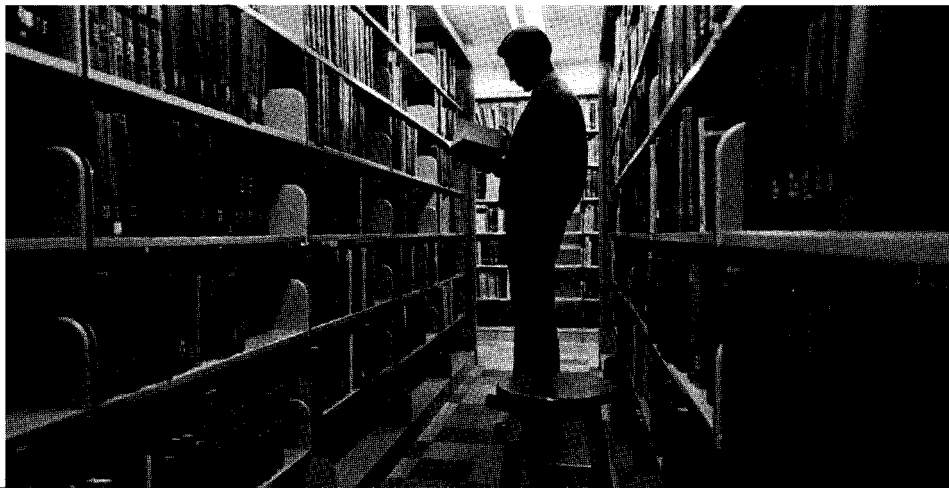
In addition to these accreditations and approvals, the University holds institutional memberships in the Association of American Colleges, the American Association of Colleges for Teacher Education, the American Council on Education, the American Society for Engineering Education, the National Catholic 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, largest of the University's six academic units and traditionally the basic unit, includes twenty departments: Biology, Chemistry, Communication Arts, Computer Science, English, Fine Arts, Geology, History, Home Economics, Languages, Mathematics, Music, Philosophy, Physics, Political Science, Psychology, Sociology and Anthropology, Theological Studies, and Military Science.



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, and Miami Valley hospitals, courses are given in medical technology. Affiliation with the Dayton Art Institute makes it possible for students to work for the Bachelor of Fine Arts degree. 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, English, history, mathematics, philosophy, physics, political science, psychology, sociology, anthropology, and theological studies. The professional degree Master of Public Administration is also offered.

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 a graduate program leading to the degree of Master of Science in Engineering.

TECHNICAL INSTITUTE

The Technical Institute 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. The Technical Institute 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.

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.

CALENDAR

The University of Dayton operates on a "Split Third-Term" calendar. This modern calendar, detailed on page 2, 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.

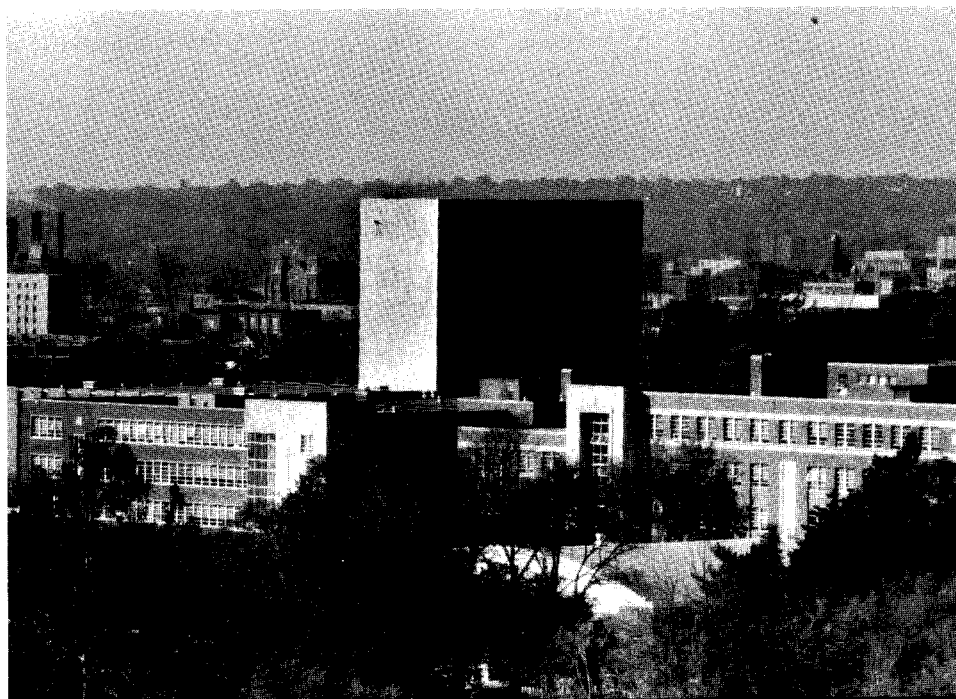
LOCATION

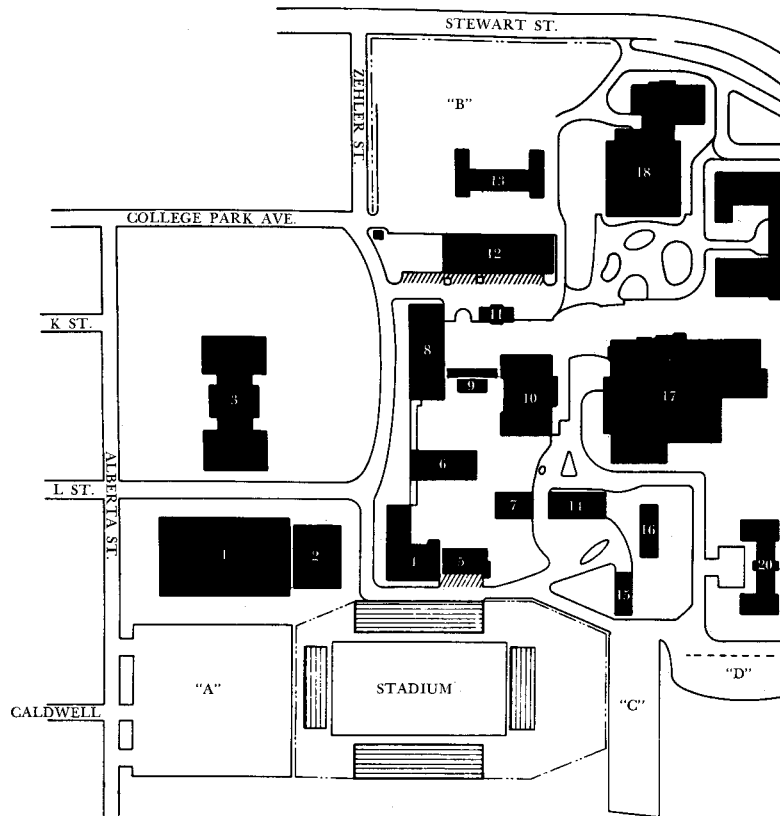
The University of Dayton Main Campus is located near Patterson Boulevard (Interstate Route 75) toward the southern city limits of Dayton. Directional signs posted throughout the area facilitate travel to the campus.

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 over two-hundred religious Brothers of the Society of Mary who are students at the University.

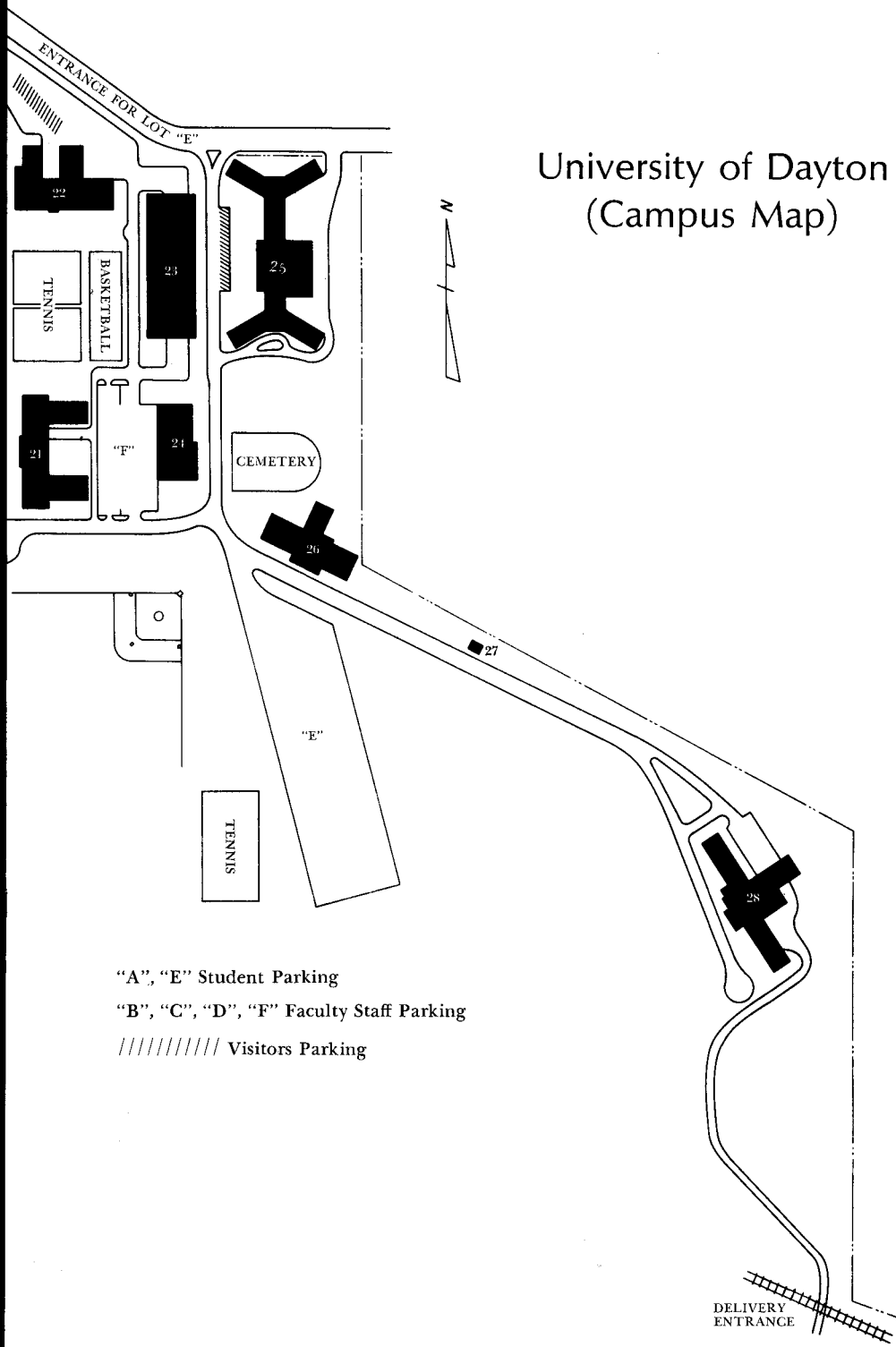
(See map, inside back cover.)





- | | |
|---------------------------------|----------------------------------|
| 1. Fieldhouse | 15. Services Bldg. |
| 2. Flyers Hangar | 16. Office Bldg. |
| 3. Albert Emanuel Library | 17. J. F. Kennedy Memorial Union |
| 4. St. Joseph Hall | 18. Miriam Hall |
| 5. Zehler Hall | 19. Sherman Hall |
| 6. Immaculate Conception Chapel | 20. Alumni Hall |
| 7. Liberty Hall | 21. Founders Hall |
| 8. St. Mary Hall | 22. Wohlleben Hall |
| 9. Arcade | 23. Mechanical Eng. Bldg. |
| 10. Chaminade Hall | 24. R.O.T.C. Bldg. |
| 11. Post Office | 25. Marycrest Hall |
| 12. Women's Gym-Music Bldg. | 26. Gosiger Health Center |
| 13. Services Bldg. | 27. Telescope |
| 14. Power House-Laundry | 28. Stuart Hall |

University of Dayton (Campus Map)



"A", "E" Student Parking

"B", "C", "D", "F" Faculty Staff Parking

////////// Visitors Parking

CAMPUS AND BUILDINGS

Principal buildings on the Main Campus, with the date of construction of each in parentheses, are as follows:

ALBERT EMANUEL LIBRARY (1928)

This, the University's main library, was erected by the late Victor C. Emanuel, an alumnus, in memory of his father. It and two departmental libraries house almost one hundred and ninety thousand books and over two thousand journals. Occupying one wing of the building is the internationally famed Marian Library, containing the largest collection of Mariana in the western hemisphere.

UNIVERSITY FIELDHOUSE (1950)

Home base of the Dayton Flyers, nationally prominent University basketball team, the Fieldhouse also houses the offices of the Department of Athletics and the Department of Health and Physical Education. University convocations and commencement exercises are conducted in this six-thousand-seat arena.

FLYERS HANGAR (1962)

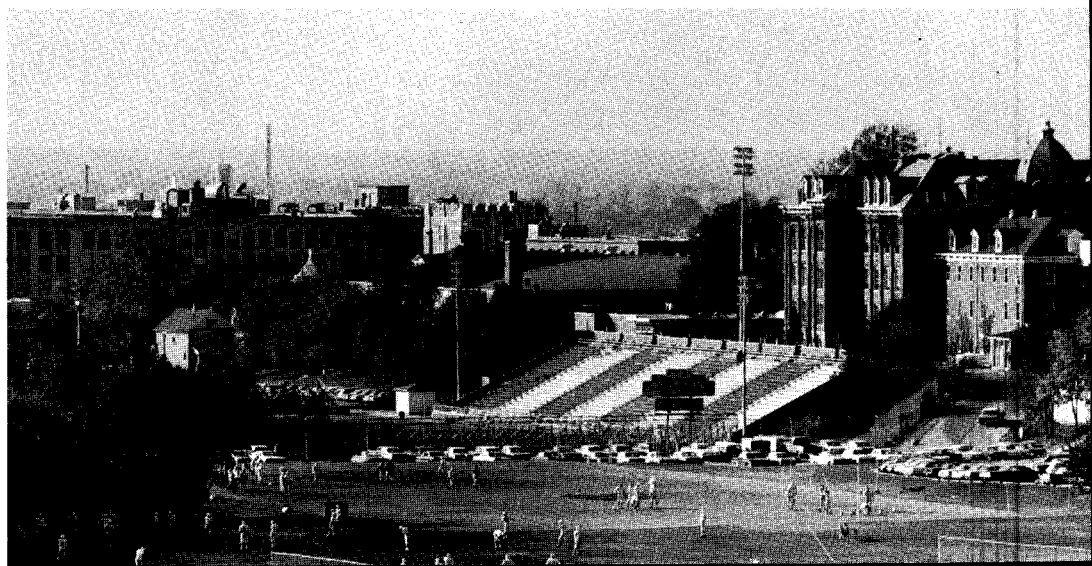
A smart snack shop and cafeteria, the "Hangar" is a popular between-classes gathering place for students.

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.

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 administration of the Technical Institute.





CHAPEL OF THE IMMACULATE CONCEPTION (1868)

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)

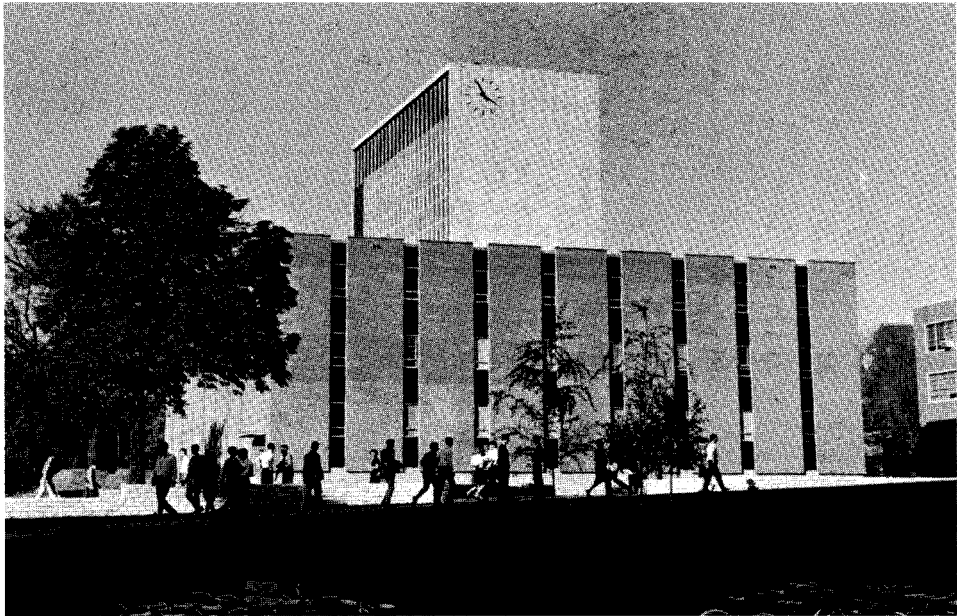
The University's postal service includes a federal Post Office contract station, assuring efficient service features for the campus.

CHAMINADE HALL AND ARCADE (1904)

Named for the founder of the Society of Mary, Father William Joseph Chaminade, this building provides the quarters of the School of Education and the University Bookstore. The Arcade joins Chaminade Hall to St. Mary Hall.

LIBERTY HALL (1866)

This small, two-story structure is used as a service building.



ZEHLER HALL (1865)

The oldest of the present campus buildings, Zehler Hall houses faculty offices, 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.

REGISTRATION BUILDING (1921)

The planning and business of registration are expedited in this building.

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. It is named for the late President of the United States.

MIRIAM HALL (1965)

Construction of this modern classroom and office building was completed during this past year 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. It also houses the office of the Dean of the School of Engineering.

ALUMNI HALL (1924)

This hall is the residence for members of the Society of Mary.

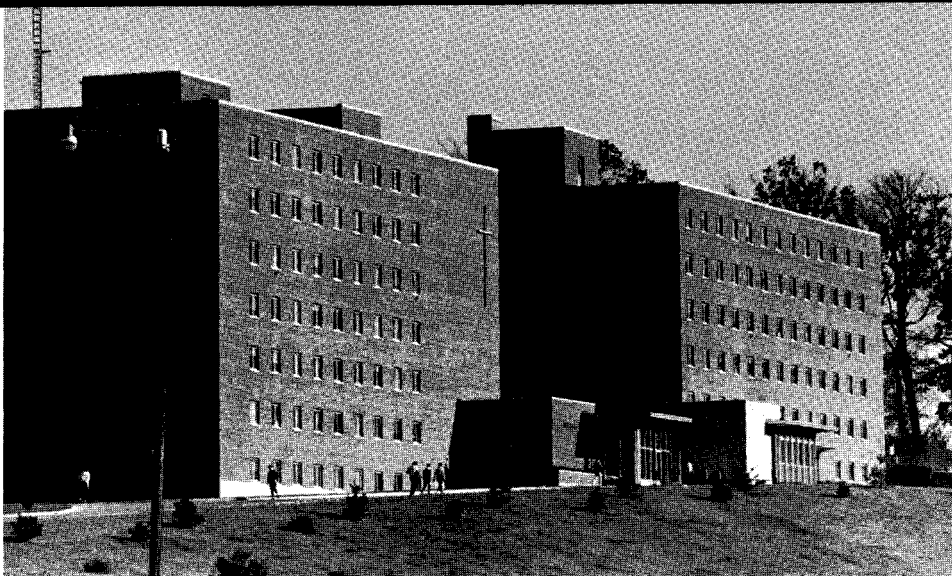
FOUNDERS HALL (1954)

Honoring the founders of the University, this men's residence hall is conveniently located in the center of the campus.

ROTC BUILDING (1952)

Regarded as the finest ROTC facility in the Army's Twentieth Corps area, which includes Ohio, Kentucky, and West Virginia, the building is the headquarters of the Department of Military Science. Among its outstanding features is a large indoor rifle range.





MECHANICAL ENGINEERING LABORATORY (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.

MARYCREST (1962)

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

STUART HALL (1963)

This new 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.

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. This 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 back and forth 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 convent (1926) for Sisters; 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 conducts the Reserve Officers Training Corps (ROTC) program on the campus, providing instruction in general military subjects applicable to all branches of the Army.

Objective of the program is to produce junior officers who by their education, training, and inherent qualities of leadership are suited to continued development as officers in the Army of the United States.

The ROTC program is divided into a basic and an advanced course. All male students who are physically qualified and have not completed the basic course or its equivalent are required to enroll in the basic course during the freshman and sophomore years. For eligible students, satisfactory completion of the basic military course is a prerequisite for graduation from the University. Students in the basic course are excused from the physical education requirement.

Admission to the advanced course, which is also a two-year program, is on an optional-selective basis, requiring approval of the President of the University and the Professor of Military Science.

Satisfactory completion of the advanced course qualifies the student for consideration for commission as a second lieutenant in the Army Reserve. In addition, selected outstanding students may become eligible for commission in the Regular Army.

Students enrolled in military courses are issued appropriate uniforms, insignia, books, and other equipment. Those in the advanced course receive forty dollars a month; but while in attendance at summer camp, which is required of all advanced students between their junior and senior years, they receive approximately one hundred and twenty dollars a month, plus travel expenses from home to camp and return.

Flight training, which leads to a pilot's license, is an optional feature of the ROTC program.

Subject to deferment quota limitations which are prescribed by the Selective Service Act, selected ROTC students are deferred from induction into the Armed Forces as long as they remain in good standing in their academic and military courses.



II Student Life and Services

RESIDENCE FACILITIES

Living together with fellow students from many parts of the world is, the University of Dayton feels, a vital part of a college education. Thus, it is the University's policy that all freshmen, men and women, live in one of the several campus residence halls, unless their home is within commuting distance, and unless, further, the residence halls are already fully occupied.

Campus residence halls are designed and maintained to provide as pleasant accommodations as possible.

Freshman students are usually sent housing information and a housing contract with the letter of acceptance by the Admissions Office. The housing contract should be sent in without delay. The Housing Officers in charge of housing freshman men and women make every effort to place new students in the residence halls. However, many students presently enrolled likewise wish to live in the residence halls. Freshmen will do well to protect themselves by returning the housing contract immediately.

Men freshmen are housed in either Stuart or University Halls. Women freshmen are housed in Marycrest Hall.

Accommodations in all residence halls are mostly semi-private, with two students living together. Rooms contain twin or double deck beds, desks, and ample closet space for clothes. Bed linens are supplied. Students are required to furnish their own towels, washcloths, blankets and study lamps. Electric blankets are expressly forbidden.

Each residence hall has a head resident, who gives general direction to the affairs of the hall. In addition, each floor has an upperclassman as advisor. Each hall has available the counseling and religious direction of a chaplain, whose offices are usually located adjacent to the hall's chapel.

At the University of Dayton, residents of the individual halls engage in many cooperative efforts. Some have their own small newspaper; many take part

in intramural athletics as representatives of their residence halls. A spirit of cooperation is encouraged in all the halls, with students in similar fields living in nearby rooms.

Recreational areas and quiet study areas are within easy reach of all rooms.

Overall supervision of residence halls is in the hands of the Dean of Men and the Dean of Women. Requests for information concerning accommodations in the halls should be addressed to them.

The University maintains an Off Campus Housing Office for students unable to secure accommodations in one of the residence halls.

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 and in turn benefit the group.

Included are student government units such as the Student Council and the Central Women's Organization; religious clubs such as Christian Careers Unlimited and the Sodality; social groups such as the International Club, and the many organizations such as the Cleveland and Cincinnati and Knickerbocker and Illini clubs; 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 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.

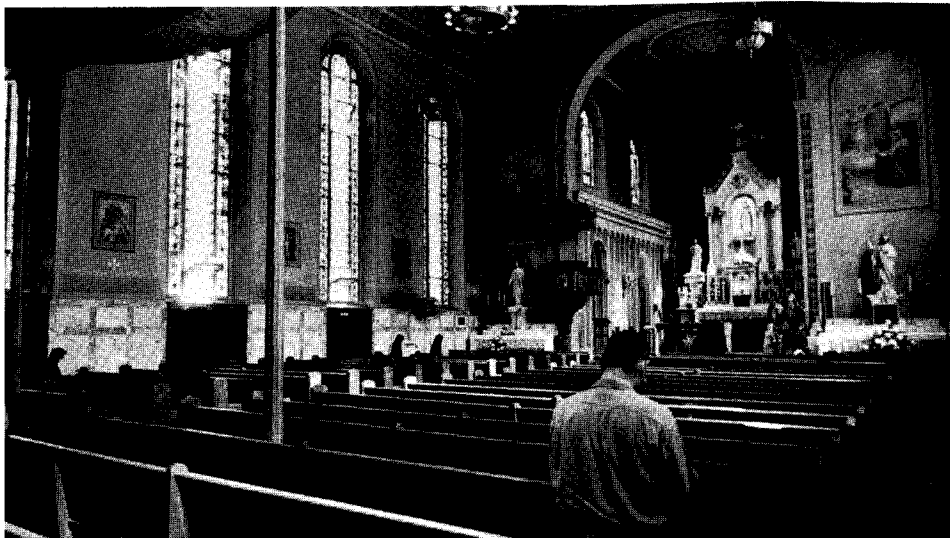
At the beginning of each academic year, students are issued a handbook in which every organization is described in detail. And during the regular orientation week early each year, new students are invited to become members of the various clubs.

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 attend a weekly chapel service on campus at which Mass is offered and opportunities for the reception of the sacraments are provided. Regular attendance, 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 dormitories.

Special liturgical devotions are held on campus throughout the Church year. Of special note is the Rosary Rally in the month of the Most Holy Rosary, the Advent Wreath and Liturgical prayers on each Sunday of Advent, and the



Holy Week services, the highest point of the Liturgical Year. An annual one-day retreat is expected of each University student, and such an exercise is regularly scheduled. Two nearby retreat houses make it convenient for a student, if he so desires, to engage in a weekend retreat.

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

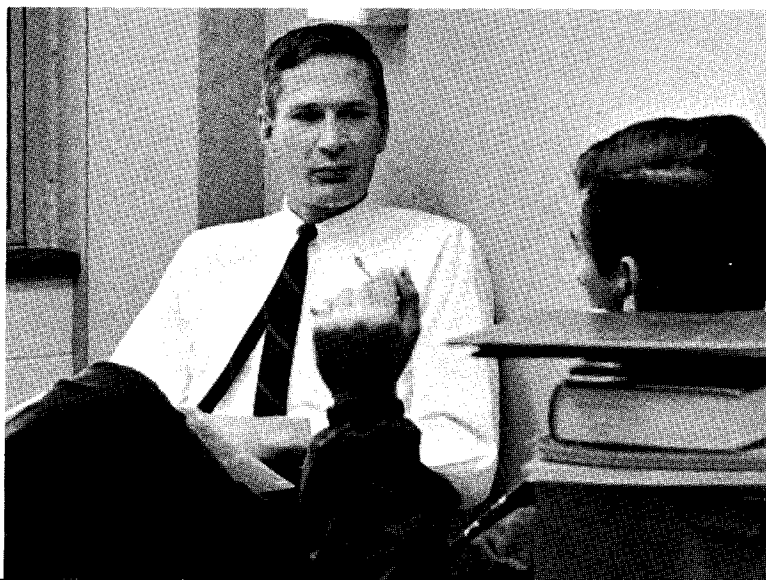
The University Psychological Services Center provides a complete testing program for the students of the University, and for industry and the community at large. Besides this local service, the Testing Center conducts testing programs for Catholic elementary and high school students in fifteen States 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.



PLACEMENT

The University maintains a placement office which energetically assists students in securing part-time work to help them financially while attending school. Details of this operation are treated under "Financial Aids" below.

In addition to the efforts in behalf of students, the placement office also maintains an exceptional liaison with business and industry throughout the nation, and arranges interview sessions between recruiters and senior students, assisting the graduating student in his choice of prospective employment or association. This same service is also provided the University's alumni without charge.

STUDENT HEALTH SERVICES AND INSURANCE

Centrally located in Alumni Hall, 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 during morning hours daily for advice and treatment. A staff of ten 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.

Infirmery or hospital costs are covered for the most part by the highly recommended student insurance program which is available to all full-time students. Blue Cross and Blue Shield family coverage expires when the student reaches age nineteen, and this student insurance plan continues much of this coverage at a nominal rate. (Full information on this program may be obtained by writing to the Office of Student Accounts.)

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.

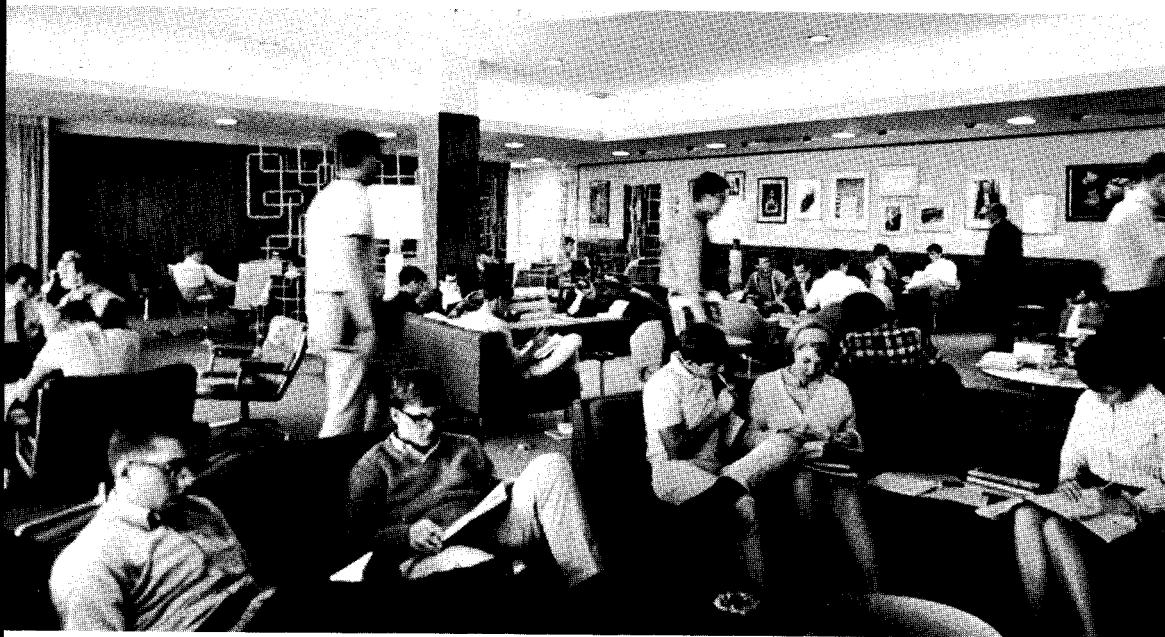
PARKING

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 Drew Pearson, Marquis Childs, Ralph McGill, and Harry Golden. The Dayton Philharmonic Orchestra, the University Concert Band and the University Choir appear each year.





Arts Series programs are given on the campus in mid-day, making attendance convenient for the student. Since the series, which has been extremely well-received, is supported through the student activities fee, there is no admission charge for the individual programs.

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; the University Lecture Series, presenting members of the faculty in an eight-week program of intellectual discussions; the 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 student rates and are well advertised on the campus.

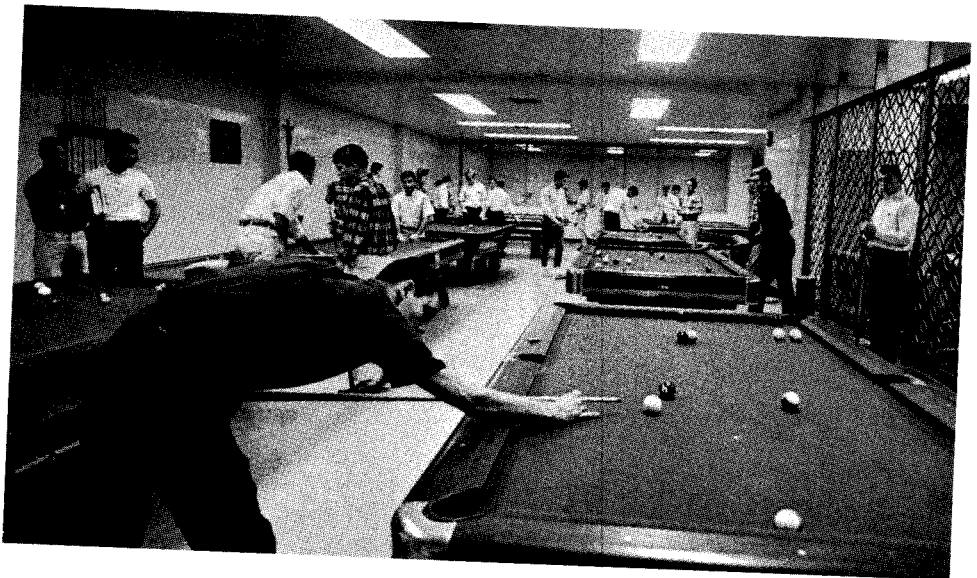
SOCIAL LIFE

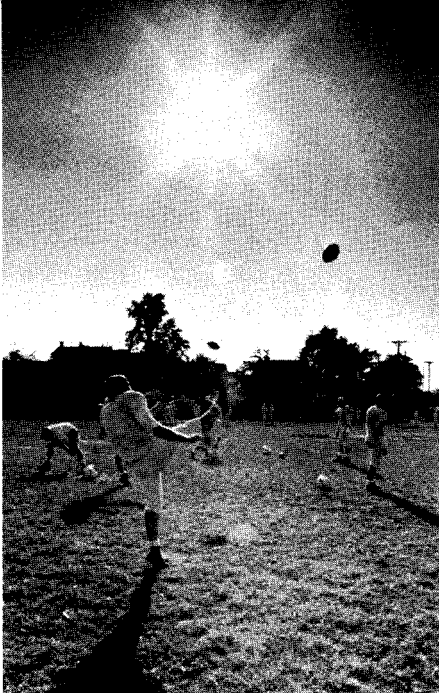
Realizing that "all work and no play" will indeed dull the young student, the University of Dayton provides and encourages participation in a wide variety of social functions.

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

RECREATION

Both 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 new 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. Downtown 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 basketball team, the Dayton Flyers. Highly ranked among the nation's independents, the Flyers in 1962 won the coveted championship of the National Invitation Tournament. 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, there is much more detailed information the student will want to know. This information is given in a separate publication called **THE STUDENT HANDBOOK**. Both student 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 results of the Scholastic Aptitude Test (mathematics and verbal) of the College Entrance Examination Board. 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 REQUIREMENTS

DEGREES	English	Language	Algebra	Geometry	Trigonometry	Mathematics	Chemistry	Physics	Science	History
Arts degrees	3-4	2	1	1			1			
Science degrees	3-4	2	2	1	1/2*		1			
Business degrees	3-4		1 1/2	1						
Education degrees: a) elementary	3-4	2	1	1					1	2
b) secondary, art, music and speech	3-4	2 or 1	and 1						1	2
c) physical and home economics	3-4					1			1	2
Engineering degrees	3-4		2	1	1/2		1	1		
T.I. degrees	3-4		1			1				
Police Administration	3-4		1			1			1	

* No trigonometry is required for Medical Technology and Home Economics degrees.

All exceptions to the foregoing admission rules must be approved by the Academic Council.

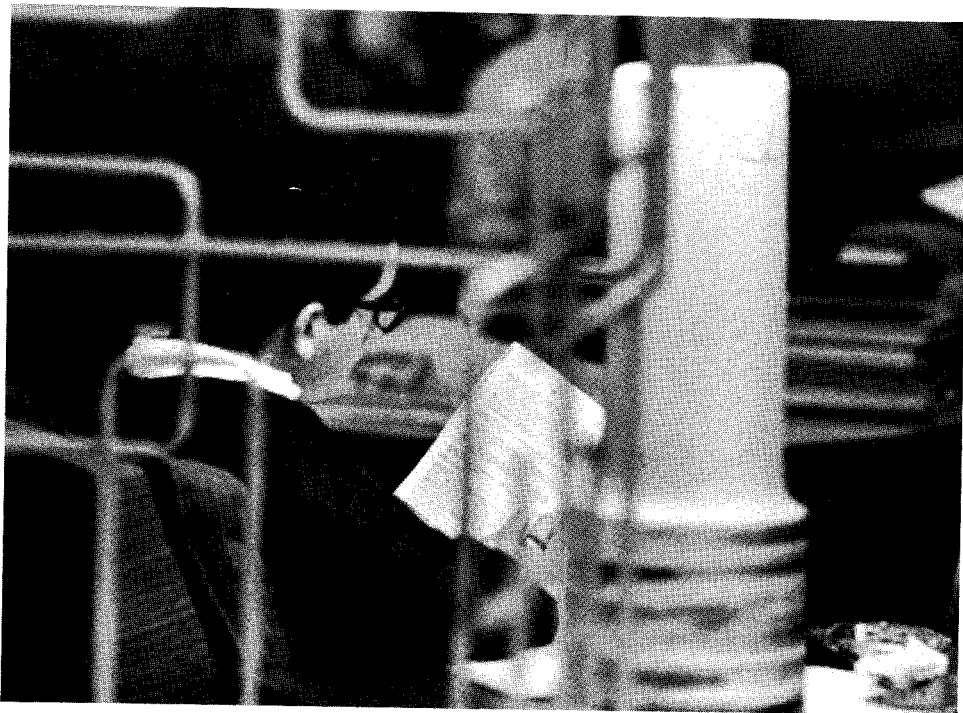
The University bases its acceptance of a prospective student on a satisfactory high school record, recommendation of the high school principal, and the results of the Scholastic Aptitude Test.

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 and a statement from the school last 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 who cannot meet the above requirements but who feel that, by reason of extraneous circumstances, their cases merit additional consideration, may have their applications referred to the Committee on Admissions for final decision. Such referrals must be made to the Committee no later than four weeks prior to the first day of registration for the term in which enrollment is desired.

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.

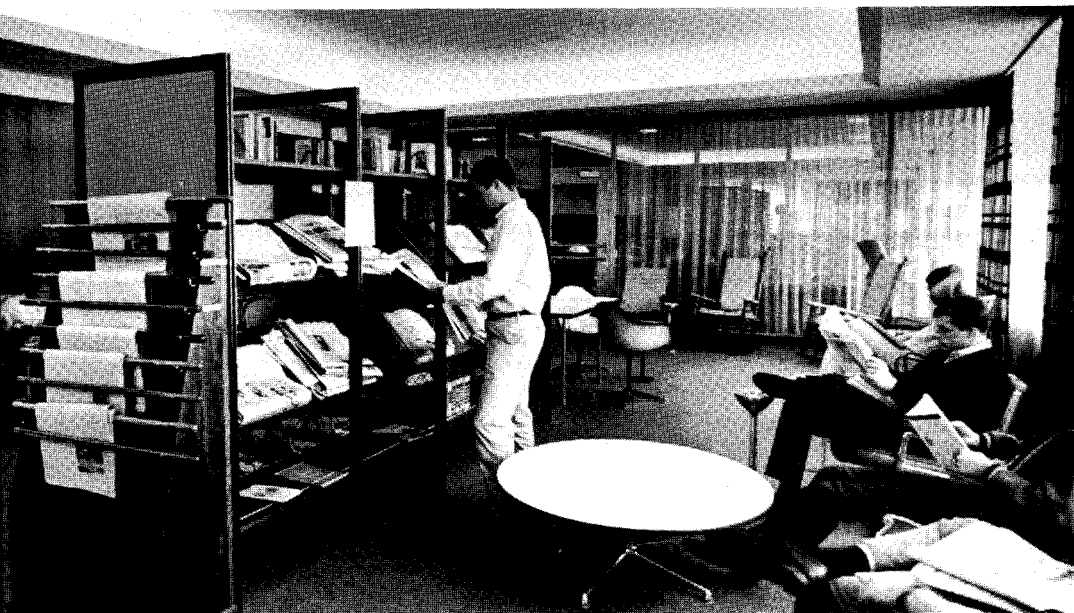
After completing the forms, the applicant must affix a check or money order in the amount of ten dollars, made payable to University of Dayton, and present the application to his high school principal and/or high school counsellor.

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 has 1000 on Junior SAT 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 1000 on Junior SAT, his application is held until he has completed seven semesters of high school and grades are received, as well as Senior SAT scores.

After the Committee on Admissions studies the application, the applicant is notified if he has been found "acceptable" or not. Those "acceptable" must, within twenty days of such notice, forward a twenty-five dollar 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 fifty dollar deposit made.



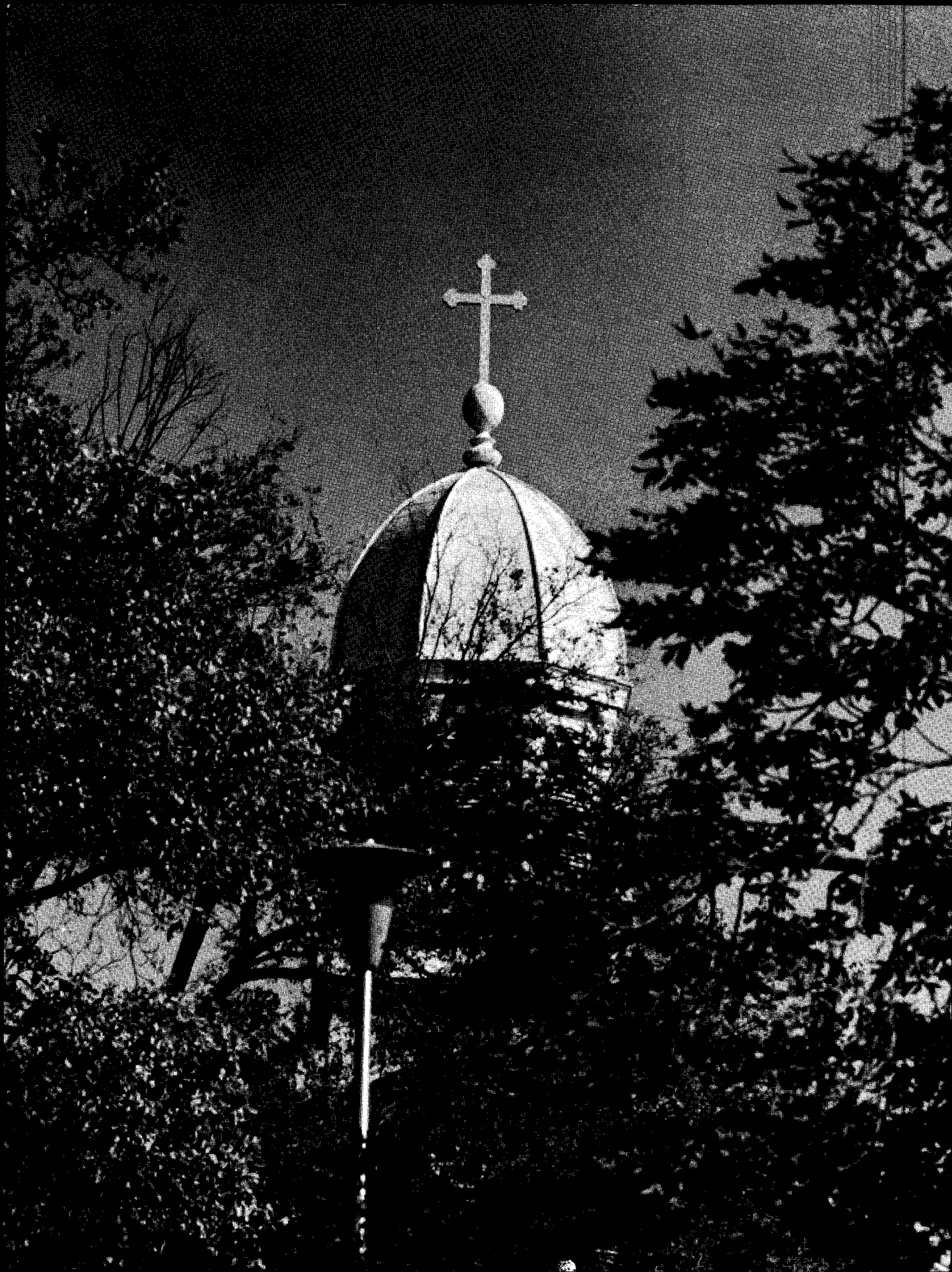
These two latter deposits are applicable to the student's bill at the first registration, except for ten dollars of the housing deposit which is retained to cover possible damage to his room during occupancy.

EDUCATION OF VETERANS

All departments of the University have been approved by the Veterans Administration for training under United States Code, Title 38, Chapters 31, 33, 34, and 35. Credits earned during military service are accepted after an evaluation in terms of the University's standards and the course of study for which the veteran applies. An adequate counseling service is available under the direction of the Veterans' Adviser whose office is located in Room 108, St. Mary Hall.

PHYSICAL EXAMINATIONS

Physical examinations are required of all new full-time students. These examinations are to be performed by a private physician of the student's choice and the results submitted on the special form supplied by the Office of Admissions. The form must be returned, completed, to the admissions office for transmittal to the University Health Service to fulfill admission requirements. This must be done prior to registration. Physical examinations are not required of Police Administration students who are already in police service.



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 semester, 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 semester, unless the account for the previous semester 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.

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.

EDUCATIONAL CHARGES

May, 1967 through June, 1968

Application Fee, payable once, upon application	\$ 10.00
Matriculation Fee, payable once by Full Time Students, at entrance	10.00
Testing and Counseling Fee, payable once at entrance	17.00
Freshman Orientation Fee	33.00

FULL TIME COMPREHENSIVE ACADEMIC CHARGE, I & II TERMS

Undergraduate Student, per term	500.00
Full Time Student Teacher (12 credit hours or less), including the supervising teacher fee, per credit hour	30.00
Full Time Student Teacher (13 or more credit hours), including the supervising teacher fee	500.00
Full Time Fine Arts Student, when taking art courses at Dayton Art Institute simultaneously, per credit hour ...	30.00
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 ...	25.00

UNDERGRADUATE CREDIT HOURS ABOVE NORMAL FULL TIME LOAD

Students on Dean's List previous full term (3.5 p.a.)	No charge
Other Students having specific authorization of Dean, per credit hour	25.00

PART TIME UNDERGRADUATE STUDENTS, I & II TERMS

AND ALL UNDERGRADUATE STUDENTS, EACH SPLIT TERM

Registration Fee, each Registration	2.00
Tuition, per credit hour	25.00
Tuition per Laboratory clock hour	18.00
Laboratory Materials and Equipment Fee (variable) each term	5.00 to 20.00
Laboratory Breakage Deposit, each term	5.00 to 10.00
Basic University Fee	\$2.00 per credit hour—not to exceed \$10 per term
Applied Music Fees (part time students) per term	
Piano \$20.00 Organ \$20.00 Voice \$20.00	
Orchestral or Band Instrument \$20.00	
Reed and Woodwind Instruments \$40.00	
Violin, Cello, Bass \$40.00 to 64.00	

OTHER CHARGES

R.O.T.C. Uniform Deposit, payable once each year, refundable	\$	20.00
Service Charge for Registration Exceptions		2.00 to 5.00
Late Registration Service Charge		5.00 to 15.00
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 lecture 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.

PART-TIME DAY STUDENTS

A day student with an academic schedule of six to eleven lecture credit hours is considered a part-time student.

SPECIAL STUDENTS

Special students, non-matriculated students, and auditors are subject to the various expenses as outlined above (see pages 44 and 45).





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 Treasurer 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 period for each session of the split term the tuition charges will be made according to the following schedule:

During 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.

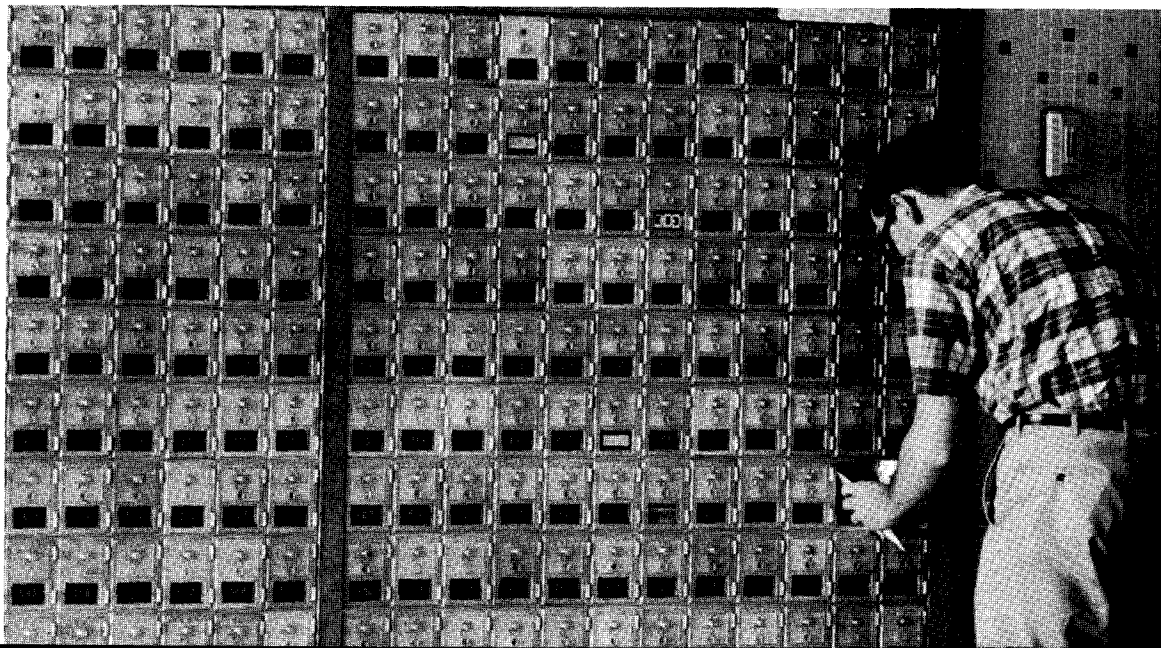
RESIDENCE FACILITIES FEES

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 hall. The student may choose either the five-day meal service (three meals a day, Monday through Friday) or the seven-day meal service (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, 1967 THROUGH JUNE, 1968**

	1st Split Term May-June, 1967 Note 1	2nd Split Term June-Aug., 1967 Note 1	1st Term Sept.-Dec., 1967	2nd Term Jan.-April, 1968
FULL TIME STUDENTS—WOMEN				
Single Occupancy (5 Day Meal Ticket)			\$370.00	\$370.00
Single Occupancy (7 Day Meal Ticket)			425.00	425.00
Double Occupancy (5 Day Meal Ticket)	\$115.00	\$115.00	345.00	345.00
Double Occupancy (7 Day Meal Ticket)	135.00	135.00	400.00	400.00
Triple Occupancy (5 Day Meal Ticket)			320.00	320.00
Triple Occupancy (7 Day Meal Ticket)			375.00	375.00
Room Deposit to Cover				
Possible Damage (refundable)	10.00	10.00	10.00	10.00
FULL TIME STUDENTS—MEN				
Double Occupancy (5 Day Meal Ticket)	115.00	115.00	325.00	325.00
Double Occupancy (7 Day Meal Ticket)	135.00	135.00	380.00	380.00
Triple Occupancy (5 Day Meal Ticket)			300.00	300.00
Triple Occupancy (7 Day Meal Ticket)			355.00	355.00
Room Deposit to Cover				
Possible Damage (refundable)	10.00	10.00	10.00	10.00
OFF-CAMPUS HOUSING—U.D. OWNED				
Room Only	50.00	50.00	180.00	180.00
Room Deposit to Cover				
Possible Damage (refundable)	25.00	25.00	25.00	25.00
MEAL TICKETS—OFF-CAMPUS				
FULL TIME STUDENTS				
5 Day Meal Service	65.00	65.00	165.00	165.00
7 Day Meal Service	85.00	85.00	220.00	220.00

Note 1: Applies only to Full Time students who attended first and/or second term(s).



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. However, 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 Campus Housing for men or the Dean of Women for women.

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 July 1 (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.

STUDENT FINANCIAL AID

The financial aid program at the University of Dayton is designed to help the qualified student who is in need of financial assistance to continue their college education. Financial assistance at the University of Dayton is available in the form of scholarships, loans, grants, tuition reductions, and part-time employment. In most instances a student will be offered some combination of assistance which will include two or more of the above forms.

SCHOLARSHIPS:

The scholarship program at the University of Dayton has been established to recognize excellent high school achievement by incoming freshmen students and

outstanding performance by upperclass students in their academic pursuits along with evidenced service to the University.

Scholarships available to incoming freshmen would include:

UNIVERSITY COMPETITIVE SCHOLARSHIPS Available to students in all curricula. Scholarship recipients are selected on the basis of: 1) high school academic performance; 2) SAT scores; 3) activities; 4) service to the community, church and/or school; and 5) earnings and savings.

DAYTON AREA AND MARIANIST SCHOLARSHIPS Offered to the first and second ranking senior of Dayton area and Marianist high schools with enrollments of one thousand or more; and to the first ranking senior in schools of less than one thousand students. Full tuition for eight consecutive terms is covered.

BUSINESS, INDUSTRY SCHOLARSHIPS Various business, industries, civic, fraternal, and professional organizations, and foundations provide funds for many scholarship awards. Many companies and organizations in a student's hometown also provide outstanding grants to children of employees and members. Students are encouraged to investigate such offers.

NATIONAL DEFENSE STUDENT LOANS:

The University of Dayton participates in the National Defense Student Loan Program. These loans are intended to provide assistance for students of ability with limited financial resources who desire an opportunity for advanced study in the field of their choice.

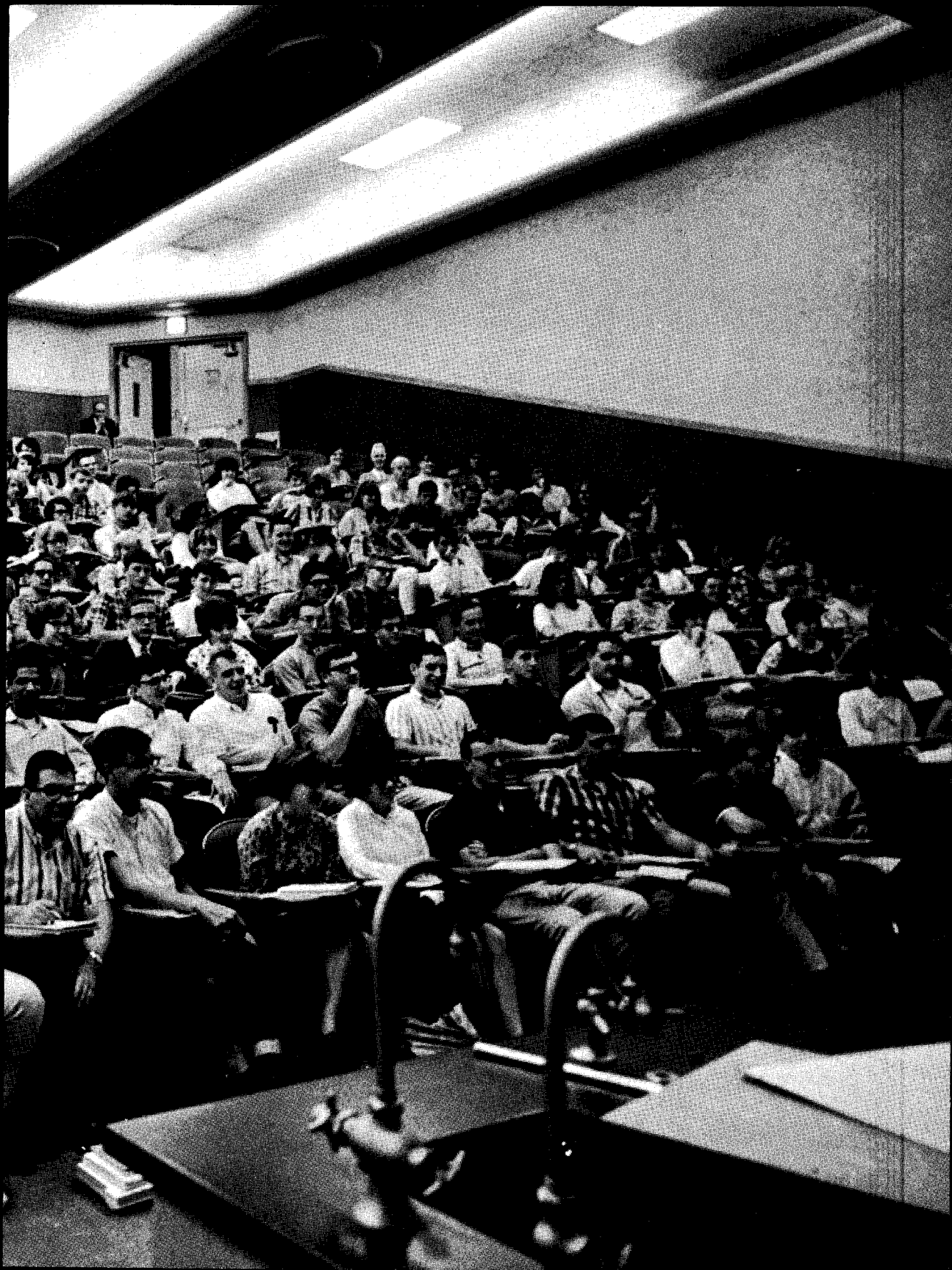
The funds for the loans are provided by the Federal Government and the University follows prescribed guidelines in the administration of these funds.

STUDENT EMPLOYMENT:

More than half of today's college students hold some form of employment, part-time or full-time, to help meet educational expenses. The University provides many such opportunities on campus, and through the Placement Office, helps the students locate such opportunities off campus.

INSTITUTIONAL EMPLOYMENT Last year, students earned a total of more than \$400,000 for part-time work with the University's Research Institute. Others worked in campus cafeterias, libraries, and dormitories. The Placement Office helped some students find work off the campus. Such off-campus work brings the student an average of fifteen to twenty dollars a week.

COLLEGE WORK-STUDY PROGRAM Students who need a job to help pay for college expenses are potentially eligible for employment at the University of Dayton under federally supported work-study program.



V Academic Regulations

REQUIREMENTS FOR DEGREES

All bachelor's degrees granted by the University of Dayton require a minimum of one hundred and twenty-four semester credit hours. These credits must be distributed over eight terms in point of time.

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 *semester credit hour* represents three hours of the student's time each week for one term. This time may be assigned to work in classroom, laboratory, or to outside preparation. The number of lecture, recitation, laboratory, or other periods required each week is to be found in the list of instruction.

All undergraduate students are limited to a term course load of seventeen semester credit hours, or to five courses, not including required courses in ROTC or physical education. Any exception to this rule requires the express permission of the Dean.

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. 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

Day students following four-year programs are required to complete successfully certain prescribed courses as follows:

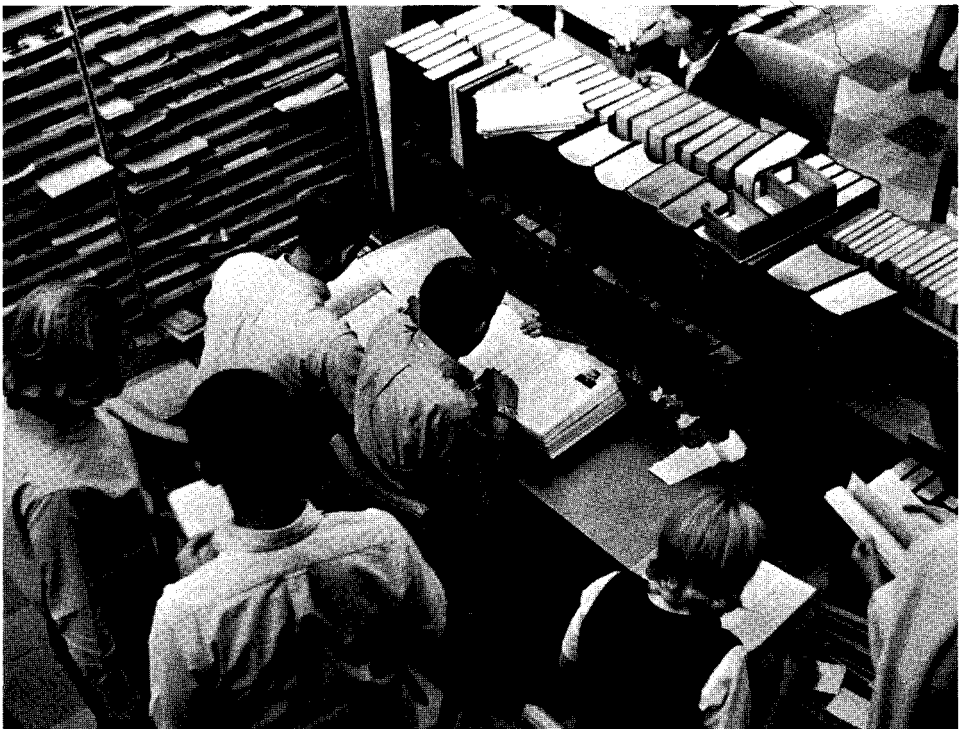
	Freshman	Sophomore	Junior	Senior
Communication Arts	SPE 101	----	----	----
English	ENG 101-2	----	----	----
Military ¹	MIL 101-2	MIL 201-2	----	----
Philosophy	PHL 105	PHL 207	PHL 306	PHL 402
Theological Studies ²	THL 152	THL 220	Electives: 6 credits	

¹Women take PHE 110-1-2-3; men excused from R.O.T.C. take PHE 101-2, 201-2.

²Non-Catholic students take PHL 403, 404, and two electives.

Students pursuing a degree in the Evening Session are expected to meet the requirements in communication arts, English, philosophy, and theological studies, but not in military.

Students following associate degree programs are required to complete successfully the communication arts, English, philosophy, and theological studies courses prescribed in their approved programs.



GRADES AND SCHOLARSHIP

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

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

- A—Excellent; for each semester credit hour, four quality points are allowed.
- B—Good; for each semester credit hour, three quality points are allowed.
- C—Fair; for each semester credit hour, two quality points are allowed.
- D—Passing; for each semester credit hour, one quality point is allowed.
- F—Failed. This mark indicates poor scholastic work, or failure to report withdrawal from a course. In such cases required courses must be repeated at the next opportunity. A student who receives an F in a required course may repeat the course. He may not, however, take the course a third time unless at the time of the second failure he has a cumulative point average of 2.50 or higher. Under no circumstances will he be permitted to take a course a fourth time. Refresher or remedial courses may be repeated only once. No quality point is allowed.
- I—Incomplete. This grade may be given at the discretion 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 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 F, 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 for work credited from other institutions by the Office of Admissions and for workshops. 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.

The *semester grade point average* is the total number of quality points divided by the number of semester credit hours carried by the student. In computing the *cumulative grade point average*, all grades except those for sub-college work are included; in cases where courses are repeated, both the original grades and the new grades are included. Marks of W, K, X and Em are disregarded in the computation of the grade point averages, but a course for which an F or an I is received is included in the usual manner.

ACADEMIC STANDING

The following rules will be observed regarding academic standing:

1. To be in good academic standing a student must have a 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 cumulative point average of at least 2.0 is required for graduation.

2. Any student who has a semester point average of 1.0 or less, regardless of his cumulative point average, will be dismissed from the University.

3. A cumulative point average below those required will *automatically* place the student on academic probation for the next term. The Registrar's office will indicate such 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 must earn grades sufficiently high to attain the required 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.

HONORS AND AWARDS

Honors and awards for scholarships are announced at the Honors Convocation.

To be graduated "With Honors" a student must have a 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 Council. For the Academic Council 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 diplomas, on the student's permanent record, and on transcripts, as follows:

Cum Laude—if the cumulative point average is between 3.5 and 3.69;

Magna cum laude—if the cumulative point average is between 3.7 and 3.89;

Summa cum laude—if the 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 a cumulative point average of at least 3.0. The awards:

- Accounting*—The Warren A. Kappeler '41 and Jerome E. Westendorf '43 Award of Excellence.
- 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 Management*—The Charles Huston Brown, in memory of Brother William Haebe, Award of Excellence in the Senior class.
- Chemical Engineering*—The Victor Emanuel '15, in memory of Mrs. Albert Emanuel, Award of Excellence in the Senior class.
- Chemistry*—The Brother George J. Geisler, S.M., Award for Excellence in Chemistry donated by Joseph Poelking, Sr.
- Civil Engineering*—The Harry F. Finke '02 Award of Excellence in the Senior class.
- Economics*—The Winters National Bank and Trust Company, in honor of Dr. E. B. O'Leary, Award of Excellence.
- Education*—The Father Renneker Award donated by the Montgomery County chapter of the University of Dayton Alumni Association for outstanding achievement in teacher education. (Seniors only.)
- Electrical Engineering*—The Thomas R. Armstrong, in memory of Brother Ulrich Rappel and Mr. W. Frank Armstrong, Award of Excellence.
- Electrical Engineering*—The Anthony Horvath and Elmer Steger Award of Excellence in the Senior class.
- Elementary Education*—The George A. Pflaum Award for excellence in elementary school teacher education.
- Engineering*—The Tau Beta Pi Award for the outstanding freshman student.
- English*—The Catholic Poetry Society Award.
- English*—The Faculty Wives Club Award for excellence in composition.
- English*—The Brother Tom Price, S.M., Senior Award for Excellence in English donated by the University of Dayton Mothers Club.
- General Excellence*—The C.W.O. Award in both academic and extra-curricular activities. (Senior women only.)
- General Excellence*—The C.W.O. "Silver Anniversary of Coeducation Scholarship" given annually to an unmarried woman student of the University who has demonstrated superior academic proficiency and who is in financial need.
- History*—The Dr. Samuel E. Flook Award of Excellence in the Junior class.
- 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, Dayton Chapter, Award of Excellence to the outstanding Industrial Engineering student in the Junior Class.
- Mathematics*—The Mathematics Club Alumni Awards of Excellence in the Junior and Senior classes.
- Mechanical Engineering*—The Mrs. Louise A. and Mrs. Lucille Hollenkamp, in memory of Bernard F. Hollenkamp, Award of Excellence in the Senior class.
- Mechanical Engineering*—The Martin C. Kuntz '12 Award of Excellence in the Junior class.
- Mechanical Engineering*—The Class of 1902 Award in memory of Warner H. Kiefaber '05 donated by M. J. Gibbons.
- Oratory*—The Dr. G. S. Reilly Award of Excellence.
- Philosophy*—The Rev. Charles Polichek Awards of Excellence. (First and second; seniors only.)
- Physical and Health Education*—The John L. Macbeth Memorial Award donated by Mrs. John L. Macbeth for excellence in teacher preparation for health and physical education.
- Political Science*—The Brother Albert H. Rose, S.M., Award of Excellence in the Senior Class donated by Joseph Zusman.
- Psychology*—Award of Excellence donated by the Very Rev. Raymond A. Roesch, S.M.
- Scholar-Athlete*—The John L. Macbeth Memorial Award to the outstanding scholar-athlete in football and basketball. Recipient must have completed five or more terms and must have won his varsity letter.
- Secondary Education*—The University of Dayton Mothers Club Award for excellence in high school teacher education.
- Sociology*—The Dr. Edward Huth Award for Excellence in the Senior Class donated by Joseph Zusman.
- Sociology*—The Margaret Mary Emonds Huth Memorial Award for Excellence in the Senior Class in Anthropology donated by Dr. Edward A. Huth.
- Sociology*—The Joseph Zusman Award for Excellence in Social Studies.
- Technical Institute*—The Engineering Technician Society Award of Excellence to the graduating full-time student with the highest cumulative point average.
- Theological Studies*—The William Joseph Chaminade, in memory of Mr. and Mrs. George W. Dickson, Award of Excellence.

CLASS ATTENDANCE

Students are expected to attend all classes. The instructors will check attendance and report absences on the mid-term and term grade sheets.

The University, realizing that circumstances may arise that prevent a student from attending class, will tolerate a number of absences in any one course equal to twice the number of class meetings regularly scheduled for that course in one week. (This policy does not apply to military drill.)

Even though, under this policy, a certain number of absences are tolerated, the instructor has the right to require that the student make up the class work, assignments, quizzes, tests, etc., that have been missed because of absences. No grades will be deducted for the absences themselves.

Days before and after holidays and other days designated by the Academic Council will be regarded as double-absence days. Absences on such days will be counted as two absences instead of one.

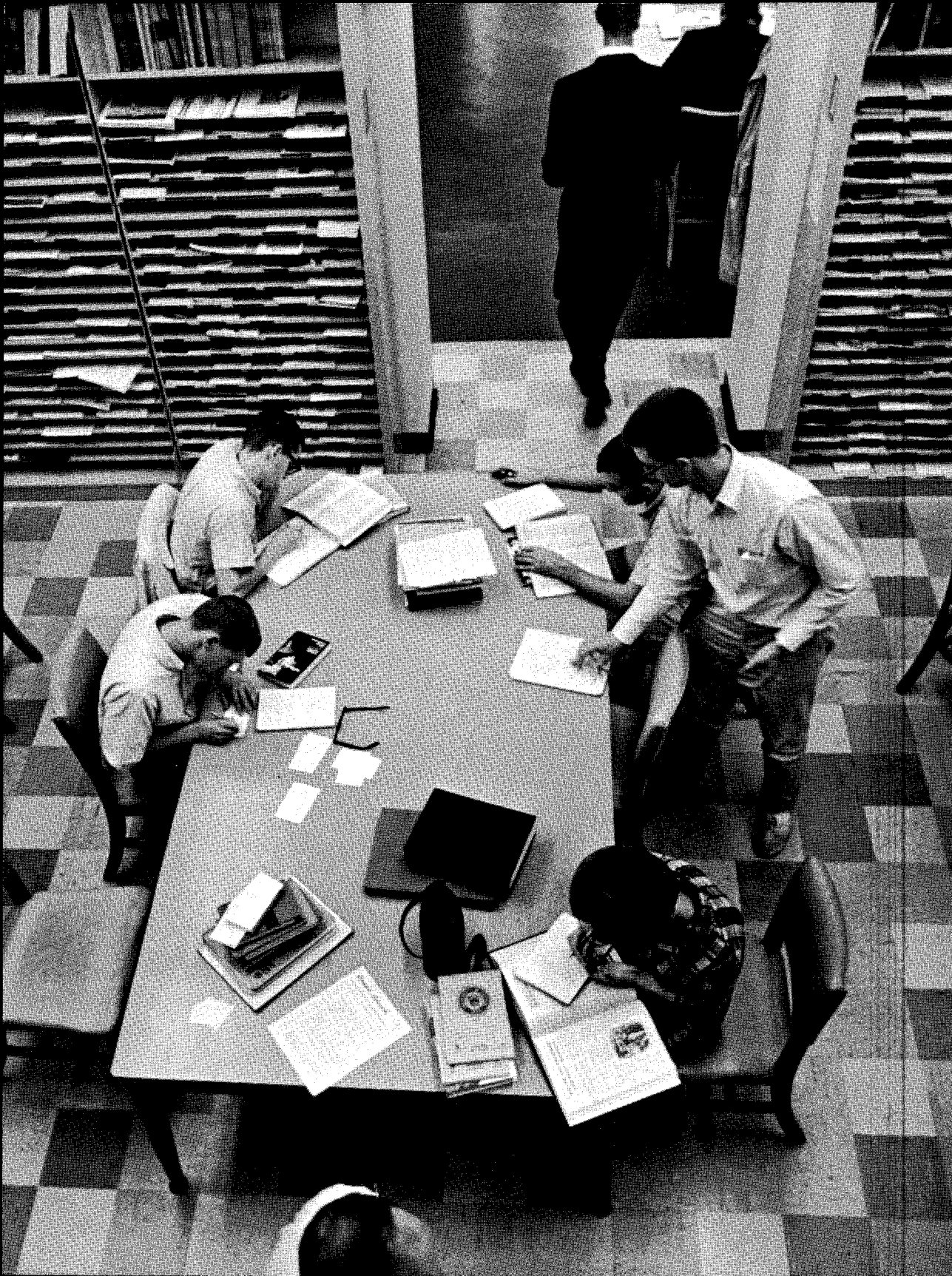
No distinction will be made between excused and unexcused absences. When a student has exceeded the number of tolerated absences for any reason or combination of reasons (including participation in extra-curricular activities), he will be asked to withdraw from the class and he will be given an F on his grade report. It is the student's complete responsibility to see to it that he does not exceed the number of tolerated absences.

If a student has been on the Dean's List the previous term, i.e., if he has earned a 3.5 term average or better, the above rule will not apply in his case. He will be allowed to continue in the class even though he has exceeded the number of tolerated absences.

If a student not on the Dean's List has exceeded the number of tolerated absences for a course, he will be sent by the instructor of that course to his Dean for an official withdrawal.

TRANSCRIPTS

A transcript of credits may be requested from the Office of the Registrar. The official transcript may be sent to the institution or organization desiring it or to the student himself. There is a fee of fifty cents for a transcript with less than twelve credit hours. The fee is one dollar for a transcript with twelve or more credit hours. For transcripts ordered in lots of two or more, the fee is one dollar for the first copy and fifty cents for each additional copy. The first copy requested after graduation is a free copy.



VI College of Arts and Sciences

DR. LEONARD A. MANN, S.M., *Dean*
REV. RALPH GORG, S.M., *Assistant Dean*
MR. RICHARD PETERSON, *Assistant Dean*
ANN FRANKLIN, *Assistant to the Dean*

Consistent with the goals of the University, the College of Arts and Sciences not only strives to prepare the student for the practical task of making a respectable living, but recognizes that there are other benefits that should come to him. Among these are habits of clear thinking and critical reasoning, a recognition of the role of each person in his society and his responsibility for his fellow man, and an appreciation of the aesthetic and cultural values in life, and a desire for continuing growth in the pursuit of truth.

Ideally, the student is best served when he is equipped with knowledge deep enough to pursue graduate studies in a given discipline, understands and loves his fellow man, and confronts issues and questions that arise in every walk of life with a careful analysis based on unchanging principles that ultimately lead him to his final destiny. The educated man never stops developing his powers, and has a beneficial impact on all those with whom he comes in contact. The development of such a person is the goal of the College of Arts and Sciences.

To achieve these ends, the disciplines of Theology and Philosophy are included in every program, since they are most directly concerned with ultimates and basic principles. In addition to these, foreign language, the humanities, and the social and physical sciences complete the requirements that provide the base for this formation.

The non-academic aspects of the student's development are served best through the many organizations open to all students, such as the social and professional clubs and societies, the performing arts, student government, the campus publications, participation in the guest artist and lecture series, and the spiritual retreats and the campus religious activities.

DEGREE REQUIREMENTS

For the Bachelor of Arts or Bachelor of Science degree, it is necessary to complete all the courses listed in one of the programs on the following pages. This will constitute a major field and usually a minor field. The total number of credit hours will vary from one program to another; the required number can be determined from the program in which the student is enrolled.

In most of the programs some courses are listed as electives. These courses are electives, not in the sense that they may be taken or not taken, but in that the student may elect any course that is offered for which he has prerequisites. They constitute an important part of his program, and permit some latitude in achieving the goals he has set for himself. It is always advisable to select these courses in consultation with the faculty adviser.

In the programs leading to the Bachelor of Arts degree, it is required that two years of foreign language be taken. This refers to a single language.

Students who continue with the language studied in high school for two or more years, elect 201; all others elect 101.

The major field normally constitutes twenty-four hours of upper level courses, and the minor field, twelve. Under unusual circumstances, it is possible to modify this requirement by the substitution of courses from other departments if they serve the specific interests of the student in his pursuit of his major field. This can be done only with the permission of the chairman; however, it is not permitted to take less than eighteen hours in a major field under any circumstances.

POSSIBLE MAJORS

For the Bachelor of Arts degree the possible majors are: communication arts, economics, English, fine arts, geology, history, languages, mathematics, music, philosophy, political science, psychology, sociology or social work, and theological studies.

For the Bachelor of Science degree the possible majors are: biology, chemistry, computer science, geology, mathematics, home economics (the general program or the dietetics program), medical technology, physics, and psychology.

Other programs lead to the Bachelor of Social Science with specialization in Police Administration, the Bachelor of Fine Arts, and the Bachelor of Music degrees.

If a minor is required, it must be selected from one of the above fields. There is an exception in Home Economics where Marketing is permitted as a minor.

ACADEMIC STANDING

As a requirement for graduation, it is necessary that the grade point average be at least 2.00 in the major field and in the total college work.

PRE-PROFESSIONAL COURSES

The schedule should be drawn up with a view to preparation for a particular profession which the student may have in mind. Hence it is imperative that the student consult the dean to receive the proper educational guidance.

Students interested in librarianship or archival work will need a strong major and minor, a reading knowledge of German and French, and an interest in a variety of subjects. Technically, a law school will accept any college degree with the proper cumulative point average.

For public administration and civil service, a major in a social science is desirable. This is equally true for foreign service, and here a strong aptitude in modern language is also a strong aid.

Although vocational education is not the primary objective of the Arts, they are practical because the best "job-insurance" is not a narrow training in specific skills but a broad training in general capabilities. Graduates with the B.A., for example, are now accepted in graduate schools in M.B.A. programs.

Two years of college study are required for admission to the first year of philosophy in diocesan seminaries. During these years stress should be placed upon English, the classical and modern languages.

Students contemplating the medical profession should consult the pre-medical program (Program—S11: pp. 94-95) adviser. Those interested in pharmacy, dentistry and similar programs also consult the pre-medical adviser.

TEACHER EDUCATION PROGRAM

Students planning to teach in secondary schools may elect a program of studies with a major in any academic discipline within the College of Arts and Sciences, and include sufficient courses from the School of Education, including student teaching, to qualify them for certification. For details of this program, see the School of Education section of this Bulletin. This would yield the B.A. or the B.S. degree in the discipline, in addition to the teaching certificate.

GENERAL REQUIREMENTS FOR BACHELOR OF ARTS DEGREES

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term</i> ¹	<i>2nd Term</i>	<i>3rd Term</i>
<i>Freshman Year</i>					
ENG	101-6	Freshman English	3-0-3	3-0-3	
HST ²	—	History electives	3-0-3	3-0-3	
MIL ³	101-2	First Year Basic Course	2-1-1	2-1-1	
PHL	105	Intro. to Philosophy & Logic	3-0-3		
SPE ⁴	101	Fundamentals of Effective Speaking			3-0-3
THL ⁵	152	Intro. to Sacred Scripture		3-0-3	
—	—	Foreign Language course ⁶	3-0-3	3-0-3	
—	—	Science course	3-3-4	3-3-4	
			17	17	3
<i>Sophomore Year</i>					
ENG	—	Sophomore English	3-0-3	3-0-3	
HST ²	—	American History electives	3-0-3	3-0-3	
MIL ⁷	201-2	Second Year Basic Course	2-1-1	2-1-1	
PHL	207	Philosophical Psychology	3-0-3		
PSY	201	Introduction to Psychology	3-0-3		
SOC	201	General Sociology		3-0-3	
THL ⁵	220	Theology of Christ		3-0-3	
—	—	Foreign Language course	3-0-3	3-0-3	
			16	16	

Junior and Senior Years

See specific programs on the following pages.

¹Under "Term," 3-0-3 means 3 hrs. class, 0 hrs. laboratory, and 3 hrs. credit.²Freshmen elect 6 hours from Hst 120, 125, 130, 135. Sophomores elect 6 hours from Hst 260, 265, 270, 275.³Women take Phe 130-1; men not taking R.O.T.C. take Phe 101-2.⁴This course may be deferred to the Junior year.⁵Non-Catholic students take an elective, or Spe 101.⁶Incoming students wishing to continue a language begun in high school and transfer students will be required to take a placement examination in that language. The general pattern of transfer in such cases would be: after 2 years in high school of the language, begin with 201; after 4 years in high school, or even 3 years and excellent grades, begin 300 courses. Such transfer does not alter the requirement of 12 hours in at least one language, nor does it affect the requirements for a major listed in the Courses of Instruction.⁷Women take Phe 140; men not taking R.O.T.C. take Phe 201-2.

PROGRAM—A1: BACHELOR OF ARTS WITH A MAJOR IN
COMMUNICATION ARTS

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term</i> ¹	<i>2nd Term</i>	<i>3rd Term</i>
<i>Freshman Year</i>					
ENG	101-6	Freshman English	3-0-3	3-0-3	
HST ²	—	History electives	3-0-3	3-0-3	
MIL ³	101-2	First Year Basic Course	2-1-1	2-1-1	
PHL	105	Intro. to Philosophy & Logic	3-0-3		
PHL	207	Philosophical Psychology			3-0-3
SPE	101	Fundamentals of Effective Speaking			3-0-3
THL ⁴	152	Intro. to Sacred Scripture		3-0-3	
—	—	Modern Language course	3-0-3	3-0-3	
—	—	Science course	3-3-4	3-3-4	
			17	17	6
<i>Sophomore Year</i>					
ENG	221-2	Sophomore English	3-0-3	3-0-3	
HST ²	—	American History electives	3-0-3	3-0-3	
MIL ⁵	201-2	Second Year Basic Course	2-1-1	2-1-1	
PSY	201	Introductory Psychology	3-0-3		
SOC	201	General Sociology	3-0-3		
THL ⁴	220	Theology of Christ		3-0-3	
—	—	Appropriate Spe-Jrn course		3-0-3	
—	—	Modern Language course	3-0-3	3-0-3	
			16	16	
<i>Junior Year</i>					
PHL	306	Epistemology	3-0-3		
PHL	402	General Metaphysics		3-0-3	
THL ⁴	—	Theology elective	2-0-2	2-0-2	
—	—	General elective		3-0-3	
—	—	Major	6-0-6	6-0-6	
—	—	Minor	3-0-3	3-0-3	
			14	17	
<i>Senior Year</i>					
PHL	—	Cosmology or Ethics		3-0-3	
PHL	403	Natural Theology	3-0-3		
SPE	430	Seminar in Communication Arts		3-0-3	
THL ⁶	—	Theology elective	2-0-2		
—	—	Major	6-0-6	6-0-6	
—	—	Minor	3-0-3	3-0-3	
			14	15	

¹Under "Term," 3-0-3 means 3 hrs. class, 0 hrs. laboratory, and 3 hrs. credit.²See footnote 2, p. 59.³Women take EdP 110-1; men not taking R.O.T.C. take EdP 101-2.⁴Non-Catholic students take an elective.⁵Women take EdP 112-3; men not taking R.O.T.C. take EdP 201-2.⁶Non-Catholic students take Phl 404.

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

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term</i> ¹	<i>2nd Term</i>	<i>3rd Term</i>
<i>Freshman Year</i>					
ENG	101-6	Freshman English	3-0-3		3-0-3
HST ²	—	History electives	3-0-3		3-0-3
MIL ³	101-2	First Year Basic Course	2-1-1		2-1-1
PHL	105	Intro. to Philosophy & Logic	3-0-3		
THL ⁴	152	Intro. to Sacred Scripture			3-0-3
—	—	Modern Language course	3-0-3		3-0-3
—	—	Science course	3-2-4		3-2-4
			17		17
<i>Sophomore Year</i>					
ECO	201-2	Principles of Economics	3-0-3		3-0-3
ENG	—	Sophomore English	3-0-3		3-0-3
HST ²	—	American History electives	3-0-3		3-0-3
MIL ⁵	201-2	Second Year Basic Course	2-1-1		2-1-1
PHL	207	Philosophical Psychology	3-0-3		
THL ⁴	220	Theology of Christ			3-0-3
—	—	Modern Language course	3-0-3		3-0-3
			16		16
<i>Junior Year</i>					
MTH	121	College Algebra	3-0-3		
ECO	340	Micro Economic Analysis	3-0-3		
ECO	341	Macro Economic Analysis			3-0-3
ECO	342	Money, Banking, and Monetary Policy			3-0-3
PHL	306	Epistemology	3-0-3		
PHL	402	General Metaphysics			3-0-3
PSY	201	Introductory Psychology			3-0-3
THL ⁶	—	Theology elective	2-0-2		2-0-2
—	—	Economics elective	3-0-3		
—	—	Minor			3-0-3
SPE	101	Fundamentals of Effective Speaking	3-0-3		
			17		17
<i>Senior Year</i>					
PHL	303	Cosmology			3-0-3
PHL	403	Natural Theology	3-0-3		
THL ⁴	—	Theology elective	2-0-2		
—	—	Economics elective	6-0-6		6-0-6
—	—	General elective			3-0-3
—	—	Minor	6-0-6		3-0-3
			17		15

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

²See footnote 2, p. 59.

³Women take Phe 130-1; men not taking R.O.T.C. take Phe 101-2.

⁴Non-Catholic students take an elective.

⁵Women take Phe 140; men not taking R.O.T.C. take Phe 201-2.

⁶Non-Catholic students take Phl 404.

PROGRAM—A3: BACHELOR OF ARTS WITH A MAJOR IN ENGLISH

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term</i> ¹	<i>2nd Term</i>	<i>3rd Term</i>
<i>Freshman Year</i>					
ENG ²	101-6	Freshman English	3-0-3	3-0-3	
HST ³	—	History electives	3-0-3	3-0-3	
MIL ⁴	101-2	First Year Basic Course	2-1-1	2-1-1	
PHL	105	Intro. to Philosophy & Logic	3-0-3		
THL ⁵	152	Intro. to Sacred Scripture		3-0-3	
— ⁶	—	Modern Language course	3-0-3	3-0-3	
—	—	Science course	3-3-4	3-3-4	
			17	17	
<i>Sophomore Year</i>					
ENG ⁷	2—	Sophomore electives	3-0-3	3-0-3	
HST ³	—	American History electives	3-0-3	3-0-3	
MIL ⁸	201-2	Second Year Basic Course	2-1-1	2-1-1	
PHL	207	Philosophical Psychology	3-0-3		
PSY	201	Introductory Psychology	3-0-3		
SPE	101	Fundamentals of Effective Speaking		3-0-3	
THL ⁵	220	Theology of Christ		3-0-3	
—	—	Modern Language elective	3-0-3	3-0-3	
			16	16	
<i>Junior Year</i>					
ENG ⁹	—	Author course	3-0-3		
ENG ¹⁰	—	Advanced course	3-0-3		
ENG ¹¹	—	Early period survey		3-0-3	
ENG ¹²	—	Later period survey		3-0-3	
SOC	201	General Sociology	3-0-3		
PHL	306	Epistemology	3-0-3		
PHL	402	General Metaphysics		3-0-3	
THL ⁵	—	Theology elective	2-0-2	1-0-1	
—	—	General elective		3-0-3	
—	—	Minor	3-0-3	3-0-3	
			17	16	
<i>Senior Year</i>					
ENG ¹³	490	Seminar		3-0-3	
ENG ¹⁴	—	Advanced American literature	3-0-3		
ENG	—	English elective		3-0-3	
ENG ¹⁵	—	Shakespeare	3-0-3		
PHL	303	Cosmology		3-0-3	
PHL	403	Natural Theology	3-0-3		
THL ¹³	—	Theology elective	2-0-2	1-0-1	
—	—	General elective	3-0-3		
—	—	Minor	3-0-3	3-0-3	
			17	13	

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

²Freshmen who complete Eng 103 with a grade of C or better take a 200 level course in the second term.

³Freshmen elect 6 hrs. from Hst 120, 125, 130, 135. Sophomores elect 6 hrs. from Hst 260, 265, 270, 275.

⁴Women take EdP 130W-1W; men not taking R.O.T.C. take EdP 101-2.

⁵Non-Catholic students take an elective.

⁶French or German preferred.

⁷Sophomores elect 6 hrs. from Eng 201, 202, 203, 204 and 205.

⁸Women take EdP 140W; men not taking R.O.T.C. take EdP 201-2.

⁹Eng 405 or 431.

¹⁰Eng 316, 318, 428.

¹¹Eng 412, 413, 420, 434, 435.

¹²Eng 438, 441, 442.

¹³Except for Eng 490, the required courses in English could be taken in any term of the junior and senior year.

¹⁴Eng 450, 452, 454, 456.

¹⁵Eng 362, 423, 424, 425.

¹⁶Non-Catholic students take Phl 404.

PROGRAM—A4: BACHELOR OF ARTS WITH A MAJOR IN FINE ARTS

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term</i> ¹	<i>2nd Term</i>	<i>3rd Term</i>
<i>Freshman Year</i>					
ART	101-2	Introductory Drawing	2-0-2	2-0-2	
ART	103-4	Introductory Painting	2-0-2	2-0-2	
ENG	101-6	Freshman English	3-0-3	3-0-3	
PHL	105	Intro. to Philosophy & Logic	3-0-3		
HST ⁴	—	History electives	3-0-3	3-0-3	
MIL ²	101-2	First Year Basic Course	2-1-1	2-1-1	
THL ³	152	Intro. to Sacred Scriptures		3-0-3	
—	—	Foreign Language	3-0-3	3-0-3	
			17	17	
<i>Sophomore Year</i>					
ART	201-2	Principles of Design	2-0-2	2-0-2	
ART	204-6	Lettering & Calligraphy	2-0-2	2-0-2	
HST ⁵	—	History electives	3-0-3	3-0-3	
ENG	—	Sophomore English	3-0-3	3-0-3	
PHL	207	Philosophical Psychology	3-0-3		
THL ³	220	Theology of Christ		3-0-3	
MIL ⁶	201-2	Second Year Basic Course	2-1-1	2-1-1	
—	—	Foreign Language	3-0-3	3-0-3	
			17	17	
<i>Junior Year</i>					
ART ⁷	—	Advanced Art Courses	6-0-6	6-0-6	
PHL	306	Epistemology	3-0-3		
PHL	402	Metaphysics		3-0-3	
SPE	101	Fundamentals of Effective Speaking	3-0-3		
—	—	Science Course	3-3-4	3-3-4	
—	—	Elective		3-0-3	
			16	16	
<i>Senior Year</i>					
ART	—	Advanced Art Courses	6-0-6	6-0-6	
PHL	303	Cosmology	3-0-3		
PHL	403	Natural Theology		3-0-3	
THL ⁸	—	Theology elective	4-0-4	2-0-2	
PSY	201	Introductory Psychology		3-0-3	
—	—	Electives	3-0-3	3-0-3	
			16	17	

¹Under "Term," 3-0-3 means 3 hrs. class, 0 hrs. laboratory, and 3 hrs. credit.²Women students take EdP 130-1; men taking R.O.T.C. take EdP 101-2.³Non-Catholic students take an elective.⁴Choose from: Hst 120, 125, 130 and 135.⁵Choose from: Hst 260, 265, 270 and 275.⁶Women students take Phe 140; men not taking R.O.T.C. take Phe 201-2.⁷Advanced courses: Life Drawing (4½ hrs.), Commercial Art (6 hrs.), Crafts (4½ hrs.), Sculpture (3 hrs.), Painting (3 hrs.), electives (3 hrs.).⁸Non-Catholic students take Phl 404 and an elective in place of these 6 hrs.

PROGRAM—A5: BACHELOR OF FINE ARTS

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term</i> ¹	<i>2nd Term</i>	<i>3rd Term</i>
<i>Freshman Year</i>					
ART	101-2	Introductory Drawing	2-0-2	2-0-2	
ART	201-2	Principles of Design	2-0-2	2-0-2	
ART	103-4	Introductory Painting	2-0-2	2-0-2	
ART	204-6	Lettering & Calligraphy	2-0-2	2-0-2	
ENG	101-6	Freshman English	3-0-3	3-0-3	
MIL ⁸	101-2	First Year Basic Course	2-1-1	2-1-1	
PHL	105	Intro. to Philosophy & Logic	3-0-3		
THL ²	152	Intro. to Sacred Scriptures			3-0-3
HST ³	—	History electives	3-0-3		3-0-3
			17	17	
<i>Sophomore Year</i>					
ART	210-11	Advanced Principles of Design	2-0-2	2-0-2	
ART	213-14	Advanced Drawing	2-0-2	2-0-2	
ART	215-16	Advanced Painting	2-0-2	2-0-2	
ART	224-25	Sculpture	2-0-2	2-0-2	
ART ⁴	—	Art elective	2-0-2		
ENG	—	Sophomore English	3-0-3	3-0-3	
HST ⁵	—	American History elective			3-0-3
PHL	207	Philosophical Psychology	3-0-3		
THL ²	220	Theology of Christ			3-0-3
MIL ⁹	201-2	Second Year Basic Course	2-1-1	2-1-1	
			16	17	
<i>Junior Year</i>					
ART	313-14	Drawing Problems	2-0-2	2-0-2	
ART ⁶	310-11	Advanced Design Problems	4-0-4	4-0-4	
ART	408-9	History of Art	2-0-2	2-0-2	
ART	324-25	Advanced Sculpture	2-0-2	2-0-2	
ART ⁴	—	Art electives	2-0-2	2-0-2	
PHL	306	Epistemology	3-0-3		
THL ⁷	—	Theology elective	2-0-2	2-0-2	
PSY	201	Introductory Psychology			3-0-3
			17	17	
<i>Senior Year</i>					
ART	410	History of Art	2-0-2		
ART ⁴	—	Art electives	12-0-12	14-0-14	
PHL	402	General Metaphysics			3-0-3
SOC	201	General Sociology	3-0-3		
			17	17	

¹Under "Term," 3-0-3 means 3 hrs. class, 0 hrs. laboratory, and 3 hrs. credit.²Non-Catholic students take an elective.³Elect from Hst 120, 125, 130 and 135.⁴Electives must be used toward fulfillment of major requirements within the following principal professional divisions of the department of Fine Arts: drawing, painting, sculpture, and the various areas of design (including advertising design and industrial design).⁵Elect from Hst 260, 265, 270 and 275.⁶Assignments made in consultation with instructor of student's major.⁷Non-Catholic students take Phl 404 and elective.⁸Women students take EdP 130-1; men taking R.O.T.C. take EdP 101-2.⁹Women students take Phe 140; men not taking R.O.T.C. take Phe 201-2.



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

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term¹</i>	<i>2nd Term</i>	<i>3rd Term</i>
<i>Freshman and Sophomore Years</i>					
Follow general requirements (p. 59)					
<i>Junior Year</i>					
HST	—	History electives	6-0-6	6-0-6	
PHL	306	Epistemology	3-0-3		
PHL	402	General Metaphysics		3-0-3	
THL ²	—	Theology elective	4-0-4		
—	—	General elective		3-0-3	
—	—	Minor	<u>3-0-3</u>	<u>3-0-3</u>	
			16	15	
<i>Senior Year</i>					
HST ³	401	Pro-Seminar in History	3-0-2		
HST	—	History electives	6-0-6	6-0-6	
PHL	303	Cosmology		3-0-3	
PHL	403	Natural Theology	3-0-3		
THL ⁴	—	Theology elective	2-0-2		
—	—	General elective		3-0-3	
—	—	Minor	<u>3-0-3</u>	<u>3-0-3</u>	
			16	15	

¹Under "Term," 3-0-3 means 3 hrs. class, 0 hrs. laboratory, and 3 hrs. credit.²Non-Catholic students take an elective.³May be taken in either the first or second term.⁴Non-Catholic students take Phl 404.

PROGRAM—A7: BACHELOR OF ARTS WITH A MAJOR IN LANGUAGE

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term</i> ¹	<i>2nd Term</i>	<i>3rd Term</i>
<i>Freshman and Sophomore Years</i>					
Follow general requirements (p. 59)					
<i>Junior Year</i> ²					
PHL	306	Epistemology	3-0-3		
PHL	402	General Metaphysics		3-0-3	
THL ³	—	Theology elective	4-0-4		
—	—	General elective		3-0-3	
—	—	Language courses	6-0-6	6-0-6	
—	—	Minor	<u>3-0-3</u>	<u>3-0-3</u>	
			16	15	
<i>Senior Year</i> ⁴					
PHL	303	Cosmology		3-0-3	
PHL	403	Natural Theology	3-0-3		
THL ⁵	—	Theology elective	2-0-2		
—	—	General elective		3-0-3	
—	—	Language courses	6-0-6	6-0-6	
—	—	Minor	<u>3-0-3</u>	<u>3-0-3</u>	
			14	15	

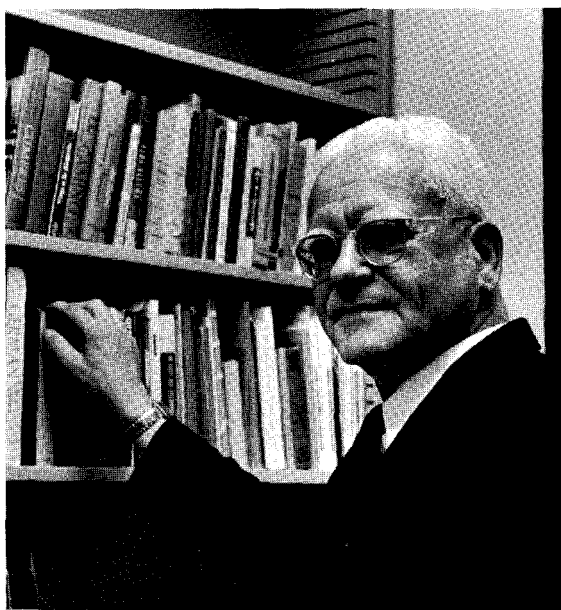
¹Under "Term," 3-0-3 means 3 hrs. class, 0 hrs. laboratory, and 3 hrs. credit.

²Students 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.

³Non-Catholic students take an elective.

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 at least two terms.

⁵Non-Catholic students take Phl 404.



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

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term</i> ¹	<i>2nd Term</i>	<i>3rd Term</i>
<i>Freshman Year</i>					
CPS	241	Algol Programming	2-0-2		
ENG	101-6	Freshman English	3-0-3	3-0-3	
HST ²	—	History electives	3-0-3	3-0-3	
MIL ³	101-2	First Year Basic Course	2-1-1	2-1-1	
MTH	216-7	Analytic Geometry and Calculus	4-0-4	4-0-4	
PHL	105	Intro. to Philosophy & Logic			3-0-3
THL ⁴	152	Intro. to Sacred Scripture		3-0-3	
—	—	Modern Language course	3-0-3	3-0-3	
			16	17	3
<i>Sophomore Year</i>					
ENG	221-2	English and American Literature	3-0-3	3-0-3	
HST ²	—	American History elective			3-0-3
MIL ⁵	201-2	Second Year Basic Course	2-1-1	2-1-1	
MTH	218	Analytic Geometry and Calculus	4-0-4		
MTH	301	Differential Equations		3-0-3	
PHL	207	Philosophical Psychology	3-0-3		
PSY	201	Introductory Psychology			3-0-3
SOC	201	General Sociology		3-0-3	
SPE	101	Fundamentals of Effective Speaking	3-0-3		
THL ⁴	220	Theology of Christ		3-0-3	
—	—	Modern Language course	3-0-3	3-0-3	
			17	16	6
<i>Junior Year</i>					
HST ²	—	American History elective	3-0-3		
MTH	361	Introduction to Abstract Algebra	3-0-3		
MTH	362	Introduction to Linear Algebra and Matrices		3-0-3	
MTH	411-2	Probability and Statistics	3-0-3	3-0-3	
PHL	306	Epistemology	3-0-3		
PHL	402	General Metaphysics		3-0-3	
THL ⁴	—	Theology elective		2-0-2	
—	—	Minor	3-0-3	3-0-3	
			15	14	
<i>Senior Year</i>					
MTH	—	Mathematics elective		3-0-3	
MTH	413	Probability and Statistics	3-0-3		
MTH	421-2	Advanced Calculus	3-0-3	3-0-3	
PHL	303	Cosmology	3-0-3		
PHL	403	Natural Theology		3-0-3	
THL ⁶	—	Theology elective	2-0-2	2-0-2	
—	—	Minor	3-0-3	3-0-3	
			14	14	

¹Under "Term," 3-0-3 means 3 hrs. class, 0 hrs. laboratory, and 3 hrs. credit.²See footnote 2, p. 59.³Women take EdP 110-1; men not taking R.O.T.C. take EdP 101-2.⁴Non-Catholic students take an elective.⁵Women take EdP 112-3; men not taking R.O.T.C. take EdP 201-2.⁶Non-Catholic students take Phl 404.

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

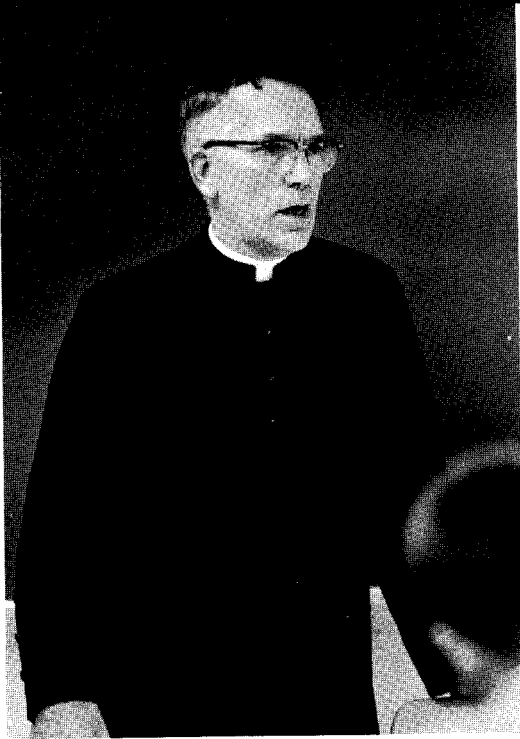
<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term</i> ¹	<i>2nd Term</i>	<i>3rd Term</i>
<i>Freshman Year</i>					
ENG	101-6	Freshman English	3-0-3	3-0-3	
MIL ²	101-2	First Year Basic Course	2-1-1	2-1-1	
MUS	151-2	First Year Theory	5-0-4	5-0-4	
MUS ³	—	Applied Music	2-0-2	2-0-2	
PHL	105	Introduction to Philosophy & Logic	3-0-3		
THL ⁴	152	Introduction to Sacred Scripture			3-0-3
—	—	Science Course	3-3-4	3-3-4	
			17	17	
<i>Sophomore Year</i>					
ENG	221	English Literature	3-0-3		
MIL ⁵	201-2	Second Year Basic Course	2-1-1	2-1-1	
MUS	105	Music Appreciation		2-0-2	
MUS	251	Second Year Theory	5-0-4		
MUS	262	Musical Form		3-0-2	
PHL	207	Philosophical Psychology	3-0-3		
THL ⁴	220	Theology of Christ			3-0-3
SPE	101	Fundamentals of Effective Speaking			3-0-3
HST ⁶	—	History Electives	3-0-3	3-0-3	
—	—	Modern Language Course	3-0-3	3-0-3	
			17	17	
<i>Junior Year</i>					
HST ⁶	—	American History Electives	3-0-3	3-0-3	
MUS	301-2	History of Music	3-0-3	3-0-3	
MUS ³	—	Applied music	2-0-2	2-0-2	
PHL	306	Epistemology	3-0-3		
PHL	402	General Metaphysics			3-0-3
PSY	201	Introductory Psychology			3-0-3
THL ⁴	—	Theology Elective	3-0-3		
—	—	Minor	3-0-3	3-0-3	
			17	17	
<i>Senior Year</i>					
MUS ⁷	—	Music Electives	5-0-5	5-0-5	
PHL	303	Cosmology		3-0-3	
PHL	403	Natural Theology	3-0-3		
THL ⁸	—	Theology Elective	3-0-3		
—	—	General Electives	3-0-3	6-0-6	
—	—	Minor	3-0-3	3-0-3	
			17	17	
Ensembles (ref. p. 236)			4 credits		

¹Under "Term," 3-0-3 means 3 hrs. class, 0 hrs. laboratory, and 3 hrs. credit.²Women take EdP 110-1; men not taking R.O.T.C. take EdP 101-2.³Piano, voice, organ, band or orchestra instrument.⁴Non-Catholic students take an elective.⁵Women take EdP 112-3; men not taking R.O.T.C. take EdP 201-2.⁶See footnote 2, p. 59.⁷Select from: Mus 322, 341, 303, 315, 300-400 course in theory or composition, or applied music.⁸Non-Catholic students take Phl 404.

PROGRAM—A10: BACHELOR OF MUSIC

Dept.	No.	Course	1st Term ¹	2nd Term	3rd Term
<i>Freshman Year</i>					
ENG	101-6	Freshman English	3-0-3	3-0-3	
MIL ²	101-2	First Year Basic Course	2-1-1	2-1-1	
MUS	105	Music Appreciation		2-0-2	
MUS	151-2	First Year Theory	5-0-4	5-0-4	
MUS ³	—	Applied music	2-0-2	2-0-2	2-0-2
PHL	105	Intro. to Philosophy & Logic	3-0-3		
THL ⁴	152	Intro. to Sacred Scripture		3-0-3	
—	—	Social studies course	3-0-3		
			16	15	2
<i>Sophomore Year</i>					
ENG	221	English Literature	3-0-3		
MIL ⁵	201-2	Second Year Basic Course	2-1-1	2-1-1	
MUS	251	Second Year Theory	5-0-4		
MUS	262	Musical Form		3-0-2	
MUS	272	Keyboard Harmony		2-0-2	
MUS ³	—	Applied music	2-0-2	2-0-2	2-0-2
PHL	207	Philosophical Psychology	3-0-3		
THL ⁴	220	Theology of Christ		3-0-3	
—	—	General electives	4-0-4	4-0-4	
—	—	Social studies course		3-0-3	
			17	17	2
<i>Junior Year</i>					
MUS	301-2	History of Music	3-0-3	3-0-3	
MUS	341	Conducting	3-0-3		
MUS ³	—	Applied music	2-0-2	2-0-2	2-0-2
MUS	—	Music theory electives	2-0-2	2-0-2	
PHL	306	Epistemology	3-0-3		
PHL	402	General Metaphysics		3-0-3	
PSY	201	Introductory Psychology		3-0-3	
SPE	101	Fundamentals of Effective Speaking	3-0-3		
— ⁶	—	General electives		4-0-4	
			16	17	2
<i>Senior Year</i>					
MUS ⁶	—	Music electives	14-0-14	14-0-14	
THL ⁷	—	Theology elective	2-0-2		
THL ⁸	—	Theology elective		2-0-2	2-0-2
			16	16	2
Ensembles (ref. p. 236)			4-6 credits		

¹Under "Term," 3-0-3 means 3 hrs. class, 0 hrs. laboratory, and 3 hrs. credit.²Women take EdP 110-1; men not taking R.O.T.C. take EdP 101-2.³Students majoring in theory, violin, voice, or orchestra or band instrument will be required to use piano or organ as a minor or demonstrate ability to play the piano at a level satisfactory to the department. Applied music majors will need to take a minimum of 4 credit hours in their major during 3rd terms. Voice majors may be required to take modern languages.⁴Non-Catholic students take an elective.⁵Women take EdP 112-3; men not taking R.O.T.C. take EdP 201-2.⁶Electives must be used toward fulfillment of major and minor requirements in music. Additional hours for remaining electives may be taken in applied music or theory courses, or Mus 303, 315, 322, 325, 326, 327, 328, 335-6, 421, 422, 451-2.⁷Non-Catholic students take Phl 403.⁸Non-Catholic students take Phl 404.



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

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term¹</i>	<i>2nd Term</i>	<i>3rd Term</i>
<i>Freshman and Sophomore Years</i>					
Follow general requirements (p. 59)					
<i>Junior Year</i>					
PHL	303	Cosmology	3-0-3		
PHL	306	Epistemology	3-0-3		
PHL	402	General Metaphysics		3-0-3	
PHL	404	Ethics		3-0-3	
THL	—	Theology elective	2-0-2	2-0-2	
—	—	Elective ²	3-0-3		
—	—	First Minor	3-0-3	3-0-3	
—	—	Second Minor	3-0-3	3-0-3	
			17	14	
<i>Senior Year</i>					
PHL	403	Natural Theology	3-0-3		
PHL	406	History of Greek Philosophy		3-0-3	
PHL	434	St. Thomas Aquinas	3-0-3		
THL	—	Theology elective		2-0-2	
PHL ²	—	Philosophy elective		3-0-3	
—	—	First Minor	3-0-3	3-0-3	
—	—	Second Minor	3-0-3	3-0-3	
—	—	Elective	3-0-3		
			15	14	

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

²Generally selected from 300-400 courses.

PROGRAM—A12: BACHELOR OF ARTS WITH A MAJOR IN
POLITICAL SCIENCE

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term</i> ¹	<i>2nd Term</i>	<i>3rd Term</i>
<i>Freshman Year</i>					
ENG	101	Language and Thought	3-0-3		
ENG	106	Language and Literature		3-0-3	
HST	—	Choose one option each term	3-0-3	3-0-3	
MIL ²	—	First Year Basic Course	2-1-1	2-1-1	
PHL	105	Introduction to Philosophy & Logic		3-0-3	
THL ³	152	Introduction to Sacred Scripture	3-0-3		
—	—	Foreign language	3-0-3	3-0-3	
—	—	Laboratory Science	3-2-4	3-2-4	
			17	17	
<i>Sophomore Year</i>					
ENG	—	Sophomore English	3-0-3	3-0-3	
HST	—	Choose one option each term	3-0-3	3-0-3	
MIL ⁴	201-2	Second Year Basic Course	2-1-1	2-1-1	
PHL	207	Philosophical Psychology		3-0-3	
POL	201	American Government—National		3-0-3	
THL ³	220	Theology of Christ	3-0-3		
POL	101	Introduction to Political Science	3-0-3		
—	—	Foreign language	3-0-3	3-0-3	
			16	16	
<i>Junior Year</i>					
SPE	101	Fundamentals of Effective Speaking		3-0-3	
PHL	306	Epistemology	3-0-3		
PHL	402	General Metaphysics		3-0-3	
POL	—	Political Science courses	6-0-6	6-0-6	
PSY	201	Introduction to Psychology	3-0-3		
THL ³	—	Theology courses	2-0-2	2-0-2	
—	—	Minor	3-0-3	3-0-3	
			17	17	
<i>Senior Year</i>					
PHL	403	Natural Theology	3-0-3		
PHL	303	Cosmology		3-0-3	
POL	—	Political Science courses	6-0-6	6-0-6	
THL ⁵	—	Theology course	2-0-2		
—	—	Minor	3-0-3	3-0-3	
—	—	General elective		3-0-3	
			14	15	

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

²Women take EdP 130W-1W; men not taking R.O.T.C. take EdP 101-2.

³Students who are not Catholic take an elective.

⁴Women take EdP 140W; men not taking R.O.T.C. take EdP 201-2.

⁵Students who are not Catholic take Phl 404.

PROGRAM—A13: BACHELOR OF SOCIAL SCIENCE WITH SPECIALIZATION IN POLICE ADMINISTRATION

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term</i> ¹	<i>2nd Term</i>	<i>3rd Term</i>
<i>Freshman Year</i>					
ENG	101-6	English	3-0-3		3-0-3
THL ²	152	Introduction to Sacred Scripture	3-0-3		
MIL ³	101-2	First Year Basic Course	2-1-1	2-1-1	
HST	—	Choose one freshman option	3-0-3		
SOC	201	Introduction to Sociology	3-0-3		
POL	101	Introduction to Political Science			3-0-3
PAD	200	Introduction to Police Administration		2-0-2	
SPE	101	Fundamentals of Effective Speaking	3-0-3		
PHL	105	Introduction to Philosophy & Logic			3-0-3
PSY	201	Introduction to Psychology			3-0-3
			16	15	
<i>Sophomore Year</i>					
THL ²	220	Theology of Christ	3-0-3		
MIL ⁴	201-2	Second Year Basic Course	2-1-1	2-1-1	
HST	—	Choose one sophomore option	3-0-3		
POL	201	American Government—National	3-0-3		
POL	302	Ohio Government		3-0-3	
PHL	207	Philosophical Psychology		3-0-3	
SOC	202	Social Problems		3-0-3	
PAD	—	Police Administration electives	2-0-2	2-0-2	
—	—	Laboratory science course	3-2-4	3-2-4	
			16	16	
<i>Junior Year</i>					
THL ²	—	Advanced theology elective			2-0-2
ECO	201-2	Principles of Economics	3-0-3	3-0-3	
PAD	—	Police Administration electives	2-0-2	2-0-2	
PHL	306	Epistemology			3-0-3
PSY	—	Psychology elective	3-0-3		
PAD	313	Criminal Law	2-0-2		
SOC	313	Juvenile Delinquency	3-0-3		
SOC	307	Criminology and Penology			3-0-3
—	—	General elective	3-0-3		
SOC	—	Sociology elective			3-0-3
			16	16	
<i>Senior Year</i>					
PHL	404	Ethics			3-0-3
THL ²	—	Advanced theology electives	2-0-2	2-0-2	
PAD	—	Police Administration electives	2-0-2	2-0-2	
PSY	—	Psychology electives	3-0-3	3-0-3	
POL	—	Political Science electives	3-0-3	3-0-3	
SOC	—	Sociology elective			3-0-3
—	—	General electives	6-0-6		
			16	16	

¹Under "Term," 3-0-3 means 3 hrs. class, 0 hrs. laboratory, and 3 hrs. credit.²Students who are not Catholic take an elective.³Women take EdP 130W-1W; men not taking R.O.T.C. take EdP 101-2; police officers substitute Pad 101.⁴Women take EdP 140W; men not taking R.O.T.C. take EdP 201-2.

PROPOSED BACHELOR OF ARTS WITH A MAJOR IN PSYCHOLOGY
PROGRAM

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term</i> ¹	<i>2nd Term</i>	<i>3rd Term</i>
<i>Freshman Year</i>					
BIO	101-2	Biology	3-2-4	3-2-4	
ENG	101-6	Freshman English	3-0-3	3-0-3	
HST ²	—	History Elective	3-0-3	3-0-3	
MIL ³	101-2	First Year Basic Course	2-1-1	2-1-1	
PHL	105	Logic	3-0-3		
THL ⁴	152	Intro. to Sacred Scripture		3-0-3	
—	— ⁷	Language Course	3-0-3	3-0-3	
			17	17	
<i>Sophomore Year</i>					
ENG	221	English Literature		3-0-3	
ENG	222	American Literature	3-0-3		
HST ²	—	American History Elective	3-0-3	3-0-3	
MIL ⁵	201-2	Second Year Basic Course	2-1-1	2-1-1	
PHL	207	Philosophical Psychology	3-0-3		
PSY	201	Introductory Psychology	3-0-3		
THL ⁴	220	Theology of Christ		3-0-3	
—	—	Language Course	3-0-3	3-0-3	
PSY	—	Psychology Elective		3-0-3	
			16	16	
<i>Junior Year</i>					
PHL	303	Cosmology		3-0-3	
PHL	306	Epistemology	3-0-3		
PHL	402	General Metaphysics		3-0-3	
—	—	Psychology Elective	3-0-3	3-0-3	
PSY	303	Experimental Design and Inference		2-2-3	
PSY	302	Psychological Statistics	2-2-3		
SPE	101	Fundamentals of Effective Speaking		3-0-3	
THL ⁴	—	Theology Elective	4-0-4		
—	—	Minor	3-0-3		
			16	15	
<i>Senior Year</i>					
PSY	—	Psychology Elective	3-0-3	6-0-6	
PHL	403	Natural Theology	3-0-3		
PSY	308	Experimental Psychology	3-2-4		
THL ⁶	—	Theology Elective	2-0-2		
—	—	General Elective		3-0-3	
—	—	Minor	3-0-3	6-0-6	
			15	15	

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

²Freshmen elect 6 hrs. from Hst 120, 130, 135. Sophomores elect 6 hrs. from Hst 260, 265, 270, 275.

³Women take EdP 110-1; men not taking R.O.T.C. take EdP 101-2.

⁴Non-Catholic students take an elective.

⁵Women take EdP 112-3; men not taking R.O.T.C. take EdP 201-2.

⁶Non-Catholic students take Phl 404.

⁷French, German, or Russian preferred.

BACHELOR OF SCIENCE WITH A MAJOR IN PSYCHOLOGY
BIOLOGICAL EMPHASIS

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term</i> ¹	<i>2nd Term</i>	<i>3rd Term</i>
<i>Freshman Year</i>					
BIO	101-2	General Biology	3-3-4	3-3-4	
CHM	123-4	General Chemistry	3-3-4	3-3-4	
ENG	101-6	Freshman English	3-0-3		
MIL ²	101-2	First Year Basic Course	2-1-1	2-1-1	
MTH ³	121	College Algebra	3-0-3		
MTH ⁴	—	Math Elective			3-0-3
PHL	105	Intro. to Philosophy & Logic			3-0-3
THL ⁵	152	Intro. to Sacred Scripture	3-0-3		
			18	18	
<i>Sophomore Year</i>					
BIO	209	Comparative Anatomy	3-6-5		
PSY	201	Intro. Psychology	3-0-3		
CHM	313-4	Organic Chemistry	3-3-4		3-3-4
MIL ⁶	201-2	Second Year Basic Course	2-1-1		2-1-1
PHL	207	Philosophical Psychology			3-0-3
ENG	221	English Literature			3-0-3
PSY	—	Psychology Elective			3-0-3
SPE	101	Fundamentals of Effective Speaking			3-0-3
THL ⁵	220	Theology of Christ	3-0-3		
			16	17	
<i>Junior Year</i>					
BIO	303	Physiology			3-3-4
PHY	201-2	General Physics	3-2-4		3-2-4
PHL	306	Epistemology			3-0-3
THL ⁷	—	Theology Elective	4-0-4		
PSY	—	Psychology Elective	3-0-3		
— ⁸	—	Modern Language Course	3-0-3		3-0-3
PSY	302	Psychological Statistics	2-2-3		
PSY	303	Experimental Design and Inference			2-2-3
			17	17	
<i>Senior Year</i>					
PSY	308	Experimental Psychology	3-2-4		
— ¹⁰	—	General Elective	3-0-3		3-0-3
THL ⁸	—	Theology Elective	2-0-2		2-0-2
PSY	—	Psychology Elective	6-0-6		9-0-9
PHL	402	General Metaphysics			3-0-3
			15	17	

¹Under "Term," 3-0-3 means 3 hrs. class, 0 hrs. laboratory, 3 hrs. credit.²Women take EdP 110-1; men not taking R.O.T.C. take EdP 101-2.³May substitute Mth 117.⁴Mth 122, 210, or 216.⁵Non-Catholic students take an elective.⁶Women take EdP 112-3; men not taking R.O.T.C. take EdP 201-2.⁷Non-Catholic students take Phl 404.⁸Non-Catholic students take Phl 403.⁹French, German, or Russian preferred.¹⁰Certain science courses may be taken with the approval of department chairman.

BACHELOR OF SCIENCE WITH A MAJOR IN PSYCHOLOGY AND SPECIAL
EMPHASIS ON INFORMATION SCIENCE

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term¹</i>	<i>2nd Term</i>	<i>3rd Term</i>
<i>Freshman Year</i>					
BIO	101-2	General Biology	3-3-4	3-3-4	
CPS	233	Fortran Programming		2-0-2	
ENG	101-6	Freshman English	3-0-3	3-0-3	
MIL ²	101-2	First Year Basic Course	2-1-1	2-1-1	
MTH	216-7	Analytic Geometry and Calculus	4-0-4	4-0-4	
CHM	110	General Chemistry		3-2-4	
THL ³	152	Intro. to Sacred Scripture	3-0-3		
			15	18	
<i>Sophomore Year</i>					
PSY	201	Introductory Psychology	3-0-3		
—	— ⁷	Modern Language	3-0-3	3-0-3	
MIL ⁴	201-2	Second Year Basic Course	2-1-1	2-1-1	
MTH	218	Analytic Geometry and Calculus	4-0-4		
MTH	301	Differential Equations		3-0-3	
PHL	105	Logic	3-0-3		
PHL	207	Philosophical Psychology		3-0-3	
PHY	206-7	General Physics	3-2-4	3-2-4	
THL ³	220	Theology of Christ		3-0-3	
			18	17	
<i>Junior Year</i>					
PSY	302	Psychological Statistics	2-2-3		
PSY	303	Experimental Design and Inference		2-2-3	
PHL	306	Epistemology	3-0-3		
PHL	402	General Metaphysics		3-0-3	
SPE	101	Fundamentals of Effective Speaking	3-0-3		
PSY	—	Psychology Elective	6-0-6	9-0-9	
			15	15	
<i>Senior Year</i>					
PSY	—	Psychology Elective	6-0-6	9-0-9	
PSY	308	Experimental Psychology	3-2-4		
— ⁸	—	General Elective	3-0-3	3-0-3	
— ⁵	—	Theology Elective	4-0-4		
THL ⁶	—	Theology Elective		2-0-2	
			17	14	

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

²Women take EdP 110-1; men not taking R.O.T.C. take EdP 101-2.

³Non-Catholic students take an elective.

⁴Women take EdP 112-3; men not taking R.O.T.C. take EdP 201-2.

⁵Non-Catholic students take Phl 404.

⁶Non-Catholic students take Phl 403.

⁷French, German, or Russian preferred.

⁸Certain science courses may be taken with the approval of the department chairman.

PROGRAM—A15: BACHELOR OF ARTS WITH A MAJOR IN SOCIOLOGY,
SOCIAL WORK OR ANTHROPOLOGY

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term</i> ¹	<i>2nd Term</i>	<i>3rd Term</i>
<i>Freshman Year</i>					
ENG	101-6	Freshman English	3-0-3	3-0-3	
HST ²	—	History electives	3-0-3	3-0-3	
MIL ³	101-2	First Year Basic Course	2-1-1	2-1-1	
PHL	105	Introduction to Philosophy & Logic	3-0-3		
THL ⁵	152	Introduction to Sacred Scripture		3-0-3	
—	—	Modern Language Course	3-0-3	3-0-3	
—	—	Science Course	3-2-4	3-2-4	
			17	17	
<i>Sophomore Year</i>					
ENG	221-2	English and American Literature	3-0-3	3-0-3	
HST ²	—	American History electives	3-0-3	3-0-3	
MIL ⁴	201-2	Second Year Basic Course	2-1-1	2-1-1	
PHL	207	Philosophical Psychology	3-0-3		
PSY	201	Introductory Psychology		3-0-3	
Soc	203	Introduction to Sociology	3-0-3		
THL ⁵	220	Theology of Christ		3-0-3	
THL ⁵	—	Theology elective	2-0-2		
—	—	Modern Language Course	3-0-3	3-0-3	
			18	16	
<i>Junior Year—Sociology Majors</i>					
PHL	306	Epistemology	3-0-3		
PHL	402	General Metaphysics		3-0-3	
Soc	402	Methods in Social Research		3-0-3	
Soc	420	Classical Sociological Theory	3-0-3		
Soc	422	Contemporary Sociological Theory		3-0-3	
Soc ⁷	—	Sociology electives	3-0-3	3-0-3	
SPE	101	Fundamentals of Effective Speaking	3-0-3		
THL ⁵	—	Theology electives	2-0-2	2-0-2	
—	—	Minor	3-0-3	3-0-3	
			17	17	
<i>Junior Year—Social Work Majors</i>					
PHL	306	Epistemology	3-0-3		
PHL	402	General Metaphysics		3-0-3	
Soc	305	Introduction to Social Work	3-0-3		
Soc	306	Casework	3-0-3		
Soc	418	Community Organization		3-0-3	
Soc	424	Group Work		3-0-3	
SPE	101	Fundamentals of Effective Speaking	3-0-3		
THL ⁵	—	Theology electives	2-0-2	2-0-2	
—	—	General elective		3-0-3	
—	—	Minor	3-0-3	3-0-3	
			17	17	

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term</i> ¹	<i>2nd Term</i>	<i>3rd Term</i>
<i>Junior Year—Anthropology Majors</i>					
PHL	306	Epistemology	3-0-3		
PHL	402	General Metaphysics		3-0-3	
SOC	320	Introduction to Anthropology	3-0-3		
SOC	402	Methods in Social Research		3-0-3	
SOC	403	Primitive Religion		3-0-3	
SOC ⁷	—	Sociology elective	3-0-3		
SPE	101	Fundamentals of Effective Speaking	3-0-3		
THL ⁰	—	Theology electives	2-0-2	2-0-2	
—	—	General elective		3-0-3	
—	—	Minor	3-0-3	3-0-3	
			<u>17</u>	<u>17</u>	
<i>Senior Year—Sociology Majors</i>					
PHL	303	Cosmology		3-0-3	
PHL	403	Natural Theology	3-0-3		
SOC	415	Senior Seminar in Sociology	3-0-3		
SOC ⁷	—	Sociology electives	3-0-3	6-0-6	
—	—	General electives	3-0-3	6-0-6	
—	—	Minor	3-0-3	3-0-3	
			<u>15</u>	<u>18</u>	
<i>Senior Year—Social Work Majors</i>					
PHL	303	Cosmology		3-0-3	
PHL	403	Natural Theology	3-0-3		
SOC	402	Methods in Social Research		3-0-3	
SOC	432	Social Work Field Experience	3-0-3		
SOC ⁷	—	Sociology electives	3-0-3	6-0-6	
—	—	General electives	3-0-3	3-0-3	
—	—	Minor	3-0-3	3-0-3	
			<u>15</u>	<u>18</u>	
<i>Senior Year—Anthropology Majors</i>					
PHL	303	Cosmology		3-0-3	
PHL	403	Natural Theology	3-0-3		
SOC	322	Culture and Personality	3-0-3		
SOC	408	Peoples of the World		3-0-3	
SOC ⁷	—	Sociology electives	6-0-6	3-0-3	
—	—	General electives	3-0-3	3-0-3	
—	—	Minor	3-0-3	3-0-3	
			<u>18</u>	<u>15</u>	

¹Under "Term," 3-0-3 means 3 hrs. class, 0 hrs. laboratory, and 3 hrs. credit.²See footnote 2, p. 59.³Women take EdP 110-1; men not taking R.O.T.C. take EdP 101-2.⁴Women take EdP 112-3; men not taking R.O.T.C. take EdP 201-2.⁵Non-Catholic students taken an elective.⁶Non-Catholic students take an elective the first term and Phl 404 the second term.⁷Sociology electives: Soc 203, 204, 301, 303, 307, 313, 315, 318, 325, 328, 406, 412, 426, 435W, and 439.

PROGRAM—A16: BACHELOR OF ARTS WITH A MAJOR IN
THEOLOGICAL STUDIES

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term</i> ¹	<i>2nd Term</i>	<i>3rd Term</i>
<i>Freshman Year</i>					
ENG	101-6	Freshman English	3-0-3	3-0-3	
HST ²	—	History electives	3-0-3	3-0-3	
MIL ³	101-2	First Year Basic Course	2-1-1	2-1-1	
PHL	105	Intro. to Philosophy & Logic	3-0-3		
THL	152	Intro. to Sacred Scripture		3-0-3	
—	—	Foreign language course	3-0-3	3-0-3	
—	—	Science course	3-2-4	3-2-4	
			17	17	
<i>Sophomore Year</i>					
ENG	—	Sophomore English	3-0-3	3-0-3	
HST ²	—	American History electives	3-0-3	3-0-3	
MIL ⁴	201-2	Second Year Basic Course	2-1-1	2-1-1	
PHL	207	Philosophical Psychology	3-0-3		
PSY	201	Introductory Psychology		3-0-3	
SPE	101	Fundamentals of Effective Speaking	3-0-3		
THL	220	Theology of Christ		3-0-3	
—	—	Foreign language course	3-0-3	3-0-3	
			16	16	
<i>Junior Year</i>					
PHL	306	Epistemology	3-0-3		
PHL	402	General Metaphysics		3-0-3	
SOC	201	General Sociology	3-0-3		
THL ⁵	—	Theology electives	6-0-6	6-0-6	
—	—	General elective		3-0-3	
—	—	Minor	3-0-3	3-0-3	
			15	15	
<i>Senior Year</i>					
PHL	303	Cosmology		3-0-3	
PHL	403	Natural Theology	3-0-3		
THL	481	Modern Catholic Thought		2-0-2	
THL ⁵	—	Theology electives	6-0-6	4-0-4	
—	—	General electives	3-0-3	3-0-3	
—	—	Minor	3-0-3	3-0-3	
			15	15	

¹Under "Term," 3-0-3 means 3 hrs. class, 0 hrs. laboratory, and 3 hrs. credit.²See footnote 2, p. 59.³Women take EdP 110-1; men not taking R.O.T.C. take EdP 101-2.⁴Women take EdP 112-3; men not taking R.O.T.C. take EdP 201-2.⁵Recommended distribution:

3-9 crs 1. Thl 311-312; Pol 471; Judaics.

4-8 crs 2. Thl 352, 353, 354, 452, 453, 454, 459.

4-8 crs 3. Thl 360, 361, 362, 365, 380, 400, 460, 474, 476, 478.

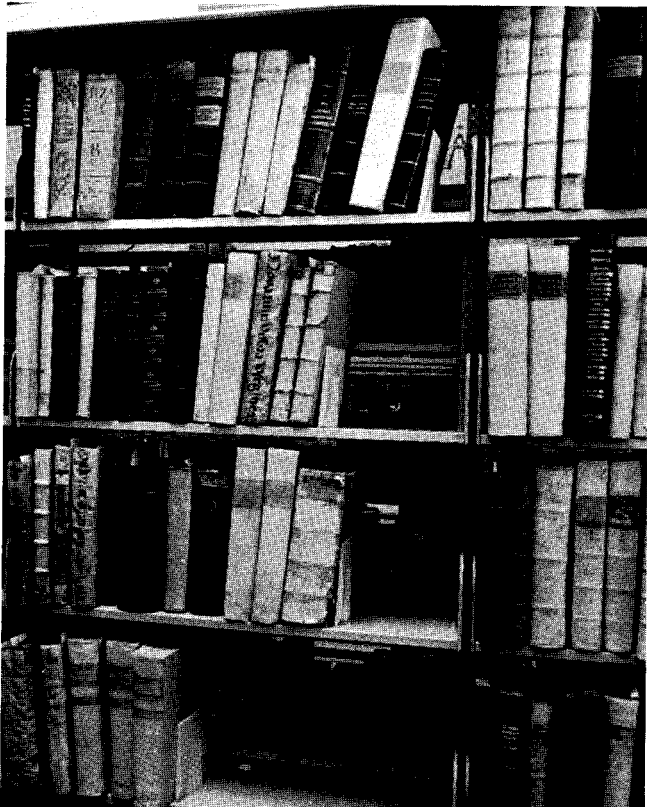
6-8 crs 4. Thl 226, 332, 402, 415, 425, 430, 435, 440, 441.

2-4 crs 5. Thl 404, 481.

0-6 crs 6. Thl 395H, 495H.

PROGRAM—A17: BACHELOR OF ARTS (Carthage)¹

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term</i> ²	<i>2nd Term</i>	<i>3rd Term</i>
<i>Freshman Year</i>					
ENG	21	Introduction to Literary Studies	3-0-3		
ENG	22	The English Language		3-0-3	
GRK	1-2	Elements of the New Testament	3-0-3	3-0-3	
HUM ³	25	Music Art Forms		4-0-4	
LAT	5	Cicero	3-0-3		
LAT	6	Horace		3-0-3	
LAT	7-8	Latin Composition	1-0-1	1-0-1	
MTH ⁴	11	Fundamentals of Math & Algebra	3-0-3		
MTH ⁵	12	Trigonometry & Analytical Geometry		3-0-3	
THL	11	The Sacred Liturgy	3-0-3		
			16	17	
<i>Sophomore Year</i>					
ECO	28	Elements of Economics		3-0-3	
GRK	21	The Greek New Testament	3-0-3		
HUM	23-4	World Literature	2-0-2	2-0-2	
LAT	21	Livy	3-0-3		
LAT	22	Latin Hymns and Ecclesiastical Writers		3-0-3	
LAT	25-6	Latin Composition II	1-0-1	1-0-1	
PHL	12	Logic		3-0-3	
SPE	15	Fundamentals of Speech	2-0-2		
THL	21	Christ in the Scriptures	3-0-3		
—	—	Teaching field electives	3-0-3	6-0-6	
			17	18	



<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term¹</i>	<i>2nd Term</i>	<i>3rd Term</i>
<i>Junior Year</i>					
EDU	208	The Learning Process	3-0-3		
HST	301	Medieval Europe		3-0-3	
HST	313	History of Christian Antiquity	3-0-3		
HST	470	The Catholic Church in the U.S.		2-0-2	
PHL	307	Philosophy of Nature	5-0-5	4-0-4	
PHL	416	History of Ancient Philosophy	2-0-2		
PHL	417	History of Medieval Philosophy		4-0-4	
PHL	433	Introduction to St. Thomas Aquinas		1-0-1	
PSY	204	General Psychology	3-0-3		
SOC	404	Social Institutions		3-0-3	
SPE	303	Advanced Interpretative Reading	2-0-2		
			18	17	
<i>Senior Year</i>					
EDU	412	Measurement in Education	3-0-3		
HST	302	Renaissance & Reformation	3-0-3		
HST	431	Modern Church History		3-0-3	
PHL	418	History of Modern Philosophy	3-0-3		
PHL	419	History of Contemporary Philosophy		3-0-3	
PHL	421-2	Metaphysics I and II	3-0-3	3-0-3	
PHL	423	Metaphysics of Knowledge		3-0-3	
PHL	424	Problems of Metaphysics	3-0-3		
PHL	425	Social Philosophy		3-0-3	
SPE	401	Advanced Public Speaking		2-0-2	
			15	17	

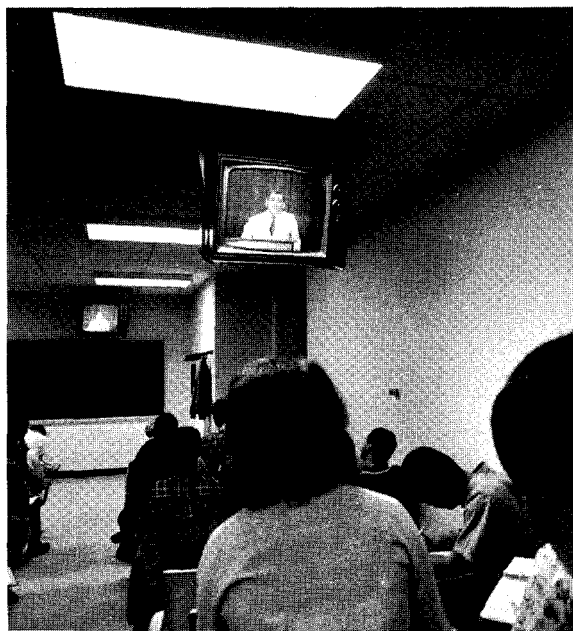
¹The freshman and sophomore years of this program are taken at St. Joseph's College, Indiana; the junior and senior years at St. Charles Seminary, Carthage, Ohio. For a description of these courses, consult the St. Charles Seminary catalog.

²Under "Term," 3-0-3 means 3 hrs. class, 0 hrs. laboratory, and 3 hrs. credit.

³May substitute Hum 27 Art: History and Appreciation.

⁴May substitute Bio 5 Principles of Biology.

⁵May substitute Mth 5 Algebraic Structure and Number System.





PROGRAM—A18: ASSOCIATE IN POLICE ADMINISTRATION

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term</i> ¹	<i>2nd Term</i>	<i>3rd Term</i>
<i>First Year</i>					
ENG	101-6	Freshman English	3-0-3	3-0-3	
POL	101	Introduction to Political Science		3-0-3	
PAD	200	Introduction to Police Administration		2-0-2	
PHL	105	Introduction to Philosophy & Logic		3-0-3	
THL ²	152	Introduction to Sacred Scripture	3-0-3		
SOC	201	Introduction to Sociology	3-0-3		
HST	—	Choose one freshman option	3-0-3		
PSY	201	Introduction to Psychology		3-0-3	
SPE	101	Fundamentals of Effective Speaking	3-0-3		
SOC	202	Social Problems		3-0-3	
			15	17	
<i>Second Year</i>					
THL ²	220	Theology of Christ	3-0-3		
PHL	207	Philosophical Psychology		3-0-3	
HST	—	Choose one sophomore option	3-0-3		
PAD	—	Police Administration electives	2-0-2	4-0-4	
PAD	313	Criminal Law		2-0-2	
—	—	Laboratory science course	3-2-4	3-2-4	
POL	201	American Government—National	3-0-3		
SOC	307	Criminology and Penology		3-0-3	
			15	16	

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

²Students who are not Catholic take electives.

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

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term</i> ¹	<i>2nd Term</i>	<i>3rd Term</i>
<i>Freshman Year</i>					
BIO	101-2	General Biology	3-3-4	3-3-4	
CHM	123-4	General Chemistry	3-3-4	3-3-4	
ENG	101-6	Freshman English	3-0-3	3-0-3	
MIL ²	101-2	First Year Basic Course	2-1-1	2-1-1	
MTH ³	121	College Algebra	3-0-3		
MTH ⁴	—	Math elective		3-0-3	
PHL	105	Intro. to Philosophy & Logic		3-0-3	
THL ⁵	152	Intro. to Sacred Scripture	3-0-3		
			18	18	
<i>Sophomore Year</i>					
BIO ⁶	209	Comparative Anatomy	3-6-5		
BIO ⁷	—	Biology elective		3-3-4	
CHM	313-4	Organic Chemistry	3-3-4	3-3-4	
MIL ⁸	201-2	Second Year Basic Course	2-1-1	2-1-1	
PHL	207	Philosophical Psychology		3-0-3	
ENG	—	Sophomore English		3-0-3	
— ⁹	—	General elective	3-0-3		
SPE	101	Fundamentals of Effective Speaking		3-0-3	
THL ⁵	220	Theology of Christ	3-0-3		
			16	18	
<i>Junior Year</i>					
BIO	303	Physiology		3-3-4	
BIO	312	General Genetics	3-2-4		
PHY	201-2	General Physics	3-2-4	3-2-4	
CHM ¹⁰	—	Chemistry elective	3-3-4		
PHL	306	Epistemology		3-0-3	
THL ¹¹	—	Theology elective	2-0-2		
— ⁹	—	General elective		3-0-3	
—	—	Modern Language Course	3-0-3	3-0-3	
			17	17	
<i>Senior Year</i>					
BIO	420	Seminar		1-0-1	
BIO ⁷	—	Biology electives	6-6-8	3-3-4	
THL ¹²	—	Theology electives	2-0-2	2-0-2	
— ⁹	—	General electives	6-0-6	6-0-6	
PHL	402	General Metaphysics		3-0-3	
			16	16	

¹Under "Term," 3-0-3 means 3 hrs. class, 0 hrs. laboratory, and 3 hrs. credit.²Women take EdP 130-1; men not taking R.O.T.C. take EdP 101-2.³May substitute Mth 117.⁴Mth 122, 210, or 216.⁵Non-Catholic students take an elective.⁶May substitute Bio 220 with the permission of the department chairman. In this case, a general elective may also be taken during the term.⁷Any 300-400 course in biology. With permission of the chairman, certain mathematics, chemistry, or physics courses may be substituted.⁸Women take EdP 112-3; men not taking R.O.T.C. take EdP 201-2.⁹Choose General electives from: Psy, Eco, Hst, Eng, Soc, etc.¹⁰Chm 201, 302, or 420.¹¹Non-Catholic students take Phl 404.¹²Non-Catholic students take Phl 403.

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

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term</i> ¹	<i>2nd Term</i>	<i>3rd Term</i>
<i>Freshman Year</i>					
CHM	123-4	General Chemistry	3-3-4	3-3-4	
ENG	101-6	Freshman English	3-0-3	3-0-3	
MIL ²	101-2	First Year Basic Course	2-1-1	2-1-1	
MTH	117	College Algebra	5-0-3		
MTH	216	Analytical Geometry & Calculus I		4-0-4	
PHL	105	Intro. to Philosophy & Logic	3-0-3		
PHL	207	Philosophical Psychology		3-0-3	
THL ³	152	Intro. to Sacred Scripture	3-0-3		
THL ³	220	Theology of Christ		3-0-3	
			17	18	
<i>Sophomore Year</i>					
CHM	215	Quantitative Analysis	2-6-4		
CHM ⁴	315	Organic Chemistry		3-6-5	
GER ⁵	—	Elementary German	3-0-3	3-0-3	
MIL ⁶	201-2	Second Year Basic Course	2-1-1	2-1-1	
MTH	217-8	Analytical Geometry & Calculus II, III	4-0-4	4-0-4	
PHY	206-7	General Physics	3-2-4	3-2-4	
			16	17	
<i>Junior Year</i>					
CHM	303-4	Physical Chemistry	3-3-4	3-3-4	
CHM	308	Chemical Literature		2-0-2	
CHM ⁴	316	Organic Chemistry	3-6-5		
CHM	405	Qualitative Organic Analysis		1-6-3	
PHL	306	Epistemology	3-0-3		
PHY	208	General Physics	3-2-4		
SPE	101	Fundamentals of Effective Speaking		3-0-3	
THL ⁷	—	Theology elective		2-0-2	
			16	14	
<i>Senior Year</i>					
CHM	415	Analytical Chemistry	2-6-4		
CHM	417	Inorganic Chemistry		3-0-3	
CHM	497	Seminar	1-0-1		
CHM ⁸	—	Chemistry electives	3-0-3	6-0-6	
PHL	402	General Metaphysics		3-0-3	
THL ⁹	—	Theology elective	4-0-4		
—	—	General electives ¹⁰	3-0-3	3-0-3	
			15	15	

¹Under "Term," 3-0-3 means 3 hrs. class, 0 hrs. laboratory, and 3 hrs. credit.²Women take EdP 110-1; men not taking R.O.T.C. take EdP 101-2.³Non-Catholic students take an elective.⁴Chm 313-4 may be substituted with permission of the department chairman.⁵Students with 2 or more years of high school German take Ger 201; all others take Ger 101.⁶Women take EdP 112-3; men not taking R.O.T.C. take EdP 201-2.⁷Non-Catholic students take Phl 404.⁸Chemistry electives: Chm 404, 412, 416, 420, 499.⁹Non-Catholic students take Phl 403.¹⁰General electives: Soc 201, 202, Pol 201, Acc 203, 310, Bus 315, Mth 301. One course in advanced mathematics or advanced physics may be taken. Other electives may be taken with the approval of the department chairman.

PROGRAM-S3: BACHELOR OF SCIENCE WITH A MAJOR IN
COMPUTER SCIENCE

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term</i> ¹	<i>2nd Term</i>	<i>3rd Term</i>
<i>Freshman Year</i>					
CHM	123-4	General Chemistry	3-0-3	3-0-3	
CPS	241	Algol Programming	2-0-2		
CPS	345	Programming Languages			3-0-3
MTH	216-7	Analytic Geometry and Calculus	4-0-4	4-0-4	
MIL ²	101-2	First Year Basic Course	2-1-1	2-1-1	
—	—	Humanities ³	3-0-3	3-0-3	
—	—	Electives ⁴	3-0-3	3-0-3	
			16	17	
<i>Sophomore Year</i>					
CPS	363	Statistical Methods			3-0-3
CPS	383	Logic and Set Theory	3-0-3		
MTH	218	Analytic Geometry and Calculus	4-0-4		
MTH ⁵	301	Differential Equations			3-0-3
MIL ²	201-2	Second Year Basic Course	2-1-1	2-1-1	
PHY	206-7	General Physics	3-0-3	3-2-4	
—	—	Humanities ³	6-0-6	3-0-3	
			17	14	
<i>Junior Year</i>					
CPS	314	Electronics for Scientists			3-3-4
CPS	351	Numerical Analysis	3-0-3		
CPS	441	Advanced Programming	3-0-3		
CPS	455	Advanced Numerical Analysis			3-0-3
MTH	362	Intro. to Linear Algebra and Matrices	3-0-3		
—	—	Humanities ³	3-0-3	6-0-6	
—	—	Electives	3-0-3	2-0-2	
			15	15	
<i>Senior Year</i>					
CPS	—	Computer Science electives	3-0-3	3-0-3	
MTH ⁶	421-2	Advanced Calculus	3-0-3	3-0-3	
—	—	Computer Science or Math. electives	3-0-3	3-0-3	
—	—	Humanities ³	3-0-3	3-0-3	
—	—	Electives	3-0-3	3-0-3	
			15	15	

¹Under "Term," 3-0-3 means 3 hrs. class, 0 hrs. laboratory, and 3 hrs. credit.²Women take EdP 110-1-2-3; men not taking R.O.T.C. take EdP 101-2, 201-2.³The 30 hrs. in Humanities should include 6 hrs. Theology for Catholic students and 6 hrs. Philosophy. Normally 12 hrs. should be concentrated in one area of Humanities.⁴Courses needed to attain minimum proficiency in composition should be elected as soon as possible.⁵May be replaced by Mth 341.⁶May be replaced in special cases by other Mathematics courses.

PROGRAM—S4: BACHELOR OF SCIENCE WITH A MAJOR IN GEOLOGY

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term</i> ¹	<i>2nd Term</i>	<i>3rd Term</i>
<i>Freshman Year</i>					
ENG	101-6	Freshman English	3-0-3	3-0-3	
GEO	115	Physical Geology	3-2-4		
GEO	116	Historical Geology		3-2-4	
MIL ²	101-2	First Year Basic Course	2-1-1	2-1-1	
MTH ³	216-7	Analytic Geometry and Calculus I	4-0-4	4-0-4	
PHL	105	Intro. to Philosophy & Logic		3-0-3	
THL ⁴	152	Intro. to Sacred Scripture	3-0-3		
			15	15	
<i>Sophomore Year</i>					
CHM	123-4	General Chemistry	3-3-4	3-3-4	
GEO	201	Mineralogy	3-3-4		
GEO	204	Optical Mineralogy		2-4-4	
MIL ⁵	201-2	Second Year Basic Course	2-1-1	2-1-1	
PHL	207	Philosophical Psychology		3-0-3	
PHY ⁶	201-2	General Physics	3-2-4	3-2-4	
THL ⁴	220	Theology of Christ	3-0-3		
			16	16	
<i>Junior Year</i>					
CIE	213	Surveying		1-6-3	
GEO	301	Structural Geology	3-2-4		
GEO	—	Geology elective		3-2-4	
PHL	306	Epistemology		3-0-3	
SPE	101	Fundamentals of Effective Speaking	3-0-3		
THL ⁷	—	Theology elective	2-0-2		
—	—	Modern language course	3-0-3	3-0-3	
— ⁸	—	Science electives	3-3-4	3-3-4	
			16	17	
<i>Senior Year</i>					
GEO	303	Field Geology			x-0-6
GEO	—	Geology elective	3-2-4		
PHL	402	General Metaphysics		3-0-3	
THL ⁹	—	Theology elective	2-0-2	2-0-2	
—	—	Electives	3-0-3	3-0-3	
— ⁸	—	Science electives	3-2-4	3-2-4	
			13	13	6

¹Under "Term," 3-0-3 means 3 hrs. class, 0 hrs. laboratory, and 3 hrs. credit.²Women take EdP 110-1; men not taking R.O.T.C. take EdP 101-2.³May substitute Mth 210-1 with permission of department chairman.⁴Non-Catholic students take an elective.⁵Women take EdP 112-3; men not taking R.O.T.C. take EdP 201-2.⁶May substitute Phy 206-7 if Mth 217-8 is taken in sequence.⁷Non-Catholic students take Phl 403.⁸Choose from courses in chemistry, mathematics, physics, biology, geology, or engineering.⁹Non-Catholic students take Phl 404.

HOME ECONOMICS

The department provides two special curricula:

1. Dietetics and Institutional Management;
2. General Home Economics.

Students following these curricula may pursue a career in homemaking, interior decorating, the creating and construction of clothing; in the management of cafeterias, dormitories, and tearooms; as demonstrators for commercial manufacturing concerns; as dietitians in hospitals and other institutions; in graduate work and in research projects.

The curriculum for dietetics and institutional management meets the requirements of the American Dietetics Association. The department is one of eight in Ohio that meets the standards for vocational certification.

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

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term¹</i>	<i>2nd Term</i>	<i>3rd Term</i>
<i>Freshman Year</i>					
BIO ²	101-2	General Biology	3-3-4	3-3-4	
ENG	101-6	Freshman English	3-0-3	3-0-3	
HEC ³	102-201	Foods I & II	2-3-3	2-3-3	
—	—	History electives	3-0-3	3-0-3	
EdP	110-1	Physical and Health Education	1-2-1	1-2-1	
PHL	105	Intro. to Philosophy & Logic		3-0-3	
THL ⁵	152	Intro. to Sacred Scripture	3-0-3		
			17	17	



<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term</i> ¹	<i>2nd Term</i>	<i>3rd Term</i>
<i>Sophomore Year</i>					
ENG	203, 204, 205	English			3-0-3
HEC ^a	101-211	Clothing I & II	2-3-3	2-3-3	
HEC	105	Related Art	3-0-3		
HEC	214	Textiles			3-0-3
—	—	Modern Language Course	3-0-3		3-0-3
EDP	112-3	Physical and Health Education	1-2-1		1-2-1
PHL	207	Philosophical Psychology			3-0-3
SOC	201	General Sociology	3-0-3		
THL ⁵	220	Theology of Christ	3-0-3		
			16		16
<i>Junior Year</i>					
HEC	221	Home Management	3-0-3		
HEC	225	Child Development	3-0-3		
HEC	303	Nutrition and Health			3-0-3
HEC	309	Household Equipment	3-0-3		
HEC	318	Family Living			3-0-3
HEC	328	Home Furnishing and Housing			3-0-3
PHL	306	Epistemology	3-0-3		
PSY	201	General Psychology	3-0-3		
SPE	101	Fundamentals of Effective Speech			3-0-3
THL ⁶	—	Theology elective	2-0-2		2-0-2
—	—	Minor, Major or Elective ⁷			3-0-3
			17		17
<i>Senior Year</i>					
HEC	406	Home Management II	1-4-3		
HEC	—	Home Economics electives	3-0-3	6-0-6	
PHL	402	General Metaphysics	3-0-3		
THL ⁸	—	Theology elective			2-0-2
—	—	Minor, Major or Electives	6-0-6		9-0-9
			15		17

¹Under "Term," 3-0-3 means 3 hrs. class, 0 hrs. laboratory, and 3 hrs. credit.²May substitute Chm 123-4 or Chm 110-200.³Foods I & II and Clothing I & II may be interchanged.⁴Student may elect any lower division Hst courses.⁵Non-Catholic students take an elective.⁶Non-Catholic students take Phl 404.⁷Can be taken in English, psychology, retailing, history, or education. Students choosing education must take Edu 208, 351, 419, and Hec 329, 405, and Chm 110-200 or 123-4. Hec courses must total 51 hours.⁸Non-Catholic students take Phl 403.

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

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term</i> ¹	<i>2nd Term</i>	<i>3rd Term</i>
<i>Freshman Year</i>					
CHM ²	123-4	General Chemistry	3-3-4	3-3-4	
ENG	101-6	Freshman English	3-0-3	3-0-3	
HEC	102-201	Foods I and II	2-3-3	2-3-3	
—	—	Modern Language Course	3-0-3	3-0-3	
EdP	110-1	Physical and Health Education	1-2-1	1-2-1	
PHL	105	Intro. to Philosophy & Logic		3-0-3	
THL ³	152	Intro. to Sacred Scripture	3-0-3		
			17	17	
<i>Sophomore Year</i>					
BIO	101-2	General Biology	3-3-4	3-3-4	
CHM ⁴	200	Organic Chemistry		3-2-4	
ENG	—	English	3-0-3		
HEC	221	Home Management I	3-0-3		
HEC	225	Child Development I	3-0-3		
EdP	112-3	Physical and Health Education	1-2-1	1-2-1	
PHL	207	Philosophical Psychology		3-0-3	
PSY	204	General Psychology		3-0-3	
SPE	101	Fundamentals of Effective Speaking		3-0-3	
THL ⁵	220	Theology of Christ	3-0-3		
			17	18	
<i>Junior Year</i>					
ACC	207	Principles of Accounting	3-0-3		
BIO	205-6	Anatomy and Physiology	3-0-3	3-0-3	
CHM	400	Biochemistry		3-3-4	
HEC	303	Nutrition and Health	3-0-3		
HEC	304	Quantity Cookery		1-4-3	
HEC	308	Institutional Buying		3-0-3	
HEC	323	Demonstration Methods	0-2-1		
PHL	306	Epistemology	3-0-3		
PHL	402	General Metaphysics		3-0-3	
THL ⁵	—	Theology electives	4-0-4		
			17	16	
<i>Senior Year</i>					
BIO	411	General Bacteriology	3-4-5		
HEC	318	Family Living		3-0-3	
HEC	401	Advanced Nutrition		3-0-3	
HEC	402	Diet in Disease		3-0-3	
HEC	406	Home Management II		1-4-3	
HEC	407	Organization and Management	3-0-3		
PSY	420	Industrial Psychology	3-0-3		
THL ⁶	—	Theology elective	2-0-2		
—	—	Electives ⁷	3-0-3	3-0-3	
			16	15	

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

²May substitute Chm 110-200.

³Non-Catholic students take an elective.

⁴May substitute Chm 313-4; when Chm 200 was taken in freshman year, an elective must be taken.

⁵Non-Catholic students take Phl 404.

⁶Non-Catholic students take Phl 403.

⁷Take principles of teaching course: Edu 198, 208, Hec 405.

PROGRAM—S7: BACHELOR OF SCIENCE WITH A MAJOR IN
MATHEMATICS OR MATHEMATICAL STATISTICS

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term</i> ¹	<i>2nd Term</i>	<i>3rd Term</i>
<i>Freshman Year</i>					
CHM	123-4	General Chemistry	3-3-4	3-3-4	
CPS	241	Algol Programming		2-0-2	
MTH	216-7	Analytic Geometry and Calculus	4-0-4	4-0-4	
MIL ²	101-2	First Year Basic Course	2-1-1	2-1-1	
PHL	—	Philosophy ³	3-0-3		
PHY	206	General Physics		3-2-4	
—	—	Electives ⁴	3-0-3	3-0-3	
			15	18	
<i>Sophomore Year</i>					
MTH	218	Analytic Geometry and Calculus	4-0-4		
MTH	301	Differential Equations		3-0-3	
MIL ²	201-2	Second Year Basic Course	2-1-1	2-1-1	
PHY	207-8	General Physics	3-2-4	3-2-4	
—	—	Humanities ³	3-0-3	6-0-6	
—	—	Electives	6-0-6	3-0-3	
			18	17	
<i>Junior Year</i>					
—	—	Mathematics Elective ⁵	3-0-3		
—	—	Mathematics Elective		3-0-3	
—	—	Mathematics Elective	3-0-3	3-0-3	
—	—	Minor	3-0-3	3-0-3	
—	—	Humanities ³	3-0-3	6-0-6	
—	—	Electives	3-0-3		
			15	15	
<i>Senior Year</i>					
—	—	Mathematics Elective	3-0-3		
—	—	Mathematics Elective		3-0-3	
—	—	Mathematics Elective	3-0-3	3-0-3	
—	—	Minor	3-0-3	3-0-3	
—	—	Humanities ³	3-0-3	6-0-6	
—	—	Electives	3-0-3		
			15	15	

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

²Women take EdP 110-1-2-3; men not taking R.O.T.C. take EdP 101-2, 201-2.

³The 30 hrs. in Humanities should include 6 hrs. Theology for Catholic students and 6 hrs. Philosophy. Normally 12 hrs. should be concentrated in one area of the Humanities.

⁴The general requirement in communication skills should be satisfied as soon as possible.

⁵All students majoring in Mathematics or Statistics will elect Mth 361, 362, 421, 422 as core courses and twelve hours of other mathematics courses in consultation with the Chairman of the Department. Students minoring in Physics will elect Mth 403 when registering for Phy 303.



MEDICAL TECHNOLOGY

A twelve or thirteen month course in medical technology is offered by the Diagnostic Laboratories of St. Elizabeth Hospital, Good Samaritan Hospital, and Miami Valley Hospital. Affiliation with the University of Dayton permits a student to obtain the degree of Bachelor of Science in Medical Technology if the University's requirements are fulfilled. 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.

METHODS OF INSTRUCTION

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.

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.

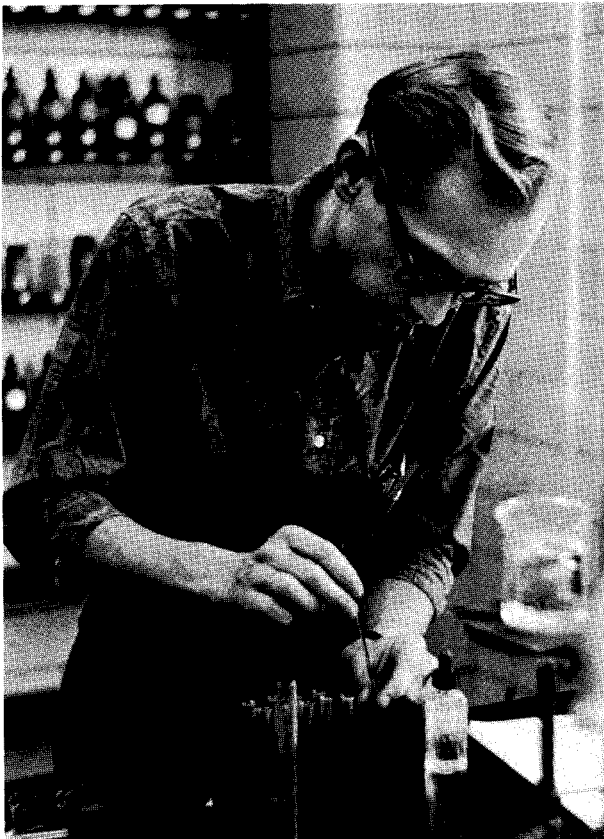
Textbook assignments and extracurricular reading and study shall be done outside the regular hours. Written and oral examinations are held at regular intervals throughout the course.

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

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term</i> ¹	<i>2nd Term</i>	<i>3rd Term</i>
<i>Freshman Year</i>					
BIO	101-2	General Biology	3-3-4	3-3-4	
CHM	123-4	General Chemistry	3-3-4	3-3-4	
ENG	101-6	Freshman English	3-0-3	3-0-3	
MTH	121	College Algebra	3-0-3		
MIL ²	101-2	First Year Basic Course	2-1-1	2-1-1	
PHL	105	Intro. to Philosophy & Logic		3-0-3	
THL ³	152	Intro. to Sacred Scripture		3-0-3	
			15	18	
<i>Sophomore Year</i>					
BIO	207	Human Anatomy	3-3-4		
BIO	310	Microtechnique		3-3-4	
SPE	101	Fundamentals of Effective Speaking	3-0-3		
CHM	201	Quantitative Analysis		2-4-4	
ENG	—	English elective	3-0-3		
MIL ⁴	201-2	Second Year Basic Course	2-1-1	2-1-1	
PHL	207	Philosophical Psychology		3-0-3	
THL ⁵	220	Theology of Christ	3-0-3		
—	—	Modern language course	3-0-3	3-0-3	
			17	15	
<i>Junior Year</i>					
BIO	303	Physiology	3-3-4		
BIO	411	Bacteriology		3-4-5	
CHM	313-4	Organic Chemistry	3-3-4	3-3-4	
PHL	306	Epistemology	3-0-3		
PHL	402	General Metaphysics		3-0-3	
THL ⁵	—	Theology electives	4-0-4		
THL ⁶	—	Theology elective		2-0-2	
—	—	Electives	3-0-3	3-0-3	
			18	17	
<i>Senior Year</i> ⁷					
MET ⁸	481	Introduction to Medical Technology	—4		
MET	482	Urinalysis and Renal Function		—4	
MET	483	Hematology	—6		
MET	484	Bacteriology, Parasitology, Mycology		—7	
MET	485	Chemistry and Gastric Analysis		—8	
MET	486	Histology and Cytology	—3		
MET	487	Serology and Spinal Fluids	—3		
MET	488	Blood Banking	—3		
MET	489	Laboratory Management		—0	
MET ⁸	490	Normal and Pathologic Physiology	—0		
			19	19	

¹Under "Term," 3-0-3 means 3 hrs. class, 0 hrs. laboratory, and 3 hrs. credit.²Women take EdP 130-1; men not taking R.O.T.C. take EdP 101-2.³Non-Catholic students take an elective.⁴Women take EdP 140; men not taking R.O.T.C. take EdP 201-2.⁵Non-Catholic students take Phl 404.⁶Non-Catholic students take Phl 403.⁷Clinical training in hospital laboratory (Good Samaritan, St. Elizabeth, Miami Valley, or Kettering). Courses not necessarily taken in terms indicated.⁸Miami Valley hospital only.

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

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term</i> ¹	<i>2nd Term</i>	<i>3rd Term</i>
<i>Freshman Year</i>					
CHM	123-4	General Chemistry	3-3-4	3-3-4	
ENG	101-6	Freshman English	3-0-3	3-0-3	
MIL ²	101-2	First Year Basic Course	2-1-1	2-1-1	
MTH	216-7	Analytic Geometry and Calculus	4-0-4	4-0-4	
PHY	206	General Physics		3-1½-3	
PHY	206L	General Physics Lab I		0-3-1	
THL ³	152	Intro. to Sacred Scripture	3-0-3		
			15	16	
<i>Sophomore Year</i>					
—	—	Modern Language	3-0-3	3-0-3	
MIL ⁴	201-2	Second Year Basic Course	2-1-1	2-1-1	
MTH	218	Analytic Geometry & Calculus III	4-0-4		
MTH	301	Differential Equations		3-0-3	
PHL	105	Intro. to Philosophy & Logic	3-0-3		
PHL	207	Philosophical Psychology		3-0-3	
PHY	207-8	General Physics II & III	3-1½-3	3-0-3	
PHY	210	Readings in Physics		1-0-1	
PHY	207L-8L	General Physics Lab II & III	0-3-1	0-3-1	
CPS	233	Fortran Programming		2-0-2	
THL ³	220	Theology of Christ	3-0-3		
			18	17	
<i>Junior Year</i>					
PHL	306	Epistemology	3-0-3		
PHL	402	General Metaphysics		3-0-3	
PHY	301	Thermodynamics	3-0-3		
PHY	303	Intermediate Mechanics I	3-0-3		
PHY	390	Intro. to Quantum Mechanics		3-0-3	
PHY	431-2	Advanced Lab I & II	0-4-2	0-4-2	
PHY	460	Seminar	2-0-1	2-0-1	
SPE	101	Fundamentals of Effective Speaking		3-0-3	
THL ⁵	—	Theology elective	2-0-2	2-0-2	
—	—	Minor ⁶	3-0-3	3-0-3	
			17	17	
<i>Senior Year</i>					
PHY	421	Nuclear Physics	3-0-3		
PHY	408	Intermediate Electricity & Magnetism I	3-0-3		
PHY	433	Advanced Lab III	0-4-2		
PHY	460	Seminar	2-0-1	2-0-1	
THL ⁷	—	Theology elective	2-0-2		
—	—	Open elective ⁸	3-0-3	9-0-9	
—	—	Minor	3-0-3	3-0-3	
			17	13	

¹Under "Term," 3-0-3 means 3 hrs. class, 0 hrs. Lab or recitation and 3 hrs. credit.²Women take EdP 110-1; men not taking R.O.T.C. take EdP 101-2.³Non-Catholic students take an elective.⁴Women take EdP 112-3; men not taking R.O.T.C. take EdP 201-2.⁵Non-Catholic students take Phl 404.⁶Upper level courses in physics, math, or other *approved* subjects (see p. 239).⁷Non-Catholic students take Phl 403.⁸See p. 239.

PREMEDICAL AND PREDENTAL

This program meets the admission requirements of all approved medical schools as determined by the Council of Medical Education for the American Medical Association. The four year course leading to the degree, Bachelor of Science, is recommended whenever possible. In addition to the basic sciences, it should include an adequate study of the humanities, social science and foreign language. 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.

Recommendation of a student by his premedical school is of considerable importance for admission to medical or dental school. Recommendation is based on more than academic standing. Character, professional development, and personality qualities are also weighed. The membership of the board on premedical recommendations is as follows: Dr. Carl I. Michaelis, *Chairman*, Dr. Cletus C. Chudd, S.M., Dr. Peter J. Faso, Mariano Crivello, Russell A. Joly, S.M., Dr. George B. Noland, Dr. Joseph A. Pappalardo, and Gertrude D. Shay.

Both the Medical College Admissions Test and the American Dental Aptitude Test are administered on this campus each year in the fall and spring semesters. Students are required by the graduate school to take this test, usually in the spring of their junior year. Applications for registration may be secured from the premedical advisor.

The increasingly high admission standard for medical and dental schools makes it desirable that the student in the premedical program give full time to study, and that he consider part time work to gain some financial advantage only as a last resort. Most medical schools do not admit college graduates with less than a 3.00 cumulative average. For this reason, students whose cumulative average after 2 years is not at least 2.7 should decide on a different major. He should consult the premedical advisor.

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

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term¹</i>	<i>2nd Term</i>	<i>3rd Term</i>
<i>Freshman Year</i>					
BIO	101-2	General Biology	3-3-4	3-3-4	
CHM	123-4	General Chemistry	3-3-4	3-3-4	
ENG	101-6	Freshman English	3-0-3	3-0-3	
MIL ²	101-2	First Year Basic Course	2-1-1	2-1-1	
MTH ³	121	College Algebra	3-0-3		
MTH	210	Int. Math. Analysis		3-0-3	
PHL	105	Intro. to Philosophy & Logic		3-0-3	
THL ⁴	152	Intro. to Sacred Scripture	3-0-3		
			18	18	

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term</i> ¹	<i>2nd Term</i>	<i>3rd Term</i>
<i>Sophomore Year</i>					
BIO	209	Comparative Anatomy	3-6-5		
CHM	201	Quantitative Analysis		2-4-4	
ENG	—	English elective		3-0-3	
GER ⁵	—	German	3-0-3	3-0-3	
MIL ⁶	201-2	Second Year Basic Course	2-1-1	2-1-1	
PHL	207	Philosophical Psychology		3-0-3	
PHY	201-2	General Physics	3-2-4	3-2-4	
THL ⁸	220	Theology of Christ	3-0-3		
			16	18	
<i>Junior Year</i>					
BIO ⁷	—	Biology electives	3-3-4	3-3-4	
CHM	313-4	Organic Chemistry	3-3-4	3-3-4	
PHL	306	Epistemology	3-0-3		
SPE	101	Fundamentals of Effective Speaking		3-0-3	
THL ⁸	—	Theology electives	4-0-4		
—	—	General electives ¹⁰	3-0-3	6-0-6	
			18	17	
<i>Senior Year</i>					
BIO	407	Embryology	3-4-5		
BIO ⁷	—	Biology elective		3-3-4	
PHL	402	General Metaphysics	3-0-3		
THL ⁹	—	Theology elective	2-0-2		
—	—	General electives ¹⁰	6-0-6	12-0-12	
			16	16	

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

²Women take EdP 130-1; men not taking R.O.T.C. take EdP 101-2.

³Students with a good high school preparation in algebra and trigonometry may elect Mth 210 and 211 in place of Mth 121 and Mth 210.

⁴Non-Catholic students take an elective.

⁵Students with 2 or more years of high school German take Ger 201; all others take Ger 101.

⁶Women take EdP 140; men not taking R.O.T.C. take EdP 201-2.

⁷Recommended: Bio 303, 309, 312, 325, 411. Chm 302 is strongly recommended for premedical students.

⁸Non-Catholic students take Phl 404.

⁹Non-Catholic students take Phl 403.

¹⁰Recommended: Soc 308, Hst 251, Pol 300, Eco 201, Psy 201, and more English, history, languages, sociology, and psychology above the 200 level.



VII

School of Business Administration

WILLIAM J. HOBEN, *Dean*
JOSEPH F. UPDYKE, *Assistant to the Dean*

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:
 - a) The core courses required of all students enrolled in the School of Business Administration;
 - b) The major field of concentration elected by the student.
3. Each candidate must complete a minimum of forty-five credits in 300-400 level courses in the School of Business Administration consisting of the following:
 - a) Twenty-seven credits in the core courses required of all students enrolled in the Upper Division in the School of Business Administration;
 - b) Eighteen credits (or more) in one of the Upper Division areas of concentration offered in the School of Business Administration.
4. Each candidate must earn a grade of at least "C" in Bus 423, Business Policies and Management.
5. Each candidate must earn a minimum of one hundred and thirty-three to one hundred and thirty-nine hours of credit and at least twice that number of quality points.
6. 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.

FRESHMAN-SOPHOMORE BUSINESS ADMINISTRATION PROGRAM

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term</i> ¹	<i>2nd Term</i>	<i>3rd Term</i>
<i>Freshman Year</i>					
BUS ²	101	<i>Introduction to Business</i>	3-0-3		
BUS	110-1	Quantitative Analysis	3-0-3	3-0-3	
ENG	101	<i>Language and Thought</i>	3-0-3		
ENG	106	Language and Literature		3-0-3	
HST ³	—	History Elective		3-0-3	
MIL ⁴	101-2	First Year Basic Course	1-0-1	1-0-1	
PHL	105	<i>Intro. to Philosophy and Logic</i>		3-0-3	
SPE	101	<i>Fundamentals of Effective Speaking</i>	3-0-3		
THL ⁷	152	<i>Intro. to Sacred Scripture</i>	3-0-3		
— ⁵	—	<i>Natural Science Course</i>			3-1-4
			16	17	
<i>Sophomore Year</i>					
BUS	210-1	Quantitative Analysis	3-0-3	3-0-3	
BUS	215	Principles of Management	3-0-3		
ACC	207-8	Principles of Accounting	3-0-3	3-0-3	
ENG	280-1	Directed Readings I-II	1-0-1	1-0-1	
ECO	201-2	Principles of Economics	3-0-3	3-0-3	
MIL ⁶	201-2	Second Year Basic Course	1-0-1	1-0-1	
PHL	207	<i>Philosophical Psychology</i>		3-0-3	
THL ⁷	220	<i>Theology of Christ</i>		3-0-3	
— ⁸	—	Social Science Course	3-0-3		
			17	17	

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 take EdP 130W-1W; men not taking R.O.T.C. take EdP 101-2.

⁵Choose one of these courses: Bio 114, Chm 110, Geo 115, Phy 105.

⁶Women take EdP 140W, 202; men not taking R.O.T.C. take EdP 201-2.

⁷Non-Catholic students consult General Curriculum Requirements.

⁸Choose one of these courses: Hst 252; Eng 201, 202, 203, 204, 205 or 208; Pol 201; Soc 201; Spe 201; Psy 201.

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, general business management, marketing, industrial management, personnel management, 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 upon which business management depends for effective control.

In addition to taking the required basic courses, the business student who majors in accounting follows a sequence of seven advanced courses. The accounting major desiring minimum professional preparation should earn additional credit in at least two of the accounting elective courses.

Successful completion of the program outlined may lead to a career in public accounting, to employment in financial departments of business enterprises, or to service in one of the many agencies of the federal, state, or local government.

PROGRAM—B1: BACHELOR OF SCIENCE WITH A MAJOR IN ACCOUNTING¹

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term²</i>	<i>2nd Term</i>	<i>3rd Term</i>
<i>Junior Year</i>					
ACC	303	Cost Accounting	3-0-3		
ACC	305-6	Intermediate Accounting	3-0-3	3-0-3	
BUS ³	301	<i>Corporation Finance</i>	3-0-3		
BUS	303	<i>Business Law I</i>		3-0-3	
ENG	380-1	Directed Readings III-IV	1-0-1	1-0-1	
MKT	305	<i>Principles of Marketing</i>	3-0-3		
ACC	340	Fundamentals of Business Data Processing		3-0-3	
PHL	306	Epistemology	3-0-3		
THL ⁴	—	Theology elective	1-0-1	3-0-3	
— ⁵	—	Elective		3-0-3	
			17	16	
<i>Senior Year</i>					
ACC ⁶	—	Accounting electives	3-0-3	3-0-3	
ACC	405	Auditing		2-0-2	
ACC	407	Federal Income Tax Accounting	3-0-3		
BUS	409	<i>Business Communications and Report Writing</i>	3-0-3		
BUS	423	Business Policies and Management		3-0-3	
ECO	341	<i>Macro Economic Analysis</i>	3-0-3		
ECO	342	<i>Money, Banking, and Monetary Policy</i>		3-0-3	
PHL ⁴	402	General Metaphysics		3-0-3	
THL ⁴	—	Theology elective	2-0-2		
— ⁵	—	Electives	3-0-3	3-0-3	
			17	17	

¹Sufficient electives must be taken to meet the minimum number of credit hours required for graduation. Consult program advisor. Students not eligible to take more than a 17 credit hr. load must take these electives during the split third term.

²Under "Term," 3-0-3 means 3 hrs. class, 0 hrs. laboratory, and 3 hrs. credit.

³Courses listed in italics may be taken in either the first or second term as directed by the program advisor.

⁴Non-Catholic students consult General Curriculum Requirements.

⁵Choose general electives.

⁶Select accounting courses in consultation with program advisor.

BUSINESS MANAGEMENT

The work in business management provides training in general business management, industrial management, or personnel management. General business management is designed to give a rounded viewpoint of business problems. The other two majors are specific and constitute a particular approach to a specialized business area.

The following outline of courses constitutes the upper level work required for a Bachelor of Science with a major in any one of the three programs.

PROGRAM—B2: BACHELOR OF SCIENCE WITH A MAJOR IN
GENERAL BUSINESS MANAGEMENT¹

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term</i> ²	<i>2nd Term</i>	<i>3rd Term</i>
<i>Junior Year</i>					
Bus ³	301	<i>Corporation Finance</i>	3-0-3		
BUS	303	<i>Business Law I</i>		3-0-3	
BUS	314	<i>Personnel Management</i>		3-0-3	
BUS	316	Industrial Management	3-0-3		
ENG	380-1	Directed Readings III-IV	1-0-1	1-0-1	
MKT	305	<i>Principles of Marketing</i>	3-0-3		
ACC	340	<i>Fundamentals of Business</i>			
		<i>Data Processing</i>		3-0-3	
MKT	411	Sales Management	3-0-3		
PHL	306	Epistemology		3-0-3	
THL ⁴	—	Theology elective	2-0-2		
— ⁵	—	Elective	2-0-2	3-0-3	
			17	16	
<i>Senior Year</i>					
Eco	340	Micro Economic Analysis	3-0-3		
Eco	341	<i>Macro Economic Analysis</i>	3-0-3		
Eco	342	<i>Money, Banking, and Monetary Policy</i>		3-0-3	
Bus ⁶	304	<i>Business Law II</i>	3-0-3		
BUS	401	Investments		3-0-3	
BUS	409	<i>Business Communication and Report</i>			
		<i>Writing</i>		3-0-3	
BUS	423	<i>Business Policies and Management</i>		3-0-3	
PHL	402	General Metaphysics	3-0-3		
THL ⁴	—	Theology electives	2-0-2	2-0-2	
— ⁵	—	Elective	3-0-3	3-0-3	
			17	17	

¹Sufficient electives must be taken to meet the minimum number of credit hours required for graduation. Consult program advisor. Students not eligible to take more than a 17 credit hr. load must take these electives during the split third term.

²Under "Term," 3-0-3 means 3 hrs. class, 0 hrs. laboratory, and 3 hrs. credit.

³Courses listed in italics may be taken in either the first or second term as directed by the program advisor.

⁴Non-Catholic students consult General Curriculum Requirements.

⁵Choose general electives.

⁶May substitute Bus 403.

PROGRAM—B3: BACHELOR OF SCIENCE WITH A MAJOR IN INDUSTRIAL MANAGEMENT¹

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term</i> ²	<i>2nd Term</i>	<i>3rd Term</i>
<i>Junior Year</i>					
ACC	303	Cost Accounting	3-0-3		
BUS ³	301	Corporation Finance		3-0-3	
BUS	303	Business Law I		3-0-3	
BUS	314	Personnel Management		3-0-3	
BUS	316	Industrial Management	3-0-3		
ENG	380-1	Directed Readings III-IV	1-0-1	1-0-1	
MKT	305	Principles of Marketing	3-0-3		
ACC	340	Fundamentals of Business Data Processing		3-0-3	
PHL	306	Epistemology	3-0-3		
THL ⁴	—	Theology elective	2-0-2		
— ⁵	—	Elective	2-0-2	3-0-3	
			17	16	
<i>Senior Year</i>					
BUS	320	Motion and Time Study		3-0-3	
BUS	324	Labor Legislation	3-0-3		
BUS	409	Business Communication and Report Writing	3-0-3		
BUS	415	Production Methods and Control	3-0-3		
BUS	423	Business Policies and Management		3-0-3	
ECO	341	Macro Economic Analysis		3-0-3	
ECO	342	Money, Banking, and Monetary Policy		3-0-3	
PHL ⁴	402	General Metaphysics	3-0-3		
THL ⁴	—	Theology electives	2-0-2	2-0-2	
— ⁵	—	Elective	3-0-3	3-0-3	
			17	17	

¹Sufficient electives must be taken to meet the minimum number of credit hours required for graduation. Consult program advisor. Students not eligible to take more than a 17 credit hr. load must take these electives during the split third term.

²Under "Term," 3-0-3 means 3 hrs. class, 0 hrs. laboratory, and 3 hrs. credit.

³Courses listed in italics may be taken in either the first or second term as directed by the program advisor.

⁴Non-Catholic students consult General Curriculum Requirements.

⁵Choose general electives.

A minor in psychology or sociology is particularly recommended for those majoring in industrial management. Those taking a minor in psychology may, with permission, substitute Psy 302, Elementary Statistics, for Bus 313, Business Statistics. Students taking a minor in psychology or sociology should consult with the Chairman of the Department of Psychology or Sociology about the requirements for a minor. The student, however, should understand that he is free to elect additional hours in any other college or department of the University for which he has the prerequisites.

PROGRAM—B4: BACHELOR OF SCIENCE WITH A MAJOR IN
PERSONNEL MANAGEMENT¹

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term</i> ²	<i>2nd Term</i>	<i>3rd Term</i>
<i>Junior Year</i>					
BUS	301	<i>Corporation Finance</i>	3-0-3		
BUS	303	<i>Business Law I</i>		3-0-3	
ACC	340	<i>Fundamentals of Business</i>			
		<i>Data Processing</i>		3-0-3	
BUS	314	<i>Personnel Management</i>		3-0-3	
BUS	324	Labor Legislation	3-0-3		
BUS	372	Economics of Social Insurance		3-0-3	
ENG	380-1	Directed Readings III-IV	1-0-1	1-0-1	
MKT	305	<i>Principles of Marketing</i>	3-0-3		
PHL	306	Epistemology	3-0-3		
THL ⁴	—	Theology elective	2-0-2		
— ⁵	—	Elective	2-0-2	3-0-3	
			17	16	
<i>Senior Year</i>					
BUS	316	<i>Industrial Management</i>	3-0-3		
BUS	409	<i>Business Communication and Report</i>			
		<i>Writing</i>		3-0-3	
BUS	412	Wage and Salary Administration		3-0-3	
BUS	423	<i>Business Policies and Management</i>		3-0-3	
ECO	341	<i>Macro Economic Analysis</i>	3-0-3		
ECO	342	<i>Money, Banking, and Monetary Policy</i>		3-0-3	
ECO	371	Labor Economics	3-0-3		
PHL ⁴	402	General Metaphysics	3-0-3		
THL ⁴	—	Theology electives	2-0-2	2-0-2	
— ⁵	—	Electives	3-0-3	3-0-3	
			17	17	

¹Sufficient electives must be taken to meet the minimum number of credit hours required for graduation. Consult program advisor. Students not eligible to take more than a 17 credit hr. load must take these electives during the split third term.

²Under "Term," 3-0-3 means 3 hrs. class, 0 hrs. laboratory, and 3 hrs. credit.

³Courses listed in italics may be taken in either the first or second term as directed by the program advisor.

⁴Non-Catholic students consult General Curriculum Requirements.

⁵Choose general electives.

A minor in psychology or sociology is particularly recommended for those majoring in personnel management. Those taking a minor in psychology may substitute Psy 302, Elementary Statistics, for Bus 313, Business Statistics. Students taking a minor in psychology or sociology should consult with the Chairman of the Department of Psychology or Sociology about the requirements for a minor. The student, however, should understand that he is free to elect twelve hours in any other college or department of the University for which he has the prerequisites.

MARKETING

The program in Marketing is designed to develop competence in students in all or some part of the marketing process. Although the student often enters with interest in a single



phase of marketing such as: selling, advertising, pricing, product planning, physical distribution, purchasing, market research, wholesaling, or retailing, the emphasis in the curriculum is on the marketing management concept. Thus, any specialized activity is studied as a part of a 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 objective is to add limited specialization to a base made up of the general education required for graduation and a core of business administration courses required of all 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. Communications 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.

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

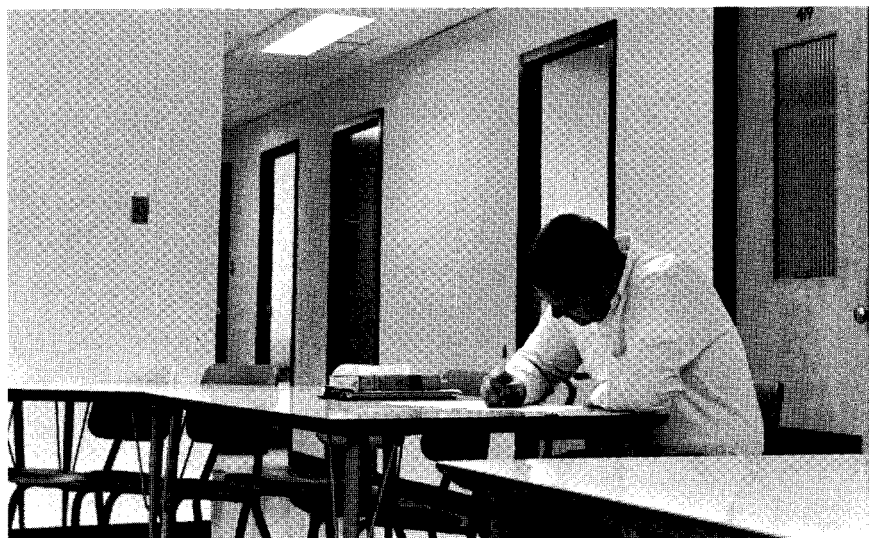
Students interested in retailing as a concentrated area of study take the following sequence of courses: Mkt 316 Retail Organization and Operation, Mkt 318 Retail Advertising and Sales Promotion, Mkt 417 Retail Buying and Merchandising.

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—B5: BACHELOR OF SCIENCE WITH A MAJOR IN MARKETING¹

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term</i> ²	<i>2nd Term</i>	<i>3rd Term</i>
<i>Junior Year</i>					
BUS ³	301	<i>Corporation Finance</i>		3-0-3	
BUS	303	<i>Business Law I</i>		3-0-3	
MKT	305	Principles of Marketing	3-0-3		
PHL	306	Epistemology		3-0-3	
ACC	340	Fundamentals of Business			
		Data Processing	3-0-3		
ENG	380-1	Directed Readings	1-0-1	1-0-1	
MKT ⁴	—	Marketing electives	6-0-6	3-0-3	
THL ⁵	—	Theology elective	1-0-1	1-0-1	
— ⁶	—	Elective	3-0-3	3-0-3	
			17	17	
<i>Senior Year</i>					
ECO	341	<i>Macro Economic Analysis</i>	3-0-3		
ECO	342	<i>Money, Banking, and Monetary Policy</i>		3-0-3	
BUS	409	<i>Business Communication and Report Writing</i>	3-0-3		
BUS	423	Business Policies and Management		3-0-3	
MKT ⁴	—	Marketing electives	3-0-3	6-0-6	
PHL ⁵	402	General Metaphysics	3-0-3		
THL	—	Theology electives	2-0-2	2-0-2	
— ⁶	—	Elective	3-0-3	3-0-3	
			17	17	

¹Sufficient electives must be taken to meet the minimum number of credit hours required for graduation. Consult program advisor. Students not eligible to take more than a 17 credit hr. load must take these electives during the split third term.

²Under "Term," 3-0-3 means 3 hrs. class, 0 hrs. laboratory, and 3 hrs. credit.

³Courses listed in italics may be taken in either the first or second term as directed by the program advisor.

⁴Select three marketing courses in consultation with the program advisor.

⁵Non-Catholic students consult General Curriculum Requirements.

⁶Choose general electives.

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 economics majors. Within the core business curriculum, the Department of Economics offers Macro Economic Analysis (Eco 341) and Money, Banking, and Monetary Policy (Eco 342). In addition, Micro Economic Analysis (Eco 340) is required of all economics majors.

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 economies 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, fifteen hours of economics courses, in addition to Economics 340, 341, and 342, are required of the Business Administration student. After consultation with the Chairman of the Department, the major may select these fifteen 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—B6: BACHELOR OF SCIENCE WITH A MAJOR IN ECONOMICS¹

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term²</i>	<i>2nd Term</i>	<i>3rd Term</i>
<i>Junior Year</i>					
BUS	301	Corporation Finance	3-0-3		
BUS	303	Business Law I		3-0-3	
MKT	305	Principles of Marketing	3-0-3		
ACC	340	Fundamentals of Business Data Processing		3-0-3	
Eco	340	Micro Economic Analysis	3-0-3		
Eco	341	Macro Economic Analysis		3-0-3	
Eco	342	Money, Banking, and Monetary Policy		3-0-3	
ENG	380-1	Directed Readings III-IV	1-0-1	1-0-1	
PHY	306	Epistemology	3-0-3		
THL ³	—	Theology elective	4-0-4	1-0-1	
— ⁴	—	Elective		3-0-3	
			17	17	
<i>Senior Year</i>					
BUS	409	Business Communication and Report Writing		3-0-3	
BUS	423	Business Policies and Management		3-0-3	
Eco ⁵	—	Economics electives	9-0-9	6-0-6	
PHL ³	402	General Metaphysics	3-0-3		
THL ³	—	Theology elective	1-0-1	5-0-5	
—	—	General elective	3-0-3		
			16	17	

¹Sufficient electives must be taken to meet the minimum number of credit hours required for graduation. Consult program advisor. Students not eligible to take more than a 17 credit hr. load must take these electives during the split third term.

²Under "Term," 3-0-3 means 3 hrs. class, 0 hrs. laboratory, and 3 hrs. credit.

³Non-Catholic students consult General Curriculum Requirements.

⁴Choose general electives.

⁵Choose electives in Economics. Consult program advisor.

ASSOCIATE DEGREE IN BUSINESS ADMINISTRATION

The Associate Degree in the Business Administration program specializing in 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 typewriting,

shorthand, accounting, business machines, and office procedures, will prepare graduates for responsible positions in commerce and industry.

Although the Associate Degree is, in essence, a terminal degree, students may elect to continue work for the Bachelor of Science in Business Administration or the Bachelor of Science in Education.

PROGRAM-B7: ASSOCIATE DEGREE IN BUSINESS ADMINISTRATION

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term</i> ¹	<i>2nd Term</i>	<i>3rd Term</i>
<i>Freshman Year</i>					
BUS ²	101	<i>Introduction to Business</i>	3-0-3		
ECO	201	Principles of Economics			3-0-3
EdP	110-1W	Physical and Health Education	1-2-1	1-2-1	
ENG	101	English Composition	3-0-3		
PHL	105	<i>Intro. to Philosophy & Logic</i>		3-0-3	
SEC	101	Elementary Shorthand	5-0-3		
SEC	102	Intermediate Shorthand		5-0-3	
SEC	103	Elementary Typing	5-0-3		
SEC	104	Intermediate Typing		5-0-3	
SEC	110	Secretarial Mathematics	3-0-3		
SEC	207	Business Machines			3-0-3
SPE	101	<i>Fundamentals of Effective Speaking</i>		3-0-3	
THL ³	152	Intro. to Sacred Scripture		3-0-3	
			16	16	6
<i>Sophomore Year</i>					
EdP	112-3W	Physical and Health Education	1-2-1	1-2-1	
PHL ⁴	207	<i>Philosophical Psychology</i>	3-0-3		
SEC	201	Dictation and Transcription	5-0-3		
SEC	202	Advanced Dictation and Transcription		5-0-3	
SEC	203	Advanced Typing	5-0-3		
SEC	204	Production Typing		5-0-3	
SEC	105-6	Secretarial Accounting	3-0-3	3-0-3	
SEC	205	Secretarial Practice	4-0-3		
SEC	206	Advanced Secretarial Practice		4-0-3	
THL ⁵	220	Theology of Christ		3-0-3	
			16	16	

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 Phl 207.

⁴Non-Catholic students take Phl 402.

⁵Non-Catholic students take Phl 404.

EVENING PROGRAMS IN BUSINESS ADMINISTRATION

The University of Dayton, through its Evening Division, offers an Associate Degree in Business Administration, specializing in Accounting, General Business Management, or Personnel Management. Further information about these programs can be obtained from the office of the Director of the Evening Division.



VIII School of Education

DR. JOSEPH J. PANZER, S.M., *Dean*
THOMAS J. POWERS, S.M., *Associate Dean*
JOSEPH E. WHITE, *Assistant Dean*

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, integrated through the disciplines of philosophy and theology, 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, 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 the candidate is destined 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.)

University requirements for graduation and for 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. (For information regarding minimum requirements in observation of teaching and other field experiences consult the Coordinator of Student Field Experiences, Room C-206, or request copy of instruction sheet from Education Office, Room C-104.)
3. Earn one hundred and thirty-two semester credit hours in approved courses.
4. Meet the following letter-grade requirements:
 - a) Earn a grade-point average of 2.00 ("C" average) or better.
 - b) Earn a grade-point average of 2.500 ("C+" average) or better in professional education courses and in one's principal teaching field.
5. Complete minimum requirements in psychology and professional education courses in accordance with the following pattern:

	<i>Credit Hours</i>
¹ A. Nature of the Learner	3
B. Educational Psychology I	3
C. Educational Psychology II	3
D. The Elementary School: Purposes and Practices	3
The Secondary School: Purposes and Practices	2
² E. Special Methods	2
F. Student Teaching	6
G. Philosophy of Education	3

The School of Education does not accept credits for professional education courses earned through correspondence.

6. Complete the theology-philosophy sequence as follows:

Catholic students, twenty-four semester hours: Thl 152, 220, and six (6) semester hours of theology electives; Phl 105, Phl 306, Phl 402, and EdF 419.

Other students, twenty-one semester hours: EdF 109, Phl 103, 306, 402, 403, 404, and EdF 419.

Students who have completed EdF 198 will be permitted to enter 300-400 philosophy courses without having taken Phl 207 Philosophical Psychology as one of the prerequisites. Students who succeed in having EdF 198 waived by reason of having had General Psychology or the equivalent should take Phl 207 instead of Phl 402.

7. Pass a comprehensive examination involving the following: General Education, Professional Education, and the principal teaching field. The *Teacher Education Examination Program* (TEEP) will be administered. (Consult the Education Office for dates.)

COUNSELING

Each freshman education student chooses a counselor to whom he reports at least twice a term for an interview. Each upperclassman reports for proper guidance at least once

¹Combination of Psy 201 Introductory Psychology and Phl 207 Philosophical Psychology may be substituted.

²Students 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.

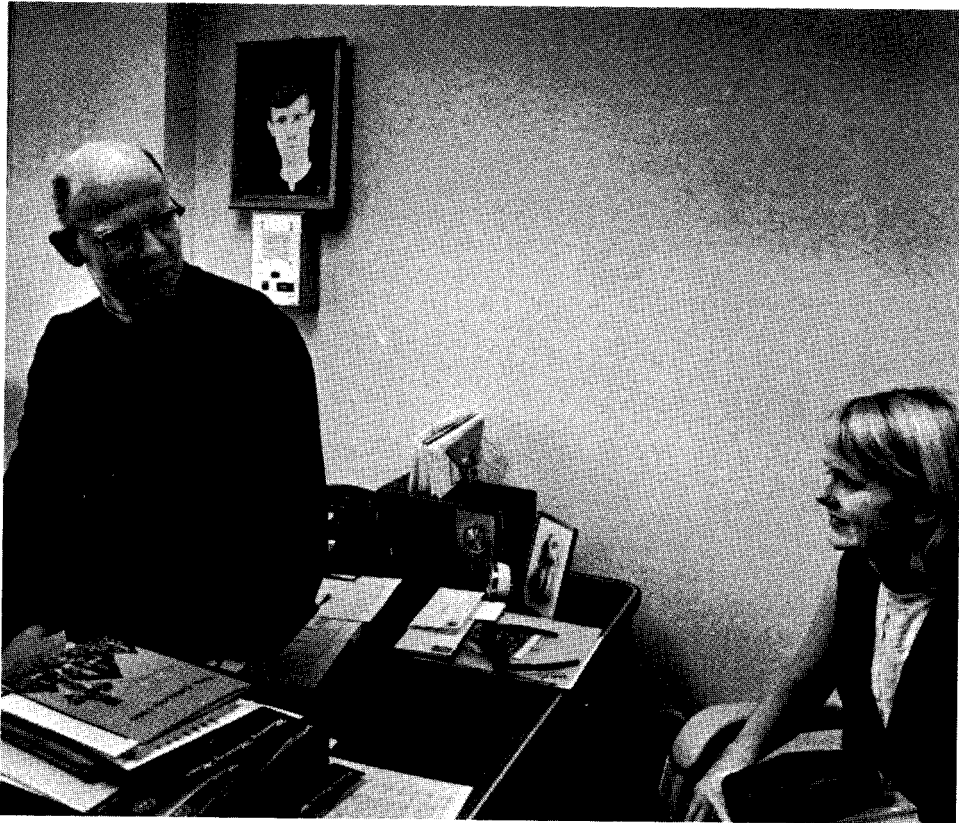
every semester to his dean or to the chairman of the department in which he is majoring.

OFFICE OF COORDINATOR OF FIELD EXPERIENCES

This office functions to facilitate the gaining of planned field experiences by students prior to student teaching. Referrals to the office are made by the respective instructors. The office makes appointments with the schools and other agencies, keeps records of all student field experiences, counsels students regarding proper procedures, promotes desirable balance between observation and direct participation.

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, (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) completion of required clock hours in observation of teaching (consult sheet indicating "Total Hours of Observation for Each Student Classification" issued by the Education Office), (4) 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.

The time allotted to student teaching is an entire term involving full-day sessions. However, if a student teacher should evidence sufficient development before the termination of the semester, the campus supervisor may dismiss the student ahead of time.

Students in Secondary Education may register for up to a maximum of nine semester credit hours. Students in Elementary Education may register for up to a maximum of twelve semester hours of credit; this involves a minimum of fifteen full weeks, usually in two different schools or grade levels.

Once a student has been approved and placed for student teaching, he may not withdraw from the program unless approved by the Director of Student Teaching. 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 Room C-214. 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 Guidance Center and are announced in advance in the *Weekly Calendar*.

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, Louisiana, Maine, Maryland, Mississippi, Missouri, Nebraska, North Carolina, North Dakota, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Dakota, Tennessee, Texas, Utah, Vermont, Washington, West Virginia, and Wyoming.



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, home economics, music, and speech.

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

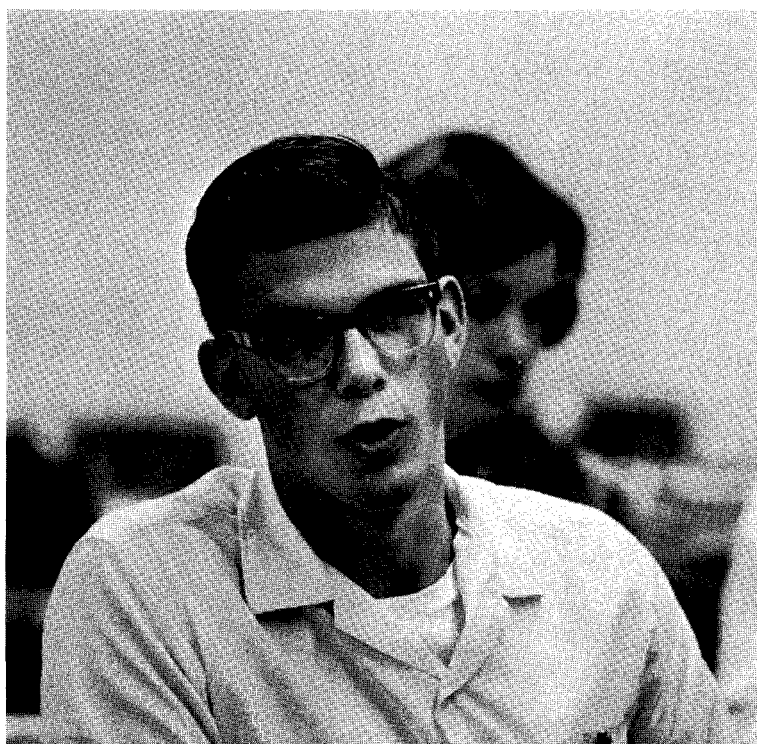
Through the affiliation of the Veterans Administration Center's Corrective Therapy Clinical Training Program (Brown Hospital, Dayton) students who follow the School of Education's program in health and physical education have the opportunity to qualify for national certification as *Corrective Therapists* by satisfactorily completing 250 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

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term</i> ¹	<i>2nd Term</i>	<i>3rd Term</i>
<i>Freshman Year</i>					
BIO ²	114	<i>Biological Science</i>	4-2-4		
EdF	100	<i>Orientation</i>	1-0-1		
EdF	198	<i>Nature of the Learner</i>	3-0-3		
EdF	207	<i>Educational Psychology I</i>		3-0-3	
ENG	101	<i>Language and Thought</i>	3-0-3		
ENG	106	<i>Language and Literature</i>		3-0-3	
HST	101-2	<i>History of Civilization</i>	3-0-3	3-0-3	
MIL ³	101-2	<i>First Year Basic Course</i>	2-1-1	2-1-1	
PHL	105	<i>Intro. to Philosophy & Logic</i>		3-0-3	
PHY	105	<i>The Physical Sciences</i>		4-0-4	
THL ⁴	152	<i>Intro. to Sacred Scripture</i>	3-0-3		
			18	17	
<i>Sophomore Year</i>					
EdF	208	<i>Educational Psychology II</i>	3-0-3		
ENG ⁵	2—	<i>English elective</i>		3-0-3	
HST	260	<i>Soc. & Cult. Hist. of U.S.</i>	3-0-3		
HST	2—	<i>History elective</i>		3-0-3	
MIL ⁶	201-2	<i>Second Year Basic Course</i>	2-1-1	2-1-1	
MTH	141	<i>Math Concepts I</i>		3-0-3	
PHL	306	<i>Epistemology</i>		3-0-3	
SPE	101	<i>Fundamentals of Effective Speaking</i>	3-0-3		
SOC ⁷	201	<i>General Sociology</i>	3-0-3		
THL ⁸	220	<i>Theology of Christ</i>	3-0-3		
—	—	<i>Special electives</i> ⁹	2-0-2	4-0-4	
			18	17	



<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term</i> ¹	<i>2nd Term</i>	<i>3rd Term</i>
<i>Junior Year</i>					
EdE ¹⁰	320	Reading and Language Arts		5-0-5	
EdE ¹¹	350	<i>The Elementary School</i>	3-0-3		
EdE	403	Mathematics in the Elementary School		2-0-2	
EdE	360	Children's Literature	3-0-3		
GEO ¹²	103	<i>Geography</i>		3-0-3	
MTH	142	Math Concepts II	3-0-3		
THL ¹³	—	Theology elective	2-0-2		
THL ¹⁴	—	Theology elective		2-0-2	
—	—	Departmental Minor electives ¹⁵	3-0-3	3-0-3	
—	—	Special electives ⁹	3-0-3	2-0-2	
			17	17	
<i>Senior Year</i>					
EdE	413	Student Teaching	1-x-9		
EdF	419	<i>Philosophy of Education</i>		3-0-3	
EdP	414	Physical Education in the Elementary School		3-0-3	
PHL ¹⁶	402	General Metaphysics		3-0-3	
—	—	Theology elective		2-0-2	
—	—	Departmental Minor electives ¹⁵		6-0-6	
—	—	Special elective ⁹	2-0-2		
			11	17	

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

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

³Women take EdP 110-1; men not taking R.O.T.C. take EdP 101-2.

⁴Non-Catholic students take EdF 109.

⁵Students may elect Eng 203, 204, or 205.

⁶Women take EdP 112-3; men not taking R.O.T.C. take EdP 201-2.

⁷May substitute Pol 201 or Eco 201.

⁸Non-Catholic students take Phl 402.

⁹A minimum of 6 semester credit hours in Art and 6 semester credit hours in Music for the degree. Recommended courses include: Art 101, Art 221-2, Art 407 and Mus 141, Mus 102 and Mus 231-2.

¹⁰May substitute EdE 303 and EdE 324.

¹¹May substitute EdE 352.

¹²May substitute Pol 406.

¹³Non-Catholic students take Phl 403.

¹⁴Non-Catholic students take Phl 404.

¹⁵These electives should be taken in one of the content areas (English, History, Language, etc.). With permission of the Dean, courses in Special Education may be chosen.

¹⁶Non-Catholics take an elective.

PROGRAM—E2: BACHELOR OF SCIENCE IN SECONDARY EDUCATION

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term</i> ¹	<i>2nd Term</i>	<i>3rd Term</i>
<i>Freshman Year</i>					
EDF	100	Orientation	1-0-1		
EDF ²	198	<i>Nature of the Learner</i>	3-0-3		
EDF	207	<i>Educational Psychology I</i>		3-0-3	
ENG	101	Language and Thought	3-0-3		
ENG	106	Language and Literature		3-0-3	
HST ³	101-2	<i>History of Civilization</i>	3-0-3	3-0-3	
MIL ³	101-2	First Year Basic Course	2-1-1	2-1-1	
PHL	105	<i>Intro. to Philosophy & Logic</i>	3-0-3		
THL ⁴	152	Intro. to Sacred Scripture		3-0-3	
—	—	<i>Science course</i> ⁵	4-0-4	4-0-4	
			18	17	
<i>Sophomore Year</i>					
EDF	208	<i>Educational Psychology II</i>	3-0-3		
ENG ⁶	2—	<i>English electives</i>	3-0-3	3-0-3	
MIL ⁷	201-2	Second Year Basic Course	2-1-1	2-1-1	
PHL	306	<i>Epistemology</i>	3-0-3		
SPE	101	<i>Fundamentals of Effective Speaking</i>		3-0-3	
THL ⁸	220	<i>Theology of Christ</i>		3-0-3	
—	—	Teaching Field electives	6-0-6	6-0-6	
			16	16	
<i>Junior Year</i>					
EDS	351	<i>The Secondary School</i>	2-0-2		
EDS	—	<i>Special Methods in Teaching Field</i>		2-0-2	
THL ⁹	—	Theology elective	2-0-2		
THL ¹⁰	—	Theology elective		2-0-2	
—	—	Teaching Field electives	13-0-13	13-0-13	
			17	17	
<i>Senior Year</i>					
EDS	414	Student Teaching	1-x-9		
EDF	419	<i>Philosophy of Education</i>		3-0-3	
PHL ¹¹	402	<i>General Metaphysics</i>	3-0-3		
THL	—	Theology elective		2-0-2	
—	—	Teaching Field electives	3-0-3	12-0-12	
			15	17	

¹Under "Term," 3-0-3 means 3 hrs. class, 0 hrs. laboratory, and 3 hrs. credit.²Courses listed in italics may be taken in terms other than listed. Consult program advisor. Language is optional and may be taken in the freshman year.³Women take EdP 110-1; men not taking R.O.T.C. take EdP 101-2.⁴Non-Catholic students take EdF 109.⁵Take Mth 121-2 or Bio 101-2.⁶Students may elect Eng 201, 202, 203, 204, or 205.⁷Women take EdP 112-3; men not taking R.O.T.C. take EdP 201-2.⁸Non-Catholic students take Phl 402.⁹Non-Catholic students take Phl 403.¹⁰Non-Catholic students take Phl 404.¹¹Non-Catholic students take an elective.

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 certification, the student must earn a quality point average of at least 2.500 in each 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.)

<i>Teaching Fields</i>	<i>Sem. Cr. Hrs.</i>	<i>Teaching Fields</i>	<i>Sem. Cr. Hrs.</i>
Art	28	Mathematics	24
Biological Science	24	Music	30
Bookkeeping—Basic Business	24	Physical Science (Chemistry & Physics) ..	24
Earth Science	17	Physics	24
English	24	Salesmanship—Merchandising	18
General Science	24	Speech	24
Health and Physical Education	28	Stenography—Typing	24
History—Government	27	Theology	24
Home Economics	34	Typing	6
Language:			
Latin	15		
French	24		
German	24		
Spanish	24		
Russian	24		

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	Mathematics
Business Education	Music
English	Science
History—Gov't	Social Studies
Home Economics	Speech



PROGRAM-E3: BACHELOR OF SCIENCE IN PHYSICAL EDUCATION (MEN)

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term</i> ¹	<i>2nd Term</i>	<i>3rd Term</i>
<i>Freshman Year</i>					
BIO	101-2	General Biology	3-3-4	3-3-4	
EdF	100	Orientation	2-0-1		
EdF ²	198	<i>Nature of the Learner</i>	3-0-3		
EdP	103-4	Physical Education Activities	0-4-1	0-4-1	
EdP	116	Personal Health		2-0-2	
ENG	101-6	Freshman English	3-0-3	3-0-3	
MIL	101-2	Military	2-1-1	2-1-1	
PHL	105	Intro. to Philosophy & Logic	3-0-3		
SEC ³	107	Personal Typing			
SPE	101	Fundamentals of Speech		3-0-3	
THL ⁴	152	Intro. to Sacred Scripture		3-0-3	
			16	17	
<i>Sophomore Year</i>					
EdP	205-6	Anatomy and Physiology	3-0-3	3-0-3	
EdF	207	Growth and Development	3-0-3		
EdF	208	Learning Process		3-0-3	
EdP	203-4	Physical Education Activities	0-4-1	0-4-1	
EdP	212	Coaching Baseball, Track		2-0-2	
EdP	213	Principles of Physical Educ.	2-0-2		
EdP	219	Community Health	2-0-2		
EdP	251	Org. and Admin. of Health Ed.		3-0-3	
HST	101-2	History of Civilization	3-0-3	3-0-3	
MIL	201-2	Military	2-1-1	2-1-1	
PHL	306	<i>Epistemology</i>			3-0-3
THL ⁵	220	<i>Theology of Christ</i>			3-0-3
EdP	119-20	Officiating (elective)	1-2-1	1-2-1	
			16	17	6

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term</i> ¹	<i>2nd Term</i>	<i>3rd Term</i>
<i>Junior Year</i>					
EdP	309	Methods and Mat. of Health Educ.	3-0-3		
EdP	324	Prins., Pract. Phys. Ed. Elem. Sch.	2-0-2		
EdP	325	Fundamental Rhythms		2-0-2	
EdP	200	<i>Methods in Team, Individ. Sports</i>		1-2-2	
EdP	336	<i>Safety Education and First Aid</i>		3-0-3	
EdP	348	Org. and Adminis. of Recreation		2-0-2	
EdP	350	<i>Kinesiology</i>	3-0-3		
EdP	433	<i>Gymnastics</i>		1-2-2	
EdS	351	Secondary School	2-0-2		
ENG ⁸	2-	Electives	3-0-3	3-0-3	
THL ⁸	-	Theology electives	3-0-3	3-0-3	
			16	17	
<i>Senior Year</i>					
EdF	419	<i>Philosophy of Education</i>		3-0-3	
EdP	311	Coaching Football & Basketball	2-0-2		
EdP	402	<i>Org., Adminis. of Phys. Educ.</i>	2-0-2		
EdP	405	<i>Tests, Measurements in Phys. Ed.</i>	2-0-2		
EdP	407	<i>Modern Problems in Public Health</i>	2-0-2		
EdP	408	<i>Physiology of Exercise</i>	2-0-2		
EdP	410	Adaptive Physical Education		2-0-2	
EdP	415	<i>Student Teaching</i>		1-x-9	
PHL ⁷	402	General Metaphysics	3-0-3		
-	-	Elective	2-0-2		
			15	14	

¹Under "Term," 3-0-3 means 3 hrs. class, 0 hrs. laboratory, and 3 hrs. 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 EdF 109.

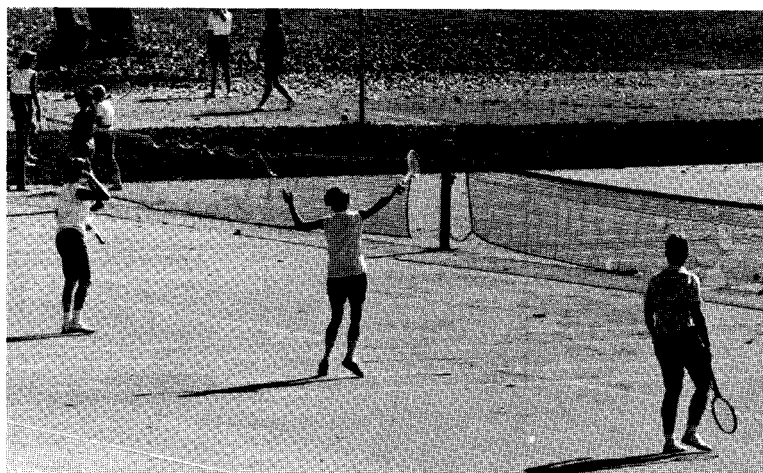
⁵Non-Catholic students take Phl 402.

⁶Non-Catholic students take Phl 404 and 403.

⁷Non-Catholic students take an elective.

⁸Student may elect Eng 201, 202, 203, 204, or 205.





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

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term</i> ¹	<i>2nd Term</i>	<i>3rd Term</i>
<i>Freshman Year</i>					
BIO	101-2	General Biology	3-3-4	3-3-4	
EdF	100	Orientation	2-0-1		
EdF ²	198	<i>Nature of the Learner</i>	3-0-3		
EdP	103-4	Physical Education Activities	0-4-1	0-4-1	
EdP	116	Personal Health	2-0-2		
EdP	117	Recreation (elective)		2-0-2	
ENG	101-6	Freshman English	3-0-3	3-0-3	
PHL	105	Intro. to Philosophy & Logic		3-0-3	
SEC ³	107	Personal Typing			
SPE	101	Fundamentals of Effective Speaking		3-0-3	
THL ⁴	152	Intro. to Sacred Scripture	3-0-3		
			17	16	
<i>Sophomore Year</i>					
EdP	205-6	Anatomy and Physiology	3-0-3	3-0-3	
EdF	207	Growth and Development	3-0-3		
EdF	208	Learning Process		3-0-3	
EdP	203-4	Physical Education Activities	0-4-1	0-4-1	
EdP	213	Principles of Physical Educ.	2-0-2		
EdP	217	Team Sports	1-2-2		
EdP	219	Community Health	2-0-2		
EdP	245	Modern Dance		1-2-2	
EdP	251	Org., Adminis. of Health Educ.		3-0-3	
HST	101-2	History of Civilization	3-0-3	3-0-3	
PHL	306	<i>Epistemology</i>			3-0-3
THL ⁵	220	<i>Theology of Christ</i>			3-0-3
EdP	119-20	Officiating (elective)	1-2-1	1-2-1	
			17	16	6

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term</i> ¹	<i>2nd Term</i>	<i>3rd Term</i>
<i>Junior Year</i>					
EDP	309	Methods, Materials of Health Ed.	3-0-3		
EDP	324	Prin., Pract. of P. E. in Ele. Sch.	2-0-2		
EDP	325	Fundamental Rhythms		2-0-2	
EDP	334	Individual Sports	1-2-2		
EDP	336	Safety Education and First Aid		3-0-3	
EDP	348	Organization, Admin. of Recreation		2-0-2	
EDP	350	Kinesiology	3-0-3		
EDP	433W	Gymnastics		1-2-2	
EDS	351	Secondary Schools		2-0-2	
ENG ⁸	2—	Electives	3-0-3	3-0-3	
THL ⁹	—	Theology electives	3-0-3	3-0-3	
			16	17	
<i>Senior Year</i>					
EDF	419	Philosophy of Education		3-0-3	
EDP	402	Organization, Admin. of Phys. Ed.	2-0-2		
EDP	405	Tests and Measurements in P. E.	2-0-2		
EDP	408	Physiology of Exercise	2-0-2		
EDP	410	Adaptive Physical Education		2-0-2	
EDP ⁷	402	General Metaphysics	3-0-3		
EDP	407	Modern Problems in Public Health	2-0-2		
EDP	346	Problems in Phys. Ed. for Women	2-0-2		
EDP	415	Student Teaching		1-x-9	
—	—	Electives	2-0-2		
			15	14	

¹Under "Term," 3-0-3 means 3 hrs. class, 0 hrs. laboratory, and 3 hrs. 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 EdF 109.

⁵Non-Catholic students take Phl 402.

⁶Non-Catholic students take Phl 404 and 403.

⁷Non-Catholic students take an elective.

⁸Student may elect Eng 201, 202, 203, 204, or 205.



PROGRAM—E5: BACHELOR OF SCIENCE IN MUSIC EDUCATION

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term</i> ¹	<i>2nd Term</i>	<i>3rd Term</i>
<i>Freshman Year</i>					
EdF	100	Orientation	2-0-1		
EdF ²	198	<i>Nature of the Learner</i>		3-0-3	
EdF	207	<i>Educational Psychology I</i>			3-0-3
ENG	101	Language and Thought	3-0-3		
ENG	106	Language and Literature		3-0-3	
MIL ³	101-2	First Year Basic Course	2-1-1	2-1-1	
MUS	105	Music Appreciation		2-0-2	
MUS	151-2	First Year Theory	5-0-4	5-0-4	
MUS	—	<i>Applied Music</i>	2-0-2	2-0-2	
PHL	105	<i>Intro. to Philosophy & Logic</i>			3-0-3
THL ⁴	152	Intro. to Sacred Scripture	3-0-3		
—	—	<i>Science course</i> ⁵	3-0-3	3-0-3	
			17	18	6
<i>Sophomore Year</i>					
EdF	208	<i>Educational Psychology II</i>	3-0-3		
EdS	351	<i>The Secondary School</i>		2-0-2	
HST	101-2	History of Civilization	3-0-3	3-0-3	
MIL ⁶	201-2	Second Year Basic Course	2-1-1	2-1-1	
MUS	251	Second Year Theory	5-0-4		
MUS	262	Musical Form		3-0-2	
MUS	272	Keyboard Harmony		2-0-2	
MUS	335	Music in the Elementary Grades		3-0-3	
MUS	—	<i>Applied Music</i>	2-0-2	2-0-2	
MUS ⁷	—	<i>Music Education elective</i>	2-0-2		
PHL	306	<i>Epistemology</i>		3-0-3	
THL ⁸	220	Theology of Christ	3-0-3		
			18	18	





Dept.	No.	Course	1st Term ¹	2nd Term	3rd Term
<i>Junior Year</i>					
Mus	301-2	History of Music	3-0-3	3-0-3	
Mus	322	Instrumentation and Orchestration		3-0-3	
Mus	331	Vocal Music in the High School	2-0-2		
Mus	332	The School Band and Orchestra	2-0-2		
Mus	341	Conducting		3-0-3	
Mus	—	<i>Applied Music</i>	2-0-2	2-0-2	
Mus ⁷	—	<i>Music Education electives</i>	2-0-2	2-0-2	
Mus ⁹	—	<i>Music Theory electives</i>	2-0-2	2-0-2	
THL ¹⁰	—	Theology elective	2-0-2		
THL ¹¹	—	Theology elective		2-0-2	
			15	17	
<i>Senior Year</i>					
EdF	419	<i>Philosophy of Education</i>		3-0-3	
EdS	415	Student Teaching		1-x-9	
ENG	2—	English elective (203, 204, 205)	3-0-3		
Mus ¹²	429	Marching Band Techniques	2-0-2		
Mus ⁷	—	<i>Music Education elective</i>	2-0-2		
Mus ⁹	—	<i>Music Theory electives</i>	4-0-4		
Mus ¹³	—	Participation in Musical Organizations			4-0-4
PHL ¹⁴	402	<i>General Metaphysics</i>	3-0-3		
SPE	101	<i>Fundamentals of Effective Speaking</i>	3-0-3		
THL ¹⁴	—	Theology elective		2-0-2	
			17	14	4
Ensembles (ref. p. 236)			4-6 credits		

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

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

³Women take EdP 110-1; men not taking R.O.T.C. take EdP 101-2.

⁴Non-Catholic students take EdF 109.

⁵Take Mth 121-2 or Bio 114 and Phy 105.

⁶Women take EdP 112-3; men not taking R.O.T.C. take EdP 201-2.

⁷Music Education electives: Mus 183, 235-6, 284, 325-6, 327-8, 383, 425, 431.

⁸Non-Catholic students take Phl 402.

⁹Music Theory electives: Mus 311-2, 411-2, 415-6, 417-8, 421-2, 441-2.

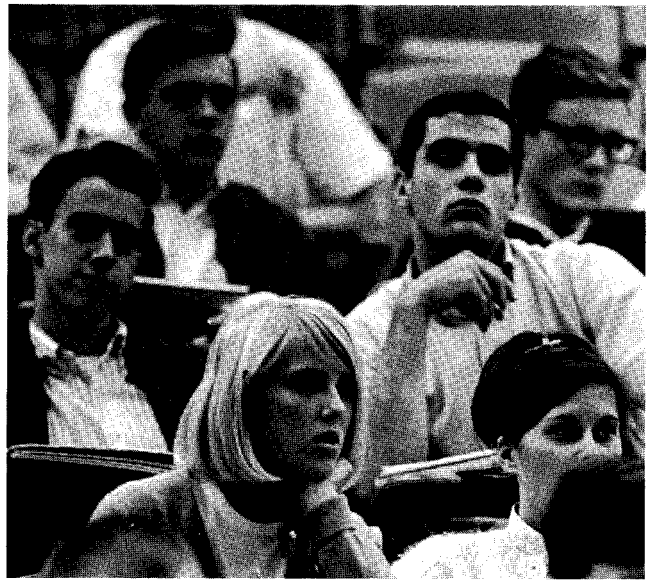
¹⁰Non-Catholic students take Phl 403.

¹¹Non-Catholic students take Phl 404.

¹²Required for those planning to teach instrumental music in secondary schools.

¹³One half credit hour for each semester for participation in Choir, Glee Club, Band or Orchestra.

¹⁴Non-Catholic students take an elective.



PROGRAM—E6: BACHELOR OF SCIENCE IN ART EDUCATION

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term¹</i>	<i>2nd Term</i>	<i>3rd Term</i>
<i>Freshman Year</i>					
EdF	100	Orientation	2-0-1		
EdF ²	198	<i>Nature of the Learner</i>	3-0-3		
EdF	207	<i>Educational Psychology I</i>		3-0-3	
ENG	101	Language and Thought	3-0-3		
ENG	106	Language and Literature		3-0-3	
HST	101-2	History of Civilization	3-0-3	3-0-3	
MIL ³	101-2	First Year Basic Course	2-1-1	2-1-1	
PHL	105	Intro. to Philosophy & Logic		3-0-3	
THL ⁴	152	Intro. to Sacred Scripture	3-0-3		
—	—	<i>Science course⁵</i>	3-0-3	3-0-3	
			17	16	
<i>Sophomore Year</i>					
ART ⁶	B101-2	Design	3-0-3	3-0-3	
ART	B103-4	Structural Representation	3-0-3	3-0-3	
ART	A205	Advanced Design		3-0-3	
ART	A213	Lettering and Calligraphy	3-0-3		
EdF	208	<i>Educational Psychology II</i>		3-0-3	
ENG	2—	English elective (203, 204, 205)	3-0-3		
MIL ⁷	201-2	Second Year Basic Course	2-1-1	2-1-1	
PHL	306	<i>Epistemology</i>		3-0-3	
THL ⁸	220	Theology of Christ	3-0-3		
			16	16	

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term</i> ¹	<i>2nd Term</i>	<i>3rd Term</i>
<i>Junior Year</i>					
ART	A201-2	Advertising Design II and III	3-0-3		3-0-3
ART	B109	Modeling			3-0-3
ART	P207	Life Drawing	3-0-3		
ART	P311-2	Painting (Oil)	3-0-3		3-0-3
ART	407	Art in the Schools			2-0-2
ART	408	Great Masters I			2-0-2
EdE ⁹	350	<i>The Elementary School</i>	3-0-3		
ENG	222	American Literature			3-0-3
SPE	101	<i>Fundamentals of Effective Speaking</i>	3-0-3		
THL ¹⁰	—	Theology elective	2-0-2		
THL ¹¹	—	Theology elective			2-0-2
			17		18
<i>Senior Year</i>					
ART	C221	Ceramics (Craft)			3-0-3
ART	409-10	Great Masters II and III	2-0-2		2-0-2
ART ¹²	—	Craft electives			6-0-6
EdF	419	<i>Philosophy of Education</i>			3-0-3
EdS	415	Student Teaching	1-x-9		
PHL ¹³	402	<i>General Metaphysics</i>	3-0-3		
THL ¹³	—	Theology elective			2-0-2
ART	—	Enameling	3-0-3		
			17		16

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

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

³Women take EdP 110-1; men not taking R.O.T.C. take EdP 101-2.

⁴Non-Catholic students take EdF 109.

⁵Take Mth 121-2 or Bio 114 and Phy 105.

⁶Courses with letter-number codes are taken at the Dayton Art Institute.

⁷Women take EdP 112-3; men not taking R.O.T.C. take EdP 201-2.

⁸Non-Catholic students take Phl 402.

⁹Take EdE 350 or EdS 351.

¹⁰Non-Catholic students take Phl 403.

¹¹Non-Catholic students take Phl 404.

¹²Craft electives: C222, A221-2, B110.

¹³Non-Catholics take an elective.

PROGRAM—E7: BACHELOR OF SCIENCE IN SPEECH EDUCATION

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term</i> ¹	<i>2nd Term</i>	<i>3rd Term</i>
<i>Freshman Year</i>					
EdF	100	Orientation	1-0-1		
EdF	198	Nature of the Learner		3-0-3	
ENG	101	Language and Thought	3-0-3		
ENG	106	Language and Literature		3-0-3	
HST	101-2	History of Civilization	3-0-3	3-0-3	
MIL ²	101-2	First Year Basic Course	2-1-1	2-1-1	
—	—	Science course ³	4-0-4	4-2-4	
PHL ⁴	105	<i>Intro. to Philosophy & Logic</i>	3-0-3		
SPE	101	Fundamentals of Effective Speaking	3-0-3		
THL ⁵	152	Intro. to Sacred Scripture			3-0-3
			18	17	
<i>Sophomore Year</i>					
EdF	207-8	Educational Psychology I and II	3-0-3	3-0-3	
ENG ⁶	2—	English electives	3-0-3	3-0-3	
MIL ⁷	201-2	Second Year Basic Course	2-1-1	2-1-1	
PHL	306	<i>Epistemology</i>		3-0-3	
SPE	201	Speaking Techniques	3-0-3		
SPE	301	Speech Composition		3-0-3	
SPE	310	Interpretative Reading I	3-0-3		
SPE	—	Speech elective		3-0-3	
THL ⁸	220	Theology of Christ	3-0-3		
THL	—	Theology elective			2-0-2
			16	18	
<i>Junior Year</i>					
EdS	351	Secondary School	2-0-2		
EdS	405	Methods in Speech		2-0-2	
PHL ⁹	402	General Metaphysics		3-0-3	
SPE	312	Persuasion	3-0-3		
SPE	313	Acting I	3-0-3		
SPE	400	Speech Correction		3-0-3	
SPE ¹⁰	—	Speech electives	6-0-6	9-0-9	
THL ¹¹	—	Theology elective	2-0-2		
			16	17	
<i>Senior Year</i>					
EdF	419	Philosophy of Education		3-0-3	
EdS	415	Student Teaching	1-x-9		
SPE ¹²	—	Speech electives	3-0-3	9-0-9	
THL ¹³	—	Theology elective		2-0-2	
—	—	General electives		4-0-4	
			12	18	

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

²Women take EdP 110-1; men not taking R.O.T.C. take EdP 101-2.

³May substitute Mth 121-2.

⁴Courses listed in italics may be taken in either the first or second term as directed by the program advisor.

⁵Non-Catholic students take EdF 109.

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

⁷Women take EdP 112-3; men not taking R.O.T.C. take EdP 201-2.

⁸Non-Catholic students take Phl 402.

⁹Non-Catholic students take Phl 403.

¹⁰Take Spe 204 or 302 and Spe 306.

¹¹Non-Catholic students take Phl 404.

¹²Take Spe 401 or 424.

¹³Non-Catholic students take an elective.

PROGRAM—E8: BACHELOR OF SCIENCE IN HOME ECONOMICS EDUCATION

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term</i> ¹	<i>2nd Term</i>	<i>3rd Term</i>
<i>Freshman Year</i>					
CHM	110	General Chemistry	3-3-4		
CHM	200	Organic Chemistry		3-3-4	
EdF	100	Orientation	1-0-1		
EdF	198	Nature of the Learner		3-0-3	
ENG	101	Language and Thought	3-0-3		
ENG	106	Language and Literature		3-0-3	
HEC	105	Introduction to Related Art	3-0-3		
HEC	214	Textiles		3-0-3	
EdP	110-1	Physical and Health Education	1-2-1	1-2-1	
PHL	105	<i>Intro. to Philosophy & Logic</i>		3-0-3	
THL ³	152	Intro. to Sacred Scripture	3-0-3		
			15	17	
<i>Sophomore Year</i>					
BIO	101-2	General Biology	3-3-4	3-3-4	
ENG	2—	English elective (203, 204, 205)	3-0-3		
HEC	101-211	Clothing I and II	2-3-3	2-3-3	
HEC	102-201	Foods I and II	2-3-3	2-3-3	
EdP	112-3	Physical and Health Education	1-2-1	1-2-1	
PHL	306	<i>Epistemology</i>		3-0-3	
SPE	101	Fundamentals of Effective Speaking		3-0-3	
THL ⁴	220	Theology of Christ	3-0-3		
			17	17	
<i>Junior Year</i>					
ECO	201	Principles of Economics I		3-0-3	
EdF	208	Educational Psychology II	3-0-3		
EdS	351	Secondary School	2-0-2		
HEC	221	Home Management I	3-0-3		
HEC	225-329	Child Development I and II	3-0-3	3-0-3	
HEC	303	Nutrition and Health		3-0-3	
HEC	309	Household Equipment	3-0-3		
THL ⁵	—	Theology elective	2-0-2		
THL ⁶	—	Theology elective		2-0-2	
—	—	General electives	2-0-2	6-0-6	
			18	17	
<i>Senior Year</i>					
EdF	419	Philosophy of Education	3-0-3		
EdS	415	Student Teaching		1-x-9	
ENG	222	American Literature	3-0-3		
HEC	318	Family Living		3-0-3	
HEC	323	Demonstration Methods	0-2-1		
HEC	328	Home Furnishing and Housing	3-0-3		
HEC	405	Teaching of Home Economics	3-0-3		
HEC	406	Home Management II		1-4-3	
PHL ⁷	402	General Metaphysics	3-0-3		
THL ⁷	—	Theology elective	2-0-2		
			18	15	

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 EdF 109.⁴Non-Catholic students take Phl 402.⁵Non-Catholic students take Phl 403.⁶Non-Catholic students take Phl 404.⁷Non-Catholic students take an elective.

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 a *minimum* of 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:

	<i>Cr. Hrs.</i>
1. The Elementary School: Purposes and Practices	3
2. Reading in the Elementary School	3
3. Arithmetic in the Elementary School	3
4. Growth and Development or Child Psychology	3

- 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. Subsequent renewals may be gained without additional training.



PROGRAM—E11: B.A. or B.S. DEGREE WITH TEACHER CERTIFICATION

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 minimum requirements in professional education courses, see p. 112 of this Catalog; for minimum requirements in teaching fields, see p. 117.

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 2.500 average in each teaching field and taking the comprehensive exam (TEEP). 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.

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 both a principal and a second teaching field;
3. complete the general curriculum requirements prescribed by the University for all undergraduate degrees.



$$\frac{17}{512}$$
$$\frac{1}{10}$$
$$\frac{1}{100}$$

IX School of Engineering

DR. MAURICE GRANNEY, *Dean*

DR. C. RICHARD HORWEDEL, *Assistant to the Dean*

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 ORIENTATION LECTURES

All entering freshmen are required to attend a series of orientation lectures one hour a week for the first term of enrollment. These lectures are intended to acquaint the student with the School of Engineering, academic requirements, and the various fields of engineering.

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 216, 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;
- 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

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term</i> ¹	<i>2nd Term</i>	<i>3rd Term</i>
CHM	125	General Chemistry		3-3-4	
CPS	233	Fortran Programming		2-0-2	
ECM	101	Mechanics I		3-0-3	
ENG	101	English Composition I	3-0-3		
MTH	216-7	Analytic Geometry & Calculus	4-0-4	4-0-4	
MEE ²⁻⁴	206L-7L	<i>Engineering Graphics</i>	0-6-2		0-6-2
MIL ³	101-2	First Year Basic Course	2-1-1	2-1-1	
ORI	100	Orientation	1-0-0		
PHL ⁴	105	Intro. to Philosophy & Logic	3-0-3		
PHL ⁴	207	<i>Philosophical Psychology</i>			3-0-3
PHY	206	General Physics	3-0-3		
THL ⁵	152	<i>Introduction to Sacred Scripture</i>		3-0-3	
			16	17	3-5

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

²Mee 207L required in Civil Engineering and Mechanical Engineering programs only.

³Women take EdP 130W-1W; men not taking R.O.T.C. take EdP 201-2.

⁴Courses listed in italics may be taken in terms other than listed. Consult program advisor.

⁵Non-Catholics consult General Curriculum Requirements.

CHEMICAL ENGINEERING

The objective of the curriculum in chemical engineering is the training of students for design, construction and operation of chemical equipment. 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, analytical 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 department has its own analog computer and a Burroughs 220 digital computer is available for use in the Research Institute.

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

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term</i> ¹	<i>2nd Term</i>	<i>3rd Term</i>
<i>Sophomore Year</i>					
CME	203	Material and Energy Balances	3-0-3		
CHM	215	Quantitative Analysis	2-0-2		
CHM	217L	Quantitative Analysis Laboratory	0-3-1		
CHM	315	Organic Chemistry		3-0-3	
CHM	313L	Organic Chemistry Laboratory		0-3-1	
ENG	106	Language and Literature	3-0-3		
MTH	218	Analytic Geometry & Calculus	4-0-4		
MTH	341	Advanced Engineering Mathematics I		3-0-3	
MIL ²	201-2	Second Year Basic Course	2-1-1	2-1-1	
PHY	207-8	General Physics	3-0-3	3-0-3	
SPE	101	Fundamentals of Effective Speaking		3-0-3	
THL ³	220	Theology of Christ		3-0-3	
			17	17	
<i>Junior Year</i>					
CME	305	Thermodynamics		3-0-3	
CME	324-5	Transport Phenomena	3-0-3		3-0-3
CME	326L	Transport Phenomena Laboratory		0-3-1	
CME	381	Applied Mathematics for Chemical Engineers	3-0-3		
CHM	303-4	Physical Chemistry	3-3-4	3-3-4	
CHM	316	Organic Chemistry	3-0-3		
CHM	314L	Organic Chemistry Laboratory	0-3-1		
ELE	321	Basic Electric Theory		3-0-3	
H-S	—	Elective	3-0-3		
PHL	306	Epistemology		3-0-3	
			17	17	
<i>Senior Year</i>					
CME	306	Kinetics	3-0-3		
CME	411-2	Unit Operations	3-0-3	3-0-3	
CME	413L-4L	Unit Operations Laboratory	0-5-2(H) ⁴	0-5-2	
CME	430	Chemical Engineering Design		3-0-3(H) ⁴	
CME	452	Process Control	3-0-3		
CME	453L	Process Control Laboratory		0-3-1	
H-S	—	Elective	3-0-3		
PHL	402	General Metaphysics		3-0-3	
THL ³	—	Elective		2-0-2	
CME	—	Elective	3-0-3(H) ⁴	3-0-3(H) ⁴	
			17	17	

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

²Women take EdP 130W-1W; men not taking R.O.T.C. take EdP 201-2.

³Non-Catholic students consult General Curriculum Requirements. Students must satisfy pre-requisites for all courses.

⁴After the Junior year in the Chemical Engineering curriculum, students who are academically qualified (cumulative point average of 3.00 or higher) may substitute Honors Courses for those indicated (H) in the Senior Year. Honors Courses can be on the undergraduate or graduate level. Those who intend to obtain a Master's degree at the University of Dayton must choose Honors Courses at the graduate level so that an additional year of Graduate School work would enable a student to obtain a Master of Science in Engineering degree.

CIVIL ENGINEERING

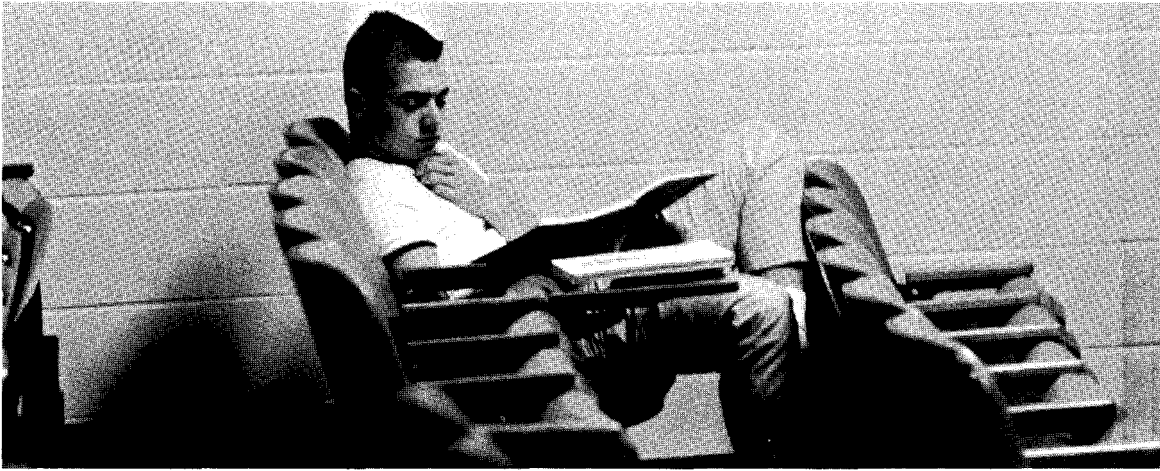
The curriculum is designed to give a thorough education in the principles fundamental to the civil engineering profession, so that the graduate is prepared to pursue to advantage any field of civil practice or advanced study.

During the first two years, emphasis is placed on those subjects underlying all engineering—English, mathematics, chemistry, physics, drawing, 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.

PROGRAM—EN2: BACHELOR OF CIVIL ENGINEERING

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term</i> ¹	<i>2nd Term</i>	<i>3rd Term</i>
<i>Sophomore Year</i>					
CIE ⁵	205L	Surveying Field Practice			3-0-3
CIE	207-8	Surveying	4-0-4	3-0-3	
CIE	310L	Civil Engineering Laboratory		0-3-1	
CIE	408B	Seminar	1-0-0	1-0-0	
EGM	301	Dynamics		3-0-3	
EGM	303	Strength of Materials	3-0-3		
ENG	106	Language and Literature	3-0-3		
GEO	218	Engineering Geology		3-0-3	
MTH	218	Analytic Geometry & Calculus	4-0-4		
MTH	341	Advanced Engineering Math I			3-0-3
MIL ²	201-2	Second Year Basic Course	2-1-1	2-1-1	
PHY	207-8	General Physics	3-0-3	3-0-3	
SPE	101	Fundamentals of Effective Speaking		3-0-3	
THL ³	220	Theology of Christ			3-0-3
			18	17	9
<i>Junior Year</i>					
CIE	312	Soil Mechanics		3-3-4	
CIE	313	Hydraulics	3-3-4		
CIE	314	Theory of Structures	4-0-4		
CIE	406	Indeterminate Structures		3-0-3	
CIE	408B	Seminar	1-0-0	1-0-0	
EGM	304	Advanced Strength of Materials	3-0-3		
ENGR ⁴	—	Electives	3-0-3	3-0-3	
H-S	—	Elective		3-0-3	
PHL	306	Epistemology		3-0-3	
THL ³	—	Elective	2-0-2		
			16	16	



<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term</i> ¹	<i>2nd Term</i>	<i>3rd Term</i>
<i>Senior Year</i>					
CIE	402	Structural Design II		2-6-4	
CIE	405	Highway Engineering	3-0-3		
CIE	407	Reinforced Concrete	4-0-4		
CIE	408B-A	Seminar	1-0-0	1-0-1	
CIE	415	Structural Design I	3-0-3		
CIE	433-4	Sanitary Engineering	3-0-3	3-0-3	
CIE	—	Electives	3-0-3	3-0-3	
H-S	—	Elective		3-0-3	
PHL	402	General Metaphysics		3-0-3	
			16	17	

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

²Women take EdP 130W-1W; men not taking R.O.T.C. take EdP 201-2.

³Non-Catholic students consult General Curriculum Requirements.

⁴Select two courses from Ele 321, 322, Mee 301.

⁵Three weeks special summer schedule which does not conflict with regular third term.

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 students of electrical engineering an understanding of the basic principles and practices in the fields of electrical power and electrical communications. Some degree of specialization in these fields is provided according to the abilities and interests of the individual students.

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

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term</i> ¹	<i>2nd Term</i>	<i>3rd Term</i>
<i>Sophomore Year</i>					
ENG	106	Language and Literature		3-0-3	
ELE	231-2	Circuit Theory I & II	3-0-3	3-0-3	
ELE	233	Field Theory I	3-0-3		
MTH	218	Analytic Geometry & Calculus	4-0-4		
MTH	341	Advanced Engineering Mathematics I			3-0-3
MIL ²	201-2	Second Year Basic Course	2-1-1	2-1-1	
PHY	207-8	General Physics	3-0-3	3-0-3	
SPE	101	Fundamentals of Effective Speaking			3-0-3
THL ³	220	Theology of Christ	3-0-3		
			17	16	
<i>Junior Year</i>					
EGM	301	Dynamics	3-0-3		
ELE	312-3	Electronics I & II	3-0-3	3-0-3	
ELE	331-2	Circuit Theory III & IV	3-0-3	3-0-3	
ELE	333-4	Field Theory II & III	3-0-3	3-0-3	
ELE	335L-6L	Electrical Engineering Laboratory I & II	0-2-1	0-2-1	
ELE	338L	Electrical Engineering Laboratory III			0-2-1
ELE	410b	Seminar	1-0-0	1-0-0	
H-S	—	Elective			3-0-3
INE	313	Engineering Law			2-0-2
THL ³	—	Elective	2-0-2		
			15	16	
<i>Senior Year</i>					
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 Laboratory IV & V	0-2-1	0-2-1	
H-S	—	Elective			3-0-3
PHL	306	Epistemology	3-0-3		
PHL	402	General Metaphysics			3-0-3
Sci ⁴	—	Elective			3-0-3
ELE	—	Electives	3-0-3	3-0-3	
			16	17	

¹Under "Term," 3-0-3 means 3 hrs. class, 0 hrs. laboratory, and 3 hrs. credit.²Women take EdP 130W-1W; men not taking R.O.T.C. take EdP 201-2.³Non-Catholic students consult General Curriculum Requirements.⁴Advanced Physics or Computer Science.

INDUSTRIAL ENGINEERING

The industrial engineering profession applies creative ability in a scientific manner to the design, installation, or improvement of complex integrated systems involving physical resources such as machinery, equipment, materials, and money; so that people may be more effective in reaching their objective.

The profession emphasizes the *combination* and *integration* of knowledge from many disciplines. It strives to utilize *scientific methods* to arrive at proper relationships of men, materials, machinery, and money in the *design of systems*. The industrial engineer is, therefore, required to call upon many other specialists for detailed knowledge of specialized components of the systems. These may involve many other branches of engineering, other scientific and non-scientific disciplines.

In emphasizing accomplishment, industrial engineering represents the engineering approach to management (the responsibility for achieving objectives through people). However, industrial engineering principles 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, especially where land, capital, and labor meet and must be economically and efficiently related.

In accord with the objectives of the University, the industrial engineering curriculum reflects the understanding that the tasks which people perform are subordinate to the people themselves. Therefore, the industrial engineering curriculum is designed to help the student develop sound religious and moral convictions, broad knowledge and basic intellectual habits, physical vigor and emotional stability, a keen awareness of social responsibility along with his specialized professional attitudes and competencies.

PROGRAM—EN4: BACHELOR OF INDUSTRIAL ENGINEERING

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term</i> ¹	<i>2nd Term</i>	<i>3rd Term</i>
<i>Sophomore Year</i>					
ECO	201	Principles of Economics I	3-0-3		
ENG	106	Language and Literature		3-0-3	
INE	201	Industrial Engineering Fundamentals	3-0-3		
INE	202	Engineering Economy		3-0-3	
MTH	218	Analytic Geometry & Calculus	4-0-4		
MTH	331	Statistics for Engineers		3-0-3	
MIL ²	201-2	Second Year Basic Course	2-1-1	2-1-1	
PHY	207-8	General Physics	3-0-3	3-0-3	
PSY	201	Introductory Psychology	3-0-3		
THL ³	220	Theology of Christ			3-0-3
			17	16	

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term¹</i>	<i>2nd Term</i>	<i>3rd Term</i>
<i>Junior Year⁴</i>					
EGM	301	Dynamics		3-0-3	
ELE	321	Basic Electrical Theory	3-0-3		
ELE	322	Fundamentals of Engineering Electronics		2-2-3	
INE	320-1	Management Systems Design I & II	3-0-3	3-0-3	
INE	332	Statistical Control & Systems Design	3-0-3		
INE	341	Work Design I	3-0-3		
INE	—	Elective		3-0-3	
MTH	341	Advanced Engineering Mathematics I	3-0-3		
SPE	101	Fundamentals of Effective Speaking		3-0-3	
			15	15	
<i>Senior Year⁴</i>					
CME	305	Thermodynamics	3-0-3		
INE	410	Seminar	1-0-1		
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	
INE	—	Electives	3-0-3	3-0-3	
PHL	306	Epistemology	3-0-3		
PHL	402	General Metaphysics		3-0-3	
THL ³	—	Elective		2-0-2	
			16	14	

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

²Women take EdP 130W-1W; men not taking R.O.T.C. take EdP 201-2.

³Non-Catholic students consult General Curriculum Requirements.

⁴An Honors Course may be added each term for students designated by Department Chairman.

MECHANICAL ENGINEERING

The curriculum of mechanical engineering is designed to give the student knowledge of the fundamental principles of science and the application of these principles to pertinent problems.

Basic studies in mathematics and the sciences are pursued in the first two years and departmental subjects are taken up in the last two years. The course of studies comprises lectures, recitations and discussions, laboratory practice, and inspection visits.

Every attempt is made to impress the student with the responsibilities that rest upon the mechanical engineer, whether engaged as designer, builder, operator, organizer, manager or executive.



PROGRAM—EN5: BACHELOR OF MECHANICAL ENGINEERING

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term¹</i>	<i>2nd Term</i>	<i>3rd Term</i>
<i>Sophomore Year</i>					
EGM	301	Dynamics	3-0-3		
ENG	106	Language and Literature		3-0-3	
MTH	218	Analytic Geometry and Calculus	4-0-4		
MTH	341	Advanced Engineering Mathematics I		3-0-3	
MEE	211	Materials and Processes	2-3-3		
MEE	301	Thermodynamics I		3-0-3	
MEE	305L	Mechanical Engineering Laboratory I		0-3-1	
MIL ²	201-2	Second Year Basic Course	2-1-1	2-1-1	
PHL	306	Epistemology	3-0-3		
PHY	207-8	General Physics	3-0-3	3-0-3	
THL ³	220	Theology of Christ		3-0-3	
			17	17	
<i>Junior Year</i>					
EGM	303	Strength of Materials	3-3-4		
H-S	—	Elective			3-0-3
ELE	321	Basic Electric Theory	3-0-3		
ELE	322	Fundamentals of Engineering Electronics		2-2-3	
MEE	302	Thermodynamics II	3-0-3		
MEE	308	Fluid Mechanics	3-0-3		
MEE	310	Thermal Engineering I	3-0-3		
MEE	313	Metallurgy		3-0-3	
MEE	321	Theory of Machines		2-3-3	
MEE	412L	Fuels & Lubricants Analysis Laboratory	0-3-1		
MEE	414B	Seminar	1-0-0	1-0-0	
MEE	418	Advanced Fluid Mechanics		3-0-3	
MEE	419	Mechanical Engineering Analysis		2-0-2	
PHL	402	General Metaphysics			3-0-3
SPE	101	Fundamentals of Effective Speaking		3-0-3	
			17	17	6
<i>Senior Year</i>					
H-S	—	Elective		3-0-3	
MEE	406L	Mechanical Engineering Laboratory II		0-6-2	
MEE	407-8	Machine Design	2-3-3	2-3-3	
MEE	410	Heat Transfer	3-0-3		
MEE	414A-B	Seminar	1-0-0	1-0-1	
MEE	416	Mechanical Vibrations	2-0-2		
MEE	417	Thermal Engineering II	3-0-3		
MEE	423	Heating, Air Conditioning, and Refrigeration		3-0-3	
PHY	209	Modern Physics	3-0-3		
THL ³	—	Elective		2-0-2	
MEE	—	Elective	3-0-3	3-0-3	
			17	17	

¹Under "Term," 3-0-3 means 3 hrs. class, 0 hrs. laboratory, and 3 hrs. credit.²Women take EdP 130W-1W; men not taking R.O.T.C. take EdP 201-2.³Non-Catholic students consult General Curriculum Requirements.



Technical Institute

JAMES L. MCGRAW, *Director*

OBJECTIVES

The Technical Institute is a division of the School of Engineering and 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 Technical Institute that this objective is best accomplished by:

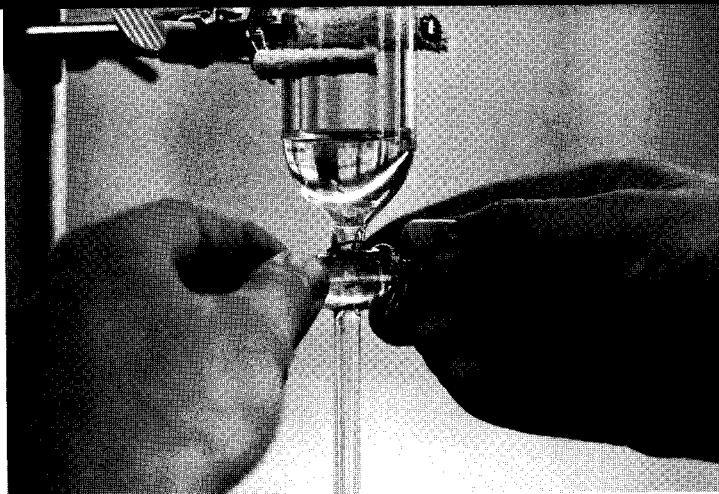
1. Providing specialized technical courses which emphasize the use of rational thinking and the application of scientific principles to the practical solution of technological problems.
2. Providing courses in mathematics and basic science sufficient to support the technical courses and to prepare the 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, Technical Institute 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 Technical Institute 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 Technical Institute 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 the Technical Institute 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

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term</i> ¹	<i>2nd Term</i>	<i>3rd Term</i>
<i>Freshman Year</i>					
CTI	101	Inorganic Chemistry		3-3-4	
ITI	101	Industrial Organization & Production		3-0-3	
MIL ²	101-2	First Year Basic Course	2-1-1	2-1-1	
MTI	103L	Technical Drawing		0-6-2	
ORI	100	Orientation	1-0-0		
PHL	105	Intro. to Philosophy & Logic	3-0-3		
STI	105-6	Technical Institute Mathematics	3-0-3	3-0-3	
STI	114	Physics: Mechanics		2-2-2½	
STI	122	Industrial Chemistry	3-3-4		
STI	130	English Composition	3-0-3		
STI	134	Effective Speaking		2-0-2	
THL ³	152	Introduction to Sacred Scripture	3-0-3		
			17	17½	
<i>Sophomore Year</i>					
CTI	202	Quantitative Analysis	3-6-5		
CTI	203	Physical Chemistry		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	
MIL ⁴	201-2	Second Year Basic Course	2-1-1	2-1-1	
STI	213	Physics: Electricity		2-2-2½	
STI	214	Physics: Heat, Light & Sound	2-2-2½		
STI	252	American Political Ideas	3-0-3		
THL ³	220	Theology of Christ	3-0-3		
			18½	16½	
<i>Junior Year</i>					
CTI	307	Applied Chemistry	2-3-3		
CTI	301	Metallurgy	3-0-3		
CTI	302	Chemical Engineering Technology	3-0-3		
PHL	207	Philosophical Psychology	3-0-3		
STI	234	Report Writing	2-0-2		
STI	251	Economics of Industry	3-0-3		
			17		

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

²Women take EdP 110-1; men not taking R.O.T.C. take EdP 101-2.

³Non-Catholic students consult General Curriculum Requirements.

⁴Women take EdP 112-3; men not taking R.O.T.C. take EdP 201-2.

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

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term</i> ¹	<i>2nd Term</i>	<i>3rd Term</i>
<i>Freshman Year</i>					
ETI	102	Elements of Electrical Technology I		3-0-3	
ETI	222L	Electronic Circuit Diagrams		0-3-1	
ITI	101	Industrial Organization & Production	3-0-3		
MIL ²	101-2	First Year Basic Course	2-1-1	2-1-1	
ORI	100	Orientation	1-0-0		
PHL	105	Intro. to Philosophy & Logic	3-0-3		
PHL	207	Philosophical Psychology		3-0-3	
STI	105-6	Technical Institute Mathematics	3-0-3	3-0-3	
STI	122	Industrial Chemistry		3-3-4	
STI	130	English Composition	3-0-3		
STI	134	Effective Speaking		2-0-2	
THL ³	152	Introduction to Sacred Scripture	3-0-3		
			16	17	
<i>Sophomore Year</i>					
ETI	101L	Electrical Circuits Laboratory	0-3-1		
ETI	204	Electrical Measurements	2-3-3		
ETI	103	Elements of Electrical Technology II	3-0-3		
ETI	205	Electronic Measurements		3-3-4	
ETI	206	Electron Devices I		3-3-4	
ETI	300	Seminar	1-0-0	1-0-0	
ETI	324	Digital Computer Fundamentals		3-3-4	
MIL ⁴	201-2	Second Year Basic Course	2-1-1	2-1-1	
STI	114	Physics: Mechanics	2-2-2½		
STI	205	Mathematics for Electrical Technology	3-0-3		
STI	214	Physics: Heat, Light & Sound		2-2-2½	
STI	234	Report Writing	2-0-2		
STI	251	Economics of Industry		3-0-3	
THL ³	220	Theology of Christ	3-0-3		
			18½	18½	
<i>Junior Year</i>					
ETI	300	Seminar	1-0-0		
ETI	306	Electron Devices II	3-3-4		
ETI	327	Pulse Circuit Fundamentals	3-0-3		
ETI	328	Electronic Communications	3-3-4		
ETI	330	Special Electronic Projects	1-0-1		
ITI	203	Elements of Supervision	2-0-2		
STI	252	American Political Ideas	3-0-3		
			17		

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

²Women take EdP 110-1; men not taking R.O.T.C. take EdP 101-2.

³Non-Catholic students consult General Curriculum Requirements.

⁴Women take EdP 112-3; men not taking R.O.T.C. take EdP 201-2.

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

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term</i> ¹	<i>2nd Term</i>	<i>3rd Term</i>
<i>Freshman Year</i>					
ITI	101	Industrial Organization & Production	3-0-3		
ITI	104	Industrial Materials and Processes		3-0-3	
MIL ²	101-2	First Year Basic Course	2-1-1	2-1-1	
MTI	103L	Technical Drawing		0-6-2	
MTI	106L	Testing and Measurements		0-3-1	
MTI	107L	Machine Tool Operation		0-3-1	
ORI	100	Orientation	1-0-0		
PHL	105	Intro. to Philosophy & Logic	3-0-3		
STI	105-6	Technical Institute Mathematics	3-0-3	3-0-3	
STI	114	Physics: Mechanics		2-2-2½	
STI	130	English Composition	3-0-3		
STI	134	Effective Speaking		2-0-2	
STI	234	Report Writing		2-0-2	
THL ³	152	Introduction to Sacred Scripture	3-0-3		
			16	17½	
<i>Sophomore Year</i>					
ITI	108	Production Methods & Control	3-0-3		
ITI	203	Elements of Supervision		2-0-2	
ITI	215	Elements of Cost Control	2-0-2		
ITI	216	Quantitative Methods in Ind. Eng. Tech.		3-0-3	
ITI	217	Industrial Economic Analysis		3-0-3	
ITI	230	Motion and Time Study I		2-3-3	
MIL ⁴	201-2	Second Year Basic Course	2-1-1	2-1-1	
MTI	213	Industrial Mechanisms	3-0-3		
STI	122	Industrial Chemistry	3-3-4		
STI	213	Physics: Electricity		2-2-2½	
STI	214	Physics: Heat, Light & Sound	2-2-2½		
STI	251	Economics of Industry		3-0-3	
THL ³	220	Theology of Christ	3-0-3		
			18½	17½	
<i>Junior Year</i>					
ITI	305	Labor & Wage Administration	3-0-3		
ITI	318	Statistical Quality Control	3-0-3		
ITI	331	Motion and Time Study II	2-3-3		
ITI	332	Plant Layout	2-3-3		
PHL	207	Philosophical Psychology	3-0-3		
STI	252	American Political Ideas	3-0-3		
			18		

¹Under "Term," 3-0-3 means 3 hrs. class, 0 hrs. laboratory, and 3 hrs. credit.²Women take EdP 110-1; men not taking R.O.T.C. take EdP 101-2.³Non-Catholic students consult General Curriculum Requirements.⁴Women take EdP 112-3; men not taking R.O.T.C. take EdP 201-2.



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; mechanism; thermodynamics; fluid mechanics; electronic technology; industrial automation actuation; dies, jig and fixture design; machine design, and basic technical courses such as technical drawing, physics, mathematics and chemistry which prepare a graduate to perform successfully as an aide to scientists and professional engineers.

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, board designer, technical report writer, erection and maintenance technician, 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

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term</i> ¹	<i>2nd Term</i>	<i>3rd Term</i>
<i>Freshman Year</i>					
ITI	101	Industrial Organization & Production	3-0-3		
ITI	104	Industrial Materials & Processes		3-0-3	
MIL ²	101-2	First Year Basic Course	2-1-1	2-1-1	
MTI	103L	Technical Drawing		0-6-2	
ORI	100	Orientation	1-0-0		
PHL	105	Intro. to Philosophy & Logic	3-0-3		
STI	105-6	Technical Institute Mathematics	3-0-3	3-0-3	
STI	114	Physics: Mechanics		2-2-2½	
STI	122	Industrial Chemistry		3-3-4	
STI	130	English Composition	3-0-3		
STI	234	Report Writing		2-0-2	
THL ³	152	Introduction to Sacred Scripture	3-0-3		
			16	17½	
<i>Sophomore Year</i>					
ITI	203	Elements of Supervision		2-0-2	
MIL ⁴	201-2	Second Year Basic Course	2-1-1	2-1-1	
MTI	104L	Graphical Computations	0-6-2		
MTI	106L	Testing and Measurements	0-3-1		
MTI	107L	Machine Tool Operation		0-3-1	
MTI	221	Strength of Materials		3-0-3	
MTI	224	Statics	2-0-2		
MTI	225	Dynamics	2-0-2		
MTI	226L	Mechanism	1-3-2		
MTI	321L	Dies, Jigs, and Fixtures		1-3-2	
MTI	230	Thermodynamics	2-0-2		
MTI	231	Fluid Mechanics		3-0-3	
STI	206	Mathematics for Mechanical Design Technology	3-0-3		
STI	213	Physics: Electricity		2-2-2½	
STI	214	Physics: Heat, Light & Sound	2-2-2½		
STI	252	American Political Ideas		3-0-3	
			17½	17½	
<i>Junior Year</i>					
ETI	201	Fundamentals of Electronic Technology	3-0-3		
MTI	327L	Industrial Automation Actuation	1-3-2		
MTI	322L	Machine Design	1-3-2		
PHL	207	Philosophical Psychology	3-0-3		
STI	134	Effective Speaking	2-0-2		
STI	251	Economics of Industry	3-0-3		
THL ³	220	Theology of Christ	3-0-3		
			18		

¹Under "Term," 3-0-3 means 3 hrs. class, 0 hrs. laboratory, and 3 hrs. credit.²Women take EdP 110-1; men not taking R.O.T.C. take EdP 101-2.³Non-Catholic students consult General Curriculum Requirements.⁴Women take EdP 112-3; men not taking R.O.T.C. take EdP 201-2.

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

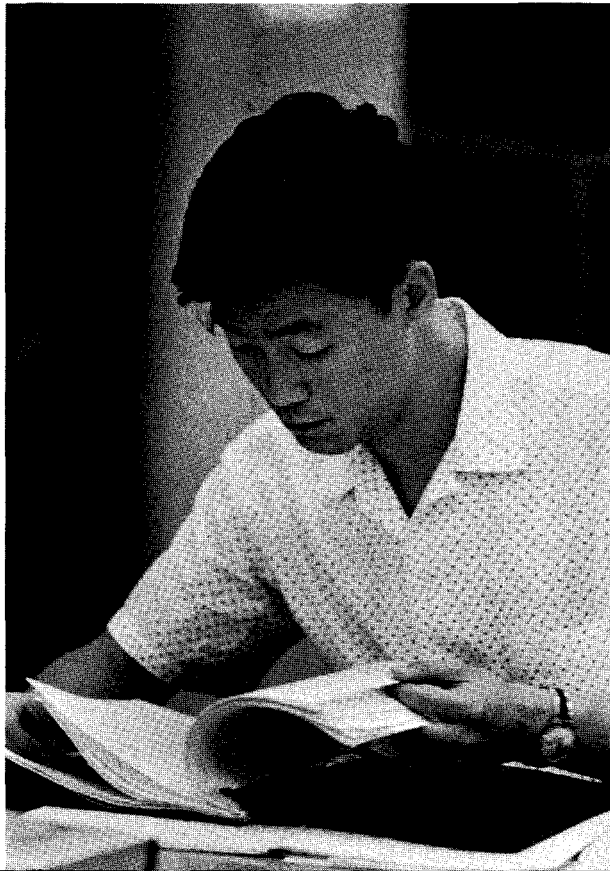
Degree requirements for the Bachelor of Technology:

A. Completion of the requirements for the Associate in Technology degree.

B. Completion of a minimum of 45 additional credit hours distributed as follows:

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>Credits</i>
—	—	English electives	6
PHL	402	General Metaphysics	3
PHL	306	Epistemology	3
STI	305	Advanced Technical Institute Math.	3
STI	341	Psychology of Human Relations	3
THL ¹	—	Theology electives	6
—	—	Non-Technical electives	6
—	—	Approved Technical electives	15
			45

¹Non-Catholics consult General Curriculum Requirements.





Courses of Instruction

Accounting (Acc)

Edward W. Rodgers, *Acting Chairman*

Professor: Hoben

Associate Professors: Fioriti, Kriegbaum

Assistant Professors: Clark, Eley, Ellis, Malecek, Rodgers, Wagner, Winger

Part-time Instructors: Garcia, Grismer, Luthman, Rotterman, Vlahos, Wiggins

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

The purpose of the course is to acquaint the student with the primary function of accounting and introduce him to the entire accounting cycle in single proprietorships, partnerships, and corporations. This is a prerequisite to all other courses in accounting.

ACC 209. PRINCIPLES OF AUTOMATED ACCOUNTING TWO CREDIT HOURS

A course acquainting the business student with the most current methods of processing accounting data into accounting statements and managerial reports.

ACC 303. COST ACCOUNTING THREE CREDIT HOURS

This is an introductory course in the theory and practice of cost accounting as used in job, process, and estimated cost systems. Emphasis is placed on cost principles, control, and procedures in relation to materials, labor, and manufacturing expenses.

ACC 304. ADVANCED COST ACCOUNTING THREE CREDIT HOURS

Analysis and control of industrial costs through utilization of budgetary procedures and standard cost systems. Study of distribution costs, profit-volume analyses, and cost reports used in managerial and administrative decisions.

ACC 305-306. INTERMEDIATE ACCOUNTING I & II SIX CREDIT HOURS

A detailed study of the components appearing in accounting statements. An introduction to alternative procedures and terminology; analysis; theory; and current professional pronouncements.

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 310. COST ACCOUNTING ANALYSIS** **THREE CREDIT HOURS**
Elements of manufacturing costs; cost and financial statement analysis; cost systems and budgets. Course is intended for students outside School of Business Administration. Prerequisites: Acc 207-208 or Acc 203.
- 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 320. BUDGETARY PROCEDURES FOR MANAGEMENT CONTROL** **THREE CREDIT HOURS**
Role of the budget as it relates to management functions of motivation, planning, organization, and control. A study is made of the construction, control, and interpretation of accounts for a business enterprise.
- ACC 340. FUNDAMENTALS OF BUSINESS DATA PROCESSING** **THREE CREDIT HOURS**
A course designed to give the student an understanding of the relationship between business systems and data processing equipment. Emphasis is placed upon the use of the data processing equipment and related techniques as a tool in the over-all management information system.
- ACC 341. MANAGEMENT INFORMATION SYSTEMS** **THREE CREDIT HOURS**
A study of comprehensive management information systems, including electronic data processing applications and the evolution toward integrated systems; introduction of decision making functions into automated systems is emphasized.
- ACC 403. ANALYSIS OF FINANCIAL STATEMENTS** **THREE CREDIT HOURS**
The financial reports of business concerns are examined for content and organization. Methods are developed for statement evaluation from the viewpoints of management, stockholders, and creditors.
- ACC 405. AUDITING PRINCIPLES** **TWO 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**
An interpretation of the income tax portions of the current Revenue Act. The preparation of the individual, partnership and corporation income tax returns.
- 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 training in the techniques of applying these principles to the solution of specific problems. Designed 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.

Biology (Bio)

Dr. George B. Noland, *Chairman*

Professor: Noland

Associate Professors: Cooney, Faso, Jaffee, Joly, Lachapelle, Shay

Assistant Professors: Bajpai, Chantell, Geiger, Laufersweiler, MacMahon, McDougall, Ramsey, Willis

Instructor: Trigg

All laboratories must be taken concurrently with the corresponding lecture courses.

BIO 101. GENERAL BIOLOGY I **THREE CREDIT HOURS**
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 **ONE CREDIT HOUR**
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 **THREE CREDIT HOURS**
A continuation of Bio 101. Stresses primarily the operational aspects of living matter. Prerequisite: Bio 101.

BIO 102L. GENERAL BIOLOGY LABORATORY II (HONORS) **ONE CREDIT HOUR**
Course to accompany Bio 102. One three-hour laboratory period per week.

BIO 114. BIOLOGICAL SCIENCE **THREE CREDIT HOURS**
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 **ONE CREDIT HOUR**
Laboratory course to demonstrate and emphasize those principles discussed in lecture. One two-hour lab per week.

BIO 205-206. HUMAN ANATOMY AND PHYSIOLOGY **SIX CREDIT HOURS**
Lecture-demonstrations on the various organs and systems composing the body. The functions of the human body as a living organism are integrated with the study of structure. Prerequisites: Bio 101-102.

BIO 206L. HUMAN ANATOMY AND PHYSIOLOGY LABORATORY **ONE CREDIT HOUR**
Course to accompany Bio 206. Prerequisite: permission of instructor.

BIO 207. HUMAN ANATOMY **THREE CREDIT HOURS**
A foundation study in the basic anatomy of the human body, consisting of lecture demonstrations on the various organs and systems composing the body. Prerequisites: Bio 101-102 or Bio 113.

BIO 207L. HUMAN ANATOMY LABORATORY **ONE CREDIT HOUR**
A course to accompany Bio 207 lecture. One three-hour period per week.

- Bio 209. COMPARATIVE ANATOMY OF THE VERTEBRATES** THREE CREDIT HOURS
 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** TWO CREDIT HOURS
 Course to accompany Bio 209 lecture. Two three-hour periods per week.
- Bio 214L. COMPARATIVE ANATOMY LABORATORY** ONE CREDIT HOUR
 Course to accompany Bio 209 when taught at night. One three-hour lab per week.
- Bio 220. GENERAL BOTANY** THREE CREDIT HOURS
 A consideration of the structure, physiology, reproduction and inheritance of representatives of the plant groups. The importance of plants in the life of man will be discussed. Prerequisites: Bio 101, 102.
- Bio 220L. GENERAL BOTANY LABORATORY** ONE CREDIT HOUR
 A course to accompany Bio 220 lecture. One three-hour laboratory period per week.
- Bio 303. PHYSIOLOGY** THREE CREDIT HOURS
 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** ONE CREDIT HOUR
 Course to accompany Bio 303 lecture. One three-hour period per week.
- Bio 304. HISTOLOGY** TWO CREDIT HOURS
 Fundamentals of cell structure, tissue organization and microscopic anatomy of the vertebrate animal; stress on the mammals. Kodachromes will take the place of microscopic work. Prerequisites: Bio 101-102.
- Bio 310. MICROTECHNIQUE AND HISTOLOGY** THREE CREDIT HOURS
 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** ONE CREDIT HOUR
 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** THREE CREDIT HOURS
 A study of the principles of variation and heredity in plants and animals, with stress on the inheritance of human characteristics. Prerequisites: Bio 101-102 and Mth 121.
- Bio 312L. GENERAL GENETICS LABORATORY** ONE CREDIT HOUR
 Course to accompany Bio 312. One two-hour period per week.
- Bio 315. SYSTEMATIC BOTANY** THREE CREDIT HOURS
 A study of the theory and techniques of plant classification, stressing the evidence used in phylogenetic and evolutionary schema. Prerequisite: Bio 220 or consent of instructor.
- Bio 315L. SYSTEMATIC BOTANY LABORATORY** ONE CREDIT HOUR
 Laboratory, field and herbarium techniques necessary to studies of plant systematics will be considered.

- Bio 320. EVOLUTION** **THREE CREDIT HOURS**
 The course presents the evidence of evolution and discusses the factors which initiate change in species and the agencies which guide it. Prerequisites: Bio 101-102. Bio 209 recommended, or consent of instructor.
- Bio 321. MORPHOGENESIS** **THREE CREDIT HOURS**
 A study of the principles of development of form and function at the cellular, tissue and organ levels of integration. Prerequisite: Bio 101, 102.
- Bio 321L. MORPHOGENESIS LABORATORY** **ONE CREDIT HOUR**
 Course stressing experimental and investigational aspects of development.
- Bio 325. PARASITOLOGY** **TWO CREDIT HOURS**
 An introduction to the morphology, life history and significance of those organisms deriving their sustenance from the tissues of others. Prerequisite: Bio 101 and 102.
- Bio 325L. PARASITOLOGY LABORATORY** **ONE CREDIT HOUR**
 Course to accompany Bio 325 lecture. One three-hour period per week. Stresses the recognition of common parasites.
- Bio 330. PLANT PHYSIOLOGY** **THREE CREDIT HOURS**
 A study of plant metabolism including water relations, photosynthesis, mineral nutrition, growth and reproduction. Prerequisites: Bio 101, 102, Chm 123, 124, and consent of instructor.
- Bio 330L. PLANT PHYSIOLOGY LABORATORY** **ONE CREDIT HOUR**
 Course to accompany Bio 330 lecture. One three-hour laboratory per week.
- Bio 361. INVERTEBRATE ZOOLOGY** **TWO CREDIT HOURS**
 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** **TWO CREDIT HOURS**
 Course to accompany Bio 330 lecture. Two three-hour laboratory periods per week.
- Bio 407. EMBRYOLOGY** **THREE CREDIT HOURS**
 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** **TWO CREDIT HOURS**
 Course to accompany Bio 407 lecture. One four-hour period per week.
- Bio 411. GENERAL BACTERIOLOGY** **THREE CREDIT HOURS**
 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** **TWO CREDIT HOURS**
 Course to accompany Bio 411 lecture. Two two-hour periods per week.

- Bio 416. PATHOGENIC BACTERIOLOGY** THREE CREDIT HOURS
A brief survey of the bacteria which cause disease in man. Host-parasite relationships in resistance and infection are stressed. Prerequisite: Bio 411.
- Bio 416L. PATHOGENIC BACTERIOLOGY** ONE CREDIT HOUR
A course to accompany Bio 416 lecture. One two-hour period per week.
- Bio 420. SEMINAR** ONE CREDIT HOUR
Practice in development, presentation, and discussion of papers dealing with biological problems. Prerequisite: Jr. and Sr. standing.
- Bio 421. BIOLOGICAL PROBLEMS (HONORS)** ONE OR TWO CREDIT HOURS
(laboratory work)
- Bio 422. BIOLOGICAL PROBLEMS** ONE OR TWO CREDIT HOURS
(library work)
- Bio 428. NATURAL HISTORY OF THE VERTEBRATES** THREE CREDIT HOURS
A course dealing with the morphology, physiology, ecology and distribution of representative vertebrate groups.
- Bio 428L. NATURAL HISTORY OF THE VERTEBRATES LABORATORY** ONE CREDIT HOUR
Laboratory and Field Studies of representative vertebrates. One three-hour laboratory each week. Field trips in season.
- Bio 429. VERTEBRATE PALEONTOLOGY** THREE CREDIT HOURS
The emphasis will be on the paleoecology and morphology of higher classes of chordates. The evolution and geologic history of major groups of chordates will also be considered.
- Bio 429L. VERTEBRATE PALEONTOLOGY LABORATORY** ONE CREDIT HOUR
Course to accompany Bio 429. One three-hour laboratory per week will be held at the Dayton Museum of Natural History. Field trips will be taken.
- Bio 430. INTRODUCTION TO ECOLOGY** THREE CREDIT HOURS
A survey of the community, its components and their interactions with biological and physical factors.
- Bio 430L. INTRODUCTION TO ECOLOGY LABORATORY** ONE CREDIT HOUR
Course to accompany Bio 430. One three-hour laboratory per week. Field trips in season.
- Bio 432. POPULATION ECOLOGY** THREE CREDIT HOURS
A study of population dynamics, with particular emphasis on the effects of the environment and other organisms on the growth and functioning animal populations.
- Bio 432L. POPULATION ECOLOGY LABORATORY** ONE CREDIT HOUR
Course to accompany Bio 432. One three-hour laboratory per week.
- Bio 434. HIGHER PLANTS** THREE CREDIT HOURS
A study of structure, function, reproduction and interrelations of tracheophyte plants.
- Bio 434L. HIGHER PLANTS LABORATORY** ONE CREDIT HOUR
Course to accompany Bio 434. One three-hour laboratory per week.

- BIO 436. LOWER PLANTS** **THREE CREDIT HOURS**
 A course to provide familiarity with basic processes, structures, distribution and reproduction of Thallophyte and Bryophyte plants.
- BIO 436L. LOWER PLANTS LABORATORY** **ONE CREDIT HOUR**
 Course to accompany Bio 436. One three-hour laboratory per week.
- BIO 450. PHYSIOLOGICAL CHEMISTRY** **THREE CREDIT HOURS**
 A consideration of the principal chemical components of cells, their properties, metabolism and functions. Prerequisite: Organic Chemistry.
- BIO 450L. PHYSIOLOGICAL CHEMISTRY LABORATORY** **ONE CREDIT HOUR**
 Course to accompany Bio 450 lecture. One three-hour laboratory per week.
- BIO 452. CELL BIOLOGY** **TWO CREDIT HOURS**
 A study of cell structure and function at the organelle and molecular levels.
- BIO 452L. CELL BIOLOGY LABORATORY** **TWO CREDIT HOURS**
 Course to accompany Bio 452. Two three-hour laboratories per week.
- BIO 454. NEUROANATOMY** **THREE CREDIT HOURS**
 Study of neurological structure and function and its influence on sensation, perception, learning, and adjustment. Prerequisite: Bio 207. Accredited also in Psychology.
- BIO 460. RADIATION BIOLOGY** **TWO CREDIT HOURS**
 A course in the theory and principles of ionizing radiation. Application of radioactive tracers to biological problems will be considered.
- BIO 460L. RADIATION BIOLOGY LABORATORY** **TWO CREDIT HOURS**
 Course to accompany Bio 460. Two three-hour laboratories per week.
- BIO 462. ADVANCED GENETICS** **TWO CREDIT HOURS**
 The nature of genes and gene action. The role of nucleic acids in protein synthesis. Molecular aspects of genotype and phenotypic expression. Prerequisite: Organic Chemistry.
- BIO 462L. ADVANCED GENETICS LABORATORY** **ONE CREDIT HOUR**
 Course to accompany Bio 462. One three-hour laboratory per week.
- BIO 464. IMMUNOLOGY** **THREE CREDIT HOURS**
 The nature of antigens, the antibody response, and antigen-antibody reactions; site and mechanisms of antibody formation; hypersensitivity, immunologic tolerance, and the immune diseases will be considered.
- BIO 464L. IMMUNOLOGY LABORATORY** **ONE CREDIT HOUR**
 Course to accompany Bio 464. One three-hour laboratory per week.

Business Management (Bus)

Barth J. Snyder, *Chairman*

Professors: Snyder, Matlin

Associate Professors: George, Bosshart, Kreider, Walden

Assistant Professors: Buckenmeyer, Fuszara, Kussman, Sunderhaus, VonderEmbse

Instructor: Marrinan

Part-time Instructors: Baughan, Cleland, Davis, Dixon, Ehnes, Hamilton, Hellwig, Hoefling, Pryor, Quinn, Stephenson, Taubenheim, Yaross

- BUS 101. INTRODUCTION TO BUSINESS** **THREE CREDIT HOURS**
 A survey of the fields of business and their inter-relationship. The objectives are to emphasize business concepts and to prepare the students for specialized courses.
- BUS 110-111. QUANTITATIVE ANALYSIS FOR BUSINESS** **SIX CREDIT HOURS**
 A study of the fundamental operations of algebra, including equations, inequalities, matrices, progressions, exponents and logarithms; compound interest and annuities; and introduction to calculus.
- BUS 210-211. QUANTITATIVE ANALYSIS** **SIX CREDIT HOURS**
 A course in applied statistics covering the broad areas of probability, statistical inference, time series, regression and correlation, and sampling methods. Prerequisite: Bus 110-111.
- BUS 215. PRINCIPLES OF MANAGEMENT** **THREE CREDIT HOURS**
 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 315. PRINCIPLES OF MANAGEMENT** **THREE CREDIT HOURS**
 A basic course in the managerial functions of planning, organizing, assembling resources and directing operations for a business.

- 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 315.
- Bus 320-321. MOTION AND TIME STUDY** THREE CREDIT HOURS
See Ine 403-403L and Ine 404-404L.
- Bus 324. LABOR LEGISLATION** THREE CREDIT HOURS
A study of the National Labor Relations Act as amended.
- Bus 327. ELEMENTS OF SUPERVISION** THREE CREDIT HOURS
A consideration of the responsibilities of the shop or department head within the field of operative management; emphasis on training, motivation, grievances and maintenance of morale.
- 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.
- Bus 403. BUSINESS LAW III: THE LAW OF BUSINESS ORGANIZATION
AND PROPERTY** THREE CREDIT HOURS
A treatment of the law of partnerships and corporations and the law of property. Prerequisite: Bus 303.
- Bus 409. BUSINESS COMMUNICATION AND REPORT WRITING** 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 414. INDUSTRIAL PURCHASING** THREE CREDIT HOURS
Principles, policies, and practices of industrial procurement. Organization and functions; purchasing procedure; quality and quantity control, supply sources; price policies, forward buying, legal aspects of purchasing procedure.
- 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 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 422. COUNSELING TECHNIQUES** TWO-THREE CREDIT HOURS
Functions of counselors in employee adjustment in personnel and in industrial relations; establishing counseling services, organizing and administering a program; evaluation and remedial action.

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.

BUS 450. BUSINESS MANAGEMENT HONORS SEMINAR (HONORS) TWO 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.

Chemical Engineering (CME)

Dr. Michael A. Bobal, *Chairman*

Professor: Bobal

Associate Professor: Willis

Assistant Professor: Bauer

Instructor: Keith

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 125, Mth 216.

First Term, Each Year

CME 305. THERMODYNAMICS THREE CREDIT HOURS
 Development of the fundamental principles of thermodynamics, particularly with respect to chemical engineering processes. Prerequisite: Mth 218.

Second Term, Each Year

CME 306. KINETICS THREE CREDIT HOURS
 Reaction kinetics, catalysis and adsorption. Prerequisite: Cme 305.

First Term, Each Year

CME 324. TRANSPORT PHENOMENA I THREE CREDIT HOURS
 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 341. Corequisite: Cme 381.

First Term, Each Year

CME 325. TRANSPORT PHENOMENA II THREE CREDIT HOURS
 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 ONE CREDIT HOUR
 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 381. APPLIED MATHEMATICS FOR CHEMICAL ENGINEERS THREE CREDIT HOURS
 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 341. *First Term, Each Year*
- CME 411. UNIT OPERATIONS I THREE CREDIT HOURS
 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 THREE CREDIT HOURS
 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 TWO CREDIT HOURS
 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 TWO CREDIT HOURS
 Continuation of Cme 413L. Prerequisite: Cme 325. *Second Term, Each Year*
- CME 421. SEMINAR ONE CREDIT HOUR
 Presentation of subjects relative to industrial practice. Attendance required by all Chemical Engineering Junior and Senior students, with only Seniors registering for credit.
- CME 430. CHEMICAL ENGINEERING DESIGN THREE CREDIT HOURS
 Study of the principles of process development, plant design and economics. Prerequisite: Cme 411. *Second Term, Each Year*
- CME 452. PROCESS CONTROL THREE CREDIT HOURS
 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 ONE CREDIT HOUR
 Experiments cover analog computer programming, analog solution of differential equations, 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 461. ELEMENTS OF NUCLEAR ENGINEERING TWO CREDIT HOURS
 Introduction to the application of engineering principles to the field of nuclear science.
- 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, Pappalardo

Assistant Professors: Antony, Fox, Meiser, Richards, Steed, Vance, Walsh

Part-time Instructors: Becker, DeSando, March, Semmelman

- 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 semimicro qualitative analysis. One three-hour laboratory period per week.
- CHM 125. GENERAL CHEMISTRY THREE CREDIT HOURS
 A terminal course for engineering students. Three class periods per week. Prerequisite: high school Chemistry.
- CHM 125L. GENERAL CHEMISTRY LABORATORY ONE CREDIT HOUR
 Course to accompany Chm 125. One three-hour laboratory per week.
- CHM 200. ORGANIC CHEMISTRY THREE CREDIT HOURS
 A brief course in the fundamentals of Organic Chemistry. Three class periods each week. Prerequisite: Chm 110 or Chm 123. *Second Term, Each Year*
- CHM 200L. ORGANIC CHEMISTRY LABORATORY ONE CREDIT HOUR
 Course to accompany Chm 200 lecture. One two-hour period per week. *Second Term, Each Year*
- CHM 201. QUANTITATIVE ANALYSIS TWO CREDIT HOURS
 A course intended for premedical, pre dental, and medical technology students. Two class periods per week. Prerequisite: Chm 124.

CHM 201L. QUANTITATIVE ANALYSIS LABORATORY TWO CREDIT HOURS
Course to accompany Chm 201 lecture. One four-hour laboratory period per week.

CHM 215. QUANTITATIVE ANALYSIS TWO CREDIT HOURS
A course for chemistry majors and chemical engineers. The fundamental theory and techniques of gravimetric and volumetric analysis is treated. Two class periods per week. Prerequisite: Chm 124, one semester of college mathematics. *First Term, Each Year*

CHM 215L. QUANTITATIVE ANALYSIS LABORATORY TWO CREDIT HOURS
Course to accompany Chm 215 lecture. Two three-hour laboratory periods per week. *First Term, Each Year*

CHM 217L. QUANTITATIVE ANALYSIS LABORATORY ONE CREDIT HOUR
A short course for chemical engineers. To accompany Chm 215 lecture. One three-hour laboratory period per week. *First Term, Each Year*

CHM 302. PHYSICAL CHEMISTRY THREE CREDIT HOURS
A short course especially designed for premedical, pre dental, or biology majors. Three lectures per week. Prerequisite: Chm 124. *Second Term, Each Year*

CHM 303-304. PHYSICAL CHEMISTRY SIX CREDIT HOURS
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 TWO CREDIT HOURS
Course to accompany Chm 303 lecture. One three-hour laboratory period each week.

CHM 308. CHEMICAL LITERATURE TWO CREDIT HOURS
The use of chemical literature, indexing methods, and patent procedure. Prerequisite: Ger 101-102. *Second Term, Each Year*

CHM 313-314. ORGANIC CHEMISTRY SIX CREDIT HOURS
This course is designed for premedical, pre dental, 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 TWO CREDIT HOURS
Course to accompany Chm 313-314 lecture. One three-hour laboratory period each week.

CHM 315-316. ORGANIC CHEMISTRY SIX CREDIT HOURS
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 FOUR CREDIT HOURS
Course to accompany Chm 315-316. Two three-hour laboratory periods each week. Prerequisite: Chm 215.

CHM 400. BIOCHEMISTRY THREE CREDIT HOURS
A one semester course for Home Economics students. Prerequisite: Chm 200 or equivalent. *First Term, 1966-1967*

CHM 400L course to accompany Chm 400 lecture. One three-hour laboratory period per week. *First Term, 1966-1967*

CHM 404. SPECIAL TOPICS IN PHYSICAL CHEMISTRY THREE CREDIT HOURS
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*

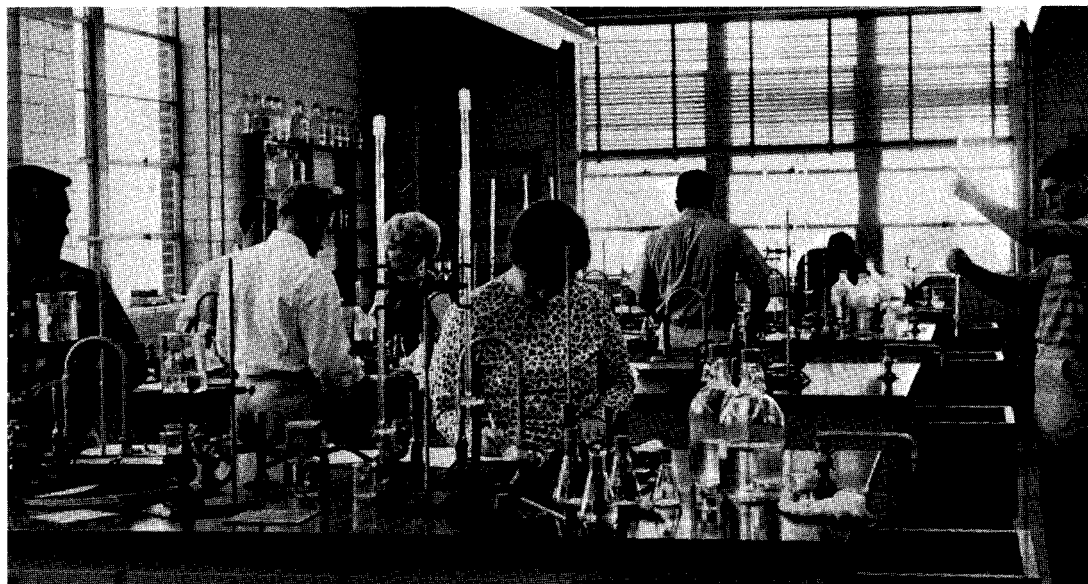
CHM 405. QUALITATIVE ORGANIC ANALYSIS ONE CREDIT HOUR
A systematic study of the reactions of functional groups and of the physical properties which lead to the identification of organic compounds. One class period per week. Prerequisite: Chm 315-316, or Chm 313-314. *Second Term, Each Year*

CHM 405L. QUALITATIVE ORGANIC ANALYSIS LABORATORY TWO CREDIT HOURS
Course to accompany Chm 405 lecture. Two three-hour laboratory periods per week. *Second Term, Each Year*

CHM 412. INTERMEDIATE ORGANIC CHEMISTRY THREE CREDIT HOURS
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 TWO CREDIT HOURS
Methods of analysis based on modern instrumentation. Prerequisite: Chm 215, 215L, 304. *First Term, Each Year*

CHM 415L. ANALYTICAL CHEMISTRY LABORATORY TWO CREDIT HOURS
This course accompanies Chm 415. Two three-hour laboratory sessions each week. Prerequisites: Chm 215, 215L, 304. *First Term, Each Year*



- CHM 416. EXPERIMENTAL INORGANIC CHEMISTRY ONE CREDIT HOUR
 The preparation, separation, and characterization of inorganic compounds; special emphasis on modern techniques of coordination chemistry. One lecture hour each week.
 Prerequisite: Chm 415. *Second Term, Each Year*
- CHM 416L. INORGANIC SYNTHESIS LABORATORY TWO CREDIT HOURS
 The laboratory course which accompanies Chm 416. One four-hour lab each week.
 Corequisite: Chm 416. *Second Term, Each Year*
- CHM 417. INORGANIC CHEMISTRY THREE CREDIT HOURS
 Electron distribution in atoms, nature of the chemical bond, periodicity, nucleus and its reactions, coordination compounds. Prerequisite: Chm 303-304. *Second Term, Each Year*
- CHM 420. BIOCHEMISTRY THREE CREDIT HOURS
 A course dealing with the fundamentals of biochemistry and designed for science students other than chemistry majors. Prerequisite: Chm 314 or 316. *Second Term, Each Year*
- CHM 497. SEMINAR ONE CREDIT HOUR
 Required of all chemistry majors. One meeting each week. *First Term, Each Year*
- CHM 499. RESEARCH (HONORS) THREE CREDIT HOURS
 An elective for Chemistry majors. Permission of Chairman of Department required.
 Prerequisite: Senior standing.

Civil Engineering and Engineering Mechanics

Seymour J. Ryckman, *Chairman*

Professors: Chamberlain, Driscoll, Ryckman

Assistant Professors: Bahramian, Kraft, Payne

Instructor: Weiss

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 216. *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 117 or Mth 122.
- 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 materials to their fundamental nature and composition. Prerequisite: Egm 303. *Second Term, Each Year*
- CIE 312. SOIL MECHANICS THREE CREDIT HOURS
 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.
Second Term, Each Year
- CIE 312L. SOIL MECHANICS LABORATORY ONE CREDIT HOUR
 Laboratory test to evaluate and identify soil properties for engineering purposes. Design problems are included. Corequisite: Cie 312.
Second Term, Each Year
- CIE 313. HYDRAULICS THREE CREDIT HOURS
 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 ONE CREDIT HOUR
 Laboratory experiments and problems associated with Cie 313. Corequisite: Cie 313.
- CIE 314. THEORY OF STRUCTURES FOUR CREDIT HOURS
 The analytical and graphical methods of stress determination in statically determinate structures, together with a study of influence lines. Prerequisite: Egm 303.
- CIE 402. STRUCTURAL DESIGN II TWO CREDIT HOURS
 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.
Second Term, Each Year
- CIE 402L. STRUCTURAL DESIGN LABORATORY II TWO CREDIT HOURS
 Assigned problems illustrating and affording practice in the design covered in Cie 402. Corequisite: Cie 402.
Second Term, Each Year

CIE 405. HIGHWAY ENGINEERING THREE CREDIT HOURS
 Fundamentals of highway design, construction maintenance, and economics with illustrative practical problems. Prerequisites: Cie 208, Cie 310L. *First Term, Each Year*

CIE 406. INDETERMINATE STRUCTURES THREE CREDIT HOURS
 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. *Second Term, Each Year*

CIE 407. REINFORCED CONCRETE FOUR CREDIT HOURS
 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. *First Term, Each Year*

CIE 408A. SEMINAR ONE CREDIT HOUR
 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 ZERO CREDIT HOURS
 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 409. SOIL MECHANICS TWO CREDIT HOURS
 A study of the physical properties of soil as an engineering material and an introduction to basic foundation engineering problems. Corequisites: Cie 409L, Egm 304. *Second Term, Each Year*

CIE 409L. SOIL MECHANICS LABORATORY ONE CREDIT HOUR
 Specific gravity, Atterberg limits, grading, permeability, consolidation, triaxial, direct shear, optimum moisture content and field sampling. Corequisite: Cie 409. *First Term, Each Year*

CIE 415. STRUCTURAL DESIGN I THREE CREDIT HOURS
 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. Corequisite: Egm 304. *First Term, Each Year*

CIE 433. SANITARY ENGINEERING I THREE CREDIT HOURS
 An integrated study of the principles of water sanitation, water supply, stream pollution abatement and waste water disposal systems. Prerequisites: Cie 307, Cie 307L. *First Term, Each Year*

CIE 434. SANITARY ENGINEERING II THREE CREDIT HOURS
 A continuation of Cie 433 and with brief considerations of municipal and rural sanitation. Prerequisite: Cie 433. *Second Term, Each Year*

Civil Engineering Electives

CIE 421. CONSTRUCTION ENGINEERING THREE CREDIT HOURS
 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 422. MATERIALS OF CONSTRUCTION THREE CREDIT HOURS
 A comprehensive study of the properties of timber, stone, clay products, wrought iron, steel, cast iron, non-ferrous alloy and plastics. Prerequisite: Cie 310L.

CIE 499. SPECIAL PROBLEMS IN CIVIL ENGINEERING TWO TO SIX CREDIT HOURS
 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. Prerequisites: Phy 206. Corequisite: Mth 217.

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 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 202.

EGM 303L. STRENGTH OF MATERIALS LABORATORY ONE CREDIT HOUR
 Action of metals, timber and concrete under load, verification of theories of mechanics. Corequisite: 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: Statts

Associate Professor: Biersack, Jukes

Assistant Professors: Gilvary, Henderson, Mullins

Instructors: Devine, McGlade, Harwood, Jochenning, Youngman

Part-time Instructors: Bennington, Moore, Vlahos

The course requirement 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, Theatre, 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, Theatre, 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 Players, the University Debaters, and the Flyer News.

SPEECH

SPE 101. FUNDAMENTALS OF EFFECTIVE SPEAKING THREE CREDIT HOURS
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 THREE CREDIT HOURS
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 THREE CREDIT HOURS
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 THREE CREDIT HOURS
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 THREE CREDIT HOURS
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 THREE CREDIT HOURS
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 **THREE CREDIT HOURS**
 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 401. PUBLIC SPEAKING II **THREE CREDIT HOURS**
 A more intensive development of the goals sought in Spe 301. Students are required to demonstrate facility in holding audience attention through longer speeches. Prerequisite: Spe 201 or permission.

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 420. SPEECH METHODS IN THE SCHOOLS **THREE CREDIT HOURS**
 A course to prepare beginning teachers for speech work on the high school level. Demonstrates how to arrange syllabi and prepare and administer assignments that will enrich speech training classes.

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

All Communication Arts majors with an emphasis in Drama are encouraged to participate in U.D. Players productions.

SPE 204. INTRODUCTION TO THE THEATER **THREE CREDIT HOURS**
 Analyzes the nature of theater, its origin and development, from the standpoint of the play, the physical theater, and its place in our culture.

SPE 304. THEATRE PRODUCTION WORKSHOP **THREE CREDIT HOURS**
 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.

SPE 313. ACTING I **THREE CREDIT HOURS**
Affords study and practice in the fundamentals of acting, with stress upon the physical, mental, and emotional background of characterization. Prerequisite: 204 or permission.

SPE 323. ACTING II **THREE CREDIT HOURS**
A further development and practice of fundamental principles set down in the elementary course in acting, Spe 313. Emphasis is placed on more specialized character portrayal. Prerequisite: Spe 313, or with permission.

SPE 414. STAGECRAFT AND LIGHTING **THREE CREDIT HOURS**
Presents fundamentals of designing, constructing, and painting stage scenery. Explores basic applications of stage lighting. Includes construction of scenery and plotting of lighting charts for specific plays. Prerequisite: Spe 204.

SPE 415. HISTORY OF THE THEATER I **THREE CREDIT HOURS**
A survey of the history of theater from Aeschylus to Miller, with emphasis on plays, playwrights, and play productions that lead up to the representational theater of today. Prerequisite: Spe 204 or permission.

SPE 424. PLAY DIRECTING **THREE CREDIT HOURS**
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.

SPE 425. HISTORY OF THE THEATER II **THREE CREDIT HOURS**
Plays, players, and movements in recent and current theater, including realistic and non-realistic styles. Function of community theater and commercial and professional theater. Prerequisite: Spe 204 or permission.

BROADCASTING

SPE 306. RADIO FUNDAMENTALS **THREE CREDIT HOURS**
A workshop course in microphonic 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 15 semester hours in Jrn 300-400 courses, plus 9 semester hours from 300-400 offerings in the Department of English, selected in consultation with the Chairman. Minors in Journalism must take Jrn 200 plus 12 semester hours from Jrn 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
Limitations of freedom of the press. The right of the people to know and the news media to report, within the limits of decency, fair comment and privacy. Censorship. Off-the-record material. Libel laws, copyright restrictions. Postal regulations.

JRN 400. EDITING AND COPYREADING THREE CREDIT HOURS
The copy desk on large and small newspapers, editing, headline writing, page makeup, use 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. PRODUCTION OF AUDIO-VISUAL AIDS TWO CREDIT HOURS
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 TWO CREDIT HOURS
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 THREE CREDIT HOURS
Types of free-lance articles. Analysis of literary markets. Manuscript form and submission methods. Magazine and book publishing. Completion and submission of one salable article required for credit.

COM 304. ADVERTISING THREE CREDIT HOURS
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 THREE CREDIT HOURS
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 THREE CREDIT HOURS
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 THREE CREDIT HOURS
Designed for administrators, engineers, scientists, and business men. Views writing and language as a communications problem. Development techniques for organizing technical information in written form.

COM 401. PUBLICITY AND PUBLIC RELATIONS THREE CREDIT HOURS
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.

Computer Science (Cps)

Bro. Thomas A. Schoen, S.M., *Chairman*

Associate Professor: Dwyer

Assistant Professors: Cada, Kester, Schoen

Instructors: Criss, Gottschall, Krall

Part-time Instructors: Lokai, McAdams

Cps 203. DATA PROCESSING SYSTEMS TWO CREDIT HOURS
COBOL and other languages applicable to data processing problems; magnetic tape systems; applications requiring use of peripheral equipment.

Cps 233. FORTRAN PROGRAMMING TWO CREDIT HOURS
General programming techniques; grammar and syntax of the FORTRAN IV compiler; programming mathematical and engineering problems in FORTRAN. Corequisite: Mth 117 or equivalent.

Cps 241. ALGOL PROGRAMMING TWO CREDIT HOURS
General programming techniques; grammar and syntax of the ALGOL 60 compiler; programming mathematical and scientific problems in ALGOL. Corequisite: Mth 117 or equivalent.

- Cps 314. ELECTRONICS FOR SCIENTISTS THREE CREDIT HOURS
Terminal behavior of vacuum tube and semi-conductor devices; application to basic rectifier, amplifier, oscillator and control circuits; incorporation of these circuits in measuring and control devices. Prerequisite: Mth 301 or 341, Phy 207.
- Cps 314L. ELECTRONICS FOR SCIENTISTS LABORATORY ONE CREDIT HOUR
Laboratory construction and testing of the basic vacuum tube and solid-state electronic circuits. Corequisite: Cps 314.
- Cps 345. PROGRAMMING LANGUAGES THREE CREDIT HOURS
Programming in machine language and with an assembler; input-output techniques; introductory topics in the construction of compilers. Prerequisite: Cps 233 or 241.
- Cps 351. NUMERICAL ANALYSIS THREE CREDIT HOURS
Discrete functions; interpolation and approximation theory, including Chebyshev, trigonometric, and least squares methods; solution of equations. Prerequisite: Cps 233 or 241, Mth 301 or 341.
- Cps 367. STATISTICAL METHODS THREE CREDIT HOURS
Probability distributions, confidence intervals, tests of hypotheses, goodness of fit, correlation, regression, analysis of variance, distribution free methods, computer simulation techniques. All topics to be oriented toward use of computer. Prerequisite: Cps 233 or 241, Mth 218.
- 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 217.
- 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 implementation; memory devices, central processing units, and input-output equipment. Prerequisite: Cps 233 or 241, Mth 218.
- Cps 399. SPECIAL PROBLEMS ONE TO THREE CREDIT HOURS
Current state of the art; research areas in Computer Science; critical evaluation. May be taken more than once for additional credit. Prerequisite: consent of instructor.
By arrangement
- Cps 414. ADVANCED ELECTRONICS FOR SCIENTISTS THREE CREDIT HOURS
High frequency techniques, modulation and detection, pulse generators, special circuits; application to counters, computer circuits, and experimental instrumentation and control problems. Prerequisite: Cps 314.
- Cps 414L. ADVANCED ELECTRONICS FOR SCIENTISTS LABORATORY ONE CREDIT HOUR
Individual student projects in the electronic instrumentation of problems in the physical, biological, and computer sciences. Corequisite: Cps 414.
- 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-numeric areas. Prerequisite: Cps 345.

Cps 455-456. **ADVANCED 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 351.

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. Prerequisite: 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 499. **SPECIAL TOPICS** ONE TO THREE CREDIT HOURS
 Topics in systems design, applied logic design, probabilistic and self-organizing systems, pattern recognition, man-machine communication, artificial intelligence. May be taken more than once for additional credit. Prerequisite: consent of instructor. *By arrangement*

Economics (Eco)

Msgr. Paul P. Louis, *Acting Chairman*

Professor: O'Leary

Associate Professors: Louis, Orth, Viktor

Assistant Professors: Berger, May, Schade

Instructors: Schaeede, Sciantarelli

Part-time Instructors: Bush, Dickison, Giosia, Gupta, Malicam, Suttman, Vera, Wenger

Eco 201-202 are prerequisites for all advanced courses in Economics. Minors are required to take Eco 340, 341, 342, and one elective.

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 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 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 343. **PUBLIC FINANCE AND TAXATION** THREE CREDIT HOURS
Studies major types of taxation and expenditure problems of local, state, and especially federal government. Emphasizes shifting, incidence, equity, and policy of different types of taxes together with fiscal administration and public debt.
- Eco 360. **INTERNATIONAL TRADE** 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 370. **LABOR RELATIONS** THREE CREDIT HOURS
Considers labor problems of modern industrial society. Examines the history, structure, and functions of trade unions and employer organizations. Analyzes law of trade unionism; collective bargaining; and industrial conflict.
- Eco 371. **LABOR ECONOMICS** THREE CREDIT HOURS
Primarily for Economics majors; sequel to Eco 370. 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 372. **ECONOMICS OF SOCIAL SECURITY** THREE CREDIT HOURS
Nature and causes of economic insecurity and social adjustment to it. Analyzes economic effects of unemployment, disability, substandard working conditions, old age and death, and the evolution of institutional approaches to these problems.
- Eco 430. **HISTORY OF ECONOMIC THOUGHT** THREE CREDIT HOURS
Surveys early philosophers. Examines various schools and systems of economic thought (Mercantilists, Physiocrats, Classical, Historicals, Marginalists, Neo-classical, Keynesians) and current economic theories with emphasis upon American developments.
- Eco 440. **BUSINESS CYCLES AND FORECASTING** THREE CREDIT HOURS
Appraises different types of business fluctuation, explanatory theories, and measure of control. Considers relationship of business cycles to economic growth. Introduces methods and problems of forecasting.
- 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 451. THE SOVIET ECONOMY THREE CREDIT HOURS
 Analyzes Soviet methods of resource allocation and characteristics of its pricing system. Surveys Soviet economic institutions, determinants and measurement of output, distribution of income, and international relations.
- Eco 460. ECONOMIC DEVELOPMENT AND GROWTH THREE CREDIT HOURS
 Inquires 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 499. SPECIAL PROBLEMS IN ECONOMICS (HONORS) TWO TO SIX CREDIT HOURS
 Particular assignments to be arranged and approved by chairman of the department. Credit hours to be determined.
- Eco 499W. SPECIAL PROBLEMS IN ECONOMICS WORKSHOP TWO TO SIX CREDIT HOURS
 Special workshop assignments to be arranged and approved by chairman of the department. Credit hours to be determined.

Education

Foundations of Education (EdF)

Sr. M. Audrey Bourgeois, *Acting Chairman*

Professors: Barrett, Panzer

Associate Professors: Bourgeois, Britt

Assistant Professors: Anderson, Emling

Part-time Instructors: Rogus, Wening

- EdF 100. ORIENTATION ONE CREDIT HOUR
 Deals with the total problem of adjustment to the college campus. Second half of course deals with orientation to the teaching profession. *First Term, Each Year*
- EdF 109. MORAL AND SPIRITUAL VALUES THREE CREDIT HOURS
 A study of the basic religious and moral values inherent in the American tradition. Stresses the importance of such values for the teacher and emphasizes their role as integrating factor in the educative process.
- EdF 198. NATURE OF THE LEARNER THREE CREDIT HOURS
 General psychology emphasizing concepts from the standpoint of both science and philosophy. Focuses attention on fundamental equipment of man as a learner. (A combination of Psy 201 and Phl 207 may substitute.)

EdF 207. EDUCATIONAL PSYCHOLOGY I: GROWTH & DEVELOPMENT THREE CREDIT HOURS
Designed to study growth and development in childhood and adolescence. The knowledge gained will be made relevant for successful classroom practice. Prerequisite: EdF 198 or equivalent.

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. Prerequisites: EdF 198, EdF 207 or equivalents.

EdF 419. PHILOSOPHY OF EDUCATION THREE CREDIT HOURS
By interrelating the principal concepts pertaining to man, society, and the school, the student should develop a constructive philosophy of education. Accredited in Philosophy. Prerequisite: EdF 198 or equivalent.

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 198 or equivalent.

EdF 440. HONORS SEMINAR TWO CREDIT HOURS
Concerns itself with the great issues and problems of education. Offered as an elective for junior and senior members of the Education Honor Society. *Second Term, Each Year*

Elementary Education (EdE)

Dr. Simon Chavez, *Chairman*

Professors: Chavez, O'Donnell

Assistant Professors: Klein, Klosterman, Mathews, Miles, Traen, Waters

Part-time Instructors: Adams, Beitzel, Blackford, Fields, Smith, Strahler

EdE 219. KINDERGARTEN INSTRUCTION TWO 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. *First Term, Each Year*

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. Observation of teaching. Prerequisite: EdF 207 or Psy 306. *Evening*

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 207 or Psy 306.

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. *Evening and 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. Prerequisite: EdF 208. *Evening and 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 on released time from the public elementary schools. Prerequisite: Four semester hours of Theology. *First Term, 1966-1967*
- EdE 333. RELIGIOUS INSTRUCTION IN CCD PROGRAM TWO CREDIT HOURS
 Designed to prepare the student to teach Catholic pupils on released time 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. Prerequisites: EdF 207, EdF 208 or equivalents.
- EdE 352. THE ELEMENTARY SCHOOL: PAROCHIAL THREE CREDIT HOURS
 Purposes and organization of the Catholic elementary school. Emphasis is placed on the curriculum. Visitation of parochial schools for observation. May be taken in lieu of Edu 350. Prerequisites: EdF 207, EdF 208.
- 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 207, EdF 208. *First Term, Each Year*
- EdE 403. MATHEMATICS IN THE ELEMENTARY SCHOOL TWO-THREE CREDIT HOURS
 Deals with distribution of content according to grade levels; methods of presentation; diagnosis of number difficulties; remedial instruction; testing. Directed observation of teaching. Prerequisite: Mth 141-142.
- 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. *Second Term, 1966-1967*

EdE 451. ADVANCED KINDERGARTEN-PRIMARY INSTRUCTION TWO CREDIT HOURS
Deals with problems and practices as they relate to the whole school program for teachers of kindergarten through the third grade. 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.

EdE 480. THE PSYCHOLOGY OF SLOW LEARNING CHILDREN TWO CREDIT HOURS
Planned for teachers of slow learning children in special classes. Nature and nurture of abilities of mentally retarded children. Prerequisite: Standard Teaching Certificate.

Evening and Summer

EdE 484. LANGUAGE ARTS FOR SLOW LEARNING CHILDREN TWO CREDIT HOURS
Practical measures for taking care of the language and reading needs of mentally retarded children in special classes. Diagnosis of unique problems combined with practice and program development. Prerequisite: EdE 480.

Summer

EdE 485. SOCIAL STUDIES FOR SLOW LEARNING CHILDREN TWO CREDIT HOURS
Curriculum planning and program development for the integration of social studies in the education of mentally retarded children in special classes. Prerequisite: EdE 480.

Summer

EdE 486. MATHEMATICS FOR SLOW LEARNING CHILDREN TWO CREDIT HOURS
Deals with the special adjustments and techniques required in developing basic arithmetic skills in mentally retarded children in special classes. Prerequisite: EdE 480.

Summer

EdE 487. OCCUPATIONAL ORIENTATION AND JOB TRAINING TWO CREDIT HOURS
Designed to acquaint teachers with the problems and challenges involved in a program positively attuned to the limited occupational opportunities for mentally retarded children. Prerequisite: EdE 480.

Evening and Summer

EdE 488. MATERIALS OF INSTRUCTION FOR SLOW LEARNING CHILDREN TWO CREDIT HOURS
This course deals with the preparation, selection, and adaptation of instructional materials for slow learning children at the primary, intermediate, and secondary level. It points out the imperative need to use materials that meet the special needs of slow learners, a need that is not adequately met by using materials that exist for a specific grade level. This course is required for state certification in Ohio for teachers of slow learners.

Summer

Secondary Education (EdS)

Dr. Ellis Joseph, *Chairman*

Professors: Faerber, Leary

Associate Professors: Darby, Edgington, Jansen, Powers

Assistant Professors: Molchen, White

Part-time Instructors: Cronin, James, Yura

EdS 327. BUSINESS EDUCATION IN THE SECONDARY SCHOOL TWO CREDIT HOURS
Principles and techniques of teaching business education subjects in high school, including both the social business and secretarial subjects. 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. *Second Term, 1966-1967*
- EdS 333. RELIGIOUS INSTRUCTION IN CCD PROGRAM TWO CREDIT HOURS
 Designed to prepare the student to teach Catholic pupils on released time from the public secondary schools. Prerequisite: Eight semester hours of Theology.
- EdS 351. THE SECONDARY SCHOOL: PURPOSES AND PRACTICES TWO CREDIT HOURS
 Purposes, organization, curricula, community relationships, and the practical aspects of teaching in Junior and Senior High Schools. Visitation of high schools for observation. Prerequisites: EdF 207, EdF 208 or equivalents.
- EdS 353. THE SECONDARY SCHOOL: MARIANIST TWO CREDIT HOURS
 Covers the basic course content of EdS 351 treated in terms of the Marianist traditions and concepts of teaching as revealed through Marianist educational literature. May be taken in lieu of EdS 351. Prerequisites: EdF 207, EdF 208. *Summer*
- EdS 405. ENGLISH AND SPEECH IN SECONDARY SCHOOL TWO CREDIT HOURS
 Ways and means whereby the teacher can make his teaching more functional in the lives of students. Observation of teaching. Prerequisite: EdS 351 or EdS 353. *Second Term, Each Year*
- EdS 406. SOCIAL STUDIES IN SECONDARY SCHOOL TWO CREDIT HOURS
 Aims and values of social studies in high school. General method and special techniques in the social studies field. Observation of teaching. Prerequisite: EdS 351 or EdS 353. *Second Term, Each Year*
- EdS 408. MODERN LANGUAGE IN THE SECONDARY SCHOOL TWO CREDIT HOURS
 Considers the functions and values of language study; courses of study; organization of materials; conventional and progressive methods. Observation of teaching on high school level. Prerequisite: EdS 351 or EdS 353. *Second Term, Evening*
- EdS 409. MATHEMATICS IN THE SECONDARY SCHOOL TWO CREDIT HOURS
 The objectives of high school mathematics; sequence and correlation of subject matter; methods of teaching. Directed observation of teaching. Prerequisite: EdS 351 or EdS 353. *Second Term, 1966-1967*
- 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: EdS 351 or EdS 353.
- EdS 411. SCIENCE IN THE SECONDARY SCHOOL TWO 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. Prerequisite: EdS 351 or EdS 353. *Second Term, 1966-1967*
- 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.

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.

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.

EdS 416. THE TEACHING INTERNSHIP NINE CREDIT HOURS
For beginning Marianist teachers in Marianist secondary schools. Supervised experiences under an administrator and a master teacher. Prerequisite: EdS 351.
First and Second Term, Each Year

EdS 455. PRACTICUM IN HIGH SCHOOL READING IMPROVEMENT TWO CREDIT HOURS
Diagnosis and cause of reading disabilities. Study of techniques applicable to delayed readers. Implementing the high school developmental reading program. Prerequisite: EdS 405.

Physical and Health Education (EdP)

James B. LaVanche, *Chairman*

Philip Stanley, *Director of Men's Division*

Associate Professor: LaVanche

Instructors: Cathell, Donoher, Frericks, McVay

Doris Drees, *Director of Women's Division*

Assistant Professors: Drees, Siciliano, Tanner

Instructors: Bieber, Bowman, Dean, Hohn

General Program (Men)

EdP 101. SPORTS APPRECIATION ONE CREDIT HOUR
Lecture course concerning the philosophy of sports, especially activities, functions, and personalities of sports in our culture. Required of all those excused from ROTC. Open as an elective to all students.
First Term, Each Year

EdP 102. HEALTH ONE CREDIT HOUR
Personal health knowledge for college students. Required of all those excused from ROTC. Open as an elective to all students.
First Term, Each Year

EdP 201-202. PHYSICAL EDUCATION ACTIVITIES ONE CREDIT HOUR EACH TERM
Provision of fundamental skills and knowledge of sports activities for those excused from ROTC and for non-medical reasons.

EdP 201A-202A. ADAPTIVE PHYSICAL EDUCATION ONE CREDIT HOUR EACH TERM
 Provision of fundamental skills and knowledge of sports activities for those limited in participation by ruling of University Health Service.

General Program (Women)

EdP 112. HEALTH AND PHYSICAL EDUCATION ONE CREDIT HOUR
 The teaching of skills and knowledge of outdoor and individual sports. The health lectures will consist of knowledge and attitudes concerning infectious diseases.

First Term, Each Year

EdP 113. HEALTH AND PHYSICAL EDUCATION ONE CREDIT HOUR
 The teaching of fundamental skills and knowledge of dance, recreational, and individual activities. Five weeks of health instruction.

Second Term, Each Year

EdP 130-131. PHYSICAL EDUCATION ONE CREDIT HOUR EACH TERM
 Fundamentals of Physical Activities. The program includes knowledges and skills of team and individual sports, gymnastics, dance and body mechanics.

EdP 130A-131A. ADAPTIVE PHYSICAL EDUCATION ONE CREDIT HOUR EACH TERM
 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 TWO CREDIT HOURS
 Lectures and discussions concerning personal and community health.

Professional Program—Men's Division

EdP 103-104(M). FUNDAMENTALS OF PHYSICAL EDUCATION ACTIVITIES ONE CREDIT HOUR EACH TERM
 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 ONE CREDIT HOUR EACH TERM
 Continuation of EdP 103-104(M). Prerequisite to EdP 200 and EdP 324.

EdP 116(M). PERSONAL HEALTH TWO CREDIT HOURS
 The course aims to establish and promote individual health and proper health habits through a study of the fundamentals of physical well-being. *Second Term, Each Year*

EdP 119-120(M). THEORY AND TECHNIQUES OF OFFICIATING (ELECTIVE) ONE CREDIT HOUR EACH TERM
 A development of knowledge of rules of football, basketball, baseball, and track and the application of the knowledge to actual game situations. Students are required to officiate intramural sports.

EdP 200. METHODS IN TEAM AND INDIVIDUAL SPORTS TWO CREDIT HOURS
 Skills and methods needed to teach soccer, volleyball, touch football, archery, golf, badminton, bowling, etc. Prerequisite for EdP 433(M). Observation required.
Second Term, Each Year

EDP 212. COACHING BASEBALL AND TRACK TWO CREDIT HOURS
 One-half the time will be spent on the theory and practice of each sport. Form and not athletic achievement will be stressed considering the abilities to be acquired.

Second Term, Each Year

EDP 311. COACHING FOOTBALL AND BASKETBALL TWO CREDIT HOURS
 Study of theory, strategy, generalship, styles of offense and defense, methods of organizing practice and handling men. Demonstration and practice in fundamentals for all positions.

First Term, Each Year

EDP 433(M). GYMNASTICS TWO CREDIT HOURS
 Methods in conditioning, tumbling, horses, bucks, low and high bar, pyramid building, wrestling, trampoline, stunts with and without equipment.

Professional Program—Women's Division

EDP 103-104(W). FUNDAMENTALS OF PHYSICAL EDUCATION ACTIVITIES ONE CREDIT HOUR EACH TERM
 Fundamentals of physical activities for physical education majors. Development of skills, knowledge and strategy needed to teach team and individual sports.

EDP 203-204(W). FUNDAMENTALS OF PHYSICAL EDUCATION ACTIVITIES ONE CREDIT HOUR EACH TERM
 Continuation of EdP 103-104. Prerequisite to EdP 217 and EdP 324.

EDP 116(W). PERSONAL HEALTH TWO CREDIT HOURS
 The course aims to establish and promote individual health and proper health habits through a study of the fundamentals of physical well-being.

First Term, Each Year

EDP 119-120(W). THEORY AND TECHNIQUES OF OFFICIATING ONE CREDIT HOUR EACH TERM
 Rules and techniques of officiating hockey, volleyball, basketball, tennis and softball.

EDP 217. TEAM SPORTS TWO CREDIT HOURS
 Skills and methods needed to teach hockey, soccer, speedball, volleyball, softball and basketball. Observation required.

First Term, Each Year

EDP 245. MODERN DANCE TWO CREDIT HOURS
 Techniques involved in modern dance with emphasis on composition.

Second Term, Each Year

EDP 334. INDIVIDUAL SPORTS TWO CREDIT HOURS
 Skills and methods needed to teach archery, bowling, badminton, tennis, golf, and fencing.

First Term, Each Year

EDP 346. PROBLEMS IN PHYSICAL EDUCATION FOR WOMEN TWO CREDIT HOURS
 Theory and practice in the organization and administration of drill teams, cheerleading groups, and Girls Athletic Associations.

EDP 433(W). GYMNASTICS TWO CREDIT HOURS
 Methods and skills needed to teach stunts, tumbling, trampoline, calisthenics, balancing, free exercise, rope stunts and other self-testing activities.

Second Term, Each Year

Professional Program (Men and Women)

- EDP 117. RECREATIONAL LEADERSHIP (ELECTIVE) TWO CREDIT HOURS
Study and practice of the basic skills essential in planning and conducting a recreational program.
- EDP 205-206. HUMAN ANATOMY AND PHYSIOLOGY SIX CREDIT HOURS
A study of the human body with emphasis on the interlocking relationships of structure and function. (Bio 101-102 prerequisite) Prerequisite to EdP 350 and EdP 408.
- EDP 213. PRINCIPLES OF PHYSICAL EDUCATION TWO CREDIT HOURS
A study of the aims, scope, and biological aspects of physical education with special treatment of its place in education.
- EDP 219. COMMUNITY HEALTH TWO CREDIT HOURS
Health and prevention of disease in the family, school, and community; relation of community health to disease control; important communicable diseases and their control.
First Term, Each Year
- EDP 251. ORGANIZATION AND ADMINISTRATION OF HEALTH EDUCATION THREE CREDIT HOURS
The organization and administration of a school health program with specific reference to principles of health education, health services, healthful school living and health instruction.
Second Term, Each Year
- EDP 309. METHODS AND MATERIALS OF HEALTH EDUCATION THREE CREDIT HOURS
Application of principles of methodology to health education in the elementary and secondary schools. Develops standards and techniques for selecting suitable source material to be used in health teaching. Observation required.
First Term, Each Year
- EDP 324. PRINCIPLES AND PRACTICES OF PHYSICAL EDUCATION IN THE ELEMENTARY SCHOOL TWO CREDIT HOURS
Principles and practices of teaching physical education in the elementary school. Relating the needs and abilities of children and youth to the physical education program. Observation required.
First Term, Each Year
- EDP 325. FUNDAMENTAL RHYTHMS TWO CREDIT HOURS
Methods and techniques of rhythmic routines and activities for elementary and secondary schools through participating and teaching of social, round, folk, and square dancing.
Second Term, Each Year
- EDP 336. SAFETY EDUCATION AND FIRST AID THREE CREDIT HOURS
The study of the preventive aspects of accidents and injuries in the home, school, community and athletics. Practice in First Aid technique and treatment. Qualifying for the Red Cross First Aid Instructor's Certificate.
- EDP 348. ORGANIZATION AND ADMINISTRATION OF RECREATION TWO CREDIT HOURS
Study of the philosophy, leadership, standards and facilities of recreation, including outdoor education in various-sized communities.
Second Term, Each Year
- EDP 350. KINESIOLOGY THREE CREDIT HOURS
The study of human movement. Body mechanics, posture, motor efficiency, sports, and the influence of growth and development upon motor performance are studied.
First Term, Each Year

- EDP 402. ORGANIZATION AND ADMINISTRATION OF PHYSICAL EDUCATION TWO CREDIT HOURS
 Problems of organization and administration of physical education with added emphasis on the supervision of required and elective courses, intramural athletics and interschool athletics.
- EDP 405. TESTS AND MEASUREMENTS IN PHYSICAL EDUCATION TWO CREDIT HOURS
 Critical analysis of existing testing methods in physical education. Study of current tests from the practical and theoretical viewpoint. The use of tests in the physical education program.
- EDP 407. MODERN PROBLEMS IN PUBLIC HEALTH TWO CREDIT HOURS
 Study of current health problems; special emphasis on preventive medicine, epidemiology, and organization for health. Introduction to seminar study.
- EDP 408. PHYSIOLOGY OF EXERCISE TWO CREDIT HOURS
 Detailed study of the effects of exercise on the respiratory, circulatory, and muscular systems. Specific consideration will be given to the physiology of fatigue, staleness, training, and conditioning.
- EDP 410. ADAPTIVE PHYSICAL EDUCATION TWO CREDIT HOURS
 A study of the atypical child in order to organize and administer a program which will meet each individual's needs. *Second Term, Each Year*
- EDP 413. HEALTH EDUCATION IN THE ELEMENTARY SCHOOL THREE CREDIT HOURS
 Study of school health services, school environment and health instruction essential for maintaining and promoting the growth and well-being of the elementary school student. The standard first aid course offered.
- EDP 414. PHYSICAL EDUCATION IN THE ELEMENTARY SCHOOL THREE CREDIT HOURS
 Designed to equip the classroom teacher with methods and activities for conducting a physical education program for elementary students.
- EDP 420. AQUATICS (ELECTIVE) TWO CREDIT HOURS
 The American Red Cross Senior Life Saving and the Water Safety Instructor's Course. Prerequisite: Advanced Swimming. Offered upon demand.
- EDP 440. DRIVER EDUCATION THREE CREDIT HOURS
 Teacher preparation with practical teaching experience in Driver and Traffic Safety Education.
- EDP 450. SELECTED STUDIES IN HEALTH AND PHYSICAL EDUCATION ONE-THREE CREDIT HOURS
 Investigating, analyzing, and reporting on a problem in the areas of physical education or health education. Open to senior major students in physical education with permission of the chairman of the department.
- EDP CORRECTIVE THERAPY CLINICAL TRAINING NO CREDIT
 Corrective therapy clinical training program is offered students who major in health and physical education. Involves 250 clock hours of directed clinical training at the Veterans Administration Center, Dayton.

School Administration and Counseling (EdA, EdC)

Rev. Bernard Stueve, S.M., *Chairman*

Professors: Campanelle, Leary

Associate Professors: Edgington, Joseph, O'Donnell, Stueve

Assistant Professors: Anderson, Sibbing

Part-time Instructors: Crim, Sigmund, Wogaman

Courses are listed in the Graduate Catalog Issue of the Bulletin.

Electrical Engineering (ELE)

Bro. Louis H. Rose, S.M., *Chairman*

Professors: Holian, Rose, Schmidt

Associate Professor: Morgan

Assistant Professors: Evers, Lewis, Tsui

Instructor: Kubach

- ELE 201. ELEMENTS OF ELECTRICAL ENGINEERING** **THREE CREDIT HOURS**
Physical and electrical concepts, electrical circuit analysis, power and energy, conductors and insulators, magnetic circuits, electrodynamics, electrostatics. Corequisites: Phy 207, Mth 217.
- ELE 205. ALTERNATING CURRENT CIRCUITS** **THREE CREDIT HOURS**
Vector and complex quantities applied to alternating currents; analysis of networks. Resonance. Three phase circuits. Prerequisite: Ele 201. Corequisite: Mth 218.
- ELE 231. CIRCUIT THEORY I** **THREE CREDIT HOURS**
Basic principles of linear circuit theory. Network equations and topology, phasor algebra, resonance and the analysis of transient and steady state behavior of simple circuits. Prerequisite: Mth 217.
- ELE 232. CIRCUIT THEORY II** **THREE CREDIT HOURS**
Network theorems and network equivalence, magnetically coupled circuits, polyphase circuits and Fourier Series and Integral with circuit applications. Prerequisite: Ele 231.
- ELE 233. FIELD THEORY I** **THREE CREDIT HOURS**
Vector relations, static electric fields, dielectric materials, boundary conditions, field mapping, steady electric currents and their magnetic fields, motion of charged particles. Prerequisite: Mth 217.
- ELE 307. ELECTRICAL MEASUREMENTS** **THREE CREDIT HOURS**
A basic course covering both DC and AC measurements; errors of measurements; deflection and null methods; bridge analysis; wave forms and AC meters; square law movements. Corequisite: Ele 205.
- ELE 307L. ELECTRICAL MEASUREMENTS LABORATORY** **ONE CREDIT HOUR**
Experiments to accompany topics outlined in Ele 307. Corequisite: Ele 307.

- ELE 309. ELECTRICAL TRANSIENTS** THREE CREDIT HOURS
Application of the LaPlace Transform; poles and zeros; transient and steady-state response. Fourier series, integral, and transforms. Prerequisite: Mth 341.
- ELE 310. CIRCUIT ANALYSIS** THREE CREDIT HOURS
Network theorems; wave filters; impedance transformation; long line theory; equalization. Prerequisite: Ele 312.
- ELE 310L. CIRCUIT ANALYSIS LABORATORY** ONE CREDIT HOUR
Experiments to accompany topics outlined in Ele 310. Corequisite: Ele 310.
- ELE 312. ENGINEERING ELECTRONICS I** THREE CREDIT HOURS
A basic course with emphasis on terminal behavior of vacuum tubes and transistors. Prerequisite: Ele 205.
- ELE 312L. ENGINEERING ELECTRONICS LABORATORY I** ONE CREDIT HOUR
Receiving tube and transistor characteristics, electronic instruments, basic amplifier circuits, power supplies, waveshaping circuits. Corequisite: Ele 312.
- ELE 313. ENGINEERING ELECTRONICS II** THREE CREDIT HOURS
A course in linear electronic circuits; network theorems; single and multistage amplifiers; transient response of electronic circuits and feedback amplifiers. Prerequisite: Ele 309. Corequisite: Ele 310.
- ELE 313L. ENGINEERING ELECTRONICS LABORATORY II** ONE CREDIT HOUR
Single and multistage amplifiers, DC amplifiers, transistor amplifier configurations, feedback amplifiers, electronic timing and switching circuits. Corequisite: Ele 313.
- ELE 318. MACHINERY I** THREE CREDIT HOURS
The theory, construction and characteristics of series, shunt and compound generators and motors; the theory of commutation and armature reaction; transformers. Prerequisite: Ele 205.
- 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
A continuation of Ele 321. Physical aspects of vacuum tubes and associated circuits. Vacuum tube amplifiers, oscillators, special purpose tubes and semi-conductor devices. Instrumentation. Prerequisite: Ele 321.
- ELE 322L. FUNDAMENTAL ENGINEERING ELECTRONICS LABORATORY** ONE CREDIT HOUR
Experiments, tests and measurements paralleling lectures in Ele 322. Basic receiving tube and transistor characteristics, electronic instruments, basic amplifier circuits, power supplies, wave-shaping circuits. Corequisite: Ele 322.
- ELE 331. CIRCUIT THEORY III** THREE CREDIT HOURS
LaPlace transform analysis, zero-pole structure of network impedance functions. Foster's reactance theorem, synthesis of simple networks. Prerequisites: Ele 232, Mth 341.

- ELE 332. CIRCUIT THEORY IV** **THREE CREDIT HOURS**
 Properties and applications of frequency selective networks. Design of image impedance filters, stagger-tuned interstage networks and impedance matching networks. Transient response of networks. Prerequisite: Ele 331.
- ELE 333. FIELD THEORY II** **THREE CREDIT HOURS**
 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** **THREE CREDIT HOURS**
 Boundary value problems, retarded potentials, radiation and propagation in unbounded media. Prerequisite: Ele 333.
- ELE 335L. ELECTRICAL ENGINEERING LABORATORY I** **ONE CREDIT HOUR**
 Theory and range of application of electrical instruments; measurement of resistance, inductance, capacitance, and impedance at audio frequencies. Prerequisite: Ele 232.
- ELE 336L. ELECTRICAL ENGINEERING LABORATORY II** **ONE CREDIT HOUR**
 Study of electric circuits including resonant circuits, currents and voltage loci, coupled circuits, polyphase circuits and power measurements, network theorems and circuit transients. Prerequisites: Ele 312, Ele 335L.
- ELE 338L. ELECTRICAL ENGINEERING LABORATORY III** **ONE CREDIT HOUR**
 Determination of terminal characteristic of vacuum, gaseous, and solid state electron devices; non-sinusoidal wave form frequency analysis; power supplies, three-phase rectifiers, single stage amplifiers. Prerequisites: Ele 312, Ele 336L.
- ELE 403. MACHINERY II** **THREE CREDIT HOURS**
 Theory, construction and characteristics of polyphase induction motors, synchronous generators and motors, single phase motors and rotary converters. Selected topics on energy conversion. Prerequisite: Ele 318.
- ELE 403L. MACHINERY LABORATORY** **ONE CREDIT HOUR**
 Experiments covering series, shunt and compound DC machines. Transformer voltage regulation and efficiency. Polyphase operation of transformers. Synchronous generators and motors, single phase motors. Corequisite: Ele 403.
- ELE 410A. SEMINAR** **ONE CREDIT HOUR**
 Presentation of papers by the students and lectures by engineers in active practice. Attendance required by second term seniors only.
- ELE 410B. SEMINAR** **ZERO CREDIT HOURS**
 Presentation of papers by the students and lectures by engineers in active practice. Attendance required by Electrical Engineering juniors and first term seniors.
- ELE 411. ELECTRIC AND MAGNETIC FIELD THEORY** **THREE CREDIT HOURS**
 Mathematical theory of classical electricity and magnetism with an introduction to electromagnetism and Maxwell's equations. Prerequisite: Mth 341.

- ELE 413. COMMUNICATION ENGINEERING THREE CREDIT HOURS
Treatment of Fourier series; Fourier transform, frequency and time domain; modulation; random signal theory; basic information theory; noise in communication system. Prerequisites: Ele 309, 310.
- ELE 414. ADVANCED ELECTRONICS THREE CREDIT HOURS
Electron ballistics; theory of metals and semiconductors; electron emission, space charge flow, fundamental gas processes; modern electron devices. Prerequisite: Mth 341.
- ELE 431. ENERGY CONVERSION THREE CREDIT HOURS
Properties and theory of magnetic circuits as applied to electro-mechanical energy conversion. Non-linear magnetic devices. Introduction to rotating machine analysis. Field and circuit concepts of rotating machines. Rotating fields. Synchronous and induction machines. Prerequisites: Ele 232, Ele 233.
- ELE 432. AUTOMATIC CONTROL SYSTEMS THREE CREDIT HOURS
Closed-loop control systems; Routh's and Nyquist stability criterion; attenuation frequency methods. The root-locus approach; relationship between steady-state and transient performance. Prerequisite: Ele 413.
- ELE 435L. ELECTRICAL ENGINEERING LABORATORY IV ONE CREDIT HOUR
Tube and transistor multistage amplifiers and broadbanding; audio frequency power amplifiers. Prerequisites: Ele 313, Ele 338L.
- ELE 436L. ELECTRICAL ENGINEERING LABORATORY V ONE CREDIT HOUR
Amplitude modulation; demodulation of a modulated wave; production of shaped waveforms; switching and control circuit applications; design and evaluation of a single-frequency oscillator; filters. Transmission line parameters. Prerequisite: Ele 435L.
- Electrical Engineering Electives*
- ELE 415. MICROWAVE THEORY AND PRACTICE THREE CREDIT HOURS
Maxwell's equations; transmission lines, wave guides, cavity resonators; transmission, reflection, and absorption in media; microwave generators; applications of microwaves. Prerequisite: Ele 411.
- 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 419. SERVOMECHANISMS THREE CREDIT HOURS
Closed-loop control systems; Routh's and Nyquist stability criterion; attenuation-frequency methods. The root-locus approach; relationship between steady-state and transient performance. Prerequisite: Ele 309.
- ELE 440. ADVANCED ELECTRONICS THREE CREDIT HOURS
Electron ballistics; theory of metals and semiconductors; electron emission, space charge flow, fundamental gas processes; modern electron devices. Prerequisite: Ele 332.
- ELE 499. SPECIAL PROBLEMS IN ELECTRICAL ENGINEERING TWO TO SIX CREDIT HOURS
Particular assignments to be arranged and approved by Chairman of the Department.

English (ENG)

Dr. B. J. Bedard, *Chairman*

Professors: Boll, Lees, O'Donnell

Associate Professors: Bedard, Kohles, McCarthy, Sturm

Assistant Professors: Arons, August, Cameron, Cochran, Deboo, Donnelly, Fisher, Henninger, Kenny, Labadie, Macklin, Means, Murphy, Patrouch, Rougier, Ruff, Stockum, Tiernan

Instructors: Deinlein, George, Hamilton, Horst, Kelly, Marre, McNally, Olson, Palumbo, Pici

Eng 101 and Eng 106 are normally prerequisites for all courses listed as 200 or above. Students who pass Eng 103 with a grade of C or better take a 200 level course to complete their freshman requirement. 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. *The Exponent*, 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 103. ADVANCED PLACEMENT ENGLISH COMPOSITION THREE CREDIT HOURS

This course, designed for the freshman whose ability in written communication is superior, includes a study of various techniques of writing. Prerequisites: Superior score in entrance exams. *First Term, Each Year*

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 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 201. POETRY AND THE NOVEL THREE CREDIT HOURS

A study of representative examples of two major literary genres. Prerequisite: Six hours in English or Eng 103.

- ENG 202. DRAMA AND SHORT FICTION THREE CREDIT HOURS
A study of representative examples of two major literary genres. Prerequisite: Six hours of English or Eng 103.
- ENG 203. MAJOR BRITISH WRITERS THREE CREDIT HOURS
A study of four or five writers representative of the principal periods in English literature. Prerequisite: Six hours of English or Eng 103.
- ENG 204. MAJOR AMERICAN WRITERS THREE CREDIT HOURS
A study of four or five writers representative of the principal periods in American literature. Prerequisite: Six hours of English or Eng 103.
- ENG 205. MAJOR WORLD WRITERS THREE CREDIT HOURS
An examination of significant writings from the Western world, exclusive of English and American literature. Prerequisite: Six hours of English or Eng 103.
- ENG 208. TOPICS IN LITERATURE THREE CREDIT HOURS
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: Six hours of English or Eng 103.
- ENG 240H-241H. SOPHOMORE HONORS THREE TO SIX CREDIT HOURS
A seminar in which selected works from the literature of western civilization would be studied. Prerequisite: Sophomore standing in Arts. By invitation only.
- ENG 280. DIRECTED READINGS I (former Bus 298) ONE CREDIT HOUR
A program of professionally oriented readings and reports in humanities and social sciences, utilizing seminars and individual conferences. Required of Sophomores in Business Administration. Prerequisite: Six hours of English. *First Term, Each Year*
- ENG 281. DIRECTED READINGS II (former Bus 299) ONE CREDIT HOUR
A continuation of Eng 280. Required of Sophomores in Business Administration. Prerequisite: Eng 280. *Second Term, Each Year*
- ENG 315. DEVELOPMENT OF GRAMMAR THREE CREDIT HOURS
Studies in grammatical structure of modern English in the light of historical development. Traditional and modern linguistic points of view considered. Prerequisite: Twelve hours of English or Eng 103 and six hours.
- 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. Prerequisites: Twelve hours of English or Eng 103 and six hours.
- 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 to students who have had Eng 202. 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 to students who have had Eng 202. Prerequisite: Twelve hours of English.
- 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 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. Not open to students who have had Eng 423, 424, or 425. 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.
- ENG 380. DIRECTED READINGS III (former Bus 398) ONE CREDIT HOUR
 A continuation of Eng 281. Required of Juniors in Business Administration. Prerequisite: Eng 281. *First Term, Each Year*
- ENG 381. DIRECTED READINGS IV (former Bus 399) ONE CREDIT HOUR
 A continuation of Eng 380. Required of Juniors in Business Administration. Prerequisite: Eng 380. *Second Term, Each Year*

- ENG 403. HISTORY OF THE ENGLISH LANGUAGE THREE CREDIT HOURS
 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: Twelve hours of English.
- 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 423. TRAGEDIES OF SHAKESPEARE THREE CREDIT HOURS
 All of the tragedies of Shakespeare are read; some are taken through in detail in the lecture periods and the rest assigned for out of class reading. Not open to students who have had Eng 362. Prerequisite: Twelve hours of English.
- ENG 424. COMEDIES OF SHAKESPEARE THREE CREDIT HOURS
 The same procedure as followed for Eng 423. Some of the Comedies may be omitted at the discretion of the professor. Not open to students who have had Eng 362. Prerequisite: Twelve hours of English.
- ENG 425. HISTORIES OF SHAKESPEARE THREE CREDIT HOURS
 The same procedure as followed for Eng 423. All of the Histories are taken. Not open to students who have had Eng 362. Prerequisite: Twelve hours of 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 THREE CREDIT HOURS
 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 THREE CREDIT HOURS
 A study of the major and minor poems and of selected prose of Milton. Prerequisite: tenth century. 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 THREE CREDIT HOURS
 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 THREE CREDIT HOURS
 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 THREE CREDIT HOURS
 A study of the major poets and critics of the Romantic Age. Prerequisite: Twelve hours of English.
- ENG 441. THE VICTORIAN AGE I THREE CREDIT HOURS
 A study of the major English poets from Tennyson to Housman. Prerequisite: Twelve hours of English.
- ENG 442. THE VICTORIAN AGE II THREE CREDIT HOURS
 English prose writers from Carlyle to Pater. Eng 441 is not a prerequisite. Prerequisite: Twelve hours of English.
- ENG 445. MODERN BRITISH FICTION THREE CREDIT HOURS
 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 THREE CREDIT HOURS
 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 THREE CREDIT HOURS
 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 THREE CREDIT HOURS
 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 THREE CREDIT HOURS
 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 THREE CREDIT HOURS
 A study of the technique of modern poetry in America from Robinson, Jeffers, and Frost to the present. Prerequisite: Twelve hours of English.

ENG 490. SEMINAR

THREE CREDIT HOURS

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.

Fine Arts (ART)

Edward R. Burroughs, *Chairman**Associate Professor: Burroughs**Assistant Professor: Weber**Part-time Instructors: Carmichael, Martino*

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 103-104. 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. One two-hour course each week.

ART 201-202. 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 this course. One two-hour course each week.

ART 204-206. 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.

ART 205. GRAPHIC ARTS

THREE CREDIT HOURS

The principal processes of the graphic arts are studied as they pertain to contemporary expression in the fine arts and advertising. Offered only at Marianist College.

ART 207. COMMERCIAL ART AND LETTERING

THREE CREDIT HOURS

Basic principles of advertising design, layout and lettering (designed and drawn letter) and the relation of these subjects to current problems and methods. Offered only at Marianist College.

ART 210-211. ADVANCED PRINCIPLES OF 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 of design. The project-oriented program includes assignments in the areas of graphic design, and product design. One two-hour course each week.

ART 213-214. ADVANCED DRAWING

FOUR CREDIT HOURS

Studio course offering further disciplined study in various drawing media such as pencil, crayon, charcoal, and ink on the medium of expression. One two-hour course each week.

ART 215-216. ADVANCED PAINTING**FOUR CREDIT HOURS**

A continuation of Art 104, Introductory Painting, with increasing emphasis on the personal interpretation of the subject. The use of various painting media are encouraged, such as oil, water color, and opaque water color. One two-hour course each week.

ART 222. PRACTICAL ARTS IN THE INTERMEDIATE GRADES**TWO CREDIT HOURS**

Same as Art 221, adjusted to the maturity of children in the intermediate grades. Accredited in Education. One two-hour course each week.

ART 224-225. SCULPTURE**FOUR CREDIT HOURS**

Consideration of form 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.

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. Offered only at Regina Heights.

ART 310-311. ADVANCED DESIGN PROBLEMS**FOUR CREDIT HOURS**

The widest possible latitude for experimentation and development of his own direction is provided during this third year of study. At this time he is considered a mature student with a developed point of view about his work. One two-hour course each week.

ART 313-314. DRAWING PROBLEMS**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 324-325. 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.

ART 407. ART IN THE SCHOOLS**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, lettering, and the mural. Accredited in Education. One two-hour course each week.

ART 408. HISTORY OF ART**TWO CREDIT HOURS**

A study of the masters of art and the influences upon their works, beginning with the late Gothic period and continuing through the Baroque movement. One two-hour course each week.

ART 409. HISTORY OF ART**TWO CREDIT HOURS**

A continuation of Art 408, beginning with the styles in the art of the masters of the Rococo period through Impressionism to contemporary movements in art. One two-hour course each week.

ART 410. HISTORY OF ART TWO CREDIT HOURS
 Art forms in the New World are invested with idealisms similar to their contemporary European styles. The Art of the Americas answers special needs arising from the character of the people of the continents of the Western Hemisphere. One two-hour course each week.

ART 417W. 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 interest of pupils and to holiday observances. *Summer*

ART 477W. ART IN THE SCHOOLS THREE CREDIT HOURS
 Intended primarily for the teacher on the elementary level; creative art expression, use of materials, study of handwork and organization of units of work. May substitute for Art 407. *Summer*

Geology (GEO)

George H. Springer, *Chairman*

Professor: Springer

Assistant Professor: Horvath

Instructors: Ritter, Sparling

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 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
 Course to accompany Geo 116. Two hours per week.

GEO 201. MINERALOGY THREE CREDIT HOURS
 An introduction to the study of minerals; their chemical and physical properties; their associations and occurrences. *First Term, Each Year*

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. *First Term, 1967-1968*
- GEO 301L. STRUCTURAL GEOLOGY LABORATORY** ONE CREDIT HOUR
 Course to accompany Geo 301. Two hours per week. *First Term, 1967-1968*
- 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. *Second Term, 1967-1968*
- GEO 302L. GLACIAL GEOLOGY LABORATORY** ONE CREDIT HOUR
 Course to accompany Geo 302. Two hours per week. *Second Term, 1967-1968*
- 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 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, 1968-1969*
- GEO 307L. GEOMORPHOLOGY LABORATORY** ONE CREDIT HOUR
 Course to accompany Geo 307. Two hours per week. *Second Term, 1968-1969*
- GEO 309. PETROGRAPHY** TWO CREDIT HOURS
 A study of the composition of igneous, sedimentary, and metamorphic rocks through the use of thin sections and hand specimens. Prerequisite: Geo 204. *First Term, 1967-1968*
- GEO 309L. PETROGRAPHY LABORATORY** TWO CREDIT HOURS
 Course to accompany Geo 309. Four hours per week. *First Term, 1967-1968*
- GEO 310. STRATIGRAPHY** THREE CREDIT HOURS
 The interpretation of specific lithotypes and the synthesis of the stratigraphic record. Prerequisites: Geo 116, 301. *Second Term, 1968-1969*
- GEO 310L. STRATIGRAPHY LABORATORY** ONE CREDIT HOUR
 Course to accompany Geo 310. Two hours per week. *Second Term, 1968-1969*
- GEO 401. PALEONTOLOGY** THREE CREDIT HOURS
 A study of animal life of the geologic past as shown by the fossil record. *Second Term, 1967-1968*

- GEO 401L. PALEONTOLOGY LABORATORY** ONE CREDIT HOUR
 Course to accompany Geo 401. Two hours per week. *Second Term, 1967-1968*
- 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, 1968-1969*
- GEO 403L. SEDIMENTATION LABORATORY** ONE CREDIT HOUR
 Course to accompany Geo 403. Two hours per week. *First Term, 1966-1967*
- GEO 404. PROBLEMS IN GEOLOGY** THREE CREDIT HOURS
 A consideration of special problems involving advanced work in the laboratory and library; arranged to meet the needs of individual students.
- GEO 411. IGNEOUS PETROLOGY** THREE CREDIT HOURS
 A study of the formation of igneous rocks. Prerequisites: Geo 201, 204, 309. *Second Term, 1967-1968*
- GEO 411L. IGNEOUS PETROLOGY LABORATORY** ONE CREDIT HOUR
 Course to accompany Geo 411. Two hours per week. *Second Term, 1966-1967*
- GEO 415-416. MICROPALAEONTOLOGY** SIX CREDIT HOURS
 A study of microfossils with special attention given to index fossils characteristic of various geologic horizons. Prerequisites: Geo 310, 403. *Full Year Course, 1967-1968*
- GEO 415L-416L. MICROPALAEONTOLOGY LABORATORY** TWO CREDIT HOURS
 Course to accompany Geo 415-416. Two hours per week. *Full Year Course, 1967-1968*

History (HST)

Dr. Wilfred J. Steiner, *Chairman*

Professors: Beauregard, Ruppel, Steiner

Associate Professors: Donatelli, King, Maras, Sha

Assistant Professors: Bannan, Eid, Hehn, Isaacs, Mathias, Soffer, Taylor

Instructors: Cippel, Yaple

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 from Groups I, II, III, with at least one course in each group—a total of 12 credit hours;
- (2) Two courses from Group IV and two from Group V—a total of 12 credit hours;
- (3) History 401—2 credit hours.
- (4) Honors Colloquium course may replace any 300-400 course except History 401.

The course requirement for History minors is 12 credit hours. Two courses should be selected from Groups I, II, and III, and two courses from Groups IV and V.

GROUP I	GROUP II	GROUP III	GROUP IV	GROUP V
300	303	333	356	351
301	304	334	364	370
302	306	335	374	375
309	310	409	396	391
328	318	415	397	451
422	319	421	458	461
433	340	429	459	462
446	403	435	460	481
		442	470	490
			495	492

HST 101. HISTORY OF CIVILIZATION **THREE CREDIT HOURS**

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.

HST 102. HISTORY OF CIVILIZATION **THREE CREDIT HOURS**

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.

HST 120. HISTORY OF ENGLAND **THREE CREDIT HOURS**

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 **THREE CREDIT HOURS**

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 **THREE CREDIT HOURS**

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 **THREE CREDIT HOURS**

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 **THREE CREDIT HOURS**

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** **THREE CREDIT HOURS**
 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** **THREE CREDIT HOURS**
 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** **THREE CREDIT HOURS**
 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** **THREE CREDIT HOURS**
 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 REPUBLICS** **THREE CREDIT HOURS**
 A survey of the development of the Latin American republics from independence to the present. Stress will be placed on political, economic, and social development.
- HST 300. ROMAN HISTORY** **THREE CREDIT HOURS**
 A survey of the political, cultural, religious, and socio-economic history of the Roman Republic and Empire, 509 B.C. to 476 A.D. A study of early Christianity and the Byzantine Empire is included. *First Term, 1968-1969*
- HST 301. MEDIEVAL EUROPE** **THREE CREDIT HOURS**
 The development of European history from the 4th to the 14th century. Topics include: birth of Middle Ages; Christianity; Byzantine, Islamic, and Carolingian Empires; feudalism; manorialism; Crusades; growth of national states. *First Term, 1968-1969*
- HST 302. 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. *Second Term, 1968-1969*
- HST 303. EXPANSION OF EUROPE** **THREE CREDIT HOURS**
 A study of European imperialism from the 15th to the 20th century. Stress is laid on the reasons for the beginning of the movement, the theory and practice of colonialism, and the manner in which imperialism influenced Europe. *First Term, 1967-1968*
- HST 304. THE AGE OF ENLIGHTENMENT** **THREE CREDIT HOURS**
 Designed to bridge the gap between the later Reformation and the era of the French Revolution. Intellectual and cultural developments will be covered, with emphasis on political, economic and social trends of the Old Regime. *Second Term, 1967-1968*
- HST 306. INTELLECTUAL AND CULTURAL HISTORY OF MODERN EUROPE** **THREE CREDIT HOURS**
 Close analysis of men, ideas, and principal cultural developments in the period beginning with the Renaissance and extending into the 20th century. *Second Term, 1968-1969*

- HST 309. ANCIENT HISTORY THREE CREDIT HOURS
 A survey of ancient civilizations between 5000 B.C. and 30 B.C., including Egyptian, Mesopotamian, Anatolian, Syro-Palestinian, Persian, Aegean, Hellenic, and Hellenistic.
First Term, 1967-1968
- HST 310. 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.
Second Term, 1968-1969
- HST 313. CHRISTIAN ANTIQUITY THREE CREDIT HOURS
 This course investigates origin and cultural setting of early Christianity, the conflict with the pagan Roman Empire and emergence of Christianity under Constantine. Offered only at Carthage.
First Term, Each Year
- 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.
First Term, 1967-1968
- HST 319. FRANCE SINCE 1815 THREE CREDIT HOURS
 A study of French history from the Bourbon Restoration to the establishment of the 20th century Fourth Republic, with special emphasis on the intellectual, social, economic, political, and diplomatic trends.
First Term, 1968-1969
- 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.
Second Term, 1967-1968
- HST 333. 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.
First Term, 1967-1968
- HST 334. 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.
Second Term, 1967-1968
- HST 335. WEST AFRICA IN MODERN TIMES THREE CREDIT HOURS
 West Africa's significance since the 18th century, with special reference to the slave trade, the commercial revolution, religious ferment, imperialistic rivalry, and the recent independence movement.
First Term, 1968-1969
- HST 336. CHURCH HISTORY I THREE CREDIT HOURS
 Christianity in the Roman Empire; the Trinitarian and Christological controversies; conversion of the barbarians and lay domination; the Church and medieval society. Offered only at Regina Heights.

- HST 337. CHURCH HISTORY II** THREE CREDIT HOURS
 The Protestant revolt and the Catholic reformation; the Church and the absolute state; secularism, liberalism, and modernism; the Church in the twentieth century. Offered only at Regina Heights.
- HST 340. 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. *First Term, 1968-1969*
- HST 351. AMERICAN COLONIAL HISTORY** THREE CREDIT HOURS
 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. *Second Term, 1968-1969*
- HST 356. LATIN AMERICA: THE COLONIAL PERIOD** THREE CREDIT HOURS
 The Indian civilizations, the Spanish and Portuguese conquest, the colonial period and the movements for independence are covered. Special emphasis is placed on the blending of Iberian, Indian, and African cultures. *First Term, 1968-1969*
- 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. *Second Term, 1967-1968*
- HST 370. THE AGE OF JEFFERSON AND JACKSON** THREE CREDIT HOURS
 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. *First Term, 1967-1968*
- HST 374. THE GILDED AGE, 1877-1900** THREE CREDIT HOURS
 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. *Second Term, 1968-1969*
- HST 375. THE PROGRESSIVE PERIOD (1900-1920)** THREE CREDIT HOURS
 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. *First Term, 1967-1968*
- HST 391. HISTORY OF CANADA** THREE CREDIT HOURS
 A general survey of Canadian History from early settlement to the present, with stress placed on the years after 1867. *First Term, 1968-1969*
- 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. *First Term, 1967-1968*
- HST 397. HISTORY OF CIVIL LIBERTIES IN THE U.S.** THREE CREDIT HOURS
 The issues of religious liberty, discrimination, defendants' rights and individual rights will be studied with an overview of the historical development of all human rights in the U.S. *Second Term, 1968-1969*

- 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 403. HISTORY OF MODERN COMMUNISM THREE CREDIT HOURS
 A historical treatment of modern communism and the growth of Communist parties after 1917. Marxism, Leninism, Stalinism, and Maoism will be considered in their historical settings and in the light of Christian principles. *Second Term, 1968-1969*
- HST 409. EUROPE SINCE 1918 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. *Each Term, 1967-1968*
- 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. *First Term, 1967-1968*
- HST 421. 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. *Second Term, 1967-1968*
- HST 422. ENGLISH CONSTITUTIONAL HISTORY THREE CREDIT HOURS
 A historical approach to the study of the origin and development of English legal, constitutional and institutional history. *Second Term, 1968-1969*
- HST 429. 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. *First Term, 1968-1969*
- HST 431. MODERN CHURCH HISTORY THREE CREDIT HOURS
 The French Revolution. Napoleon and Pius VII. Secularization in Germany. The Catholic Romantic Movement. The Cologne conflict. The Oxford Movement. The Roman Question. Offered only at Carthage. *Second Term, Each Year*
- HST 433. 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. *Second Term, 1967-1968*
- HST 435. 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. *First Term, 1968-1969*
- HST 442. MODERN CHINA THREE CREDIT HOURS
 A survey of the political, cultural and international developments in China from the eighteenth century to the present. *Second Term, 1967-1968*

- HST 446. SOUTHEAST ASIA THREE CREDIT HOURS
 A survey of the cultural and political history of Southeast Asian countries, emphasizing recent developments. *First Term, 1968-1969*
- HST 451. CIVIL WAR AND RECONSTRUCTION THREE CREDIT HOURS
 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. *Second Term, 1967-1968*
- HST 458. INTELLECTUAL AND CULTURAL HISTORY OF THE U.S. THREE CREDIT HOURS
 An attempt to trace the evolution of a distinctive American civilization through a study of American thought and its expression in the fine and utilitarian arts. There will be parallel treatment of fine arts and technological developments. *First Term, 1967-1968*
- HST 459. U.S. CONSTITUTIONAL HISTORY THREE CREDIT HOURS
 A historical analysis of the origin and evolution of the American Constitution, constitutional theory and constitutional practice. *First Term, 1968-1969*
- HST 460. 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. *Second Term, 1967-1968*
- HST 461. 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. *First Term, 1967-1968*
- HST 462. THE A-B-C POWERS THREE CREDIT HOURS
 The historical role of Argentina, Brazil, and Chile. Internal problems are considered in a detailed study of national histories. 20th century developments are stressed. The place of these powers in international politics is analyzed. *Second Term, 1968-1969*
- HST 470. THE CATHOLIC CHURCH IN THE U.S. THREE CREDIT HOURS
 This course begins with the establishment of the first Catholic missions in the U.S. The influence of the Church on the cultural, political, economic and religious customs of the American people is explained. *First Term, 1968-1969*
- HST 481. RECENT AMERICAN HISTORY THREE CREDIT HOURS
 A study of the immediate background of contemporary political, social and economic problems. Topics discussed: "Normalcy," Depression and New Deal, impact of World War II on the United States, and World Communism. *Each Term, 1968-1969*
- HST 490. 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. *Second Term, Each Year*
- HST 492. EMINENT AMERICANS THREE CREDIT HOURS
 A study in depth of the work of Americans who have had an enduring effect on our history; e.g., Washington, Franklin, Hamilton, Jefferson, Lincoln, and the Roosevelts. *First Term, 1968-1969*

- HST 495. AMERICAN HISTORIANS THREE CREDIT HOURS
 Intensive readings and discussion to foster understanding of American history, as written and interpreted in various periods and intellectual environments. *Second Term, 1967-1968*
- HST 497. HONORS COLLOQUIUM I (HONORS) THREE CREDIT HOURS
 A course devoted to the study of a special topic in American History to be selected by the instructor. Applicants will be admitted on the basis of academic record. Limited to ten students. *Second Term, Each Year*
- HST 498. HONORS COLLOQUIUM II (HONORS) THREE CREDIT HOURS
 A course devoted to the study of a special topic in non-American History to be selected by the instructor. Applicants will be admitted on the basis of academic record. Limited to ten students. *First Term, Each Year*

Home Economics (HEC)

Elizabeth L. Payne, *Chairman*

Associate Professor: Payne

Assistant Professors: Bernhard, Ittelson, Metzger, Smallwood

- HEC 101. CLOTHING I TWO CREDIT HOURS
 A study of clothing selection and construction of simple garments using commercial patterns. Emphasis is on short-cut methods of construction, fitting, dressmaking, details and finishing procedures. Two lecture periods per week.
- HEC 101L. CLOTHING I LABORATORY ONE CREDIT HOUR
 A course to accompany Hec 101 lecture. One three-hour period per week.
- HEC 102. FOODS I TWO CREDIT HOURS
 Basic principles and practices in food planning, preparation, preservation and serving. Two lecture periods per week.
- HEC 102L. FOODS I LABORATORY ONE CREDIT HOUR
 A course to accompany Hec 102 lecture. One three-hour period per week.
- HEC 105. INTRODUCTION TO RELATED ART THREE CREDIT HOURS
 A study of the fundamentals of design and color and their application in selection and arrangement. Three lecture periods per week. *First Term, Each Year*
- HEC 201. FOODS II TWO CREDIT HOURS
 Continuation of Foods I. Two class periods per week. Prerequisite: Hec 102 or equivalent.
- HEC 201L. FOODS II LABORATORY ONE CREDIT HOUR
 Course to accompany Hec 201 lecture. One three-hour laboratory period per week.
- HEC 211. CLOTHING II TWO CREDIT HOURS
 Detailed emphasis on principles of fitting and creative construction. Two lecture periods per week. Prerequisite: Hec 101 or equivalent.

- HEC 211L. CLOTHING II LABORATORY ONE CREDIT HOUR
 Course to accompany Hec 211 lecture. One three-hour laboratory period per week.
- HEC 214. TEXTILES I THREE CREDIT HOURS
 A study of the natural man-made and synthetic fibers for the use and care of finished fabrics. Three class periods per week. *Second Term, Each Year*
- HEC 221. HOME MANAGEMENT I THREE CREDIT HOURS
 A study of the management and use of resources to promote the development of home and family life. Three class periods per week. *First Term, Each Year*
- HEC 225. CHILD DEVELOPMENT I THREE CREDIT HOURS
 Developmental study of prenatal, infancy and early childhood. Observation and work in nursery school arranged. Two lecture periods per week. *First Term, Each Year*
- HEC 303. NUTRITION AND HEALTH THREE CREDIT HOURS
 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 COOKERY ONE CREDIT HOUR
 The planning, preparing and serving of foods in large quantities. Use and care of equipment for quantity cookery. One class period per week.
- HEC 304L. QUANTITY COOKERY LABORATORY TWO CREDIT HOURS
 Course to accompany Hec 304 lecture. Hours arranged.
- HEC 308. INSTITUTIONAL BUYING THREE CREDIT HOURS
 Selection and methods of purchasing institutional food and equipment. Three class periods per week. *As Needed*
- HEC 309. HOUSEHOLD EQUIPMENT THREE CREDIT HOURS
 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 THREE CREDIT HOURS
 A consideration of the factors necessary for the establishment and maintenance of a home in its changing context. Three lecture periods per week. *Second Term, Each Year*
- HEC 323. DEMONSTRATION METHODS ONE CREDIT HOUR
 A study of lecture-demonstration techniques. Stress is placed on giving lecture-demonstrations. Two class periods per week.
- HEC 327. FOOD PRESERVATION AND EXPERIMENTAL COOKERY TWO CREDIT HOURS
 The experimental application of food principles, theory and procedures in food handling. Two lecture periods per week. Prerequisite: Hec 201. *Second Term, Each Year*
- HEC 327L. FOOD PRESERVATION IN THE HOME LABORATORY ONE CREDIT HOUR
 Course to accompany Hec 327 lecture. One three-hour laboratory period per week. *Second Term, Each Year*

- HEC 328. HOME FURNISHINGS AND HOUSING THREE CREDIT HOURS
 A study of housing and selection of furnishings for the home, including arrangements, period styles and decorative details. Three lecture periods per week. Prerequisite: Hec 105.
Second Term, Each Year
- HEC 329. CHILD DEVELOPMENT II THREE CREDIT HOURS
 An evaluation of the growth of children; case study and nursery school participation arranged. Two lecture periods per week. Prerequisite: Hec 225. *Second Term, Each Year*
- HEC 401. ADVANCED NUTRITION THREE CREDIT HOURS
 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 400.
Second Term, Each Year
- HEC 402. DIET IN DISEASE THREE CREDIT HOURS
 Adaptation of diet to disease. Three class periods per week. Prerequisite: Hec 303.
As Needed
- HEC 405. TEACHING OF HOME ECONOMICS IN SCHOOLS THREE CREDIT HOURS
 A study of Home Economics philosophies and Vocational Home Economics methods. Planning, preparing and presenting units and lessons for different grade levels. Three class periods per week.
First Term, Each Year
- HEC 406. HOME MANAGEMENT II ONE CREDIT HOUR
 Planning experience in maintaining 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 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
 Problems of making slip covers and draperies; individual problems of refinishing furniture and upholstering. 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. SPECIAL PROBLEMS TWO CREDIT HOURS
 Problems chosen for individual study in various areas of the field of Home Economics. Two periods per week.

HEC 436L. SPECIAL PROBLEMS LABORATORY ONE CREDIT HOUR
 Course to accompany Hec 436 lecture. One two-hour laboratory.

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. Gourmet and foreign cookery is also included. Two lecture periods per week. Prerequisite: Hec 201. *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*
 Professor: Schmid
 Associate Professor: Mitchell

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 216.

INE 301. 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.
First Term, Each Year

INE 303. 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. *Second Term, Each Year*

INE 310-311. ENGINEERING SYSTEMS DESIGN I AND II SIX 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.

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.

- INE 332. STATISTICAL CONTROL AND SYSTEMS DESIGN THREE CREDIT HOURS
 Sampling theory, tests of hypotheses, analysis of variance, regression and correlation, experimental design, and factor analysis with examples from quality control and process design, analysis and control. Prerequisite: Mth 331. *First Term, Each Year*
- 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 233, Ine 332.
- INE 401. ENGINEERING ECONOMY TWO CREDIT HOURS
 Emphasizes rational, scientific methods of economic analysis for engineering and management decision-making.
- INE 403. TIME AND MOTION STUDY I TWO CREDIT HOURS
 A study of the job analysis techniques including process charts, right and left hand charts, the laws of motion economy, man-machine charts and a survey of micromotion techniques.
- INE 403L. TIME AND MOTION STUDY LABORATORY I ONE CREDIT HOUR
 A series of laboratory problems based on the above. Corequisite: Ine 403.
- INE 404. TIME AND MOTION STUDY II TWO CREDIT HOURS
 A study of advanced problems in establishing standard time data, progressive operations, application of statistics, micromotion study with practical problems. Prerequisite: Ine 403. *Second Term, Each Year*
- INE 404L. TIME AND MOTION STUDY LABORATORY II ONE CREDIT HOUR
 A series of laboratory problems based on the above. Corequisite: Ine 404. *Second Term, Each Year*
- INE 405. PRODUCTION PLANNING THREE CREDIT HOURS
 A study of the practices in production scheduling, routing, dispatching and inventory control; including an analysis of mechanized systems and current practices. *Second Term, Each Year*
- INE 406. PLANT LAYOUT AND MATERIAL HANDLING TWO CREDIT HOURS
 The design of a plant for a specified product. Includes: structure; power requirements; heat; light; sound; and ventilation; transportation facilities, material handling requirements and equipment. Prerequisites: Ine 405, Mee 206L. *First Term, Each Year*
- INE 406L. PLANT LAYOUT LABORATORY ONE CREDIT HOUR
 The complete design of a light manufacturing plant including choice of site, building, equipment and organizational structure. Corequisite: Ine 406.
- INE 408. ADMINISTRATION AND ORGANIZATION THREE CREDIT HOURS
 Social relationships, achievements, goals, objectives of organizations. Processes, functions, techniques, and tasks of management. Theories and practices utilized in the dispersion and concentration of authority and responsibility.
- INE 410. SEMINAR ONE CREDIT HOUR
 Required of all senior industrial engineering students. The preparation and presentation of a paper on current industrial engineering practices and topics.

- 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 or Ine 408.
- 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, or Ine 408.
- 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: Mth 331. *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 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: Mth 331.
- 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 430.
- 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.

PROGRAM OF JUDAIC STUDIES

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.

Visiting Instructors: Rabbi Herbert Brichto, Rabbi Alvin Reines, Dr. Ellis Rivkin, Rabbi Ezra Spicehandler, Dr. Samuel Greengus

JUD 320. HISTORY OF ISRAEL TWO CREDIT HOURS
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 ONE CREDIT HOUR
Seminar dealing with the biblical view of history.

First Term

JUD 330. JUDAIC LITERATURE TWO CREDIT HOURS
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 ONE CREDIT HOUR
Seminar discussing selected texts of Judaic literature.

Third Term

JUD 340. ARCHAEOLOGY AND THE BIBLE TWO CREDIT HOURS
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 ONE CREDIT HOUR
Second Term

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 TWO CREDIT HOURS
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 ONE CREDIT HOUR
To be announced

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.

Second 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.)

Languages

Dr. James M. Ferrigno, *Chairman*

Professors: Ferrigno, Perz

Associate Professors: McKenzie, Sullivan

Assistant Professors: Bartholomew, Beigel, Castelló, Darby, Frazier, Rus, Saquel, Sory, Zeinz

Instructors: Carhart, Csiffary, Franklin, Galeano, Ginn, Gray, Treacy

Part-time Instructors: Bruggeman, Carter, Dean, Hickey, Millonig, Polony, Zieba

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. ELEMENTARY FRENCH

THREE CREDIT HOURS

Elements of French, including pronunciation, reading, translation, grammar, dictation and conversation.

FRN 102. ELEMENTARY FRENCH II

THREE CREDIT HOURS

Continuation of Elementary French 101. Prerequisite: Frn 101.

FRN 107. ELEMENTARY FRENCH

FIVE CREDIT HOURS

Elements of French, including pronunciation, reading, translation, dictation and conversation. Six class hours. This course is given only at Wright-Patterson Air Force Base.

FRN 201. INTERMEDIATE FRENCH THREE CREDIT HOURS
 Grammar review, selected readings from modern authors, exercises in composition and conversation. Prerequisite: Frn 102.

FRN 202. INTERMEDIATE FRENCH II THREE CREDIT HOURS
 Continuation of Intermediate French 201. Prerequisite: Frn 201.

FRN 207. INTERMEDIATE FRENCH FIVE CREDIT HOURS
 Composition and conversation, selected readings. Six class hours. Prerequisite: Frn 107 or equivalent. This course is given only at Wright-Patterson Air Force Base.

FRN 307. ADVANCED FRENCH COMPOSITION AND CONVERSATION THREE CREDIT HOURS
 Practice in composition based on area material. Intensive drill in the aural and oral use of the language. *First Term, Each Year*

FRN 308. ADVANCED FRENCH COMPOSITION AND CONVERSATION THREE CREDIT HOURS
 Continuation of Advanced French Composition and Conversation, Frn 307. *Second Term, Each Year*

Note: French 307 and French 308 are prerequisites for all other upper level courses in French.

FRN 309. RAPID READING IN FRENCH THREE CREDIT HOURS
 A course designed to improve and accelerate reading ability and to develop understanding and appreciation of the great works of French literature. Readings, reports and discussions. *First Term, 1968-1969*

FRN 310. RAPID READING IN FRENCH THREE CREDIT HOURS
 Continuation of Rapid Reading in French 309. *Second Term, 1968-1969*

FRN 311. FRENCH LITERATURE TO 1700 THREE CREDIT HOURS
 A survey of French literature from the earliest beginnings to the eighteenth century, with special emphasis on the principal authors and works of the seventeenth century. Lectures, discussions and reports on area material. *First Term, 1967-1968*

FRN 312. FRENCH LITERATURE TO 1700 THREE CREDIT HOURS
 Continuation of French Literature to 1700, Frn 311. *Second Term, 1967-1968*

FRN 405. FRENCH LITERATURE OF THE TWENTIETH CENTURY THREE CREDIT HOURS
 A survey of the literary movements, outstanding authors and works of the present century. Lectures, discussions and reports on assigned readings. *First Term, 1967-1968*

FRN 406. FRENCH LITERATURE OF THE TWENTIETH CENTURY THREE CREDIT HOURS
 Continuation of French Literature of the Twentieth Century, Frn 405. *Second Term, 1967-1968*

FRN 407. FRENCH LITERATURE OF THE EIGHTEENTH AND NINETEENTH CENTURIES THREE CREDIT HOURS
 A survey covering the literary movements, outstanding authors and works of this period. Lectures, discussions and reports on assigned readings. *First Term, 1968-1969*

FRN 408. FRENCH LITERATURE OF THE EIGHTEENTH AND NINETEENTH CENTURIES

THREE CREDIT HOURS

Continuation of French Literature of the Eighteenth and Nineteenth Centuries, Frn 407.
Second Term, 1968-1969

German (GER)

GER 101. ELEMENTARY GERMAN

THREE CREDIT HOURS

Elements of German, including pronunciation, reading, translation, grammar, dictation and conversation.

GER 102. ELEMENTARY GERMAN II

THREE CREDIT HOURS

Continuation of Elementary German 101. Prerequisite: Ger 101.

GER 107. ELEMENTARY GERMAN

FIVE CREDIT HOURS

Elements of German, including pronunciation, reading, translation, dictation and conversation. Six class hours. This course is given only at Wright-Patterson Air Force Base.

GER 201. INTERMEDIATE GERMAN

THREE CREDIT HOURS

Grammar review, selected readings from modern authors, exercises in composition and conversation. Prerequisite: Ger 102.

GER 202. INTERMEDIATE GERMAN

THREE CREDIT HOURS

Continuation of Intermediate German 201. Prerequisite: Ger 201.

GER 207. INTERMEDIATE GERMAN

FIVE CREDIT HOURS

Composition and conversation, selected readings. Six class hours. Prerequisite: Ger 107 or equivalent. This course is given only at Wright-Patterson Air Force Base.

GER 301. GERMAN LITERATURE TILL 1800

THREE CREDIT HOURS

A survey of German literature from the earliest times to the period of Romanticism. A study of literary movements, outstanding authors and works. Lectures, discussions and reports on assigned readings.
First Term, 1967-1968

GER 302. GERMAN LITERATURE TILL 1800

THREE CREDIT HOURS

Continuation of German Literature till 1800, Ger 301.
Second Term, 1967-1968

GER 308. ADVANCED GERMAN CONVERSATION AND COMPOSITION

THREE CREDIT HOURS

Intensive drill in the oral and aural use of the language, based on area material. Practice in composition.
First Term, Each Year

GER 309. GERMAN CIVILIZATION

THREE CREDIT HOURS

A survey of the German people, its geographical, historical and political background. German art and folklore.
Second Term, Each Year

GER. 407. GERMAN LITERATURE OF THE TWENTIETH CENTURY

THREE CREDIT HOURS

A survey of the outstanding authors and works of the present century. Lectures, discussions and reports on assigned readings.
First Term, 1968-1969

- GER 408. THE CLASSICAL PERIOD THREE CREDIT HOURS
 A study of the principal authors and works of this period. Lectures, discussions and reports on assigned readings. *Second Term, 1968-1969*
- GER 409. GERMAN LITERATURE OF THE NINETEENTH CENTURY THREE CREDIT HOURS
 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, 1967-1968*
- GER 410. GERMAN LITERATURE OF THE NINETEENTH CENTURY THREE CREDIT HOURS
 A continuation of German Literature of the Nineteenth Century, Ger 409. *Second Term, 1967-1968*

Greek (GRK)

- GRK 101. ELEMENTARY GREEK THREE CREDIT HOURS
 A study of the essentials of Greek grammar with exercises and readings.
- GRK 102. ELEMENTARY GREEK THREE CREDIT HOURS
 Continuation of Elementary Greek 101. Prerequisite: Grk 101.
- GRK 201. INTERMEDIATE GREEK THREE CREDIT HOURS
 Continuation of the study of grammar. Readings from New Testament. Prerequisite: Grk 102. *First Term, Each Year*
- GRK 303. PLATO THREE CREDIT HOURS
 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.
- GRK 304. HOMER THREE CREDIT HOURS
 Readings from the *Iliad* and the *Odyssey*. *Second Term, Each Year*
- GRK 305. THE SEPTUAGINT THREE CREDIT HOURS
 Extensive readings. Comparison with the Vulgate. Excursions into the field of Biblical science. *To be announced*
- GRK 306. THE NEW TESTAMENT THREE CREDIT HOURS
 Similar to Grk 305. Comparison of the Greek and Latin texts with modern renditions.
- GRK 403. GREEK DRAMA THREE CREDIT HOURS
 Readings of Sophocles' *Oedipus Rex* and *Antigone* with a study of the origin and development of Greek drama.

Hebrew (HEB)

- HEB 101. ELEMENTARY HEBREW THREE CREDIT HOURS
 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. *First Term, Each Year*

HEB 102. INTRODUCTION TO CLASSICAL HEBREW THREE CREDIT HOURS
 Further study of the verb. Chapters read from all portions of the Old Testament with emphasis on the Pentateuch. Oral reading and conversation in the spirit of Classical Hebrew. Translation of poetic portions. Prerequisite: Heb 101. *Second Term, Each Year*

Italian (ITA)

ITA 101. ELEMENTARY ITALIAN THREE CREDIT HOURS
 Elements of Italian, including pronunciation, reading, translation, grammar, dictation and conversation.

ITA 102. ELEMENTARY ITALIAN THREE CREDIT HOURS
 Continuation of Elementary Italian 101. Prerequisite: Ita 101.

ITA 201. INTERMEDIATE ITALIAN THREE CREDIT HOURS
 Grammar review, selected readings from modern authors, exercises in composition and conversation. Prerequisite: Ita 102.

ITA 202. INTERMEDIATE ITALIAN THREE CREDIT HOURS
 Continuation of Intermediate Italian 201. Prerequisite: Ita 201.

ITA 301. MASTERPIECES OF ITALIAN LITERATURE THREE CREDIT HOURS
 Major works from Dante to Tasso, presented in literary-historical perspective. Prerequisite: Ita 202 or permission of the Department. *First Term, 1968-1969*

ITA 302. MASTERPIECES OF ITALIAN LITERATURE THREE CREDIT HOURS
 The major works from Marino to D'Annunzio presented in literary-historical perspective. Prerequisite: Ita 202 or permission of the Department. *Second Term, 1968-1969*

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. *First Term, 1967-1968*

ITA 308. ADVANCED ITALIAN COMPOSITION AND CONVERSATION II THREE CREDIT HOURS
 Continuation of Ita 307. *Second Term, 1967-1968*

Latin (LAT)

LAT 101. ELEMENTARY LATIN THREE CREDIT HOURS
 A college course in Latin fundamentals.

LAT 102. ELEMENTARY LATIN THREE CREDIT HOURS
 A continuation of Elementary Latin 101. Prerequisite: Lat 101.

LAT 201. INTERMEDIATE LATIN THREE CREDIT HOURS
 Second year course in Latin. Readings from classical authors of the pre-Christian periods. Prerequisite: Lat 102.

- LAT 202. INTERMEDIATE LATIN THREE CREDIT HOURS
 A continuation of Intermediate Latin 201. Prerequisite: Lat 201.
- 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 THREE CREDIT HOURS
 This course embraces the reading of excerpts from a wide range of Latin authors. *First Term, Each Year*
- LAT 309. CICERO THREE CREDIT HOURS
 A study of *De Amicitia* and *De Senectute* or other works of Cicero. *Second Term, Each Year*
- LAT 310. SELECTED LETTERS OF PLINY THREE CREDIT HOURS
 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 THREE CREDIT HOURS
 Intensive readings in the *Metamorphoses* with emphasis on the influence of the mythological epic on some of the modern literatures.
- LAT 314. LIVY THREE CREDIT HOURS
 This course comprises readings from Books I, XXI, and XXII of Livy's History and an examination of his historical method and literary form.
- LAT 335. ROMAN SATIRE THREE CREDIT HOURS
 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. *First Term, 1967-1968*
- LAT 401. ADVANCED LATIN COMPOSITION THREE CREDIT HOURS
 An intensive course in Latin composition, with special attention to the classical type of Cicero.
- LAT 403. SENECA THREE CREDIT HOURS
 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 NINE CREDIT HOURS
 Translation of Latin philosophical works. Lat 405: *Logica et Ontologia*; Lat 406: *Cosmologia et Psychologia*; Lat 407: *Theodicaea et Ethica*. Summer

LAT 412. ECCLESIASTICAL LATIN THREE CREDIT HOURS
 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 THREE CREDIT HOURS
 Excerpts are taken from the first Nine Books. First Term, Each Year

LAT 414. PATRISTIC LATIN THREE CREDIT HOURS
 Selections from St. Augustine, Tertullian, St. Cyprian, Lactantius, St. Ambrose, St. Jerome, and other Fathers.

Russian (Rus)

Rus 101. ELEMENTARY RUSSIAN THREE CREDIT HOURS
 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 102. ELEMENTARY RUSSIAN II THREE CREDIT HOURS
 Continuation of Russian 101. Prerequisite: Rus 101.

Rus 107. ELEMENTARY RUSSIAN FIVE CREDIT HOURS
 Elements of Russian, including pronunciation, reading, translation, dictation and conversation. Six class hours. This course is given only at Wright-Patterson Air Force Base.

Rus 201. INTERMEDIATE RUSSIAN THREE CREDIT HOURS
 Review of the essentials of grammar, intensive conversational and comprehension exercises, reading of graded modern and contemporary prose and poetry. Prerequisite: Rus 101-102, or equivalent.

Rus 202. INTERMEDIATE RUSSIAN II THREE CREDIT HOURS
 Continuation of Russian 201. Prerequisite: Rus 201.

Rus 203. SCIENTIFIC RUSSIAN THREE CREDIT HOURS
 This course is given only at Wright-Patterson Air Force Base. Prerequisite: Rus 101-102, or equivalent.

Rus 204. SCIENTIFIC RUSSIAN THREE CREDIT HOURS
 Continuation of Scientific Russian, Rus 203.

Rus 207. INTERMEDIATE RUSSIAN FIVE CREDIT HOURS
 Composition and conversation, selected readings. Six class hours. Prerequisite: Rus 107 or equivalent. This course is given only at Wright-Patterson Air Force Base.

RUS 301. RUSSIAN READING AND CONVERSATION THREE CREDIT HOURS
 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. *First Term, Each Year*

RUS 302. RUSSIAN READING AND CONVERSATION THREE CREDIT HOURS
 Continuation of Rus 301. *Second Term, Each Year*

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. *First Term, Each Year*

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. *Second Term, Each Year*

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 as summation of courses, readings. Third term (I), each year.
 Prerequisite: Rus 202 or equivalent. *First Half, Third Term*

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. *First Term, 1967-1968*

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. *Second Term, 1967-1968*

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. *First Term, 1968-1969*

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. *Second Term, 1968-1969*

Spanish (SPN)

SPN 101. ELEMENTARY SPANISH THREE CREDIT HOURS
 Elements of Spanish, including pronunciation, reading, translation, grammar, dictation and conversation.

- SPN 102. ELEMENTARY SPANISH II THREE CREDIT HOURS
Continuation of Spanish 101. Prerequisite: Spn 101.
- SPN 107. ELEMENTARY SPANISH FIVE CREDIT HOURS
Elements of Spanish, including pronunciation, reading, translation, dictation and conversation. Six class hours. This course is given only at Wright-Patterson Air Force Base.
- SPN 201. INTERMEDIATE SPANISH THREE CREDIT HOURS
Grammar review, selected readings from modern authors, exercises in composition and conversation. Prerequisite: Spn 102.
- SPN 202. INTERMEDIATE SPANISH THREE CREDIT HOURS
Continuation of Intermediate Spanish 201. Prerequisite: Spn 201.
- SPN 207. INTERMEDIATE SPANISH FIVE CREDIT HOURS
Composition and conversation, selected readings. Six class hours. Prerequisite: Spn 107 or equivalent. This course is given only at Wright-Patterson Air Force Base.
- SPN 301. SPANISH LITERATURE THREE CREDIT HOURS
A survey of Spanish literature, with special emphasis on the Golden Age and the modern period. Lectures, discussions and reports on assigned readings.
First Term, 1968-1969
- SPN 302. SPANISH LITERATURE THREE CREDIT HOURS
A continuation of Spanish Literature, Spn 301. *Second Term, 1968-1969*
- SPN 303. SPANISH-AMERICAN LITERATURE THREE CREDIT HOURS
A study of the principal authors and works of the colonial, revolutionary and modern periods. Lectures, discussions and reports on assigned readings. *First Term, 1967-1968*
- SPN 304. SPANISH-AMERICAN LITERATURE THREE CREDIT HOURS
A continuation of Spanish-American Literature, Spn 303. *Second Term, 1967-1968*
- 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*
- Note: Spanish 307 and Spanish 308 are prerequisites for all other upper level Spanish courses.
- 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, 1967-1968*
- 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, 1967-1968*

- 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, 1968-1969
- 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, 1968-1969

Marketing (MKT)

Harry C. Murphy, *Chairman*

Associate Professors: Comer, Murphy

Assistant Professors: Densmore, Jain, Van Istendal

Part-time Instructors: Bowersox, Jeffrey, Hull, Somers

- MKT 305. 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 305.
- MKT 316. RETAIL ORGANIZATION AND OPERATION THREE CREDIT HOURS
 Principles of store management, store location, buildings, and equipment, store organization, expense center accounting, receiving and marking, store protection, and coordination of retail store activities are studied. Prerequisite: Mkt 305.
- MKT 318. RETAIL ADVERTISING AND SALES PROMOTION THREE CREDIT HOURS
 Principles and practices of retail advertising and other sales promotion activities; where, when, and what to promote; budgeting and planning of special events and activities; emphasis upon coordination. Prerequisites: Mkt 315 or Mkt 316.
- MKT 335. ADVANCED MARKETING THREE CREDIT HOURS
 The marketing policies of manufacturers and wholesalers; the technique of marketing research; analysis of current problems and literature relating to marketing efficiency. Prerequisite: Mkt 305.
- MKT 340. INDUSTRIAL MARKETING THREE CREDIT HOURS
 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 305.

- MKT 405. CONSUMER BEHAVIOR** THREE CREDIT HOURS
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** THREE CREDIT HOURS
The structure of the sales organization, determination of sales policies, the selection, training, and motivation of salesmen, the establishing of sales territories and quotas. Prerequisites: Mkt 305 and Bus 313 or Psy 302.
- MKT 417. RETAIL BUYING AND MERCHANDISING** THREE CREDIT HOURS
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. Prerequisites: Mkt 315 or Mkt 316.
- MKT 420. MARKETING COMMUNICATIONS** THREE CREDIT HOURS
Problems of marketing considered as problems of effective communication in such functional areas as advertising, personal selling, packaging, research, display and pricing. Prerequisite: Mkt 305.
- MKT 421. ADVERTISING** THREE CREDIT HOURS
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** THREE CREDIT HOURS
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. Prerequisites: Mkt 305 and Bus 313 or Psy 302.
- MKT 450. MARKET DEVELOPMENT, PROGRAMMING AND POLICIES** THREE CREDIT HOURS
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 305.
- MKT 499H. PROBLEMS IN MARKETING (HONORS CREDIT)** THREE CREDIT HOURS
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.

Mathematics (MTH)

Dr. Kenneth C. Schraut, *Chairman*

Professors: Bellmer, Schraut

Associate Professors: Dwyer, Esser, Prather, Stander

Assistant Professors: Back, Cada, Friel, Gantner, McCloskey, Mushenheim, Peterson, Rice, Schoen, Steinlage

Instructors: Kauflin, Tobias

Part-time Instructors: Campbell, Grabner, Hudson, Luers, Poole, Zonars

- MTH 111. MATHEMATICS AND ITS CULTURAL ASPECTS** **THREE CREDIT HOURS**
 Historical development of mathematics, the axiomatic approach, various mathematical systems, applications. Three class periods a week. Prerequisite: One and one-half years of high school algebra and a year of high school geometry.
- MTH 117. COLLEGE ALGEBRA AND TRIGONOMETRY** **THREE CREDIT HOURS**
 For students proficient in traditional high school mathematics but who do not qualify for Mth 216. Meets five times per week. Prerequisite: One and one-half years of high school algebra and a year of high school geometry.
- MTH 121. COLLEGE ALGEBRA** **THREE CREDIT HOURS**
 Systems of equations, progressions, logarithms, binomial theorem, complex numbers, determinants, theory of equations, and probability. Prerequisites: One and one-half years of high school algebra and one year of high school geometry.
- MTH 122. PLANE TRIGONOMETRY** **TWO CREDIT HOURS**
 The usual topics in plane trigonometry with applications. Prerequisite: Mth 121 or registration therein.
- MTH 141. 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 142. MATHEMATICAL CONCEPTS II** **THREE CREDIT HOURS**
 Concepts necessary for an understanding of operations and structure of algebra and geometry. Prerequisite: Mth 141.
- MTH 151. STRUCTURE OF THE REAL NUMBER SYSTEM I** **THREE CREDIT HOURS**
 Equivalent to Mth 141. Currently offered only under special auspices.
- MTH 152. STRUCTURE OF THE REAL NUMBER SYSTEM II** **THREE CREDIT HOURS**
 Continuation of Mth 151. Mathematical concepts related to the fundamental operations with real and complex numbers. Currently offered only under special auspices. Prerequisite: Mth 151.
- MTH 155. ELEMENTS OF ALGEBRA** **THREE CREDIT HOURS**
 For those preparing to teach in the elementary schools. Follows the School Mathematics Study Group, Volume III. Currently offered only under special auspices. Prerequisite: One year of high school algebra and one year of high school geometry.
- MTH 160. ELEMENTS OF GEOMETRY** **THREE CREDIT HOURS**
 For those preparing to teach in the elementary schools. Follows the School Mathematics Study Group, Volume V. Currently offered only under special auspices. Prerequisite: One year of high school algebra and one year of high school geometry.
- MTH 210-211. INTRODUCTORY MATHEMATICAL ANALYSIS** **THREE-SIX 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: Mth 121.

- 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 210 or Consent of Instructor.
- MTH 216. ANALYTIC 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 applications to geometry and physics. Prerequisite: Mth 117 or Mth 121 and 122.
- MTH 217. ANALYTIC GEOMETRY AND CALCULUS II** **FOUR CREDIT HOURS**
 Conic Sections, differentiation of transcendental functions, polar coordinates, formal integration, further applications of the definite integral. Prerequisite: Mth 216.
- MTH 218. ANALYTIC GEOMETRY AND CALCULUS III** **FOUR CREDIT HOURS**
 Improper integrals, infinite series, expansion of functions, solid analytic geometry, partial differentiation, multiple integrals. Prerequisite: Mth 217.
- MTH 301. DIFFERENTIAL EQUATIONS** **THREE CREDIT HOURS**
 Equations of the first order and first degree, linear equations of higher order with constant coefficients, method of Frobenius, Euler's equations and other special equations. Prerequisite: Mth 202 or Mth 218.
- MTH 331. STATISTICS FOR ENGINEERS** **THREE CREDIT HOURS**
 Probability distributions including binomial, hypergeometric, Poisson, Normal. Estimation of mean and standard deviation. Sampling distributions. Quality Control procedures including acceptance and inspection sampling. Confidence intervals and tests of hypotheses using t , chi-square, and F statistics. Prerequisite: Mth 218. *First Term, Each Year*
- MTH 332. INDUSTRIAL AND ENGINEERING APPLICATIONS OF STATISTICS** **THREE CREDIT HOURS**
 Correlation. Least squares estimation. Regression. Analysis of variance. Design of experiments. Distribution free methods including rank tests, sign test, and Kolmogorov-Smirnov test. Prerequisite: Mth 331. *Second Term, Each Year*
- MTH 341. ADVANCED ENGINEERING MATHEMATICS** **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 202 or Mth 218.
- MTH 351. NUMERICAL ANALYSIS** **THREE CREDIT HOURS**
 See Cps 351. Prerequisite: Mth 301 or 341, Cps 233 or 241. *Each Term, Each Year*
- 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 202 or Mth 218. *First Term, Each Year*
- MTH 362. INTRODUCTION TO LINEAR ALGEBRA AND MATRICES** **THREE CREDIT HOURS**
 Fundamental concepts of vector spaces, systems of linear equations, determinants, linear transformations and matrices. Prerequisite: Mth 202 or Mth 218. *Second Term, Each Year*

MTH 370. INTRODUCTION TO HIGHER GEOMETRY **THREE CREDIT HOURS**
 Euclidean, projective, affine, and metric geometries using synthetic and analytic methods.
 Prerequisite: Mth 218.

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. Offered in alternate years. Prerequisite: Mth 218 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 301 or 341.

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 202 or Mth 218.

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. *Second Term, Each Year*

MTH 413. PROBABILITY AND STATISTICS III **THREE CREDIT HOURS**
 Statistical decision theory, partitioning of sums of squares, analysis of variance, regression on several independent variables, multiple regression approach to analysis of variance, design of experiments. Prerequisite: Mth 412. *First Term, Each Year*

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 202 or 218. *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. ADVANCED NUMERICAL ANALYSIS **SIX CREDIT HOURS**
 See Cps 455-456. Prerequisite: Mth 351.

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. *First Term, Each Year*

- MTH 471. TOPOLOGY** THREE CREDIT HOURS
 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. *Second Term, Each Year*
- MTH 481. MATHEMATICAL LOGIC** THREE CREDIT HOURS
 See Cps 481. Prerequisite: Cps 383 or Mth 390. *First Term, Each Year*
- MTH 482. AUTOMATA THEORY** THREE CREDIT HOURS
 See Cps 482. Prerequisite: Mth 481. *Second Term, Each Year*
- MTH 490. READINGS IN MATHEMATICS** ONE TO THREE CREDIT HOURS
 Directed readings and discussion of selected topics in mathematics. Offered only on an individual basis and only with the approval of the Departmental Chairman. May be taken more than once for additional credit.

Mechanical Engineering (MEE)

Howard Smith, *Chairman*

Professors: Csaky, Wilder

Associate Professors: Nielsen, Ray, Smith

Assistant Professors: Chuang, Minardi, Schwartz, Thorne

- MEE 206L. ENGINEERING GRAPHICS I** TWO CREDIT HOURS
 Fundamentals of engineering graphics and the part that graphical communication plays in engineering.
- MEE 207L. ENGINEERING GRAPHICS II** TWO CREDIT HOURS
 Training in the analysis and graphical solution of fundamental problems involving three dimensions and the application of these solutions to engineering problems. Prerequisite: Mee 206L.
- MEE 211. MATERIALS AND PROCESSES** TWO CREDIT HOURS
 Atomic structure, crystalline nature of solids, bonding and imperfections in crystals. Wear in metal cutting and tool life, economics of machining. Cold working processes. Prerequisites: Chm 125, Mee 206L, Phy 206; Corequisite: Mee 211L.
- MEE 211L. MATERIALS AND PROCESSES LABORATORY** ONE CREDIT HOUR
 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 301-302. THERMODYNAMICS I AND II** SIX CREDIT HOURS
 The general laws of thermodynamics; properties and processes of gases, vapor, and gas-vapor mixtures; cycles; the flow of fluids. The application of thermodynamics to machines such as engines, turbines and compressors. Prerequisites: Mth 218, Phy 208.
- MEE 305L. MECHANICAL ENGINEERING LABORATORY I** ONE CREDIT HOUR
 Basic experiments designed to teach theory, techniques of application and calibration of instruments for the measurement of pressure, temperature, volume, fluid flow and power. Corequisite: Phy 208.

- MEE 308. FLUID MECHANICS** **THREE CREDIT HOURS**
 Laws and theory relative to compressible and incompressible fluids; momentum relations for steady flow; resistance of immersed bodies; dynamic lift and propulsion; lubrication; pumps; turbines; fluid couplings; fluid power and control systems. Prerequisite: Mee 301.
- MEE 310. THERMAL ENGINEERING I** **THREE CREDIT HOURS**
 Steam and gas power plants, including history of development and study of modern plant facilities. Fuels, combustion processes, energy balances and an introduction to nuclear engineering. Prerequisites: Chm 125, Mee 301; Corequisite: Mee 308.
- MEE 313. METALLURGY** **THREE CREDIT HOURS**
 Electronic structure, bonding, crystal structure, imperfections in crystals, strengthening mechanisms, phase transformations, equilibrium diagrams, heat treatment, mechanical behavior and corrosion. Prerequisite: Mee 211; Corequisite: Egm 303.
- MEE 321. THEORY OF MACHINES** **TWO CREDIT HOURS**
 Elements of mechanisms, kinematics and dynamics of machine elements, forces in mechanisms. Prerequisite: Egm 301; Corequisite: Mee 321L.
- MEE 321L. THEORY OF MACHINES LABORATORY** **ONE CREDIT HOUR**
 Laboratory exercises based on the principles covered in Mee 321. Must be taken concurrently with Mee 321. Prerequisite: Egm 301; Corequisite: Mee 321.
- MEE 406L. MECHANICAL ENGINEERING LABORATORY II** **TWO CREDIT HOURS**
 Tests of a boiler and steam turbine installation, steam engines, internal combustion engines and pumps and heat transfer devices. Corequisite: Mee 417.
- MEE 407-408. MACHINE DESIGN I AND II** **FOUR CREDIT HOURS**
 Analysis and design of machine members and mechanical systems. Development of creative ability and engineering judgment. Prerequisites: Egm 303, Mee 321; Corequisites: Egm 304, Mee 313, Mee 407L-408L.
- MEE 407L-408L. MACHINE DESIGN LABORATORY I AND II** **TWO CREDIT HOURS**
 Design problems based on foregoing principles. Corequisites: Mee 407-408.
- 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 301, Mee 308, Mth 341.
- MEE 412L. FUELS AND LUBRICANTS ANALYSIS LABORATORY** **ONE CREDIT HOUR**
 Heating value of fuels; analysis of combustion products; determination of selected physical qualities of oils and lubricants; measurement of fluid flow. Corequisite: Mee 302.
- MEE 414A. SEMINAR** **ONE CREDIT HOUR**
 Presentation of papers by the students and lectures by engineers in active practice. Attendance required by second term seniors only.
- MEE 414B. SEMINAR** **ZERO CREDIT HOURS**
 Presentation of papers by the students and lectures by engineers in active practice. Attendance required by Mechanical Engineering juniors and first term seniors.

MEE 416. MECHANICAL VIBRATIONS **TWO CREDIT HOURS**
 Vibrations without damping; damped vibrations; vibration of systems with several degrees of freedom; vibration isolation and absorption; theory of balancing; mechanical and electrical models of vibration systems. Prerequisites: Mee 321, Mth 341.

MEE 417. THERMAL ENGINEERING II **THREE CREDIT HOURS**
 A study of spark and compression ignition engines, reaction engines, gas turbine power plants and fuel requirements for each. Processes of combustion and energy release. Prerequisites: Mee 302, Mee 310; Corequisite: Mee 412L.

MEE 418. ADVANCED FLUID MECHANICS **THREE CREDIT HOURS**
 Dynamics of fluid flow. Compressible fluids. Theorems of conservation of mass and momentum. Laws of thermodynamics as applied to fluid flow. One dimensional isentropic flow; normal shock; friction; heat transfer. Prerequisites: Mee 301, Mee 308, Mth 341.

MEE 419. MECHANICAL ENGINEERING ANALYSIS **TWO CREDIT HOURS**
 The application of mathematics to the solution of engineering problems. Prerequisite: Mth 341.

MEE 423. HEATING, AIR CONDITIONING AND REFRIGERATION **THREE CREDIT HOURS**
 Determination of heating and cooling loads; warm air, steam and hot water heating systems. A study of measurement and control of temperature, humidity and purity of air. A study of refrigeration methods, processes and cycles. Prerequisite: Mee 302; Corequisite: Mee 410.

Mechanical Engineering Electives

MEE 421. TURBO-MACHINERY **THREE CREDIT HOURS**
 Theory applicable to turbines, compressors and pumps. Dimensional analysis concepts; energy transfer in centrifugal and axial flow turbines, compressors and pumps. Thermodynamic relationships in turbomachinery processes. Prerequisites: Mee 302, Mee 308.

MEE 431. ADVANCED DYNAMICS OF MACHINERY **THREE CREDIT HOURS**
 Application of vector analysis to kinematics and dynamics. Advanced problems in mechanisms and dynamics of mechanical systems. Vibrations analysis. Prerequisites: Egm 303, Mee 321.

MEE 499. SPECIAL PROBLEMS IN MECHANICAL ENGINEERING **TWO TO SIX CREDIT HOURS**
 Particular assignments to be arranged and approved by Chairman of the Department.

Medical Technology (MET)

Dr. Abramson, *Chairman (St. Elizabeth Hospital)*

Dr. McMillan, *Chairman (Good Samaritan Hospital)*

Dr. Oosting, *Chairman (Miami Valley Hospital)*

The work of the senior year in Medical Technology is done at Miami Valley Hospital, St. Elizabeth Hospital, Good Samaritan Hospital or Kettering Hospital. The courses are conducted by the respective hospital faculties.

- 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.
- 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 CREDITS**
 The student familiarizes himself with the ordering of supplies, office procedures, and with basal metabolism techniques.
- MET 490. NORMAL AND PATHOLOGIC PHYSIOLOGY** **NO CREDITS**
 A series of lectures stressing the correlation of theory and practical laboratory testing as it relates to disease states.

Military Science (MIL)

Col. Uel W. French, *Chairman*

Professor: French

Assistant Professors: A. Anderson, R. Anderson, Barker, Crocker, Cromartie, Dawson, Galloway, Gordon, Hackney, Hernaiz, Hoerning, Johanknecht, Kosty, Lovelace, Myers, Ondecker, Scott, Weiher

Part-time Instructors: Atkinson, Brendza, Daigle, Ensley, Fiolek, Gibson, Martinez, Mattocks, McDonald, Smith

MIL 101-102. FIRST YEAR BASIC COURSE **TWO CREDIT HOURS**
 Training provided in those subjects common to all branches of the Army, such as U.S. Army and National Security; individual weapons and marksmanship; organization of Army and R.O.T.C.; counterinsurgency; leadership laboratory.

MIL 201-202. SECOND YEAR BASIC COURSE **TWO CREDIT HOURS**
 Continuation of above course. Subjects include: American military history; map and aerial photograph reading; basic tactics; counterinsurgency; leadership laboratory. Prerequisite: Mil 101-102.

MIL 301-302. FIRST YEAR ADVANCED COURSE **FOUR CREDIT HOURS**
 Subjects: Military teaching principles; service branches; tactics-communications; precamp orientation; counterinsurgency; leadership; summer camp. Prerequisites: Mil 101, 102, 201, 202, pass physical, selection.

MIL 401-402. SECOND YEAR ADVANCED COURSE **FOUR CREDIT HOURS**
 Continuation of above. Subjects: Logistics; Army administration; military justice; operations; service orientation; U.S. in world affairs; counterinsurgency; leadership. Prerequisites: Mil 301-302 and Summer Camp.

Music (Mus)

Maurice R. Reichard, *Chairman*

Professors: Reichard, Thomas

Associate Professors: Tagg, Zech

Assistant Professors: Ritter, Weaver

Instructor: Lum

Part-time Instructors: Blagg, Christopher, Enoch, Faust, Heisey, Katz, Kline, Miles, Minton, Odum, Reger, Schneider, Wiggernhorn

Mus 102. MUSIC LITERATURE AND 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. For students in elementary education. Not open to students who have credit for Mus 105.

Mus 105. MUSIC APPRECIATION **TWO CREDIT HOURS**
 A study of the masterpieces of music aimed at developing a broad understanding and an intelligent discrimination of music. For music majors and students in Music Education. Not open to students who have credit for Mus 102. *Second Term, Each Year*

Mus 141. INTRODUCTION TO MUSIC **TWO CREDIT HOURS**
 For the student with no previous experience with the theory of music. Notation of music, key signatures, fundamental harmonic progression, and an introduction to the piano keyboard. Elementary ear training and dictation.

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 183. TEACHING MUSIC IN PAROCHIAL SCHOOLS—PRIMARY GRADES THREE CREDIT HOURS
Reading and notation of music is developed along with key signatures, sight singing in major and minor modes, ear training and dictation. Materials for grades 1, 2, 3, and their presentation.

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 141.

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 141.
Second Term—Evening

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. Prerequisite: Permission of the instructor.

MUS 245-246. GREGORIAN CHANT FOUR CREDIT HOURS
An introduction to Gregorian Chant. Principles of free rhythm; modal characteristics; fundamentals of chironomy. Offered only at Marianist College and at Regina Heights.

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 283. TEACHING MUSIC IN PAROCHIAL SCHOOLS—INTERMEDIATE GRADES THREE CREDIT HOURS
Continued note reading, modulation to dominant and subdominant, introduction to the piano keyboard, two- and three-part singing. Materials for grades 4, 5, 6, and their presentation. Prerequisite: Mus 183.

MUS 301. HISTORY OF MUSIC I THREE CREDIT HOURS
Development of music, instruments, forms, sacred and secular, from the earliest records through the Classical period. The relationship of music to the other arts and to broad movements in society and civilization.
First Term, Each Year

- Mus 302. HISTORY OF MUSIC II THREE CREDIT HOURS
 Music of the nineteenth century; Romanticism; impressionism; nationalism; beginnings of the modern period. Relationship of music to social and cultural trends in Europe and America during the last one hundred and fifty years. *Second Term, Each Year*
- Mus 303. MODERN MUSIC TWO CREDIT HOURS
 A survey of contemporary music; its relationship to modernism in the other arts and to present-day society; American music. *Second Term, 1966-1967*
- 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 THREE 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. *Evening*
- 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 TWO CREDIT HOURS
 Class instruction in stringed instruments; teaching of stringed instruments in the schools. *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. *Second Term, Each Year*
- Mus 327. BRASS INSTRUMENTS ONE CREDIT HOUR
 Class instruction in brass instruments; teaching brass instruments in the schools. *First Term, Each Year*
- Mus 328. PERCUSSION INSTRUMENTS ONE CREDIT HOUR
 Class instruction in percussion instruments; teaching of percussion instruments in the schools. *Second Term, Each Year*
- Mus 331. VOCAL MUSIC IN THE HIGH SCHOOL TWO CREDIT HOURS
 Materials used in the general music class and their presentation; glee club, choir, voice class, vocal ensembles. Prerequisite: Junior standing in Music Education. *Second Term, Each Year*
- Mus 332. THE SCHOOL BAND AND ORCHESTRA TWO CREDIT HOURS
 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. *First Term, Each Year*
- Mus 335. MUSIC IN THE ELEMENTARY GRADES THREE CREDIT HOURS
 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. *Second Term, Each Year*

- Mus 341. CONDUCTING THREE CREDIT HOURS
 Methods of controlling tempo and the dynamic elements of musical performance groups; practical experience in experimental campus organizations. Prerequisite: Junior standing in Music; permission of the instructor. *First Term, Each Year*
- Mus 383. TEACHING MUSIC IN PAROCHIAL SCHOOLS—JUNIOR HIGH SCHOOL THREE CREDIT HOURS
 Repertoire in three and four parts which exploits the musical skills developed in the first six grades. Procedure for handling the problem of the boy's changing voice.
- Mus 411-412. MUSICAL COMPOSITION FOUR CREDIT HOURS
 Prerequisites: Mus 251, Mus 311-312 or Mus 417-418; 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 FOUR CREDIT HOURS
 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 417-418. SIXTEENTH CENTURY COUNTERPOINT FOUR CREDIT HOURS
 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 FOUR CREDIT HOURS
 Advanced work in orchestration; special problems in scoring for full orchestra, symphonic band or dance orchestra; transcription of orchestral works for band. Prerequisite: Mus 322, permission of instructor.
- Mus 425-426. PROBLEMS IN INSTRUMENTAL MUSIC FOUR CREDIT HOURS
 Practical problems and experience in instrumental music in teaching or other professional situations approved by the Department of Music. Prerequisite: Senior standing in Music or in Music Education.
- Mus 429. MARCHING BAND TECHNIQUES TWO CREDIT HOURS
 Materials and methods of organization and instruction for the Marching Band. *First Term, Each Year*
- Mus 431-432. PROBLEMS IN VOCAL MUSIC FOUR CREDIT HOURS
 Practical problems and experience in vocal music in teaching or other professional situations approved by the Department of Music. Prerequisite: Senior standing in Music or in Music Education.
- Mus 441-442. LABORATORY IN COMPOSITION FOUR CREDIT HOURS
 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 FOUR CREDIT HOURS
 Formal and harmonic analysis of Chamber Music and the symphonies of the Classicists, the Romanticists, and the Impressionists. Prerequisite: Mus 251, 262.

MUS 470W. MUSIC IN THE PRIMARY GRADES**THREE CREDIT HOURS**

The workshop treats phases of the child's music needs and considers appropriate materials and methods for the regular classroom teacher. Opportunities given for participation in music activities. For primary teachers.

*Summer***APPLIED MUSIC**

Credit for private instruction in piano, organ, violin, voice, stringed or wind instruments is allowed at the rate of two credit hours per lesson a week.

In order to register for credit toward a major in Applied Music, students must have studied sufficient preparatory material. 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. I; Pischna; Czerny, Op. 299, or their equivalent; some of the 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. To study organ, the student should have previous study in piano amounting to the Two- and Three-part Inventions by Bach; Sonata No. 1 in f Minor, Op. 2, by Beethoven; Nocturne in f Minor, Op. 55, by Chopin or their equivalent.

APPLIED MUSIC FEES:

Piano, Organ, Voice, Orchestral or Band instrument
studied with full-time member of University Faculty.
Term fee is included with term tuition.

*Piano, Organ, Voice, Orchestral or Band instrument
studied with full-time member of University Faculty.

Term fee for part-time students \$20.00

**Violin, Cello, Bass, term fee 40.00 to 64.00

**Reed, Woodwind Instruments, term fee 40.00

ENSEMBLES

Orchestra (Dayton Philharmonic Training Orchestra)

Band (Marching Band, Concert Band)

Choir (Mixed Chorus)

Glee Clubs (Men's Glee Club, Women's Glee Club)

Ensembles (Brass Choir, String, Vocal, Woodwind Ensembles)

Credit may be earned in Orchestra, Band, Choir, Glee Club and Ensembles by students enrolled in music courses. Credit will be allowed at the rate of one-half credit per semester in each organization, and is required of students majoring in Music or qualifying for degrees of Bachelor of Music or Bachelor of Science in Music Education. Students do not register for credit in musical ensembles and no grades are given.

*"Laboratory fee" of \$20.00 is paid in addition to regular credit hour tuition.

**Fees for instruction in instruments of the Orchestra or Band are based on the private instruction fee of the individual instructor. With permission of the Chairman of the Department of Music, these fees may be paid directly to the instructor and not included in the amounts paid to the University treasurer at the time of registration.

Granting of such credit, however, will entail attendance at rehearsals and performances in conformity with policies applying to regular academic courses. The amount of credit required is to be determined by the needs and experience of the student, and/or State requirements in music education. Maximum: Toward Music major in B.A. degree, or as elective in other degrees: four credit hours; toward B.M. or B.S. in Music Education degrees, six credit hours. Prerequisite: Permission of the Director.

Philosophy (PHL)

Dr. Richard R. Baker, *Chairman*

Professors: Baker, Dieska, Harkenrider

Associate Professor: Rhodes

Assistant Professors: Baltazar, Bloemer, Bonnette, Cartagenova, Casaletto, Chrisman, Dombro, Edelenyi, Hoy, Kunkel, Seman

Instructors: Barbic, Greene, Monasterio, Rinderly, Sorelle, Ulrich, Wening.

Courses required for a major: Phl 105, 207, 303, 306, 402, 403, 404, 406, 434, elective.

Courses required for a minor: Phl 105, 207, 303, 306, 402, 403, 404 (Non-Cath.).

Students should consult the chairman concerning electives.

Phl 105 and Phl 207 are prerequisites for all 300 and 400 courses.

PHL 105. INTRODUCTION TO PHILOSOPHY AND LOGIC THREE CREDIT HOURS
An exposition of the distinctive nature of philosophy by a discussion of its persistent problems with reference to their first appearance among the Greek Philosophers. A review of the essentials of conventional logic.

PHL 207. PHILOSOPHICAL PSYCHOLOGY THREE CREDIT HOURS
Nature of life in general; plant soul; brute animal soul; knowledge and appetite in man; human intellect and will; intellectual and moral habits; nature, origin and immortality of the human soul. Required of all sophomores. Prerequisite: Phl 105.

PHL 303. COSMOLOGY THREE CREDIT HOURS
The nature and properties of mobile being; the hylomorphic theory of bodies; nature of quantity; the analysis of physical motion; qualities of bodies; space and time; origin and destiny of the universe. Prerequisite: Phl 207.

PHL 306. EPISTEMOLOGY THREE CREDIT HOURS
A critical examination of the validity of sensory and intellectual knowledge; the problem of the trustworthiness of the senses; the problem of the universal; skepticism, idealism and subjectivism. Prerequisite: Phl 207.

PHL 402. GENERAL METAPHYSICS THREE CREDIT HOURS
An analysis of real being; analogy of being; transcendentals; application of act and potency to essence and existence, substance and accident, the one and the many, causality; special classes of being. Prerequisite: Phl 306.

- PHL 402H. HONORS COURSE IN METAPHYSICS THREE CREDIT HOURS
An investigation of such special problems as the possibility and conditions of metaphysical inquiry, the proper object of metaphysics, and the methodology proper to metaphysics. By permission of the chairman.
- PHL 403. NATURAL THEOLOGY THREE CREDIT HOURS
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. Prerequisite: Phl 402.
- PHL 404. ETHICS THREE CREDIT HOURS
Happiness and ultimate end of man; human act; norms and determinants of morality; eternal and natural law; conscience; moral virtues; rights and duties. Required of all non-Catholics. Prerequisite: Phl 402.
- PHL 406. 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. Prerequisite: Phl 402. *First Term, Each Year*
- PHL 407. 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. Prerequisite: Phl 402. *First Term, Each Year*
- PHL 408. 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. Prerequisite: Phl 402. *Second Term, Each Year*
- PHL 409. RECENT PHILOSOPHY THREE CREDIT HOURS
A consideration of the trends in philosophy since 1900, especially viewed as a logical outgrowth of the thought of Kant and of Hegel. Among the trends to be considered are Positivism, Mathematical Logic, Analytic Philosophy, Phenomenology and Existentialism. *Second Term, Each Year*
- PHL 410. HISTORY OF POLITICAL PHILOSOPHY THREE CREDIT HOURS
A study of the principal political opinions of the Western philosophers; Plato, Aristotle, and the leading Roman, medieval, and modern political philosophers. Prerequisite: Phl 402. Required of all political science majors. *First Term, Each Year*
- PHL 414. PHILOSOPHY OF LAW THREE CREDIT HOURS
Nature of law; natural and positive law; implications and juridical origin and effect of law; justice; genetic origin of law. Prerequisite: Phl 402. *Second Term, Each Year*
- PHL 430. PHILOSOPHY OF PLATO THREE CREDIT HOURS
The purpose of the course is to give an insight into the philosophy of Plato by reading, analyzing and commenting on four of Plato's dialogues: *Phaedo*, *Symposium*, *Protagoras* and the *Republic*. Prerequisite: Phl 402. *First Term, 1966-1967*
- PHL 432. PHILOSOPHY OF ARISTOTLE THREE CREDIT HOURS
Readings and classroom discussion of selections from the basic works of Aristotle, including the *Physics*, *Metaphysics*, *Ethics* and *Politics*. Prerequisite: Phl 402. *Second Term, 1966-1967*

PHL 434. ST. THOMAS AQUINAS THREE CREDIT HOURS
 This course offers St. Thomas' teachings on God, Creation, Man, Law, Grace, Habit, Virtue and kindred subjects, derived from the Summa Theologica and the Summa Contra Gentiles. Prerequisite: Phl 402. *Second Term, Each Year*

PHL 450. 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 instructor. Prerequisite: Phl 402. *First Term, Each Year*

PHL 455. PHILOSOPHY OF ART THREE CREDIT HOURS
 An analysis of the nature of art, beauty, and the aesthetic judgment in the light of the philosophical principles and distinctive conditions found in each. A discussion of the permanent and inward relationship of the values of truth, goodness and beauty. *Second Term, Each Year*

PHL 456. THE PHILOSOPHY OF CREATIVITY THREE CREDIT HOURS
 An effort at a more adequate understanding of the process of artistic creation. Such concepts as "inspiration," "genius," "creative imagination," etc., are examined, together with an investigation of methods, techniques, and suggestions for enriching the creative dimension of one's life. Prerequisite: Consent of Instructor. *First Term, Each Year*

PHL 460. 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.

Physics (PHY)

Dr. Joseph J. Kepes, *Chairman*

Professors: L. Mann, Bueche

Associate Professors: Kepes, Schick

Assistant Professors: Cothorn, Crivello, Frank, Graham, Hieber, Kreitman, R. Mann, Molchen, O'Hare, Schneider, Yaney

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, substitutions 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 and Physics are listed in Group IV).

<i>Group I</i>	<i>Group II</i>	<i>Group III</i>	<i>Group IV</i>
Phy 301	Phy 314	Phy 304	Mth 351
Phy 303	Phy 431	Phy 404	Mth 411
Phy 390	Phy 432	Phy 409	Mth 412
Phy 408	Phy 433	Phy 411	Mth 421
Phy 421	Phy 460	Phy 412	Mth 422
		Phy 441	
		Mth 403	
		Mth 404	

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. This should be done some time in the Sophomore year. It is recommended that students choosing a minor use the open electives where feasible to strengthen their background in either Physics or in the minor.

PHY 105. THE PHYSICAL SCIENCES FOUR CREDIT HOURS
Applies fundamental principles of physics to physics, chemistry, astronomy, meteorology. Gives the student a broad understanding of man's physical environment. Four class periods per week. Does not satisfy science requirement in Arts and Sciences.

PHY 151. GENERAL PHYSICS THREE CREDIT HOURS
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*

PHY 151L. GENERAL PHYSICS LABORATORY ONE CREDIT HOUR
A course designed to accompany Phy 151. Designed to verify and apply theory through a selected program of experiments. Corequisite: Phy 151. One two-hour period per week. *First Term, Each Year*

PHY 152. GENERAL PHYSICS THREE CREDIT HOURS
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*

PHY 152L. GENERAL PHYSICS LABORATORY ONE CREDIT HOUR
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*

PHY 201. GENERAL PHYSICS THREE CREDIT HOURS
A discussion of mechanics and heat without the formalism of the calculus. Three class periods per week.

PHY 201L. GENERAL PHYSICS LABORATORY ONE CREDIT HOUR
Accompanying laboratory course to Phy 201. Designed to verify and apply theory, and to teach scientific techniques. One two-hour period per week.

PHY 202. GENERAL PHYSICS THREE CREDIT HOURS
A continuation of Phy 201, covering the fields of magnetism, electricity, sound and light. Three class periods per week. Prerequisite: Phy 201.

PHY 202L. GENERAL PHYSICS LABORATORY ONE CREDIT HOUR
A continuation of Phy 201L, with experiments in magnetism, electricity, sound and light. One two-hour period per week. Prerequisite: Phy 201L.

PHY 206. GENERAL PHYSICS I MECHANICS THREE CREDIT HOURS
An introductory course in Mechanics using the calculus. Three lectures, one and $\frac{1}{4}$ hours recitation per week. Corequisite: Mth 216.

PHY 206L. GENERAL PHYSICS LABORATORY I ONE CREDIT HOUR
 Introduction to laboratory methods, handling of data, analysis, experiments in classical mechanics for students in Science. One three hour period per week. Corequisite: Phy 206.

PHY 207. GENERAL PHYSICS II ELECTRICITY AND MAGNETISM THREE CREDIT HOURS
 The basic principles of electricity and magnetism are studied. Three lectures, one and $\frac{1}{4}$ recitation per week. Prerequisite: Phy 206, Mth 216.

PHY 207L. GENERAL PHYSICS LABORATORY II ONE CREDIT HOUR
 Experiments in mechanics and electricity and magnetism. One three hour period per week. Prerequisite: Phy 206L; 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 217.

PHY 208L. GENERAL PHYSICS LABORATORY III ONE CREDIT HOUR
 Experiments emphasize Modern Physics. One three hour period per week. Prerequisite: Phy 207L; Corequisite: Phy 208.

PHY 210. READINGS IN PHYSICS ONE CREDIT HOUR
 A reading course to acquaint the student with the historical and philosophical background of Modern Physics. Readings of original papers, review articles, etc., assigned and discussed. One meeting per week. *Second Term, Each Year*

PHY 301. THERMODYNAMICS THREE CREDIT HOURS
 The general laws of the thermodynamics; entropy, isothermal and adiabatic processes, the cycles; flow of fluids. Three class periods per week. Prerequisites: Mth 218, Phy 208. *First Term, Each Year*

PHY 303. INTERMEDIATE MECHANICS I THREE CREDIT HOURS
 The fundamental concepts of mechanics. The topics covered include virtual work, kinematics, and particle dynamics. Three class periods per week. Corequisite: Mth 301. *First Term, Each Year*

PHY 304. INTERMEDIATE MECHANICS II THREE CREDIT HOURS
 A continuation of Phy 303. Topics include dynamics of systems of particles, rigid bodies, central forces, accelerating systems, and the mechanics of continua. Three class periods per week. Prerequisite: Phy 303. *Second Term, Each Year*

PHY 314. ELECTRONICS FOR SCIENTISTS THREE CREDIT HOURS
 Terminal behavior of vacuum tube and semi-conductor devices; application to basic rectifier, amplifier, oscillator and control circuits. Prerequisites: Phy 208, Mth 301 or 341; Corequisite: Phy 314L.

PHY 314L. ELECTRONICS FOR SCIENTISTS LABORATORY ONE CREDIT HOUR
 Laboratory construction and testing of the basic vacuum tube and solid-state electronic circuits. Three hours per week.

- 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 218, Phy 208.
- PHY 361. PRINCIPLES OF REACTOR PHYSICS THREE CREDIT HOURS
Chain reactors. Slowing down theory, diffusion equations, space distribution, criticality, group theories. Laboratory experiments accompany the lecture. Prerequisites: 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. Prerequisites: Mth 218, Phy 208.
- 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. Prerequisites: Phy 208. *First Term, Each Year*
- PHY 409. INTERMEDIATE ELECTRICITY AND MAGNETISM II THREE CREDIT HOURS
Electromagnetic induction. Magnetic properties, A.C. Circuit methods. Maxwell's equations. Electromagnetic waves, reflection and refraction, simple wave-guides, resonators. Prerequisite: Phy 408. *Second Term, Each Year*
- PHY 411. THEORETICAL PHYSICS I THREE CREDIT HOURS
Computational techniques in Modern Physics, complex variable theory, dispersion relations, linear vector spaces, operators, matrix mechanics, eigenvalue equations. Prerequisite: Phy 208, Mth 301.
- PHY 412. THEORETICAL PHYSICS II THREE CREDIT HOURS
Orthogonal functions, Dirac delta function, Laplace's equation, Poisson's equation, D'Alembert's equation, transformation theorems, Green's function. Prerequisite: Phy 208, Mth 301.
- PHY 414. ADVANCED ELECTRONICS FOR SCIENTISTS THREE CREDIT HOURS
Continuation of Phy 314. High frequency techniques, modulation and detection, pulse generators, special circuits; application to counters, computer circuits, and experimental instrumentation and control problems. Prerequisites: Phy 314; Corequisite: Phy 414L.
- PHY 414L. ADVANCED ELECTRONICS FOR SCIENTISTS ONE CREDIT HOUR
Individual student projects in the electronic instrumentation of problems in the physical, biological, and computer sciences. Corequisite: Phy 414.
- 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 instructor.

- 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 390 or consent of instructor. *First Term, Each Year*
- PHY 431. ADVANCED LABORATORY I 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. *First Term, Each Year*
- PHY 432. ADVANCED LABORATORY II TWO CREDIT HOURS
A continuation of Phy 431 but may be taken without having had Phy 431. One four-hour period per week. Corequisite: an advanced course in physics. *Second Term, Each Year*
- PHY 433. ADVANCED LABORATORY III TWO CREDIT HOURS
A continuation of Phy 431, 432, but may be taken without having had either. One four-hour period per week. Corequisite: an advanced course in physics. *First Term, Each Year*
- PHY 437. MODERN PHYSICS FOR ENGINEERS THREE CREDIT HOURS
Basic postulates of Quantum Mechanics, Special Relativity with practical application to Atomic, Nuclear and Solid State Physics. Prerequisite: Phy 208.
- 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.
- 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: Mth 301, Phy 301, 303, 351, 390.
- PHY 460. SEMINAR ONE CREDIT HOUR
Weekly meetings of students and members of the staff for the presentation of papers by students and lectures by invited physicists. Two class periods per week for Juniors and Seniors.
- PHY 499. SPECIAL PROBLEMS (HONORS) ONE-SIX CREDIT HOURS
Laboratory or library work in various topics of physics. Given with the permission of the chairman of the department.

Political Science (POL)

Dr. Norbert C. Brockman, S.M., *Chairman*

Professor: Rose

Associate Professor: Liebler

Assistant Professors: Abbott, Brockman, Patyk

Lecturer: Carrell

Part-time Instructors: James, Makley, Simpson, Welch

A major in Political Science includes Pol 101 and Pol 201, plus eight advanced courses. One course must be chosen from each of the following areas, and residents of Ohio must choose Pol 302 as part of the major sequence. A minor in Political Science includes Pol 201 and any four advanced courses.

<i>Group I</i>		<i>Group II</i>		<i>Group III</i>	<i>Group IV</i>	
<i>Government</i>		<i>International</i>		<i>Theory</i>	<i>Research</i>	
302	401	304	316	414	421	431
310	410	306	406	417	422	435
312	411	314	408	471		

POL 101. INTRODUCTION TO POLITICAL SCIENCE **THREE CREDIT HOURS**
An introduction to political phenomena from a number of approaches: behavioral, institutional, and normative.

POL 201. AMERICAN GOVERNMENT—NATIONAL (HONORS) **THREE CREDIT HOURS**
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 300. PRINCIPLES OF GOVERNMENT **THREE CREDIT HOURS**
An advanced survey of American governmental systems, with emphasis on the federal establishment. Not open to majors or minors in Political Science, nor to students who have taken Pol 201.

POL 301. INTRODUCTION TO LAW **THREE CREDIT HOURS**
Brings the student into personal relationship with the profession of Law. Guest lecturers from the Bar Association, the Courts, and Schools of Law. Visits to the Courts.

POL 302. OHIO GOVERNMENT—STATE AND LOCAL **THREE CREDIT HOURS**
An examination of the state and local governments of Ohio with special reference to Montgomery County and the City of Dayton.

POL 304. COMPARATIVE GOVERNMENT **THREE CREDIT HOURS**
A comparison of the governments of the United Kingdom, France, Germany, and others. Operation of legislative, administrative and judicial institutions.

POL 306. 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 310. POLITICAL PARTIES** **THREE CREDIT HOURS**
 A descriptive analysis of the nature and interaction of parties, pressure groups, and the functioning of public opinion on the national and state level. Prerequisite: Pol 201.
- POL 312. NATIONAL LEGISLATIVE PROCESS** **THREE CREDIT HOURS**
 A detailed treatment of the organization, powers, functions, procedures of, and influences on Congress in federal legislation. Prerequisite: Pol 201.
- POL 314. INTERNATIONAL RELATIONS (HONORS)** **THREE CREDIT HOURS**
 An exposition of the dynamic forces influencing nations in their conduct of world affairs.
- POL 316. INTERNATIONAL ORGANIZATIONS** **THREE CREDIT HOURS**
 A study of origins and evolution of organized international collaboration with an emphasis on the United Nations.
- POL 401. 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. Prerequisite: Pol 201.
- POL 404. THE POLITICAL AND ECONOMIC SYSTEM OF THE SOVIET AREA** **THREE CREDIT HOURS**
 A study of the philosophy, structure, and practical operation of the political and economic institutions of the Soviet Union and other countries with a similar system.
- POL 406. GEOGRAPHY IN INTERNATIONAL RELATIONS** **THREE CREDIT HOURS**
 This program proposes to include 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. Prerequisite: Pol 201.
- POL 410. PUBLIC ADMINISTRATION** **THREE CREDIT HOURS**
 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. Prerequisite: Pol 201.
- POL 411. THE AMERICAN CONSTITUTION** **THREE CREDIT HOURS**
 An exposition of the fundamental principles inherent in the Constitution, Common Law, delegated powers of government, and other areas, with application to contemporary situations. Prerequisite: Pol 201.
- POL 414. PHILOSOPHY OF LAW** **THREE CREDIT HOURS**
 Nature of law; natural and positive law; implications and juridical origin and effect of law; justice; origin of law; legal reasoning.
- POL 415. PAN AMERICAN RELATIONS** **THREE CREDIT HOURS**
 An examination of the social, cultural, and political relations among the American states with special consideration of recent developments.

POL 417H. HISTORY OF POLITICAL PHILOSOPHY (HONORS) **THREE CREDIT HOURS**
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. GOVERNMENT SEMINAR **THREE CREDIT HOURS**
Research and conferences in (a) International Affairs or (b) National Government Areas. Prerequisite: Permission of chairman.

POL 422. READINGS AND PROBLEMS IN NATIONAL GOVERNMENT **THREE CREDIT HOURS**
This is essentially a course to supplement the other courses in the national field. Prerequisite: Pol 201.

POL 431H. RESEARCH IN POLITICAL SCIENCE (HONORS) **THREE CREDIT HOURS**
Individual research on selected topics, under the direction of a member of the faculty. Prerequisite: Permission of the Chairman.

POL 435. LEGAL RESEARCH **THREE CREDIT HOURS**
Open to Pre-Law students only. A direct preparation for admission to law school. Students are assigned to local law offices and to judicial chambers to learn procedures and to do research. Period: Mon.-Fri. 1:00-4:30 P.M. No other afternoon classes may be scheduled. Prerequisite: Pol 302 and permission of chairman.

POL 471. CATHOLIC POLITICAL THOUGHT **THREE CREDIT HOURS**
A study of basic Catholic social doctrine, with emphasis on the teachings of recent Popes on political and economic questions and movements, in the light of contemporary Catholic theology.

Police Administration (PAD)

PAD 101. POLICE PHYSICAL TRAINING **FOUR CREDIT HOURS**
Replaces Phe 101-102, 201-202 for police officers who have completed an approved police academy program. Elements of first aid and health, Judo instruction, and general physical training.

PAD 150. POLICE OPERATIONS **TWO CREDIT HOURS**
The process of law enforcement from detection of crime to parole, evaluation of police services, patrol functions.

PAD 200. INTRODUCTION TO POLICE ADMINISTRATION **TWO CREDIT HOURS**
Principles of organization and management as applied to police administration. Emphasis on management process rather than structures.

PAD 250. POLICE SYSTEMS **TWO CREDIT HOURS**
Study of the organization of police agencies at national, state, and local levels, with consideration of areas of cooperation and relationships with other areas of administration.

PAD 301. CRIMINALISTICS **TWO CREDIT HOURS**
The application of scientific principles to police work. Students will become familiar with laboratory procedures and basic chemical tests.

- PAD 305. TRAFFIC ADMINISTRATION TWO CREDIT HOURS
Problems of traffic administration and public safety. Accident prevention, licensing, safety education, and traffic engineering.
- PAD 310. PREVENTION AND CONTROL OF DELINQUENCY AND CRIME TWO CREDIT HOURS
Investigatory techniques, cooperation with social agencies, processing and detention, case disposition. Study of practical problems.
- PAD 313. CRIMINAL LAW AND PROCEDURE TWO CREDIT HOURS
Principles of criminal liability, preparation of case materials, court procedures and case disposition, and basic rules of evidence are considered.
- PAD 350. READINGS IN POLICE ADMINISTRATION TWO CREDIT HOURS
Directed readings in police administration, with emphasis on problems of supervision and recent legal developments.
- PAD 401. ADVANCED POLICE ADMINISTRATION TWO CREDIT HOURS
Principles of supervision and control procedures. Teaching of police academy programs. Comparative study of police training systems.
- PAD 410. CORRECTIONAL ADMINISTRATION TWO CREDIT HOURS
The administration of correctional institutions and other detention facilities. Special problems of the mentally disturbed. Rehabilitation and parole administration.
- PAD 450. PRACTICUM IN POLICE ADMINISTRATION TWO CREDIT HOURS
Intensive studies of particular practical problems in police administration. Field trips, lectures, and readings are combined to give both a practical and theoretical orientation.
- PAD 460. RESEARCH IN POLICE ADMINISTRATION TWO CREDIT HOURS
Directed research on specific problems, enabling the student to take responsibility for investigating an area of particular interest to him. A field project will be required.
- PAD 470. SEMINAR IN POLICE ADMINISTRATION TWO CREDIT HOURS
A coordinating seminar to integrate the studies in Police Administration with contemporary social science, with a focus on community mobilization for crime prevention.

Psychology (Psy)

Dr. Anthony Debons, *Chairman*

Dr. Robert Duffey, *Assistant Chairman*

Professors: Debons, Rancurello

Associate Professors: Duffey, Hunt, Noland

Assistant Professors: Bower, Davis, Rosa, Shine, Snide

Instructor: DeGhett

Part-time Instructors: Gallico, Hanes, Kuntz, Matthews, Montville, Moore, Riley, Scheidler

Psychology majors must complete the required courses as follows: Psy 201, 302, 303, and 308. 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 with Information Science emphasized, the second to a B.S. degree with Biology emphasized, 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.

PSY 205. PRACTICAL PSYCHOLOGY **THREE CREDIT HOURS**
 Emphasizes the applications of principles of learning, motivation, and emotions to basic problems of living. Offered for students working for associate degrees in technology or business. It is not equivalent to Psy 201.

PSY 302. ELEMENTARY STATISTICS **THREE CREDIT HOURS**
 Measures of central tendency, dispersion, and correlation. Basic concepts involved in estimating parameters and testing hypotheses. Presumes usual high school training in mathematics. Required of all Psychology majors. Prerequisite: Psy 201 or equivalent.

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. Two hours lecture and two hour laboratory period per week. Required of all Psychology majors. 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 a 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 or equivalent.

PSY 308. EXPERIMENTAL PSYCHOLOGY I **THREE CREDIT HOURS**
 Introduces the student to the basic concepts of scientific methods as applied to psychological problems. Emphasizes the study of the sensory processes. Prerequisite: Psy 302, 303. Required of all Psychology majors.

- PSY 308L. EXPERIMENTAL PSYCHOLOGY LABORATORY I** **ONE CREDIT HOUR**
 Experiments are conducted to familiarize student with the application of scientific methodology to the study of the sensory processes of man. Must be taken with lecture course. One two-hour laboratory period each week.
- PSY 309. EXPERIMENTAL PSYCHOLOGY II** **THREE CREDIT HOURS**
 Continuation of Psy 308 with emphasis on the application of scientific methods to the study of cognitive processes in general. Prerequisite: Psy 308.
- PSY 309L. EXPERIMENTAL PSYCHOLOGY LABORATORY II** **ONE CREDIT HOUR**
 Continuation of Psy 308L with emphasis on cognitive experiments. Must be taken with lecture course. One two-hour laboratory period each week.
- 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 or equivalent.
- 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 311.
- PSY 315. PERSONALITY** **THREE CREDIT HOURS**
 Introduction to the scientific study of personality as reflected in both clinical and experimental findings. Prerequisite: Psy 311.
- PSY 321. HUMAN FACTORS ENGINEERING** **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 201.
- PSY 321L. HUMAN FACTORS ENGINEERING LABORATORY** **ONE CREDIT HOUR**
 Selected experiments on displays 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.
- 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 405. PSYCHOLOGY OF HUMAN AFFAIRS** **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 warfare.
- 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 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 420. INDUSTRIAL PSYCHOLOGY THREE CREDIT HOURS
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 451. DIFFERENTIAL PSYCHOLOGY THREE CREDIT HOURS
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 groupings.

PSY 454. PHYSIOLOGICAL PSYCHOLOGY THREE CREDIT HOURS
Study of neurological structure and function emphasizing role of nervous and glandular systems in the study of behavior. Prerequisite: Psy 201.

PSY 455. COMPARATIVE PSYCHOLOGY TWO CREDIT HOURS
Development of the general aspects of behavior is studied as to the sensory and cognitive capacities among lower animals. Comparative study of animal behavior is undertaken. Two-hour lecture, two-hour laboratory.

PSY 455L. COMPARATIVE PSYCHOLOGY LABORATORY ONE CREDIT HOUR
Experiments are conducted to highlight classical and contemporary findings in animal behavior. Must be taken with lecture course. One two-hour laboratory period each week.

PSY 490. SPECIAL PROBLEMS IN PSYCHOLOGY (HONORS) TWO CREDIT HOURS
Research problems of special interest to the student are investigated under direction of psychology staff members. Permission of department chairman is required. May be taken more than one time.

PSY 491-492. READINGS IN PSYCHOLOGY (HONORS) ONE CREDIT HOUR PER SEMESTER
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. Permission of instructor or department chairman is required.

Secretarial Studies (SEC)

Velma M. Miller, *Chairman*

Associate Professors: M. Civile, V. Miller

Instructors: S. Houghtling, 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. ELEMENTARY SHORTHAND THREE CREDIT HOURS
Thorough coverage of principles of Gregg Shorthand Diamond Jubilee. For students without previous instruction in shorthand or with inadequate preparation for Sec 102. Transcription is introduced. Five class periods a week.

SEC 102. INTERMEDIATE SHORTHAND THREE CREDIT HOURS
Gregg theory is reviewed. Reading practice continues but transcription is emphasized. Five class periods a week.

SEC 103. ELEMENTARY TYPEWRITING THREE CREDIT HOURS
Designed for students without previous instruction in typewriting or without sufficient skill or background for Sec 104. The aim is to develop correct typewriting habits and application of typewriting skills. Five class periods a week. For use of typewriter, \$5.00 per semester.

SEC 104. INTERMEDIATE TYPEWRITING THREE CREDIT HOURS
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. For use of typewriter, \$5.00 per term.

SEC 105. SECRETARIAL ACCOUNTING THREE CREDIT HOURS
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.

SEC 106. SECRETARIAL ACCOUNTING THREE CREDIT HOURS
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 107. PERSONAL TYPEWRITING TWO CREDIT HOURS
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. For use of typewriter, \$3.00 per term.

SEC 110. SECRETARIAL MATHEMATICS THREE CREDIT HOURS
Review and practice of essential mathematical computations common to business offices; development of proficiency in these functions.

SEC 201. DICTATION AND TRANSCRIPTION THREE CREDIT HOURS
 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 THREE CREDIT HOURS
 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 THREE CREDIT HOURS
 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. For use of typewriter, \$5.00 per term.

SEC 204. PRODUCTION TYPEWRITING THREE CREDIT HOURS
 Specifically designed for job preparation in high-level office employment. Five class periods a week. For use of typewriter, \$5.00 per term.

SEC 205. SECRETARIAL PRACTICE THREE CREDIT HOURS
 A study of the duplicating processes, including ditto and mimeograph. Practice in the use of dictaphone, ediphone, and telefunken machines. Four class periods a week. Prerequisite: Intermediate Typewriting.

SEC 206. ADVANCED SECRETARIAL PRACTICE THREE CREDIT HOURS
 Advanced training in duplication processes, dictating machines, filing techniques, and communications. Four class periods a week.

SEC 207. BUSINESS MACHINES THREE CREDIT HOURS
 The student is given the opportunity to become acquainted with and to use correctly the principal types of adding machines, calculators, accounting machines, and key punch. Three class periods a week.

Sociology and Anthropology

Dr. Mary Jo Huth, *Chairman*

Professor: E. Huth

Associate Professor: M. Huth

Assistant Professors: Fakhouri, Flores

Part-time Instructors: Culbertson, Hair, Hepola

STATEMENT OF PURPOSE: The curriculum of the Department of Sociology and Anthropology is organized around eight major fields: 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 encourage the objective study of society by instruction in scientific research methods. Courses in the Department of Sociology and Anthropology 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 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, 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 203, 402, 415, 420, and 422. Electives are selected from the 300 and 400 courses. Minors must complete 15 hours in the department: Sociology 203 and four 300 and/or 400 level courses.

Major in Social Work: The Department of Sociology and Anthropology 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. The Epsilon Chapter of Phi Alpha, National Social Work Honor Society, is under the jurisdiction of the department. Majors in Social Work 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. Thirty (30) hours of course work must be completed in the department, including Sociology 203, 305, 306, 402, 418, 424, and 432. Electives are selected from the 300 and 400 courses.

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, Sociology 203, 320, 322, 402, 403, and 408. Electives are selected from the 300 and 400 courses. Minors must complete 15 hours in the department: Sociology 203, 320, 322, 403, and 408.

SOC 203. INTRODUCTION TO SOCIOLOGY THREE CREDIT HOURS
The basic course in the principles of sociology; an introduction to the fundamental concepts of sociology. A prerequisite for all advanced courses in the department.

SOC 204. MODERN SOCIAL PROBLEMS THREE CREDIT HOURS
The study of the extent, causes, prevention and treatment of abnormal conditions affecting contemporary society.

SOC 301. MARRIAGE AND THE FAMILY THREE CREDIT HOURS
A functional course concerned with mate selection, husband-wife relationships, parent-hood, family disorganization and rehabilitation.

SOC 303. POPULATION THREE CREDIT HOURS
The study of population growth, composition, distribution, problems and theory, with special reference to the United States. *Second Term, Each Year*

- SOC 305. INTRODUCTION TO SOCIAL WORK** THREE CREDIT HOURS
 A comprehensive survey of social work, including social casework, social group work, community organization, social research, social action, and social administration. Required of Social Work Majors. *First Term, Each Year*
- SOC 306. CASEWORK** THREE CREDIT HOURS
 An introduction to the basic principles and processes involved in helping people solve their problems; the techniques of interviewing and history-making; the relationship between caseworker, client and community; a critical evaluation of referral and treatment plans. Required of Social Work Majors. *First Term, Each Year*
- SOC 307. CRIMINOLOGY AND PENOLOGY** THREE CREDIT HOURS
 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. *Second Term, Each Year*
- SOC 313. JUVENILE DELINQUENCY** THREE CREDIT HOURS
 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. *First Term, Each Year*
- SOC 315. INDUSTRIAL SOCIOLOGY** THREE CREDIT HOURS
 An analysis of the characteristics of industrial society: occupational roles and relationships; technological progress and its repercussions; industrial relations problems. *First Term, Each Year*
- SOC 318. SOCIAL STRATIFICATION** THREE CREDIT HOURS
 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. *Second Term, Each Year*
- SOC 320. INTRODUCTION TO ANTHROPOLOGY** THREE CREDIT HOURS
 The study of the physical, social and cultural development of human beings since their appearance on earth. A prerequisite for specialized courses in anthropology. *First Term, Each Year*
- SOC 322. CULTURE AND PERSONALITY** THREE CREDIT HOURS
 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 and Minors. *First Term, Each Year*
- SOC 325. AMERICAN ETHNIC AND RACIAL MINORITIES** THREE CREDIT HOURS
 Cultures of the major immigrant and racial groups in this country; social process of their assimilation into the dominant culture. *First Term, Each Year*
- SOC 328. COLLECTIVE BEHAVIOR** THREE CREDIT HOURS
 The nature of crowds, mobs, manias, panics, fashions, fads, social movements, reforms, and revolutions; consideration of public opinion and propaganda in relation to these phenomena. *Second Term, Each Year*

- SOC 402. METHODS IN SOCIAL RESEARCH THREE CREDIT HOURS
 Central methodological issues and current methods of inquiry in social research. Required of Sociology, Social Work and Anthropology Majors. *Second Term, Each Year*
- SOC 403. PRIMITIVE RELIGION THREE CREDIT HOURS
 Comparative study of the religious beliefs and practices of nonliterate peoples of the world. Required of Anthropology Majors and Minors. *Second Term, Each Year*
- SOC 406. SOCIAL CHANGE THREE CREDIT HOURS
 Processes of social changes in the modern world; culture lag and conflict of norms; individual and social problems arising from conflicting systems of social values and cultural norms. *First Term, Each Year*
- SOC 408H. SEMINAR IN PEOPLES OF THE WORLD THREE CREDIT HOURS
 Survey of the major cultural areas of the world—the Americas, Africa, Asia, and Oceania—with emphasis on the nonliterate societies therein. Required of Anthropology Majors and Minors; others, by *permission of the chairman only*. *Second Term, Each Year*
- SOC 412. SCHOOL AND SOCIETY THREE CREDIT HOURS
 Teacher-student, teacher-administration, and school-community relationships; educational processes, deviant behavior in schools, education for social responsibility. *Second Term, Each Year*
- 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. *First Term, Each Year*
- SOC 418. COMMUNITY ORGANIZATION THREE CREDIT HOURS
 The mobilization of community resources to meet community needs; methods for developing, maintaining, extending, and coordinating social welfare agencies. Required of Social Work Majors. *Second Term, Each Year*
- SOC 420. CLASSICAL SOCIOLOGICAL THEORY THREE CREDIT HOURS
 Examination of the important questions concerning man's relationship to society, drawing upon the classical literature of the Western tradition. Required of Sociology Majors. *First Term, Each Year*
- SOC 422. CONTEMPORARY SOCIOLOGICAL THEORY THREE CREDIT HOURS
 Consideration of leading sociological theorists' works and of major trends in sociological thought during the 19th and 20th centuries. Required of Sociology Majors. *Second Term, Each Year*
- SOC 424. GROUP WORK THREE CREDIT HOURS
 Principles and concepts of group work as a method of social work; role of the worker with groups and individuals in groups; understanding the group process; use of program media. Required of Social Work Majors. *Second Term, Each Year*
- SOC 426. URBAN SOCIOLOGY THREE CREDIT HOURS
 Physical and social characteristics of urban areas; urban ecology; major problems of urban life; urban planning and renewal. *First Term, Each Year*

SOC 432. SOCIAL WORK FIELD EXPERIENCE

THREE CREDIT HOURS

The opportunity for practical application of social work principles is afforded all social work majors through placement in local private and public social work agencies. Required of Social Work Majors.

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, Second Part, Each Year

SOC 439. SEMINAR IN COMMUNITY DEVELOPMENT

THREE CREDIT HOURS

This seminar will introduce the student to the basic concepts of community, with a focus on their application to community planning and action.

Second Term, Each Year

Theological Studies (THL)

Rev. Matthew F. Kohmescher, S.M., *Chairman*

Professors: Cole, Leimkuhler

Associate Professors: Kohmescher, Middendorf, Wagner

Assistant Professors: Brady, Burns, Cardillo, Harrington, Kelley, Kelly, Stanley, Weber

Instructors: Baumann, Brown, Crabb, Dissek, Fellenz, Keenan, Lumpp, Maloney, Martin, Murray, Mutch, Otto

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.

Twelve credits in theology are required of all Catholic students. Thl 152 and Thl 220 are required courses and must be taken by all. Transfer students who do not have the equivalent of Thl 152 and Thl 220 must take them here. In addition Catholic students elect 6 credits in 300-400 courses, including at least one course on the 400 level.

Majors (24 credits in addition to Thl 152, 220) and minors (12 credits in addition to Thl 152, 220) should consult the chairman. With permission specific courses from the Program of Judaic Studies and also Pol 471 may be counted. A recommended distribution of credits is given in the following table. Thl 195H, 295H, 395H, 495H may replace any required or recommended course.

Recommended Distribution of Credits

<i>Major</i>	<i>Minor</i>	<i>Teaching Field</i>	<i>Electives</i>	
24 crs	12 crs	30 crs	6 crs	
3-9 crs	0-6 crs	3-9 crs	0-3 crs	1. Thl 311, 312; Pol 471; Judaics
4-8 crs	2-4 crs	4-8 crs	2-4 crs	2. Thl 352, 353, 354, 452, 453, 454, 459
4-8 crs	2-4 crs	4-8 crs	2-4 crs	3. Thl 360, 361, 362, 365, 380, 400, 460, 474, 476, 478
6-8 crs	2-4 crs	6-10 crs	2-4 crs	4. Thl 226, 332, 402, 415, 425, 430, 435, 440, 441
2-4 crs	0-4 crs	0-4 crs	0-2 crs	5. Thl 404, 481

THL 152. INTRODUCTION TO SACRED SCRIPTURE THREE CREDIT HOURS
The Bible studied 1) As the Word of God in the words of men; and 2) As the chronicle of God's saving action in history. Place of the Bible in the Church, in Theology, in Christian living. Selected readings. Required of all freshmen.

THL 153. INTRODUCTION TO OLD TESTAMENT THREE CREDIT HOURS
Survey of the Old Testament—history of Israel, archaeology, institutions, literary traditions, nature of inspiration, literary forms. Selected readings. Offered at Marianist College.

THL 154. INTRODUCTION TO THE NEW TESTAMENT THREE CREDIT HOURS
Survey of the writings of the New Testament with a special emphasis on modern developments in Bible studies. Selected readings. Offered at Marianist College.

THL 191. THE CHRISTIAN CRISIS TWO CREDIT HOURS
The crisis of society, development of secularism, effects of secularism; the need for social and moral reconstruction, attitudes toward the social order. Offered at Marianist College.
Second Term, Each Year

THL 195H. THEOLOGY HONORS I THREE CREDIT HOURS
A seminar in which selected topics in theology are studied. By permission only.

THL 220. THEOLOGY OF CHRIST THREE CREDIT HOURS
Study of Christ as the fulfillment of the Divine Plan—His coming, His life, His mission. Christ—the central mystery of Christianity. Required of all sophomores.

THL 226. THE SACRAMENTS THREE CREDIT HOURS
Scriptural approach to the notion of sacramentality; sacramental types and sacrifices of the Old Testament; sacraments of the New Testament; contemporary developments in sacramental theology. Offered at Marianist College and Regina Heights.

THL 291. MISSION OF THE CHURCH TWO CREDIT HOURS
Call of the Popes for social-moral reconstruction, the Church as an instrument of salvation, role of the layman in the Church, lay spirituality, Catholic Action and the problems of the social order. Offered at Marianist College. *Second Term, Each Year*

- THL 295H. THEOLOGY HONORS II THREE CREDIT HOURS
A seminar in which selected topics in theology are studied. By permission only.
- THL 301. SURVEY IN CATECHETICS TWO CREDIT HOURS
Historical survey of the development of catechetical theology in the Church from the early Church to the present. Presentation of a developing continuum in catechetics. Offered at Marianist College.
- THL 302. CATECHETICAL METHOD TWO CREDIT HOURS
Content, organization and method of kerygmatic catechesis. Practical exercises based on biblical, liturgical and theological themes. Offered at Marianist College.
- THL 311. HISTORY OF WORLD RELIGIONS I THREE CREDIT HOURS
An historical survey of the origins, literature, beliefs and practices of significant eastern Mediterranean religions including Christianity, Judaism, Gnosticism, Islam and others.
First Term, Each Year
- THL 312. HISTORY OF WORLD RELIGIONS II THREE CREDIT HOURS
An historical survey of the origins, literature, beliefs and practices of important Far Eastern religions including Hinduism, Buddhism, Confucianism, Shinto and others.
Second Term, Each Year
- THL 332. PIUS XII: MYSTICAL BODY OF CHRIST TWO CREDIT HOURS
Detailed study of the encyclical by Pius XII on "The Mystical Body of Christ." The Church as the foundation of society; scope and norm of society; basis of authority; impact on secularist mind.
- THL 352. THE PENTATEUCH TWO CREDIT HOURS
A critical, historical study of the books of the Pentateuch with special emphasis on their formation and with a consideration of pertinent problems and themes, especially from Genesis, Exodus and Deuteronomy.
- THL 353. THE PROPHETS TWO CREDIT HOURS
A study of the prophetic movement in Israel with special treatment of selected prophets.
- THL 354. THE WISDOM LITERATURE TWO CREDIT HOURS
A study of the setting, development and insights of the wisdom movement in Israel. Selected writings of the Hebrew sages will be examined in light of their relevance for the Christian of today.
- THL 360. CHRISTIAN MORALITY TWO CREDIT HOURS
Basic Christian morality seen as the personal response to the redemptive Word of God.
- THL 361. CHRISTIAN MORALITY THREE CREDIT HOURS
Basic Christian morality seen as the personal response to the redemptive Word of God. Offered at Marianist College.
- THL 362. FAITH HOPE CHARITY: DYNAMICS OF CHRISTIAN LIVING TWO CREDIT HOURS
Detailed examination of the three theological virtues and their place in the life of the Christian today. Special emphasis on contemporary problems in this area and on recent theological developments.

- THL 365. THEOLOGY OF MARRIAGE TWO CREDIT HOURS
Analysis of the sanctifying dignity of Christian marriage as sacrament and commitment to share in the divine creative plan.
- THL 380. GOD—THE LAYMAN AND THE WORLD TWO CREDIT HOURS
Role of layman in the church; a complete ecclesiology.
- THL 381. THEOLOGY OF LAY LIFE TWO CREDIT HOURS
Role of layman in the temporal order; theology of various spheres of man's life.
- THL 391. MISSION OF THE SOCIETY OF MARY TWO CREDIT HOURS
Family of Mary as conceived by Father Chaminade, her role in mission of the Church. Filial Piety, dogmatic background and apostolic implications, apostolic method of the Society, consecration to Mary. Offered at Marianist College. *Second Term, Each Year*
- THL 395H. THEOLOGY HONORS III THREE CREDIT HOURS
A seminar in which selected topics in theology are studied. By permission only.
- THL 400. SPECIAL PROBLEMS IN THEOLOGY ONE OR TWO CREDIT HOURS
Investigation and discussion of current problems in Christian belief and living, and of theology as an integrating factor in life. May be taken more than once.
- THL 402. QUESTIONS IN THEOLOGY TWO CREDIT HOURS
A detailed treatment of specific areas of Catholic theology. Topics covered can vary from term to term. May be taken more than once.
- THL 404. READINGS IN THEOLOGY (HONORS) TWO CREDIT HOURS
Directed readings in a specific area of theology are done under the supervision of a staff member. A written or oral report is required. Permission of the chairman is needed. May be taken more than once.
- THL 415. GOD: THE EVOLVING DIALECTIC TWO CREDIT HOURS
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 425. SACRAMENTS TWO CREDIT HOURS
Principle of sacramentality in religion; the sacraments as the human mode of encounter with God.
- THL 430. THEOLOGY OF THE CHURCH TWO CREDIT HOURS
Biblical roots of the church; nature of the church; role of authority; role of intellectual understanding; mission of the church.
- THL 435. THEOLOGY OF LITURGY TWO CREDIT HOURS
Nature and sources of the liturgy; rites; worship life of the church (sacrifice and sacraments); prayer life of the church; development of the liturgy.
- THL 440. THEOLOGY OF MARY TWO CREDIT HOURS
Study of the place of the Mother of God in the great truths of faith with emphasis on her own special functions and privileges.

- THL 441. THEOLOGY OF MARY THREE CREDIT HOURS
Study of the place of the Mother of God in the great truths of faith with emphasis on her own special functions and privileges. Offered at Marianist College.
- THL 452. UNDERSTANDING THE GOSPELS TWO CREDIT HOURS
Findings of modern Bible scholars and recent pronouncements of the Church applied to the questions: How historical are the Gospels? What is their message? How relevant are they? Readings in Matthew, Mark and Luke-Acts.
- THL 453. STUDIES IN ST. JOHN TWO CREDIT HOURS
The Fourth Gospel, I John and the Apocalypse will be studied in detail with special emphasis on style, literary characteristics, plan, symbolism, message and theology.
- THL 454. NEW TESTAMENT EPISTLES TWO CREDIT HOURS
The epistle as a literary form, divisions, principles and problems of interpretation. Includes a study of selected Pauline epistles and I Peter.
- THL 459. BIBLICAL THEMES TWO CREDIT HOURS
An essay, i.e., an initial effort, in Biblical theology; an ordered tracing of themes as they develop through the Old and the New Testaments. Themes selected may vary from term to term. May be taken more than once.
- THL 460. THE VIRTUES THREE CREDIT HOURS
Study of the theological and moral virtues and their place in the life of a Christian today. Emphasis on contemporary problems in this area and on recent theological developments. Offered at Marianist College.
- THL 474. CHRISTIAN SOCIAL PRINCIPLES TWO CREDIT HOURS
Study of Christian social principles from papal documents and their application to the socio-economic problems of today.
- THL 476. THE CHURCH AND WORLD PEACE TWO CREDIT HOURS
Study of order among men in society and the principles needed for relationships between governments for the establishment of a world community.
- THL 478. THE CHURCH AND THE MODERN WORLD TWO CREDIT HOURS
A careful study of the attitudes of the Christian of the future toward the world and its problems.
- THL 481. MODERN CATHOLIC THOUGHT (HONORS) TWO CREDIT HOURS
Reading and discussion of representative modern Catholic writers in the field of theology. Required of all majors. Seniors only. Permission of department chairman required.
- THL 491. TECHNIQUES OF THE MARIANIST SODALITY TWO CREDIT HOURS
The Sodality, apostolic instrument of the Society of Mary; relation of the school to the Sodality; structure of the Sodality; formation of sodalists; apostolate of the Sodality; methods and techniques. Offered at Marianist College. *Second Term, Each Year*
- THL 495H. THEOLOGY HONORS IV THREE CREDIT HOURS
A seminar in which selected topics in theology are studied. By permission only.

Technical Institute

Director: James L. McGraw

CHEMICAL TECHNOLOGY (Cti)

Assistant Professor: Loughran

- CTI 101. INORGANIC CHEMISTRY** **THREE CREDIT HOURS**
 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: Sti 122.
- CTI 101L. INORGANIC CHEMISTRY LABORATORY** **ONE CREDIT HOUR**
 To accompany Cti 101. Three hours of laboratory a week.
- CTI 202. QUANTITATIVE ANALYSIS** **THREE CREDIT HOURS**
 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 101.
- CTI 202L. QUANTITATIVE ANALYSIS LABORATORY** **TWO CREDIT HOURS**
 To accompany Cti 202. Six hours of laboratory a week.
- CTI 203. PHYSICAL CHEMISTRY** **THREE CREDIT HOURS**
 A short course for chemical technicians. Application of the properties of matter in its different states. Covers chemical equilibrium; thermochemistry; electrochemistry; reaction kinetics; phase rule. Prerequisites: Cti 202, Sti 106.
- CTI 203L. PHYSICAL CHEMISTRY LABORATORY** **ONE CREDIT HOUR**
 To accompany Cti 203. Three hours of laboratory a week.
- CTI 204. ORGANIC CHEMISTRY** **THREE CREDIT HOURS**
 A systematic study of the organic compounds containing carbon with special emphasis on the aliphatic and aromatic classes. Special emphasis will be placed on the role of organic chemistry in industry. Prerequisite: Cti 101.
- CTI 204L. ORGANIC CHEMISTRY LABORATORY** **ONE CREDIT HOUR**
 To accompany Cti 204. Three hours of laboratory a week.
- CTI 206. INSTRUMENTATION** **THREE CREDIT HOURS**
 Study of various specialized instruments used in industry for analysis. Prerequisite: Cti 202.
- CTI 207. APPLIED CHEMISTRY** **TWO CREDIT HOURS**
 Practical applications of chemistry in various industries. Emphasis will be placed on plastics, powdered metallurgy, paper and other units as required. Prerequisite: Cti 206.
- CTI 207L. APPLIED CHEMISTRY LABORATORY** **ONE CREDIT HOUR**
 Practical applications of chemistry in various industries. Emphasis will be placed on plastics, powdered metallurgy, paper and other units as required. Three hours practicum a week.

- CTI 208. ORGANIC CHEMISTRY I THREE CREDIT HOURS
A systematic study of the aliphatic classes of organic compounds. Prerequisite: Cti 101.
- CTI 208L. ORGANIC CHEMISTRY LABORATORY I ONE CREDIT HOUR
To accompany Cti 208. Three hours of laboratory a week.
- CTI 209. ORGANIC CHEMISTRY II THREE CREDIT HOURS
A systematic study of the aromatic classes of organic compounds. Prerequisite: Cti 208.
- CTI 209L. ORGANIC CHEMISTRY LABORATORY II ONE CREDIT HOUR
To accompany Cti 209. Three hours of laboratory a week.
- CTI 301. METALLURGY THREE CREDIT HOURS
An introduction to the basic fundamentals of metallurgy and metallurgical applications. Includes study of metallurgical processing, extractive metallurgy, and foundry technology.
- CTI 302. CHEMICAL ENGINEERING TECHNOLOGY THREE CREDIT HOURS
Designed to acquaint the student in chemical technology with the fundamentals of chemical engineering including process variables, material balances, energy balances, and equilibrium conditions.

ELECTRONIC ENGINEERING TECHNOLOGY (ETI)

Richard R. Hazen, *Chairman*
Associate Professor: Hazen
Assistant Professor: Hanneman
Instructors: Farren, Rooney

- ETI 101L. ELECTRICAL CIRCUITS LABORATORY ONE CREDIT HOUR
Fundamental D.C. and A.C. circuit experiments. Three hours of laboratory a week. To accompany Eti 103.
- ETI 102. ELEMENTS OF ELECTRICAL TECHNOLOGY I THREE CREDIT HOURS
Practical concepts of D.C. Circuits; resistance, resistivity, power and magnetism. Circuit calculations using basic formulas. Prerequisite: Sti 105.
- ETI 103. ELEMENTS OF ELECTRICAL TECHNOLOGY 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 102, Sti 106.
- ETI 107. ELECTRICAL CODE ONE CREDIT HOUR
A study of the National Electrical Code to provide safe practices in the installations of electrical equipment in buildings.
- ETI 201. FUNDAMENTALS OF ELECTRONIC TECHNOLOGY THREE CREDIT HOURS
Selected topics D.C.-A.C. circuits, measurements and electron devices for non-Electronic Technology students. Prerequisite: Sti 106, Sti 213.

- ETI 203. ELECTRICAL MEASUREMENTS THREE CREDIT HOURS
 Fundamentals of direct and alternating current measuring instruments and methods of measurement, with particular emphasis on industrial applications. Prerequisite: Eti 103; Corequisite: Sti 205.
- ETI 203L. ELECTRICAL MEASUREMENTS LABORATORY ONE CREDIT HOUR
 To accompany Eti 203. Three hours of laboratory a week.
- 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 103, Sti 205.
- 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. 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 103, Sti 205.
- 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 103. 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 212L. ELECTRICAL BLUEPRINTS AND DIAGRAMS ONE CREDIT HOUR
 Standards and symbols used on electrical blueprints and wiring diagrams primarily for control circuits. Three hours of laboratory a week. Prerequisite: Mti 101. Evening classes only.
- ETI 213L. ELECTRICAL BLUEPRINTS AND DIAGRAMS TWO CREDIT HOURS
 An introduction to drawing with emphasis upon standards and symbols used on electrical blueprints and wiring diagrams primarily for control circuits. Six 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 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 103.

ETI 324L. DIGITAL COMPUTER LABORATORY ONE CREDIT HOUR
To accompany Eti 324. Three hours of laboratory a week.

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.

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.

INDUSTRIAL ENGINEERING TECHNOLOGY (Ite)

Raymond B. Puckett, *Chairman*
Associate Professor: McGraw
Assistant Professor: Puckett
Instructor: Staudter

- 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 106.
- ITI 217. INDUSTRIAL ECONOMIC ANALYSIS THREE CREDIT HOURS
 An introduction to the economics of tools, equipment and machinery, including an elementary study of compound interest and depreciation. Prerequisite: Sti 106.
- ITI 230. MOTION AND TIME STUDY I TWO CREDIT HOURS
 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 105.
- ITI 230L. MOTION AND TIME STUDY LABORATORY I ONE CREDIT HOUR
 To accompany Iti 230. Three hours of laboratory a week.
- ITI 305. LABOR AND WAGE ADMINISTRATION THREE CREDIT HOURS
 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 THREE CREDIT HOURS
 An introduction to the techniques of industrial process control using statistical methods. Prerequisite: Sti 105.
- ITI 331. MOTION AND TIME STUDY II TWO CREDIT HOURS
 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. Prerequisites: Iti 230.

ITI 331L. MOTION AND TIME STUDY LABORATORY II ONE CREDIT HOUR
To accompany Iti 331. Three hours of laboratory a week.

ITI 332. PLANT LAYOUT TWO CREDIT HOURS
A study of the economical arrangement of stocks, machines and layout of aisles for efficient material handling and production. Prerequisites: Iti 108 and Mti 101 or Mti 103L.

ITI 332L. PLANT LAYOUT LABORATORY ONE CREDIT HOUR
To accompany Iti 332. Three hours of laboratory a week.

MECHANICAL ENGINEERING TECHNOLOGY (MTI)

L. Duke Golden, *Chairman*

Associate Professor: Golden

Assistant Professor: Morgana

Instructors: Kretzler, Mott, Rolle, Wolff

MTI 103L. TECHNICAL DRAWING TWO CREDIT HOURS
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
Principles of descriptive geometry. Intersections and developments of planes and solids; layout of objects in space and clearance. Six hours of laboratory per week. Prerequisites: Mti 101 or Mti 103, Sti 103 or Sti 105.

MTI 105L. MACHINE TOOLS LABORATORY ONE CREDIT HOUR
A study of uses and capabilities of standard machine tools, measuring instruments and testing equipment. Three hours of laboratory a week. Corequisite: Iti 104.

MTI 106L. TESTING AND MEASUREMENTS ONE CREDIT HOUR
The use of measuring instruments and standard mechanical testing equipment. Three hours of laboratory a week. Corequisite: Iti 104, Sti 114 or Sti 111.

MTI 107L. MACHINE TOOL OPERATION ONE CREDIT HOUR
The use of hand tools and standard production machine tools. Three hours of laboratory a week. Prerequisites: Mti 103L or Mti 101, Sti 105, Sti 104.

MTI 203. MACHINE AND TOOL DRAWING ONE AND ONE-HALF CREDIT HOURS
Preparation of complete working drawings from layouts for interchangeable manufacture, computation of fits, limit dimensions and tolerances. Prerequisites: Iti 104 and Mti 102.

MTI 203L. MACHINE AND TOOL DRAWING LABORATORY ONE CREDIT HOUR
To accompany Mti 203. Three hours of laboratory a week.

MTI 205. DIE DESIGN THREE CREDIT HOURS
Fundamental principles of the design and construction of piercing, blanking, forming, drawing, progressive and compound dies. One hour of class and five hours of laboratory a week. Prerequisite: Mti 203. Evening classes only.

- MTI 206. JIG AND FIXTURE DESIGN** **ONE AND ONE-HALF CREDIT HOURS**
 Fundamental principles of the design and construction of drill and combination jigs, and milling, reaming and tapping fixtures. One and one-half hours of class and three hours of laboratory a week. Prerequisite: Mti 203. Evening classes only.
- MTI 206L. JIG AND FIXTURE DESIGN LABORATORY** **ONE CREDIT HOUR**
 To accompany Mti 206. Three hours of laboratory a week. Evening classes only.
- 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 114.
- MTI 220. MECHANICS: STATICS AND DYNAMICS** **THREE CREDIT HOURS**
 Principles of applied engineering mechanics. Three hours of class per week. Prerequisites: Sti 106 and Sti 114.
- 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 224, Sti 206.
- MTI 224. STATICS** **TWO 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. Two hours of class per week. Prerequisite: Sti 114.
- MTI 225. DYNAMICS** **TWO CREDIT HOURS**
 Principles of applied engineering dynamics. Two hours of class per week. Corequisite: Mti 224.
- MTI 226L. MECHANISM** **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 230. THERMODYNAMICS** **TWO 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. Corequisites: Sti 206 and Sti 214.
- MTI 231. FLUID MECHANICS** **THREE CREDIT HOURS**
 Properties of fluids, buoyant forces, uniform and non-uniform flow, forces developed by fluids in motion and hydraulic machinery. Prerequisite: Mti 230.
- 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 322L. MACHINE DESIGN** **TWO CREDIT HOURS**
 Principles of engineering knowledge and mathematics applied to analysis and design of machine members and mechanical systems. One hour of class and three hours laboratory per week. Prerequisites: Mti 221, Mti 226L, and Mti 231.

MTI 327L. INDUSTRIAL AUTOMATION ACTUATION TWO CREDIT HOURS
 Application of hydraulic, pneumatic and electric actuators in the design of industrial automation for production systems. One hour of class and three hours laboratory per week. Prerequisites: Mti 225, Mti 226L, Mti 107L, Mti 231 and Sti 213.

SERVICE COURSES

Associate Professor: Averdick

Assistant Professors: Fehlmann, Patrick, Staub, Strange

Instructor: Croy

ORI 100. TECHNICAL INSTITUTE SURVEY NO CREDIT HOURS
 A general view of the engineering technician and his place on the engineering team. Also includes such subjects as "How to Study," use of the slide rule and general University orientation. One hour of class a week.

STI 101. INDUSTRIAL MATHEMATICS I 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 114. 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 106.

STI 114L. PHYSICS: MECHANICS LABORATORY ONE-HALF CREDIT HOUR
 To accompany Sti 114. Two hours of laboratory a week.

STI 122. INDUSTRIAL 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.

STI 122L. INDUSTRIAL CHEMISTRY LABORATORY ONE CREDIT HOUR
 To accompany Sti 122. Three hours of laboratory a week.

STI 130. ENGLISH COMPOSITION THREE CREDIT HOURS
 An intensive review of basic principles of grammar, spelling, punctuation and sentence structure, with special emphasis on composition.

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 141. PRACTICAL PSYCHOLOGY THREE CREDIT HOURS
 Fundamentals of psychology as applied to normal behavior and personal adjustment, with special emphasis on possible uses in industrial application.
- STI 205. MATHEMATICS FOR ELECTRICAL TECHNOLOGY THREE CREDIT HOURS
 Practical applications of selected topics of calculus and differential equations to Electrical Technology. Prerequisite: StI 106.
- STI 206. MATHEMATICS FOR MECHANICAL ENGINEERING TECHNOLOGY THREE CREDIT HOURS
 Practical applications of selected topics in differential and integral calculus to Mechanical Technology. Prerequisite: StI 106.
- STI 213. PHYSICS: ELECTRICITY TWO CREDIT HOURS
 The basic principles of electricity and their application in industry. Prerequisite: StI 114.
- STI 213L. PHYSICS: ELECTRICITY LABORATORY ONE-HALF CREDIT HOUR
 To accompany StI 213. Two hours of laboratory a week.
- STI 214. PHYSICS: HEAT, LIGHT AND SOUND TWO CREDIT HOURS
 The elementary principles of heat, light and sound with particular emphasis on industrial application. Prerequisite: StI 114.
- STI 214L. PHYSICS: HEAT, LIGHT AND SOUND LABORATORY ONE-HALF CREDIT HOUR
 To accompany StI 214. Two hours of laboratory a week.
- STI 234. REPORT WRITING TWO CREDIT HOURS
 The preparation and presentation of industrial reports. Prerequisite: StI 130 or StI 132.
- 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 305. ADVANCED TECHNICAL INSTITUTE MATHEMATICS II THREE CREDIT HOURS
 Selected topics from ordinary differential equations with an emphasis on operational methods of solution. Stresses problems encountered in engineering technology. Prerequisite: StI 205 or StI 206.
- STI 341. PSYCHOLOGY OF HUMAN RELATIONS THREE CREDIT HOURS
 Fundamentals of psychology as applied to normal behavior and personal adjustment, with special emphasis on possible uses in industrial application.



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- Frericks, Thomas J. (1964), *Physical and Health Education*, Instructor—B.S., University of Dayton, 1953.
- Friel, J. William (1963), *Mathematics*, Assistant Professor—B.S., Loras College, 1959; M.A., Duquesne University, 1962.
- Fuszara, Lester T. (1961), *Business Management*, Assistant Professor—B.S., Alfred University, 1948.
- Galeano, Carlos E. (1965), *Languages*, Instructor—Licenciado, University de Antioquia, 1948; Diploma, Instituto Caro y Cuervo, 1960; M.A., Ohio State University, 1965.
- Galloway, Lt. Col. Robert M. (1966), *Military Science*, Assistant Professor—B.S., Roosevelt University, 1963.
- Gantner, Thomas E. (1966), *Mathematics*, Assistant Professor—B.S., University of Dayton, 1962; M.S., Purdue University, 1964; Ph.D., Purdue University, 1966.
- Geiger, S.M., Donald R. (1964), *Biology*, Assistant Professor—B.S., University of Dayton, 1955; M.S., Ohio State University, 1960; Ph.D., Ohio State University, 1963.
- George, Norman (1962), *Business Management*, Associate Professor—B.A., Ohio State University, 1950; M.B.A., University of Pittsburgh, 1954; Ph.D., Ohio State University, 1962.
- George, Robert F. (1966), *English*, Instructor—B.A., John Carroll University, 1964; M.A., University of Dayton, 1966.
- Gilvary, Patrick S. (1955), *Communication Arts*, Assistant Professor—B.S., University of Dayton, 1950; M.A., Xavier University, 1963.
- Ginn, Jerry E. (1966), *Languages*, Instructor—B.A., Otterbein College, 1964; M.A., Ohio State University, 1966.
- Golden, L. Duke (1956), *Mechanical Engineering Technology*, Associate Professor—B.S.M.E., Texas University, 1926; Reg. Prof. Eng.
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- Gottschall, William O. (1965), *Computer Science*, Instructor—B.S., University of Dayton, 1964; M.A., University of Toronto, 1965.
- Graham, Thomas (1964), *Physics*, Assistant Professor—B.S., Providence College, 1956.
- Graney, Maurice R. (1956), *Engineering*, Professor—B.S.I.E., Purdue University, 1935; M.S., Purdue University, 1937; Ph.D., Purdue University, 1942; Reg. Prof. Eng.
- Grant, Jr., Philip A. (1966), *History*, Assistant Professor—B.S., Boston College, 1954; M.A., Fordham University, 1956; Ph.D., Georgetown University, 1960.
- Gray, Cordelia L. (1966), *Languages*, Instructor—A.B., University of Georgia, 1959; M.A., Tulane University, 1964.
- Gray, Kathryn H. (1953), *Geology*, Assistant Professor (On leave)—A.B., Wooster College, 1947.
- Greene, Robert W. (1965), *Philosophy*, Instructor—B.A., University of Notre Dame, 1955; M.A., University of Toronto, 1961.
- Hackney, Capt. Edward C. (1964), *Military Science*, Assistant Professor—A.B., Elon College, 1952.
- Hamilton, Mary Jane (1966), *English*—B.S., Ball State University, 1958; M.A., Ball State University, 1961.

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- Henderson, Harvey C. (1963), *Communication Arts*, Assistant Professor—B.S., Fordham University, 1958; M.S., Fordham University, 1959.
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- Hoben, William J. (1956), *Accounting*, Professor—B.S., University of Dayton, 1950; M.B.A., Xavier University, 1960; C.P.A., Ohio, 1960.
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- Horwedel, C. Richard (1962), *Mechanical Engineering*, Assistant Professor—B.Ch.E., University of Dayton, 1924; M.S., University of Alabama, 1925; Ph.D., Ohio State University, 1929; Met.E., Ohio State University, 1935.
- Houghtling, Sandra L. (1965), *Secretarial Studies*, Instructor—B.S., University of Dayton, 1965.
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- Isaacs, Joakim A. (1964), *History*, Assistant Professor—A.B., Fairleigh Dickinson University, 1958; M.S., University of Wisconsin, 1962; Ph.D., University of Wisconsin, 1966.
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- Kunkel, Joseph C. (1964), *Philosophy*, Assistant Professor—A.B., Loyola University, 1958; A.M., Loyola University, 1962.
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- LaVanche, James B. (1957), *Physical and Health Education*, Associate Professor—B.A., Emory and Henry College, 1948; M.S., West Virginia University, 1952.
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- Lees, S.M., Rev. Charles J. (1962), *English*, Professor—B.A., University of Dayton, 1943; M.A., University of Pittsburgh, 1950; Ph.D., Ohio State University, 1961.
- Leimkuhler, S.M., Rev. Edwin M. (1934), *Theological Studies*, Professor—A.B., Catholic University of America, 1927; M.A., Catholic University of America, 1940.
- Lewis, Donald E. (1965), *Electrical Engineering*, Assistant Professor—E.E., University of Cincinnati, 1954; M.S., Ohio State University, 1957; Ph.D., Ohio State University, 1964.
- Liebler, S.M., Richard A. (1948), *Political Science*, Associate Professor—B.S., University of Dayton, 1939; M.A., Western Reserve University, 1947.
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- Louis, Msgr. Paul P. (1964), *Economics*, Associate Professor—B.S., University of San Francisco, 1955; M.B.A., University of Detroit, 1956; D.Ed., Michigan State University, 1960.
- Lovelace, Capt. Richard S. (1966), *Military Science*, Assistant Professor—B.S., Purdue University, 1954.
- Lucas, James A. (1965), *Sociology*, Instructor—B.S., Xavier University, 1954; M.Ed., Xavier University, 1955; M.S.W., Ohio State University, 1960.
- Lucier, S.M., John J. (1945), *Chemistry*, Professor—B.S., University of Dayton, 1937; M.S., Western Reserve University, 1950; Ph.D., Western Reserve University, 1951.
- Lum, S.M., Samuel C. (1966), *Music*, Instructor—B.A. in Ed., University of Dayton, 1951; M.A. in Ed., San Francisco State, 1959.
- Lumpp, Randolph F. (1965), *Theological Studies*, Instructor—A.B., Seattle University, 1963.
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- McCarthy, S.M., Rev. Adrian J. (1958), *English*, Associate Professor—A.B., University of Dayton, 1934; M.A., New York University, 1953; Ph.D., Fordham University, 1961.

- McCloskey, John W. (1965), *Mathematics*, Assistant Professor—B.S., University of Dayton, 1960; M.S., Michigan State University, 1962; Ph.D., Michigan State University, 1965.
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- McGlade, Thomas F. (1964), *Communication Arts*, Instructor—B.S., Miami University, 1962; M.A., Miami University, 1965.
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- McKenzie, S.M., George J. (1959), *Languages*, Associate Professor—B.A., University of Dayton, 1933; M.A., Ohio State University, 1948; Ph.D., Western Reserve University, 1961.
- McNally, John J. (1966), *English*, Instructor—B.A., Glassboro State College, 1961; M.A., University of Dayton, 1966.
- McVay, John E. (1965), *Physical and Health Education*, Instructor—B.S., Miami University, 1953; M.S. in Ed., Kent State University, 1964.
- Macklin, F. Anthony (1962), *English*, Assistant Professor—A.B., Villanova University, 1960; M.A., Villanova University, 1963.
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- Malecek, S.M., George F. (1966), *Accounting*, Assistant Professor—B.B.A., St. Mary's University, 1953; M.S., Columbia University, 1957.
- Maloney, S.M., Rev. Francis M. (1966), *Theological Studies*, Instructor—B.A., College of St. Charles Borromeo, 1937; J.C.L., Catholic University, 1947.
- Mann, S.M., Leonard A. (1945), *Physics*, Professor—B.S., University of Dayton, 1937; M.S., Ohio State University, 1945; Ph.D., Carnegie Institute of Technology, 1954.
- Mann, Ronald A. (1964), *Physics*, Assistant Professor—A.B., Villa Madonna College, 1957; M.S., University of Cincinnati, 1960; Ph.D., University of Cincinnati, 1964.
- Maras, Raymond J. (1959), *History*, Associate Professor—B.A., University of California, 1946; M.A., Catholic University of America, 1948; Ph.D., University of California, 1955.
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- Michaelis, Carl I. (1954), *Chemistry*, Professor—A.B., University of Kansas, 1945; M.A., University of Kansas, 1947; Ph.D., University of Florida, 1953.
- Middendorf, S.M., Rev. Cyril G. (1965), *Theological Studies*, Associate Professor—B.A., University of Dayton, 1944; M.A., Catholic University of America, 1960; Ph.D., Ottawa University, 1966.
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- Molchen, S.M., Kenneth J. (1966), *Elementary Education*, Assistant Professor—B.S., University of Dayton, 1954; M.S., Case Institute of Technology, 1959.
- Monasterio, Xavier O. (1966), *Philosophy*, Instructor—B.A., Instituto Oriente, Mexico, 1944; M.A., Ysleta College, 1951; Ph.D., Universite de Paris, France, 1964.
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- Morgan, Adrian J. (1948), *Electrical Engineering*, Associate Professor—B.S.E.E., Purdue University, 1948; M.S., University of Cincinnati, 1958; Reg. Prof. Eng.
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- Mott, Robert L. (1966), *Mechanical Engineering Technology*, Instructor—B.M.E., General Motors Institute, 1963; M.S.M.E., Purdue University, 1965.
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- Mullins, Raymond J. (1960), *Communication Arts*, Assistant Professor—B.S. in Ed., University of Dayton, 1958; M.A., Ohio State University, 1959.
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TRAVEL DIRECTIONS TO UNIVERSITY OF DAYTON

LEGEND

- Railroad Depot
- ▲ Greyhound Terminal
- Dayton Municipal Airport
- City Bus Route to U.D. via Bus #5—Oakwood

- (49) State Routes
- (35) U. S. Routes
- (70) Interstate Routes

