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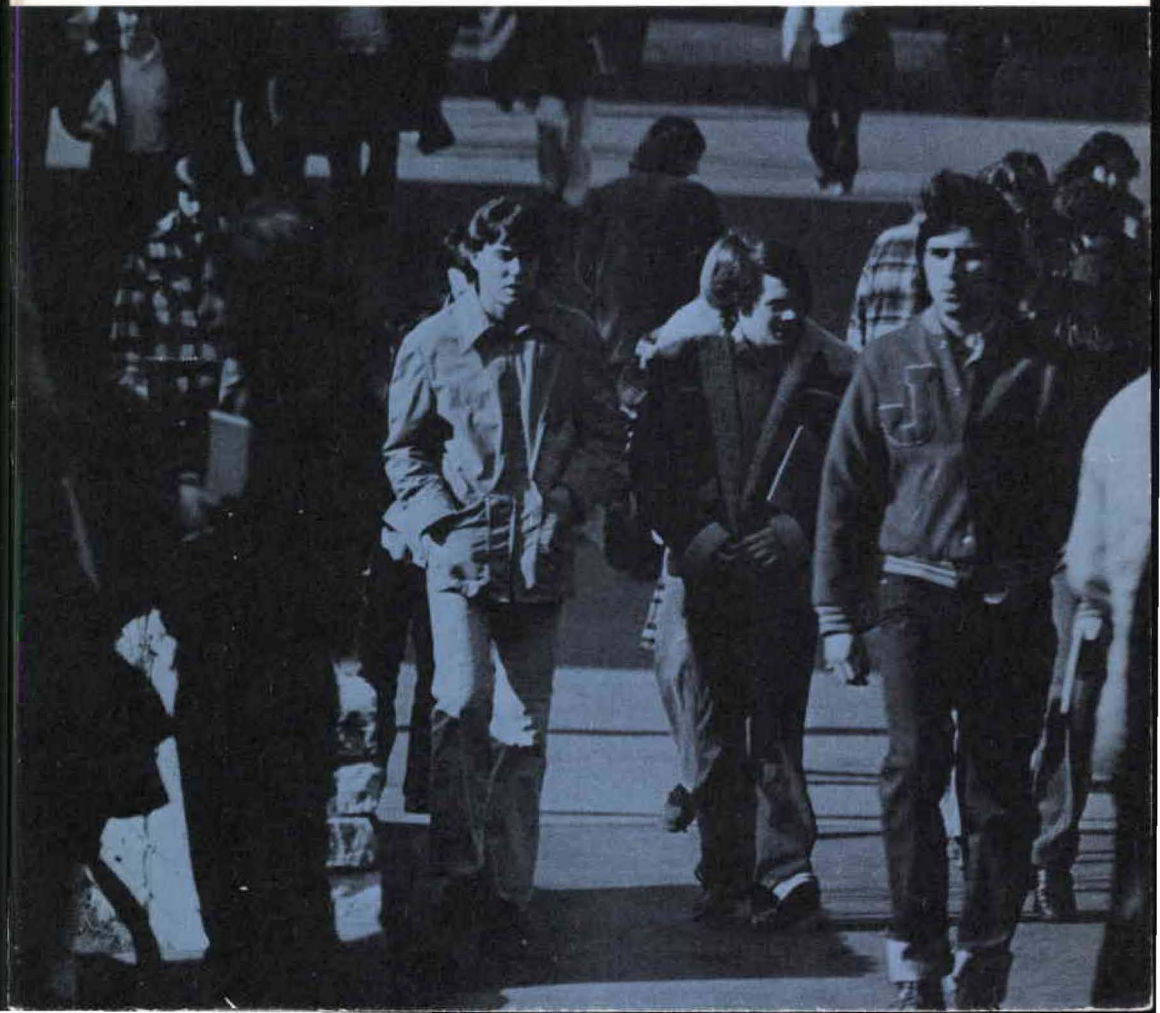
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Undergraduate Issue
August, 1975

The University
of Dayton
Bulletin





DAYTON, OHIO 45409

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August 1975

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The current number of any of these publications may be obtained by applying to the Office of Admissions.

University of Dayton Bulletin



Undergraduate Issue August 1975

Mailing address: University of Dayton, Dayton, Ohio 45469
Telephone: University of Dayton (513) 229-0123
University Office of Admissions (513) 229-4411

1975-76 ACADEMIC CALENDAR

FIRST TERM

August 31-September 3	Orientation for Freshmen
September 1	National Holiday — Labor Day
September 2	Last day to complete registration
September 4	Classes begin at 8:00 a.m.
September 10	Last day for change in schedules
September 10	Last day to change grading option
September 24	Last day to withdraw without record
October 11	Homecoming — Saturday classes will meet
October 13	National Holiday — Columbus Day — no day class meetings — evening classes will meet
October 15	Closing date for submission of Candidacy for Graduation card
October 20	Freshman mid-term progress grades due in the Registrar's Office
October 27	Veteran's Day — all classes will meet
October 31	Last day to withdraw with record of W
November 1	All Saints Day — Saturday classes will meet
November 26	Thanksgiving recess begins after the last evening class
December 1	All classes resume
December 8	Immaculate Conception — no day class meetings — evening classes will meet
December 13	Examinations — Saturday classes
December 15-19	Examinations — Evening classes
December 16-19	Examinations — 8:00 a.m. — 5:00 p.m.
December 19	First Term ends after the last examination
December 20	Diploma exercises

SECOND TERM

January 5	Last day to complete registration
January 7	Classes begin at 8:00 a.m.
January 14	Last day for change in schedules
January 14	Last day to change grading option
January 28	Last day to withdraw without record
February 12-13	Faculty Workshop — no class meetings
February 16	National Holiday — Lincoln-Washington Birthdays — no day class meetings — evening classes will meet
February 18	Closing date for submission of Candidacy for Graduation card
March 1	Freshman mid-term progress grades due in the Registrar's Office
March 12	Last day to withdraw with record of W
April 10	Examinations — Saturday classes
April 14	Easter recess begins after the last evening class
April 19	Study day
April 19-23	Examinations — Evening classes
April 20-23	Examinations — 8:00 a.m. — 5:00 p.m.
April 23	Second Term ends after the last examination
April 25	Commencement

THIRD TERM — First Session

To be announced	Last day to complete registration
May 5	Classes begin at 8:00 a.m.
May 12	Last day for change in schedules
May 12	Last day to change grading option
May 14	Last day to withdraw without record
May 27	Ascension — no class meetings
May 28	No classes
May 31	National Holiday — Memorial Day — no class meetings
June 2	Last day to withdraw with record of W
June 14-18	Examinations — Evening classes
June 17-18	Examinations — 8:00 a.m. — 5:00 p.m.
June 19	Examinations — Saturday classes
June 19	First Session ends after the last examination

To be announced

June 21

June 28

June 28

June 30

July 4

July 5

July 19

July 26-30

July 29-30

July 31

July 31

August 1

THIRD TERM — Second Session

Last day to complete registration

Classes begin at 8:00 a.m.

Last day for change in schedules

Last day to change grading option

Last day to withdraw without record

National Holiday — Independence Day

No classes

Last day to withdraw with record of W

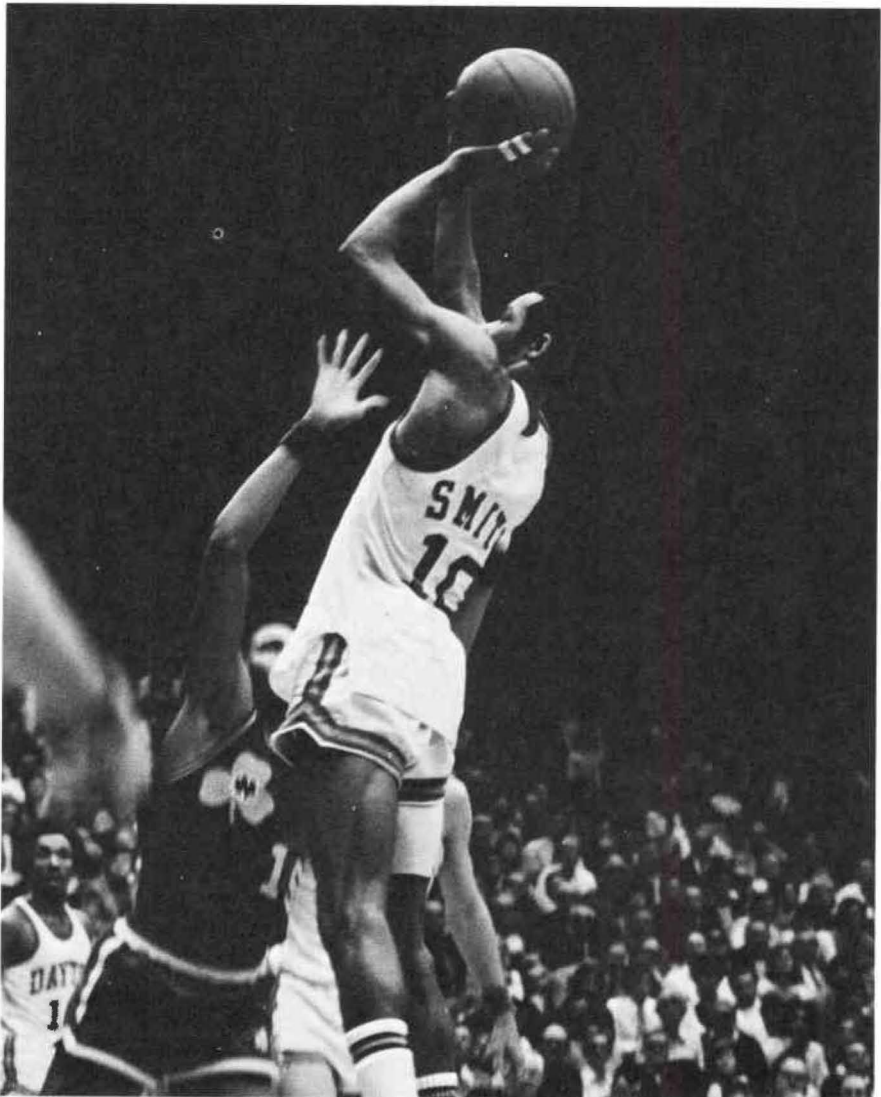
Examinations — Evening classes

Examinations — 8:00 a.m. — 5:00 p.m.

Examinations — Saturday classes

Second Session ends after the last examination

Diploma exercises



1976-77 PROPOSED ACADEMIC CALENDAR

FIRST TERM

August 30	Classes begin at 8:00 a.m.
September 6	National Holiday — Labor Day
October 11	National Holiday — Columbus Day
October 23	Homecoming
November 1	All Saints Day
November 25	Thanksgiving Day
December 8	Immaculate Conception
December 11-17	Examinations
December 17	First Term ends after the last examination
December 18	Diploma exercises

SECOND TERM

January 5	Classes begin at 8:00 a.m.
February 17-18	Faculty Workshop
February 21	National Holiday — Lincoln-Washington Birthday
April 10	Easter
April 16-22	Examinations
April 22	Second Term ends after the last examination
April 24	Commencement

THIRD TERM — First Session

May 5	Classes begin at 8:00 a.m.
May 19	Ascension Thursday
May 30	National Holiday — Memorial Day
June 13-18	Examinations
June 18	First Session ends after the last examination

THIRD TERM — Second Session

June 20	Classes begin at 8:00 a.m.
July 4	National Holiday — Independence Day
July 25-30	Examinations
July 30	Second Session ends after the last examination
July 31	Diploma exercises



TABLE OF CONTENTS

1975-76 Academic Calendar	2
1976-77 Proposed Academic Calendar	4
I The University of Dayton	11
University Goals	11
A Brief History.....	12
Basic Academic Structure of the University	13
Accreditation	15
Dayton-Miami Valley Consortium	16
Consortium for Higher Education Religion Studies	16
Related University Services.....	16
Academic Calendar Year	17
II Student Life and Services	18
Office of Residence Life; Housing Office	18
Food Service	18
Office of University Activities	19
Student Health Services and Insurance	19
The Campus Ministry.....	19
Athletics and Intramural Sports.....	20
Psychological Services.....	20
Campus Security.....	20
Graduate and Alumni Placement	21
Student Identification Cards.....	21
The Student Handbook	21
III Admissions	22
Application for Admission.....	22
Factors Determining Admission	22
Advanced Standing by Examination	23
Achievement Tests	23
Advanced Placement	23
College-Level Examination Program (CLEP).....	23
Transfer Students	23
Veterans	24
Foreign Students	24
IV Financial Information.....	25
General Policy	25
Undergraduate Tuition and Fees	25
Full-time and $\frac{3}{4}$ -time Students	26
Part-time Students	27
Special Students.....	27
Cancellation and Refunds.....	27
Residence Facilities Policy.....	27
Room and Board.....	28
Special Payment Plans	28
Expenses.....	29
Financial Aid Policy	29
Academic Scholarships for Entering Freshmen.....	30
Other Scholarships.....	31

Application for Grants and Other Financial Aid	33
Grants	34
Loans	36
Tuition Reductions	37
Employment	37
Additional Opportunities	37
V Academic Regulations.....	39
Requirements for Degrees.....	39
General Curriculum Requirements	39
Independent Study Program and Honors Courses	40
Grades and Scholarship.....	40
Grade Point Averages.....	41
Academic Standing.....	42
Honors and Awards	42
Class Attendance	45
Transcripts.....	46
Privacy Rights.....	46
VI College of Arts and Sciences	49
Degree Requirements.....	50
Bachelor of Arts.....	51
Bachelor of Science	53
Academic Standing.....	53
American Studies.....	54
Anthropology	56
Biology, Department of	58
Chemistry, Department of.....	64
Communication Arts, Department of.....	68
Computer Science, Department of.....	71
Criminal Justice.....	74
Economics (See also Chapter VII).....	78
English, Department of.....	79
Fine Arts.....	85
General Studies.....	93
Geology, Department of.....	94
History, Department of.....	97
Home Economics, Department of	103
Humanities Studies	109
Interdisciplinary Studies.....	110
Journalism.....	111
Judaic Studies	112
Languages, Department of.....	113
Classics.....	114
French.....	114
German.....	115
Greek.....	116
Italian.....	116
Latin.....	117
Russian.....	117
Spanish.....	117
Mathematics, Department of	119

Medical Technology.....	124
Military Science, Department of	128
Music.....	130
Philosophy, Department of	139
Photography-Cinematography.....	144
Physical Science.....	146
Physics, Department of.....	148
Political Science, Department of	154
Premedical/Pre dental Studies.....	159
Psychology, Department of.....	162
Religious Studies, Department of.....	167
Secondary Education (See also Chapter VIII).....	172
Self-Directed Learning.....	173
Social Work.....	174
Sociology, Department of.....	178
Speech.....	182
Systems Science.....	184
Theatre.....	185
Urban Life; Urban Community Development.....	188
VII School of Business Administration	191
Degree Requirements.....	191
Freshman-Sophomore Program.....	192
Upper-Division Programs.....	192
Other Programs.....	193
Accounting, Department of.....	194
Business Management, Department of.....	197
Economics, Department of.....	201
Executive Secretarial Studies, Department of.....	204
Finance.....	207
Marketing, Department of.....	209
Packaging Management.....	213
Secondary Education (See also Chapter VII).....	216
VIII School of Education.....	219
Degree Requirements.....	219
Counseling.....	220
Student Teaching.....	221
Teacher Placement.....	221
Teacher Certification.....	221
Athletic Coaching Certification.....	222
Corrective Therapy Certification	222
Baccalaureate Programs	222
Graduate Programs.....	224
Counselor Education and Human Services, Department of.....	225
Educational Administration, Department of.....	225
Elementary Education, Department of	226
Fine Arts (See also Chapter VI).....	230
Foundations of Education, Department of.....	232
Home Economics (See also Chapter VI).....	234
Music (See also Chapter VI).....	236

Physical and Health Education, Department of	238
Secondary Education, Department of	247
IX School of Engineering.....	253
Transfer Students	253
Optional Cooperative Education Program	254
Minors in Engineering	254
Engineering Freshman Requirements	254
Degree Requirements.....	256
Chemical Engineering, Department of	257
Civil Engineering, Department of.....	260
Electrical Engineering, Department of.....	264
Engineering Late Entry.....	268
Engineering Mechanics	271
Industrial and Systems Engineering (Upper Level).....	272
Interdisciplinary Studies	276
Mechanical Engineering, Department of.....	277
Technical Studies and Services Division	282
Engineering Technology Division.....	283
Transfer Students	283
Optional Cooperative Education Program	283
Academic Programs.....	283
Bachelor of Technology.....	284
Associate Degree Programs.....	284
Bio-Engineering Technology.....	285
Chemical Technology, Department of	286
Electronic-Chemical Technology	289
Electronic Engineering Technology, Department of	290
Environmental Engineering Technology	294
Geochemical Technology	295
Industrial-Chemical Technology	296
Industrial Engineering Technology, Department of	297
Interdisciplinary Studies	300
Mechanical Engineering Technology, Department of	301
Metallurgical Technology.....	304
Plastics Technology.....	305
Service Courses for Engineering Technology.....	306
X Interdisciplinary, Experimental, and Special Areas	308
Afro-American Affairs.....	308
Afro-American Studies	309
Computer Center	310
Cooperative Education.....	311
General Studies.....	313
Home-study Courses.....	313
Human Relations	314
Information Center.....	314
Interdepartmental Summer Studies Abroad.....	314
Interdisciplinary Studies	315
International Education.....	319
Marian Library.....	319

Metro Division	319
Minicourses	319
Pre-Law	320
Project Advancement	321
Project Ahead	321
Research Institute	322
Reserve Officers Training Corps (ROTC)	322
Self-Directed Learning	322
Special Sessions	322
Women's Center	323
Women's Studies	323
WVUD-FM and UD-CCTV	323
XI Directories	324
Governing and Advisory Bodies	324
Officers of Administration	325
Academic Affairs	325
Student Development	325
Campus Ministry	326
University Relations	326
Financial Affairs	326
Business and Services	327
Research	327
General Services	327
Academic Departments	328
Faculty	329
Research Institute	349
Office for Computing Activities	353
Library	353
Psychological Services Center	353
Athletics	353
Health Service	353
Photo Credits	354
Index	355
Map of the University of Dayton Campus	358
Map of the Dayton area	360



I The University of Dayton

Founded in 1850

The University of Dayton is a private, coeducational school founded and directed by the Society of Mary (the Marianists), a Roman Catholic teaching order.¹ It is among the nation's largest Catholic institutions of higher learning. Aware of the cultural richness of diversity, the University numbers among its students and faculty representatives of many faiths. For the same reason, the University has consciously drawn its students and faculty not only from the immediate community and the middle-western neighborhood but from across the country and from numerous foreign countries.

The main campus is seventy-six landscaped acres on a hill overlooking the city of Dayton, Ohio. The buildings are a pleasantly eclectic architectural mixture of old and new, all well equipped. The faculty, both lay and religious, are well qualified and competent to provide their students with superb instruction and prudent counseling. The University's policy of tempered discipline encourages students to responsible judgment and conduct in their pursuit of academic and professional excellence.

A lively, friendly atmosphere; reasonable tuition rates; financial aid plans; numerous and varied religious, cultural, and social opportunities; an early-semester calendar allowing a number of study-recess options; excellent inter-collegiate and intramural athletic programs for both men and women; academic options such as honors programs, independent study, and study abroad; academic, professional, and personal counseling; cooperative work-study plans; a placement service for students and graduates — these can only exemplify the myriad aspects of the character of the University of Dayton.

UNIVERSITY GOALS

The University of Dayton, by tradition, legal charter, and resolute intent, is a church-related institution of higher learning. As such, it chooses the Catholic world view and the scholarly traditions of the Society of Mary as its distinctive orientation in carrying out, in an atmosphere of academic freedom and social, racial, and religious tolerance, four essential tasks: teaching, research, social criticism, and public service.

The University of Dayton takes as its primary task to teach the heritage of the past, the achievements of the present, and the challenges of the future. Holding that there is harmony between rationally discovered and divinely revealed truths,

¹ The Society of Mary, founded in France in 1817 by Father William Joseph Chaminade, presently conducts schools throughout the United States and in Africa, Australia, Canada, Japan, Europe, and South America. The Society operates Chaminade College in Hawaii and St. Mary's University in San Antonio, Texas.

its commits its academic community to the pursuit and the imparting of truth. It provides a milieu favorable to research and study in all academic disciplines, valuing not only the gaining and sharing of knowledge but especially the ability and the willingness to integrate it, in all its variety, into a humane and useful synthesis.

While the University of Dayton remains politically dispassionate, it encourages its students and faculty to study and analyze human institutions, to judge as scholars their functioning, to expose deficiencies in their structure and operation, to propose and actively promote improvements, and, at the same time, to support, with the skill and wisdom that are the special resources of a university, the legitimate goals and aspirations of the civic, state, and national communities.

BRIEF HISTORY

In March, 1850, Marianist Father Leo Meyer, recently arrived from France, purchased Dewberry Farm in Dayton from John Stuart, a descendant of the old royal family of Scotland. Mr. Stuart, a man of great faith, accepted a medal of St. Joseph and a promise of \$12,000 for 125 acres, including vineyards, a mansion, and other buildings. Father Meyer renamed the farm Nazareth. This became the first permanent foundation of the Society of Mary in the western hemisphere.

The University of Dayton had its earliest beginnings here on July 1, 1850, when St. Mary's School for Boys, a frame building that not long before had housed farm hands, opened its door to fourteen primary students from Dayton. In September, the classes moved to the mansion, and the first boarding students arrived.

Five years later the school burned to the ground; but within a year classes resumed. By 1860, when Brother Maximin Zehler became president, enrollment approached one hundred. The Civil War had little direct effect; most of the students were too young to serve in it. St. Mary's grew; an old history refers to the period of 1860-1875 as "the brick-and-mortar years." A novitiate was added, and then a normal school. The Chapel of the Immaculate Conception was completed in 1868. In 1870, visitors marveled at new St. Mary Hall, the largest building in the city of Dayton, and called it Zehler's Folly. But when the "college department" moved into it in 1871, it proved not too big at all. Construction went on.

In 1883, another devastating fire visited the campus, but this time some of the buildings were saved. The statue of Our Lady of the Pines was erected in gratitude. In a more famous emergency, the Great Flood of 1913, the school, untouched because of its hillside location, sheltered numbers of refugees.

Known at various times as St. Mary's School, St. Mary's Institute, and St. Mary's College, the school established its present identity in 1920, when it incorporated as the University of Dayton. The same year, the elementary division closed, and the University started its tradition of evening and Saturday classes, to serve the adult members of the surrounding community. In 1922, a school of law opened, also with evening classes. Other graduate programs followed. In 1923, the first summer session took place, its classes open to women as well as men. This decade of academic growth and innovation was as well a time of increased emphasis on sports here and across the country. Sports, however, were no novelty here: in 1874, for example, St. Mary's Institute's new Play House (gymnasium) was the only one of its kind in Ohio, and tradition holds that the first organized basketball game in the state took place there.

The 1930's and the early 1940's, for obvious reasons, were in many ways a time of retrenchment for the University of Dayton as for most other schools. But the Marianists, their faculty, and their students had survived cholera and smallpox, fire and flood, and (in 1924) a Ku-Klux-Klan cross burning on the campus. In 1935, even as it closed its preparatory school and graduated its last class from the old law school, the University inaugurated a college for women, with sisters of Notre Dame in charge of 27 entering students. Two years later, the college for women closed; the deans opened all divisions to women, and the University of Dayton became co-educational.

After World War II, with the return of the veterans, the University entered a long period of unprecedented growth and improvement. Today, enrollment has steadied at about 8,000 students, full- and part-time.

BASIC ACADEMIC STRUCTURE OF THE UNIVERSITY

The University of Dayton now includes the College of Arts and Sciences and four professional schools, each with a dean: the School of Business Administration, the School of Education, the School of Engineering (including Engineering Technology), and the School of Law. The deans, through their departmental chairmen, administer the undergraduate programs. Graduate programs are responsible to the Dean for Graduate Studies and Research. At the head of the academic structure of the University is the Vice President for Academic Affairs and Provost.

The University of Dayton awards the following associate, baccalaureate, and graduate degrees:

Associate in Business Administration	Master of Arts
Associate in Technology	Master of Business Administration
Associate in Urban Community Development	Master of Clinical Chemistry
Bachelor of Arts	Master of Computer Science
Bachelor of Chemical Engineering	Master of Mechanical Engineering
Bachelor of Civil Engineering	Master of Public Administration
Bachelor of Electrical Engineering	Master of Science
Bachelor of Engineering	Master of Science in Chemical Engineering
Bachelor of Fine Arts	Master of Science in Civil Engineering
Bachelor of General Studies	Master of Science in Education
Bachelor of Industrial and Systems Engineering	Master of Science in Electrical Engineering
Bachelor of Mechanical Engineering	Master of Science in Engineering
Bachelor of Music	Master of Science in Engineering Management
Bachelor of Science	Master of Science in Management Science
Bachelor of Science in Art Education	Master of Science in Teaching
Bachelor of Science in Business Administration	Juris Doctor
Bachelor of Science in Education	Doctor of Engineering
Bachelor of Science in Home Economics Education	Doctor of Philosophy in Biology
Bachelor of Science in Music Education	Doctor of Philosophy in Engineering
Bachelor of Science in Speech Education	
Bachelor of Technology	

College of Arts and Sciences

The College of Arts and Sciences includes the following departments and programs: American Studies, Anthropology, Biology, Chemistry, Communication Arts, Computer Science, Criminal Justice, Data Processing, Economics, English, General Studies, Geology, History, Home Economics, Languages, Mathematics, Medical Technology, Military Science, Performing and Visual Arts (Fine Arts, Music, Theatre, Photography-Cinematography), Philosophy, Physical Science, Physics, Political Science, Psychology, Religious Studies, Social Work, Sociology, Systems Science, and Urban Life.

Preprofessional courses are offered in medicine, dentistry, dietetics, optometry, veterinary medicine, pharmacy, law, foreign service, social service, and radio and television broadcasting. The program leading to a Bachelor of Science in Medical Technology and certification by the national Registry of Medical Technologists is operated in cooperation with nearby AMA-Approved Hospitals. Through its affiliation with the Dayton Art Institute, the University enriches its offerings in Fine Arts.

Programs leading to the degrees of Master of Arts or Master of Science are offered in American Studies, Biology, Chemistry, Communication Arts, English, History, Humanities, Mathematics, Philosophy, Physics, Political Science, Psychology, and Theological Studies. The Department of Computer Science offers the Master of Computer Science degree. The professional degree Master of Public Administration is also offered. The Department of Biology offers the Doctor of Philosophy degree.

School of Business Administration

The School of Business Administration offers undergraduate majors in Accounting, Business Management, Economics, Finance, Industrial Management, Marketing, Packaging Management, and Personnel Management. 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 and Master of Science in Teaching. 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, and Mechanical Engineering; it offers an upper-level program in Industrial and Systems Engineering. The School offers graduate programs leading to the degree of Master of Science in Engineering — Aerospace and Materials, Master of Science in Engineering, Master of Science in Chemical Engineering, Master of Science in

Civil Engineering, Master of Science in Electrical Engineering, Master of Science in Engineering Management, Master of Mechanical Engineering, Doctor of Engineering and Doctor of Philosophy in Engineering.

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

The Division of Technical Studies and Services within the School offers course work and programs for minor areas of concentrated study for both engineering and nonengineering majors.

School of Law

The University of Dayton School of Law, reopened in 1974, offers the degree of Juris Doctor.

The plan and design of the law program is predicated on a careful consideration of what law as a profession demands of the student choosing it: a high level of competency in the knowledge, theory, and practice of law; and responsibility in the roles it imposes — counselor, advocate, member of a profession, and public servant. The School of Law regards as its prime responsibility, to both the student and society, to provide a program of studies that is thorough and exacting, so that such competence and responsibility are achieved.

ACCREDITATION

The University of Dayton is officially accredited by the North Central Association of Colleges and Secondary Schools. Other official accreditations include those of the State of Ohio Department of Education, the National Council for Accreditation of Teacher Education, the Engineers' Council for Professional Development (for chemical, civil, electrical, and mechanical engineering curricula, for electronic, industrial, and mechanical engineering technology programs, and for the Bachelor of Technology). The University has the approval of the American Medical Association (for its premedical program), of the National Registry of Medical Technologists (for its medical technology program), and of the American Chemical Society (for its programs in chemistry), and the Music Division is a full member of the National Association of Schools of Music. The School of Business Administration is an Assembly Member of the American Association of Collegiate Schools of Business. The School of Law is accredited by the Ohio League of Law Schools and is accredited provisionally by the American Bar Association.

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, the Association of University Evening Colleges, and the Ohio Academy of Science.

The Medical Technology Program is recognized by the Board of Schools of the American Society of Clinical Pathologists.

DAYTON-MIAMI VALLEY CONSORTIUM

Thirteen institutions of higher learning in the Miami Valley, including the University of Dayton, have organized the Dayton-Miami Valley Consortium (DMVC). The member institutions seek to increase inter-institutional cooperation, improve curricula, develop new courses and programs, minimize cost, and centralize selected functions, by using computers, modern educational technology, and communication media.

Among the benefits of the Consortium is that regularly enrolled full-time students at one institution, under certain conditions, may register for credit at no additional charge in courses offered by other Consortium institutions in which no instruction is available at their own institution.

CONSORTIUM FOR HIGHER EDUCATION RELIGION STUDIES

The University is an active member of the Consortium for Higher Education Religion Studies (CHERS). This consortium makes possible cross registration, sharing of library resources, dialogue with students of other institutions, interchange of facilities, and cooperative innovative planning. Area members include Antioch College, Hamma Divinity School, Payne Theological Seminary, St. Leonard Seminar, University of Dayton, Wilberforce University, Wilmington College, and United Theological Seminary.

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

RELATED UNIVERSITY SERVICES

Besides the regular day sessions, the University conducts special as well as regular evening and summer sessions and offers short-term workshops, institutes, and conferences. 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. All credited courses, whenever offered or in whatever form, conform to the same standards and are governed by the same policies and regulations prevailing during the regular day sessions.

The Metro Division especially serves the part-time students of the Dayton community, to make the University and its course offerings, both credit and noncredit, more easily available to them. Similarly, the Office of International Education serves students from other countries who are enrolled at the University as well as those students who are interested in traveling or studying in other countries.

To foster interdisciplinary efforts, the Office of the Provost administers courses designated UDI (University of Dayton Interdisciplinary) to accommodate inter-school offerings and experimental programs. Similar to these courses are those designated AAS – Afro-American Studies – originated by the Center for Afro-American Affairs. (Both UDI and AAS courses are listed and described in Chapter X, as are other interdisciplinary, experimental, and special offerings.)

The Research Institute, an integral, not a separate, component of the University of Dayton, provides important resources and reinforcement for all levels of academic endeavor, as does the Office of Computer Activities (see Chapter X).

closed-circuit television operation, both on campus, are available to all University departments and programs. A unit of the Reserve Officers Training Corps, also based on the campus, offers its academic program through the Department of Military Science (see MIL, Chapter VI).

ACADEMIC CALENDAR YEAR

The University of Dayton operates under an early semester, split third-term calendar. The academic year begins with the fifteen-week fall term, which ends before Christmas. The winter term, also fifteen weeks, begins in January and ends late in April. The third, or spring-summer term, is split into two complete sessions of six weeks each.

The advantages of such a calendar are many. The student may enroll for the traditional fall and winter semesters and have a four-month summer vacation; or he may add a half term or a full term to enrich his program or speed his completion of graduation requirements. (The University holds graduation ceremonies at the end of each term.) The student who must earn his own money can have extra time for employment in spring and summer; or he may enroll for the third term and work during the fall or the winter term, when the employment market is not crowded with other college students.



II Student Life and Services

The Vice President for Student Development and Dean of Students and her staff are responsible for assisting in developing and maintaining an environment which will support the educational goals and the Christian values of the University of Dayton. While students are encouraged to accept responsibility to make decisions, it is understood that decision making involves risks. The Student Development staff provides individual and group counseling, and supportive reinforcement, treating all students as individuals. All members of the Student Development staff are professional counselors and concerned people.

OFFICE OF RESIDENCE LIFE HOUSING OFFICE

One of the most challenging experiences a student can have at the University is to live in a residence hall. Respect for the rights of other people and a willingness to contribute to an atmosphere of cooperation and mutual respect will make the residence hall experience successful.

Professional and student staffs coordinate with the Office of Residence Life and the Housing Office in administering University residence halls. An elected Hall Council represents students' opinions and initiates programs in each hall, and a Judicial Board facilitates the due process system in disciplinary matters. The Campus Minister in each hall seeks to provide opportunities for personal and group religious growth. Counseling and consultation as well as the celebration of Mass are provided in the residence halls by the Campus Ministry.

While junior and senior students may arrange their own housing either on or off campus, freshmen and sophomores are required to live in the University Residence System unless they are married, are twenty-one years of age or over, or are local residents living with their families.

All new students, upon their official acceptance to the University of Dayton, receive from the Office of Admissions application/contracts and instructions for residence hall accommodations. However, any questions about housing should be directed to the Housing Office of the University of Dayton.

FOOD SERVICE

The University of Dayton's Food Service maintains two chief dining facilities: the Brass Lantern in Marycrest complex and El Granada, the main cafeteria in Kennedy Memorial Union, which seats 340. A large snack bar in the Union offers light meals as well as snacks. In addition, all of the residence halls have snack bars, which are open evenings and weekends.

Freshman students living on campus are required to purchase either five-day or

seven-day meal tickets. Other students may purchase meal tickets or make their own daily arrangements. Five-day lunch tickets are available to commuters. On weekends, any student may eat in the cafeterias on a cash basis, if he wishes.

OFFICE OF UNIVERSITY ACTIVITIES

The Office of University Activities sponsors and coordinates extra-curricular and co-curricular activities for University organizations, departments, groups, and students in general. These not only enrich and enhance educational, cultural, and social development but foster a spirit of community in accord with the objectives of the University of Dayton.

Numerous and varied cultural, social, and recreational activities take place on campus, many of them in the Kennedy Memorial Union. Among the continuing programs are the University Arts Series, with renowned guests, chiefly in music, the dance, and literature; the Distinguished Speakers Series; the Religion in Life Series; the Music Division series of recitals and concerts by students and faculty; regular productions by the University Players of the Theatre Division; Noon Forums, a weekly series on subjects of current interest; a classic film series; and shows and exhibitions in the Kennedy Art Gallery.

In addition, the outstanding musical, dramatic, and artistic programs and events in the Dayton area are well publicized on campus. Most offer special student rates.

STUDENT HEALTH SERVICES AND INSURANCE

The University Health Service in the Gosiger Health Center, well staffed and well equipped, assists in safeguarding the health of students. The University physician, on call at all hours, is on duty here six hours daily for advice and treatment. A staff of professional nurses is available twenty-four hours a day.

Students may come to the Health Center for out-patient treatment by the staff on duty. No restriction is made on the number of visits. Students whose permanent residence is not within commuting distance may avail themselves of the in-patient services of the infirmary at a nominal cost. When the case warrants, the patient is transferred to one of the local hospitals.

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

THE CAMPUS MINISTRY

As a Catholic institution of higher learning, the University of Dayton chooses the Christian world-view as its distinctive orientation in carrying out its essential tasks. The Campus Ministry acts as a catalyst to students, faculty, staff and administrators in making clear this aspect of its operation. More specifically, the Campus Ministry seeks to make available the rich sacramental life of Christ and His Church, to provide opportunities for Christian service, and especially to foster a campus atmosphere conformable to the message of Christ and conducive to serving Him in religious needs.

Mass is celebrated in the Main Chapel several times each morning during the week and at convenient times on Sunday. There is a daily Mass in each of the residence halls. The sacrament of Penance is available at scheduled times and

upon request. Chaplains regularly provide needed counseling in the residence halls and in the Campus Ministry center.

Numerous group activities and organizations having humanitarian and religious goals are encouraged and facilitated by the Chaplains.

Finally, with the assistance of competent and interested members of the total University community, the Campus Ministry strives to initiate and to cooperate with special projects such as formal and informal theological discussions, study groups, relevant social action efforts, lecture programs, and interdisciplinary undertakings particularly related to Christ's message.

ATHLETICS AND INTRAMURAL SPORTS

Many people throughout the country have come to know the University of Dayton through the accomplishments of its intercollegiate athletic teams. Participation in athletics is part of the educational development the University offers all students. The intercollegiate program offers a full range of activities. There are eight men's intercollegiate sports: football and soccer in the fall; ice hockey, wrestling, and both varsity and junior varsity basketball in the winter; and baseball, golf, and tennis in the spring. There are eight women's intercollegiate sports: volleyball, golf, tennis, and field hockey in the fall; varsity and junior varsity basketball in the winter; and golf and softball in the spring. The rifle team is co-ed.

Welcome Stadium and the U. D. Arena are the focal points of intercollegiate activity. Welcome Stadium, carpeted with AstroTurf, seats 12,000 for football games, and the U. D. Arena seats 13,500 for basketball.

Cheerleading and yell-leading tryouts, held each year, are open to all students.

The Intramural Sports Department offers twenty activities for both men and women: badminton, basketball, bowling, cage ball, cross country, darts, flag football, frisbee, golf, handball, horseshoes, paddleball, pass/punt/kick, softball, table tennis, tennis, volley ball, weight lifting, wrestling, and wrist wrestling. A new Physical Activities Center is allowing for further expansion of the intramural program.

PSYCHOLOGICAL SERVICES

In keeping with the University's dedication to educating the whole person, the Psychological Services Center offers a complete testing and counseling program, to provide aid and guidance in personal, social, emotional, intellectual, and career development. (The work of the Center goes beyond the campus, including testing and other psychological services to schools, business, and industry.)

Testing services for students help them identify their talents and aptitudes as well as, when warranted, their problems. The highly trained professional staff of the Center are competent to deal not only with problems of personal, social, academic, and career adjustment but also with those of more serious concern. Since often counseling involves rather sensitive personal matters, all discussions between counselors and students are completely confidential.

Day-to-day academic counseling in all disciplines is provided by and through the various deans, departmental chairmen, and faculty advisors.

CAMPUS SECURITY

The Department of Campus Security is the recognized, lawful police agency on all University property. It is the objective of this department to make the

University a comfortable, efficient, and safe place. The University of Dayton Campus Security is an organization of the highest professional competence dedicated to the preservation of freedom of movement and communication with a minimum of fear of property loss or personal injury.

On-campus parking facilities are limited. Commuting students should contact the Traffic Office for issuance of on-campus parking permits. Sophomores, juniors, and seniors who live on campus may apply at the Traffic Office for parking permits, which they will be issued on a first-come, first-served basis. Freshman students who live on campus may be issued permits on a space-available, first-come, first-served basis. Drivers with unusual problems will be given special consideration.

GRADUATE AND ALUMNI PLACEMENT

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

1. Personal employment counseling.
2. A library of literature describing opportunities with over 500 employers.
3. A listing of current job openings.
4. Direct referral of alumni to employers.
5. Campus interviews by representatives of business, industry, and government.

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

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

STUDENT IDENTIFICATION CARDS

At the beginning of the school year, each full-time student secures a student identification card (ID 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 ID card is not only obligatory but vital for the student since it is necessary for the receipt of numerous University services.

THE STUDENT HANDBOOK

Each student at the University of Dayton is responsible for knowing and observing the policies, regulations, and procedures contained in the official Student Handbook. This publication provides much other useful information on such subjects as University Services, student organizations, student publications, and intercollegiate and intramural sports schedules.

Student handbooks are available at the opening of the fall term in the residence halls, the Information Center, and the Off-Campus Center for Community Relations.

III Admissions

Each application for admission to the University of Dayton is considered individually. The Committee on Admissions reviews the academic achievement, aptitude, and interest of every applicant with the goal of admitting students who possess the intellectual ability and the motivation to profit best from their attendance at the University of Dayton.

APPLICATION FOR ADMISSION

All applications for admission must be submitted to the Director of Admissions on forms supplied by the University of Dayton. Applicants are encouraged to submit application early in the senior year of high school.

The applicant must also present an official transcript of courses and grades in secondary school and the results of either the Scholastic Aptitude Test (SAT) of the College Entrance Examination Board (CEEB) or the American College Test (ACT).

Admission is based on the total information submitted by the applicant or in his behalf. It is the applicant's responsibility to see that complete information has been provided to the Director of Admissions.

When submitting the completed application to the high school counselor or principal for the inclusion of the transcript, the applicant should attach a check or money order for \$15.00 payable to the University of Dayton. This application fee is nonrefundable.

FACTORS DETERMINING ADMISSION

The applicant must have graduated from a high school accredited by a regional accrediting agency or by a state department of education and have a total record indicating a likelihood of success at the University of Dayton.

The quality of the academic record is shown by the applicant's grades, standing in class, and selection of courses. Although no set pattern of courses is required for admissions, a well prepared candidate will have had from 15 to 18 units in English, social sciences, mathematics, foreign language, and laboratory science. Those who plan to major in one of the natural sciences, mathematics, computer science, or engineering will find a strong mathematics background most helpful.

The results of the Scholastic Aptitude Test (SAT) or the American College Test (ACT) serve as an additional indicator of academic capacity.

The Committee on Admissions is very interested in the applicant's personal traits and record as a school citizen. The recommendation of the high school concerning ability, motivation, and character influences the decisions of the Committee on Admissions.

admissions counselor. A visit will provide the applicant with an opportunity to see the campus and ask questions of the students and faculty.

ADVANCED STANDING BY EXAMINATION

Achievement Tests

Applicants who are seeking advanced standing in English, a foreign language, and/or mathematics are encouraged to take the appropriate College Entrance Examination Board (CEEB) Achievement Tests prior to June 1.

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, if such students have taken the tests provided and scheduled by the College Entrance Examination Board and have received favorable interpretation grades 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.

College-Level Examination Program (CLEP)

The University of Dayton cooperates with the College Level Examination Program (CLEP) of the College Entrance Examination Board (CEEB). If a student takes the CLEP General Examination, he need not take the CEEB Achievement Test in English. The applicant will, however, need the CEEB Achievement Test in mathematics and language if a program requiring courses in these areas is to be followed. CLEP does not provide for placement in these areas. Academic credit will be granted to students who achieve scores at or above the 50th percentile on any of the five areas of the General Examination. Academic credit may also be granted to students who achieve scores at or above the 50th percentile on certain subject matter examinations. The credit for the subject matter examinations will be determined by the appropriate academic departmental chairman.

TRANSFER STUDENTS

Students from accredited institutions may be considered for transfer to the University of Dayton provided they are in good standing socially and academically (at least a "C" average - 2.00).

Transfer students will be considered for admission after they have followed the regular admissions procedure. They must also submit official transcripts from all institutions previously attended.

Transfer students are considered for a degree, provided the last 30 semester credit hours have been taken on the University of Dayton campus and other requirements for graduation have been met. Students who transfer directly from two-year institutions will be required to earn at least 54 semester credit hours at the University of Dayton for any baccalaureate degree.

In no case will transferred credit be accepted for a course in which the applicant received a grade lower than one corresponding to the "C" grade at the University of Dayton.

VETERANS

All departments of the University have been approved by the Veterans Administration for training under the G.I. Bill. Veterans' affairs are handled by Robert Lowe, Veterans' Office, Room 222, St. Mary Hall. All veterans attending the University must contact his office. Counseling by the Veterans Administration is available. Academic advisors to veterans are available in the College and in the Schools. In the College of Arts and Sciences, Philip J. Harwood, Department of Communication Arts, advises veterans in the humanities, and Richard E. Peterson in the sciences. In the Schools, George E. Matlin, Department of Economics and Finance, advises veterans in the School of Business Administration, Joseph E. White in the School of Education, and David C. Kraft in the School of Engineering and Engineering Technology.

FOREIGN STUDENTS

Undergraduate students whose native language is not English are expected to follow the normal admissions procedure outlined above. In addition, unless there is positive and conclusive evidence that the student has competence in both speaking and writing English, the applicant must demonstrate a score of 550 or above on the Test of English as a Foreign Language (TOEFL).

A student unable to demonstrate a 550 TOEFL at the time of his application may wish to apply for admission conditionally. Such a student will normally be expected to attend one of the special intensive English programs offered in the United States and demonstrate an adequate TOEFL score upon completion. One such program is the Summer English Language Institute of the University of Dayton.

Foreign student applicants must present their academic credentials in an official English translation. The applicant must also submit a complete record of a medical examination on the University Health Form and present certification of financial resources available to support his education at the University of Dayton.

Arrangements to see the Foreign Student Advisor should be made within 24 hours of the student's arrival on campus. Other pertinent facts may be found in the pamphlet *Information for Prospective Foreign Students*. This pamphlet can be obtained by writing the Director of Admissions.

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 alumni help to bridge the difference between income and costs. The trustees of the University reserve the right to change the regulations concerning the adjustment of tuition and fees at any time the need arises and to make whatever changes in the curricula they may deem advisable.

Fees and tuition must be paid at the time of final registration for the term. All checks should be made payable to the UNIVERSITY OF DAYTON. The student's name and social security number should be shown on the face of check to insure proper credit.

An assessment of \$20.00 will be made for payment of tuition and fees by a bad check and cancellation of the student's registration will result until proper payment is made of tuition, fees and special assessment.

Registration for a new term, transcript of credit, and honors of graduation will be permitted only for students whose University records are clear.

An assessment of \$5.00 will be made for passing other bad checks in any area at the University. This assessment is made each time the check is dishonored.

Under certain conditions, tuition reductions are granted to some unmarried children from the same family attending classes full-time, simultaneously, and not on scholarship. Inquiries about such reductions should be made through the Office of Financial Aid in advance of each registration.

UNDERGRADUATE TUITION AND FEES AUGUST, 1975 THROUGH JULY, 1976

Fees — Payable One Time

Application fee, payable once, upon application.....	\$ 15.00
Matriculation fee, payable once by full-time students, at entrance.....	10.00
Testing and Counseling fee, payable once, at entrance	35.00
Orientation fee, payable once, freshmen only	35.00
Orientation fee, payable once, freshman commuter students only	25.00

Tuition Charges in Terms I and II

Full-time undergraduate student (12-17 semester hours), per term	\$935.00
Each semester hour over limitations stated above	55.00
Three-fourths time undergraduate student (8-11 semester hours), per term	700.00

Full-time student teacher (13 or more semester hours of student teaching and courses), including the supervising teacher fee	935.00
Three-fourths time student teacher (8-12 semester hours of student teaching) including the supervising teacher fee	700.00
Part-time undergraduate student (1-7 semester hours), per semester hour ..	55.00
Audit course, per semester hour	28.00

Basic University Fee, Terms I and II

Full-time and $\frac{3}{4}$ time student (8 or more semester hours), per term	\$ 65.00
Part-time students (1-7 semester hours), per term.....	15.00

Laboratory Fees, Terms I and II

Laboratory fee, per laboratory clock hour (not to exceed \$100.00 per term) as listed in composite.....	\$ 20.00
Laboratory breakage deposit, each term.....	5.00-10.00

Course Fees, Terms I and II

Studio fee for certain courses in Fine Arts.....	\$ 5.00-25.00
Special course fees (scuba diving, skiing, etc.)	Various
Music fees	10.00-80.00
Fees for certain courses in Photography-Cinematography.....	10.00-40.00
Computer Science fee for certain courses, per semester hour	5.00

Tuition and Fees, Term III

Registration fee	\$ 2.00
Tuition, per semester hour	55.00
Basic University fee, each session of Term III (only one fee payable if registration and payment for both sessions is made at one time).....	15.00
Laboratory and Course fee — Same as in Terms I and II	

Other Charges

R.O.T.C. Uniform deposit, payable once each year, refundable.....	\$20.00
Service charge for change of schedule — minimum.....	2.00
Late registration service charge:	
Full-time students	15.00
Part-time and summer students.....	5.00
Credit by examination, per semester hour.....	15.00
Proficiency and final make-up examinations.....	5.00
Graduation fee, undergraduate and graduate students	26.00
Books and supplies.....	Variable

FULL-TIME AND $\frac{3}{4}$ -TIME STUDENTS

A student with an academic schedule of at least twelve semester hours is considered a full-time student. A student with an academic schedule of eight to eleven semester hours (8-12 for student teachers) is considered a $\frac{3}{4}$ -time student. With this status and upon payment of the tuition and applicable fees he is entitled to the benefits of the various activities and student services as available.

PART-TIME STUDENTS

A student with an academic schedule of fewer than eight semester hours is considered a part-time student and is not entitled to all the benefits of the various activities and student services.

SPECIAL STUDENTS

Special students and nonmatriculated students are subject to the various expenses outlined above for full-time, ¾-time, or part-time students.

CANCELLATION AND REFUNDS

If registration is cancelled prior to the first day of classes, full refunds will be made, with the exception of housing and admission deposits.

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.

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 third 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%

Financial adjustments are based on the date the drop form is finalized in registration.

After classes have begun, the special course fees are not refundable, nor is the University Fee for student activities.

RESIDENCE FACILITIES POLICY

In accordance with University policy, all freshmen and sophomores are required to live in University residence halls unless they are married, are 21 years of age or over, or are local residents living with their family.

Each student applying for a residence hall room must complete a housing contract card and send it along with a \$50.00 reservation deposit to the Bursar's Office. The housing contract covers both the fall and the winter terms of the academic year.

The applicant may cancel the contract prior to June 15 without penalty. From June 15 until August 1, the contract may be cancelled, but the applicant forfeits the \$50.00 reservation deposit. After August 1, the contract may not be cancelled by an applicant who attends the University during the fall term.

A student applying for January (winter term) admission may cancel the contract prior to December 1 without penalty. From December 1 until December 15 the

contract may be cancelled, but the applicant forfeits the \$50.00 reservation deposit. After December 15 the contract may not be cancelled by an applicant who attends the University during the winter term.

All students living in residence halls are required to observe University regulations in general as well as the specific regulations of each hall, and they will be held responsible for any damage done through their own negligence to the structure in which they are housed. The same conditions shall also hold for any loss or damage to the University grounds, fixtures, furnishings, or other property provided by the University for use by the students.

Students may reside in their rooms without additional charge during Thanksgiving and Easter vacations. All University residences are closed during the Christmas vacation period.

ROOM AND BOARD, PER TERM, TERMS I AND II AUGUST, 1975 THROUGH APRIL, 1976

Housing Facilities:	Single Occupancy	Double Occupancy	Triple Occupancy
Residence Halls ¹			
Marycrest Complex (Women north and south wings; men middle wing)	\$330.00	\$260.00	\$235.00
Stuart Hall	330.00	245.00	220.00
Founders Hall	330.00	245.00	220.00
Campus South Apartments ¹			\$330.00 per occupant
Off-Campus housing (U.D.-owned) ¹		\$218.00 to	\$260.00 per occupant

Food Service:

5-Day meal service (Monday-Friday - 15 meals)	\$285.00
7-Day meal service (Monday-Sunday - 20 meals)	340.00
Luncheon ticket (Monday-Friday)	96.00

Freshman students living on campus are required to purchase either five-day or seven-day meal tickets. Other students may purchase meal tickets or make their own daily arrangements. (Meals are also available on weekends.)

SPECIAL PAYMENT PLANS

For those who prefer to budget annual school costs out of monthly income, the following methods of payment are authorized. These methods will still allow full payment at the time of final registration.

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

Master Charge: Application and specific information about the Master Charge may be obtained at your local bank. The card may be used to meet all University collectable expenses within the credit limits for that card.

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

Monthly Prepayment: The family may elect to make monthly payments sufficiently in advance of registration to cover full costs by the time the forthcoming term begins. Correspondence related to this plan should be directed to the Assistant to the Bursar, University of Dayton.

EXPENSES

The University of Dayton operates on a "Split Third-Term Calendar." Tuition and fees for full-time students during the 1975-76 academic year (fall and winter terms) will total \$2000. Room and board on campus for this period would be approximately \$1200. Books and supplies will cost approximately \$50 per term. In addition, the student will need funds to satisfy personal expenses and meals on the weekends.

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

FINANCIAL AID POLICY

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

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

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

Financial assistance from the University of Dayton must be viewed as supplemental to all other resources (parents' expected contribution, percentage of student's savings, student's summer earnings, state scholarships, state guaranteed loans, private scholarships, etc.) to meet the expenses of attending the University of Dayton. Financial aid awards are tailored to meet the particular needs of assistance. Eligibility for and interest of the applicant determines the type of

assistance offered. If possible, the applicant and his parents should arrange to meet with a representative of the Financial Aid Office to discuss their particular situation so that the most appropriate assistance may be arranged.

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

ACADEMIC SCHOLARSHIPS FOR ENTERING FRESHMEN

The President's Scholarship, the Dayton Area Scholarship, and the Marianist Scholarship were established to recognize excellent high school achievement by incoming freshman students. Applicants receive consideration for these scholarships on the basis of (1) high school academic performance; (2) SAT or ACT scores; (3) demonstrated service to school, community, and church; (4) evidenced leadership ability; and (5) citizenship. Each scholarship is renewable for eight consecutive undergraduate terms provided the recipient maintains at least a 3.0 (B) cumulative grade-point average and participates in University-sponsored extracurricular activities (other than social).

Application Procedure

This procedure is to be followed in applying for the President's Scholarship, the Dayton Area Scholarship, and the Marianist Scholarship.

1. Between September 15 and December 1 of your senior year in high school, request an application form from the Office of Scholarships and Financial Aid, University of Dayton, Dayton, Ohio 45469. Complete the application and return it to the Office of Scholarships and Financial Aid prior to January 15.
2. Arrange to take the Scholastic Aptitude Test (Math and Verbal sections) or the American College Test no later than December. Indicate that your scores are to be sent to the University of Dayton. Scores made in earlier tests are also acceptable if your high school forwards the results.
3. Obtain a Parents' Confidential Statement from your high school principal or counselor, have your parents complete this form, and send it to the College Scholarship Service before December 1. Designate the University of Dayton as the recipient of the financial analysis. (The Parents' Confidential Statement is not a required part of the application procedure. Academic scholarships are awarded on the basis of achievement — not income. However, the submission of the Parents' Confidential Statement will enable the Office of Scholarships and Financial Aid to identify financial aid opportunities available to you in addition to academic scholarship consideration.)

All forms — the application, its recommendation insert, and the Parents' Confidential Statement — should be filed on or before December 1, but must be available to the University of Dayton Scholarship Committee by January 15. Applications, recommendations, and Parents' Confidential Statements received after that date cannot receive consideration.

Each scholarship applicant will be notified by March 1 that he has or has not been selected as the recipient of a scholarship.

The President's Scholarships reward the academic excellence of high school seniors. Students in all curricula may apply for these scholarships, which range in monetary value from \$600 per year to full tuition. Recipients are selected on the

basis of scholastic achievement; stipends are adjusted in accordance with financial need.

Dayton Area Scholarships are offered to top-ranking students in the greater Dayton area. To be eligible, the student must rank in the top 10% of his high school class. Students in all curricula may apply for these scholarships, which range in monetary value from \$600 per year to full tuition. Scholarship recipients are selected on the basis of scholastic achievement; stipends are adjusted in accordance with financial need.

Marianist Scholarships are offered to top-ranking students attending Marianist high schools in the Cincinnati, New York, St. Louis, Pacific, and Canadian Provinces. To be eligible, the student must rank in the top 10% of his high school class. Students in all curricula may apply for these scholarships, which range in monetary value from \$600 per year to full tuition. Scholarship recipients are selected on the basis of scholastic achievement; stipends are adjusted in accordance with financial need.

OTHER SCHOLARSHIPS

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

Upperclass Scholarships: Students in full-time attendance who have completed at least 12 semester hours on campus at the University of Dayton are eligible to apply for one of these scholarships. Emphasis in the selection of recipients is on academic achievement, character, campus leadership, service to the University community, and recommendations. Each year approximately forty students are chosen to receive these scholarships, which are awarded for a period of one academic year and range from \$500 to \$1,000.

The Keith Boyer Memorial Scholarship: The Alpha Kappa Psi Professional Business Fraternity established this scholarship in memory of a former student in the School of Business Administration. The applicant must be enrolled in the School of Business Administration and have completed at least 68 semester hours. Preference is given to members of the Alpha Kappa Psi Fraternity.

The Reverend Martin Luther King Memorial Scholarship was established in the spring of 1968. The chairman of the Scholarship Committee and the director of the Office of Human Relations constructed the guidelines for its administration. Each year two upperclass students who have made a contribution to the University in the area of inter-group relationships and who exemplify the principles of human rights for which Martin Luther King stood are selected as recipients of the scholarship. These are one-year awards. Each has a stipend of \$500.

Kohmescher Scholarship: The Theresa Enneking Kohmescher Scholarship was established in 1969 in memory of Mrs. Kohmescher, the mother of Father Matthew F. Kohmescher. Each year one student is selected as the recipient of this \$500

award. The selection of the recipient is based upon academic achievement, character, campus leadership, service to the University community, and financial need. Special preference is given to students majoring or minoring in religious studies.

The Ann and Dave Hall Scholarship: Mr. and Mrs. Dave Hall have established the Ann and Dave Hall Scholarship to recognize a University of Dayton student who has met and overcome obstacles in the pursuit of his education and has widened his ability to assist himself in supporting his educational expenses. The recipient must have demonstrated leadership abilities and possess those abilities necessary to make a constructive contribution to society. The recipient of this one-year, \$500 scholarship is selected by the chairman of the Scholarship Committee.

The Armco Scholarship: Armco has provided \$15,000 to the University of Dayton to be utilized over a five-year period for student assistance. In selecting recipients, preference is to be given to applicants from Middletown and to prospective students interested in engineering.

The Mother's Club Scholarship: Each year the University of Dayton Mother's Club awards two scholarships to University of Dayton upperclass students who started their higher education at the University of Dayton and have completed at least one academic year. Each of these one-year scholarships has a stipend of \$500.

R. Kathleen Whetro Scholarship: The Central Women's Organization at the University of Dayton awards scholarships annually in recognition of academic excellence and service to the University.

The George Igel Scholarship: Each year a graduating senior from Columbus, Ohio, who plans to major in engineering is selected as the recipient of this scholarship.

The Ladies Auxiliary of the Dayton Society of Professional Engineers Scholarship: Annually, the Ladies Auxiliary of the Dayton Society of Professional Engineers provides \$350 which is to be matched by the University so that a \$700 scholarship is available for a local high school senior who has demonstrated interest in, and ability to do, engineering work.

The Tom Prinz Memorial Scholarship was established in 1968 to honor the memory of this 1967 graduate of the University of Dayton. The recipient must be a Dayton high school graduate and major in physical education. The scholarship, which has a stipend of \$1,000, is co-sponsored by the Dayton Coaches Association, the University of Dayton Physical Education Major and Minors Club, and the U. D. Alumni Association. The selection committee is composed of representatives of the Dayton Coaches Association and a staff member from the University of Dayton Physical Education Department.

The Dr. Maurice R. Reichard Music Scholarship, \$500 per academic year, is usually awarded to a music student for the junior year and may be renewed for the senior year. Recipients are nominated by Dr. Reichard with the approval of the director of the Music Division.

Financial Information

The Dayton Philharmonic Women's Association Scholarship was established to support outstanding performance in orchestral instruments, for residents of Montgomery County (Ohio) or any county adjacent to Montgomery County. The recipient will be a music student chosen by audition. The stipend is \$250.

The Sigma Alpha Iota Dayton Alumnae Scholarship: Sigma Alpha Iota, national music fraternity for women, grants an annual award to a music major with at least two terms' membership in S.A.I., for outstanding scholarship and achievement.

The Faculty Scholarship: The faculty at the University of Dayton have contributed to a scholarship fund intended for graduates of Dayton area high schools who rank below the top five percent of their graduating class but possess sound academic potential and can demonstrate financial need. Students may request application forms from the University of Dayton Scholarship Office. Applications will be accepted until April 15. The recipients will be announced in May.

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

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

Athletic Scholarships: The Athletic Department offers scholarships to students who have demonstrated special athletic and academic promise. Recommendations for scholarship awards are made to the scholarship committee by the coach who has the responsibility for administering the particular sport. Correspondence should be directed to the head coach of the sport in which the applicant is interested.

Additional Scholarships Administered by the University of Dayton: The University is authorized to select students as nominees for scholarships offered by certain corporations, business firms, service groups, and friends of the University. These include Western Electric Company, Alcoa, Monsanto Chemical Company, and the Association of General Contractors. The amount of the scholarship award will vary with the financial need of the student, the terms under which the scholarship funds were established, and total amount of funds available for distribution. Recipients are usually selected by a special committee which is formed to review nominees by deans and department chairmen.

APPLYING FOR GRANTS AND OTHER FINANCIAL AID

Application forms for grants, tuition reductions, loans, and employment may be obtained from the Office of Scholarships and Financial Aid, University of Dayton, Dayton, Ohio 45469. The following procedure must be completed each academic year:

1. Submit an application to the Office of Scholarships and Financial Aid.

Priority is given to those applications received before April 30 for the following year.

2. File a Parents' Confidential Statement with the College Scholarship Service. (Forms may be obtained from the high school counselor or from this office upon request.) Be sure to designate the University of Dayton as the recipient of the financial analysis.

GRANTS

Basic Educational Opportunity Grant (Federal): The Basic Educational Opportunity Grant Program (Basic Grants) makes funds available to eligible students attending post-high-school institutions. The applicant must complete a form called Application for Determination of Expected Family Contribution. You may get copies of the application from postsecondary educational institutions, high schools, post offices, state employment offices, county agricultural extension agents, colleges, Talent Search, and Upward Bound projects or by writing to Box G, Iowa City, Iowa 52240. Send the completed form to Box B, Iowa City, Iowa 52240. Within four weeks, you will receive a Family Contribution Analysis Report. Submit the report to the Financial Aid Office at the University of Dayton, which will calculate the amount of the Basic Grant you are eligible to receive. The amount will be based on your expected family contribution, the cost of attendance at your school, and a payment schedule issued to all approved educational institutions by the U.S. Office of Education.

Supplemental Educational Opportunity Grants (Federal): These federally supported, University-administered grants are provided to undergraduate students who have exceptional financial need. Eligibility for the grant and the stipend is governed by the rules and regulations of the United States Office of Education. The value of these grants ranges from \$200 to \$1,500 per year. The student must also receive assistance from certain other sources, in an amount at least as great as the amount of the grant. The following may be included as matching funds: institutionally administered loans; institutional, state, corporate, or other privately financed scholarships, tuition reductions, or grants; and institutionally administered employment programs. The completion of an application for student aid assures applicants of consideration for this type of assistance.

Tuition Remission Grants (University): The University of Dayton offers a nonrepayable grant to students with a demonstrated financial need who are not receiving nonrepayable assistance from another source. The University assumes that students will provide self-help in the form of loans and school-year employment for 75% of their need. The Remission Grant or nonrepayable assistance from other sources will cover the other 25% of their demonstrated need. The maximum Remission Grant is \$900.

Ohio Instructional Grants (State) are intended to assist Ohio residents to attend institutions of higher education within the state of Ohio. Awards are made on the basis of demonstrated financial need and not on the basis of academic performance. They presently range from \$150 to about \$1,500 for students at private colleges and universities (such as the University of Dayton). Each recipient of the Ohio Instructional Grant must (1) be a resident of Ohio, (2) be enrolled or

Financial Information

accepted for enrollment as a full-time undergraduate student in an Ohio institution of higher education, (3) be making "appropriate progress" toward an associate or bachelor's degree, and (4) meet the financial guidelines established by the Ohio Board of Regents. Students enrolled in courses of study leading to degrees in theology, religion, or other fields of preparation for a religious profession are not eligible. An application packet may be obtained from the high school counselor or the Financial Aid Office at the University of Dayton. It is strongly recommended that the student arrange an interview with the Financial Aid Office so that the application can be discussed and tentative eligibility be determined.

University of Dayton Grant: The University has funds available which are reserved for students in extreme or exceptional financial need. Grants of this nature are usually included in the package of assistance arranged by the Financial Aid Office. No special application is necessary. Although recipients are not required to repay these grants, they should, when they achieve sufficient financial status, accept the obligation of reimbursing the University so that other deserving students may stay in school.

Dayton Area Grant: Graduates of local high schools who are not eligible for other forms of nonrepayable grants may be eligible for the Dayton Area Grant. The funds for this program have been made available by local benefactors. The grant stipend is \$500 per academic year.

Music Grants/Performance Awards are administered by the Music Division of the Performing and Visual Arts Department. Additional information may be obtained from the chairman, Performing and Visual Arts Department, University of Dayton.

Law Enforcement Grants: Currently employed law enforcement officers may receive grants not to exceed \$300 per semester for part-time study of degree-creditible courses related to and useful in enforcement.

The John Westendorf Educational Fund was established to assist deserving students who have graduated from Dayton high schools. The Director of Financial Aid will use funds from this source to supplement financial assistance offered to a student. Each graduate of a Dayton high school who applies for financial assistance will be considered. The parents' and the student's responsibility to finance an education will be considered, and when unusual circumstances prevail, the Director of Financial Aid may utilize funds from the John Westendorf Educational Fund to assist those deemed worthy. A student receiving assistance from this fund is expected to achieve a 2.0 cumulative grade point average and participate in at least one extracurricular activity. Renewal of this grant will be at the discretion of the Director of Financial Aid.

The Harry F. Finke Educational Fund was established by Harry F. Finke, Sr., to assist a deserving needy student in pursuit of an education. Priority is to be given to a worthy student pursuing a degree in engineering. Approximately \$400 is available each year from this fund. The Director of Financial Aid will solicit names from

the Dean of Engineering and will supplement this list with names obtained from the evaluation of financial aid applications. These prospective recipients will be reviewed by the Financial Aid Committee. Selection is the responsibility of this group.

LOANS

National Direct Student Loans are available to those applicants who have demonstrated need for assistance to pay the actual costs of attending school. A student is eligible to borrow only that amount which is needed to supplement other resources to meet expenses. The maximum load for undergraduates is \$2,500 for the first two years of undergraduate work and \$5,000 total. The recipient enters the repayment cycle nine months after he ceases to carry at least one-half the normal full-time academic load. When the recipient enters the repayment cycle, a three percent simple interest charge is included. Recipients who teach economically, emotionally, mentally, or physically handicapped children may receive cancellations of the loan. Other cancellation privileges are available.

Guaranteed Loans: The Federal Government, in cooperation with state agencies, private nonprofit agencies, and participating lenders has designed a loan program to enable students to borrow from commercial sources such as banks, savings and loan associations, and credit unions at a low interest rate. The guaranteed loans are particularly useful to students from middle-and uppermiddle-income families who may not qualify on the basis of need for assistance from other sources. Banks and other lending institutions make these loans directly to the students, and they are repaid directly. The size of the loan depends on the state policies. Anyone who has difficulty in locating a cooperative lending institution may contact the Financial Aid Office, which will assist in locating a source for the loan.

United Student Aid Funds Loan: These loans have provisions and terms similar to those of the guaranteed loans. Students who have been accepted for enrollment or are currently enrolled in good standing are eligible. The provisions and terms are the same as under the Guaranteed Loan Program. The major difference between this program and the Guaranteed Loan Program is that these loans may be used as matching for Educational Opportunity Grants. (A Guaranteed Loan may not be used as a match for an Educational Opportunity Grant.) A student interested in this program should secure an application from the Financial Aid Office.

Emergency Loans are available to students who encounter unexpected financial problems during the year. The student has a one-year repayment period. No interest is charged on these loans which are, however, contingent upon sufficient funds.

Law Enforcement Loans are available to full-time students studying toward a degree in law enforcement. The amount of the loans may vary according to the availability of funds but may not exceed \$900 per semester or \$1,800 per school year.

TUITION REDUCTIONS

The University of Dayton awards tuition reductions to qualified, full-time undergraduate students in good standing. No student or his family is eligible to benefit from more than one of these reductions at the same time. The reductions are not automatic. A student must complete an application each academic year in the Office of Financial Aid. It is preferred that the student make application by April 30 for the following academic year. Applications will be accepted not later than three weeks after the first day of classes for the term for which the tuition reduction is requested.

Sibling Reduction: A reduction of \$200 per term is available to families who are supporting two or more unmarried dependents simultaneously at the University of Dayton. The recipient and the sibling must be attending as full-time undergraduate students. Not only the second member of the family but each additional member in attendance shall be eligible for this reduction.

Marianist Reduction: A \$250 per term reduction is granted for relatives, including only brothers and sisters and their children (nephews and nieces), of active members of the Society of Mary (nonscholastic) and the Institute of the Daughters of Mary.

Employee Reductions: Unmarried dependent children and the spouses of full-time employees, as well as the employees themselves, are eligible for tuition reductions for both undergraduate and graduate courses.

Guests Over 60: Students over 60 years of age are eligible to apply to the Office of Financial Aid at the University of Dayton for remission of tuition and fees.

EMPLOYMENT

The College Work-Study Program, federally supported, provides on-campus and off-campus work opportunities for full-time and half-time students who request employment and demonstrate a financial need for employment to meet educational expenses. Students may work up to 20 hours per week during the school term and will receive payroll checks semi-monthly for their services. When possible, a student will be employed by the University in a job related to his educational objectives.

Institutional Employment opportunities for students who do not qualify for the College Work-Study Program are available through the Personnel Office, Room 215, St. Mary Hall. Application should be made to that office as soon as the student knows what his schedule will be for the period of employment.

Cooperative Education, "the co-op system," allows the student to alternate terms of on-campus study and terms of off-campus work at a job related to his academic concentration. Several departments at the University of Dayton participate. See Chapter X, Cooperative Education.

ADDITIONAL OPPORTUNITIES

G.I. Bill: To be eligible for benefits under the G.I. Bill any veteran of the Army,

Navy, Marine Corps, Air Force, or Coast Guard must have served continuously on active duty for at least 181 days ending after January 31, 1955, and have received an honorable discharge. A veteran whose active duty was ended by a service-connected disability need not meet the 181-day requirement. Persons still in the service are eligible if they have had at least two years of active duty. Applications may be obtained from the Office of Financial Aid or from any Veterans Administration Office.

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

The U.S. Army Education Program (Project Ahead) is an opportunity for a young man or woman to accumulate academic credit from the University of Dayton while serving in the U.S. Army. When the tour of duty is over, degree requirements are completed at the University. Anyone who meets the entrance requirements of the University of Dayton and who is enlisting in or is enlisted in the U.S. Army is eligible. Application blanks are available in the Admissions Office.

Vocational Rehabilitation: State vocational rehabilitation agencies arrange the training of handicapped persons for gainful employment. Requests for information on rehabilitation services should be directed to the State Director, Vocational Rehabilitation Agency, the State Capitol.

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

The U.S. Army Reserve Officers Training Corps (ROTC) program is offered on-campus by the Department of Military Science. All students who complete the basic course (freshman and sophomore years) may enroll in the advanced course (junior and senior years), leading to a reserve commission in the Army at the time of graduation. During the advanced course, the student who has agreed to accept the commission and serve two years' active duty receives \$100 a month subsistence. For further information, see MIL, Chapter VI.

V Academic Regulations

REQUIREMENTS FOR DEGREES

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

Requirements for the various degrees are listed under the schools granting the degrees.

One year (thirty semester hour credits) of residence is a minimum requirement for any bachelor's degree.

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

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

The Bachelor of Science in Education degree may be awarded to holders of nonprofessional degrees from the University of Dayton with the completion of a minimum of thirty semester hours prescribed by the School of Education beyond the requirements of the nonprofessional degree. Students who in addition to a professional degree from the University of Dayton complete all the requirements for the Bachelor of Arts or Bachelor of Science degree may be awarded that degree also. Otherwise, for a second bachelor's degree, a minimum of forty-eight semester hours in upper-level courses (plus prerequisites) is required. For a second associate degree, a minimum of twenty-four semester hours 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 religious studies courses of the general curriculum requirements, if they have not already done so as part of their first degree.

When a student has completed all the requirements for a degree, the University will grant the degree.

Every student, unless he is listed as a special student, is required to pursue a program that leads to a degree.

GENERAL CURRICULUM REQUIREMENTS

The University desires that every student develop a thorough knowledge in at least one area of study. In addition, each student should be introduced to the humanistic, cultural, scientific, and aesthetic areas. To broaden his education in a

meaningful manner, at least one of these areas outside the field of specialization should be pursued in greater depth. Above all, the University endeavors to embrace a philosophical and theological dimension in all areas of student development. Although courses play an important part in the accomplishment of these aims, out-of-class contact with the faculty and fellow students, various activities, and the general atmosphere on campus likewise make an important contribution.

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

INDEPENDENT STUDY AND HONORS COURSES

To facilitate development of each student to his fullest capacity, the University offers a variety of honors courses and the opportunity to follow an independent study program. Interested students should seek further information in the Office of the departmental chairman.

GRADES AND SCHOLARSHIP

Final grades are submitted at the end of the term, and these are made part of a student's permanent record in accord with the option chosen by the student. Copies of these reports are given to the students and deans. A progress report of every freshman in each of his classes is submitted to the Registrar by every instructor at the middle of each term.

Undergraduate students are permitted a selection from two alternative grading options. The course grading options are as follows:

Option 1 – A, B, C, D, F

Option 2 – S / NC

A student must take at least seventy-five per cent (75%) of the semester hours in his degree program under option 1, subject to further restrictions set by the college, the professional school, or the department in which the student is a major, and excepting special programs at the discretion of the deans.

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

- A – Excellent; for each semester hour, four quality points are allowed.
- B – Good; for each semester hour, three quality points are allowed.
- C – Fair; for each semester hour, two quality points are allowed.
- D – Poor but passing; for each semester 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, preferably at the next opportunity. A student may not take the course a third time unless at the time of the second failure he has a cumulative point average of 2.50 or higher. Under no circumstances will he be permitted to take a course a fourth time.
- S – Satisfactory. This mark indicates credit given for a course taken under grading option 2, C or above. The S credit shall be counted as hours only and shall not be considered in determining a student's cumulative point average.
- NC – No Credit. This mark indicates no credit given for a course taken under grading option 2, below C. In such cases, required courses must be retaken,

preferably at the next opportunity. The student may not 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.

- I – Incomplete. This grade may be given at the direction of the instructor to any student who, for reasons beyond his control, has not completed some portion of the work of the term, provided that the rest of the work has been of satisfactory grade. It is not to be given if the student has been delinquent in his work, that is, when work has not been completed through his own fault. A grade of I is not to be marked at mid-term. An I must be removed within thirty days from the date listed on the grade report, or it will be changed to an F or NC (option 2) on the student's permanent record card. No quality point is allowed.
- W – Withdrew. During the first three weeks of a full term (or the first eight class days of a split term) a student may withdraw from a class without record. Beginning with the fourth week and continuing through the second week after mid-term (or ninth class day and continuing through the fourth week), a student may withdraw with a W. When a student finds it necessary to withdraw from class for any reason whatsoever, it is important that he notify his dean immediately. Financial adjustments, if allowed, will be made only from the date of notification.
- K – Credit. This mark is used only for total hours credited from other institutions by the Office of Admissions. No quality point is allowed.
- X – Audit. This mark indicates that the student has registered to audit the course. No credit hours or quality points are awarded for this mark.
- Em – Examination. This mark indicates University of Dayton credit given to students either on the basis of the advanced placement program of the CEEB 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 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. A student must be registered at the University of Dayton to obtain credit. Em credit is limited to 24 semester hours.

NO GRADE CHANGE OF ANY KIND IS PERMITTED AFTER THIRTY DAYS FROM THE DATE LISTED ON THE GRADE REPORT.

The University reserves the right to change the grading system if so directed by the Academic Senate.

GRADE POINT AVERAGES

The **SEMESTER GRADE POINT AVERAGE** is the total number of quality points divided by the number of semester credit hours carried by the student under option 1.

The **CUMULATIVE GRADE POINT AVERAGE** is computed from the grades submitted by the instructors except those for option 2 and sub-college work; in such cases where courses are repeated, both the original grades and the new grades are computed. Marks of W, K, X, S, NC, and Em are disregarded in the computation of the CGPA, but a course for which an F or an I is received is included in the usual manner.

ACADEMIC STANDING

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

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 less than 1.0, regardless of his cumulative point average, is subject to dismissal as directed by the Dean. The Registrar's Office will post the statement "Subject to Dismissal - per Academic Policy" on the student's permanent record.

3. A cumulative point average below those required will place the student on academic probation for the next term. The Registrar's Office will post the statement "Probation" on the student's permanent record. A student on probation must follow a restricted program as follows:

a. His courses shall be limited to a minimum full-time load of 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 extracurricular organizations, he shall not take part as a performer, an officer, or an active participant in any extracurricular activity or any intercollegiate meeting, conference, or athletic event.

4. To remove probation, a student in the following term must earn grades sufficiently high to attain the required cumulative point average. If he fails to do so, he may continue in the school or college only with the express permission of his dean; otherwise, he will be dismissed.

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

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

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

HONORS AND AWARDS

1. To be eligible for consideration for honors graduation, students must have completed seventy-five per cent (75%) of the semester hours taken at U.D. under the standard grading option (A, B, C, D, F).

2. To be graduated with honors, a student must have a cumulative point average at the end of his seventh term at the University of 3.5 or higher, based on 4.0.

3. Transfer students who have fulfilled the University's minimum residence requirements are eligible for honors, provided that all grades received at previous institutions and grades received at U.D. result in a cumulative point average of 3.5 or higher based on 4.0 and the student has met all the other requirements stated in this policy.

Academic Regulations

4. The notation of honors is made in the commencement program, on the diploma, on the student's permanent record, and on his transcript, 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.

5. If a student qualifies for honors or moves into a higher category of honors on the basis of his graduating cumulative point average, notation shall be made on his transcript and permanent record, and an appropriate honors key will be awarded belatedly.

6. Any exceptions to this procedure will be handled by the Provost.

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 Award of Excellence to the Outstanding Senior in Accounting – donated by Jerome E. Westendorf, '43, and Warren A. Kappeler, '41.

Anthropology – The Margaret Mary Edmonds Huth Memorial Award of Excellence to the Outstanding Senior in Anthropology – donated by Doctor Edward A. Huth.

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

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

Biology – The John E. Dlugos, Jr., Memorial Award of Excellence to the Outstanding Senior majoring in Biology – donated by Mr. and Mrs. John E. Dlugos.

Biology – The Brother Russell A. Joly, S.M., Award of Excellence to the student who best combines excellence in Biology and genuine appreciation of nature – donated by the Joseph Poelking Family.

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

Business Administration – The Charles Huston Brown, '20, Award of Excellence to the Outstanding Senior in Business Administration in memory of Brother William Haebe, S.M. – donated by C. Huston Brown, '20.

Business Education – The National Business Education Association Award of Merit in recognition for outstanding achievement.

Chemical Engineering – The Victor Emanuel, '51, Award of Excellence to the Outstanding Senior in Chemical Engineering – sponsored by the University of Dayton Alumni Association since 1962.

Chemical Engineering – The Robert G. Schenck Memorial Award of Excellence to the Outstanding Junior in Chemical Engineering – donated by Stanley L. Lopata.

Chemistry – The Brother George J. Geisler, S.M., Award of Excellence to the Outstanding Student in Chemistry – donated by Joseph Poelking, '32.

Chemistry – American Institute of Chemists' Award.

Chemistry – American Chemical Society Award.

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

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

Computer Science – Alumni Award of Excellence in the Senior Class.

Debating – The Mary Elizabeth Jones Memorial Award of Excellence to the Outstanding Debater – donated by Doctor D. G. Reilly.

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

Electrical Engineering – The Thomas R. Armstrong, '38, Award of Excellence for the Outstanding Electrical Engineering Achievement in memory of Brother Ulrich Rappel, S.M., and W. Frank Armstrong – donated by Thomas R. Armstrong, '38.

- Electrical Engineering* – The Anthony Horvath '22, and Elmer Steger, '22, Award of Excellence to the Outstanding Senior in Electrical Engineering – donated by Anthony Horvath, '22, and Elmer Steger, '22.
- Elementary Education* – The George A. Pflaum, '25, Award of Excellence to the Outstanding Student in Elementary School Teacher Education – donated by George A. Pflaum, Jr.
- Engineering Technology* – The L. Duke Golden Award of Excellence to the Outstanding Senior in the Bachelor of Technology Program – donated by the Gamma Beta Chapter of Tau Alpha Pi Honor Society.
- English* – The Brother Thomas P. Price, S.M., Award of Excellence to the Outstanding Senior in English – donated by the U.D. Mothers' Club.
- English* – The Faculty Wives Club Award for excellence in composition.
- English Education* – The Dr. Harry E. Hand Memorial Award of Excellence – donated by the faculty of the Department of English and of the School of Education.
- General Excellence-Men* – The Mary M. Shay Award of Excellence in both academic and extracurricular activities (Senior men only) – donated by the Poelking family.
- History* – The Doctor Samuel E. Flook Award of Excellence to the Outstanding Senior majoring in History – donated by Doctor Samuel E. Flook.
- History* – The Phi Alpha Theta Scholarship Key (Senior members of Delta Eta Chapter only).
- Industrial Engineering Technology* – The American Institute of Industrial Engineers Award of Excellence to the Outstanding Student in Industrial and Systems Engineering – donated by the local chapter of the American Institute of Industrial Engineers.
- Languages* – The Brother John R. Perz, S.M., Award of Excellence to the Outstanding Senior in Modern Languages – donated by the Joseph Poelking, Sr., Family.
- Library* – The Brother Frank Ruhlman, S.M., Award of Excellence for Literary Achievement – donated by the Joseph Poelking, Sr., Family.
- Marketing* – American Marketing Association Award for Outstanding Achievement by a Junior Marketing Major.
- Marketing* – American Marketing Association Award for Outstanding Achievement by a Senior Marketing Major.
- Mathematics* – The Faculty Award of Excellence in Mathematics.
- Mathematics* – The Pi Mu Epsilon Award of Excellence in the Sophomore Class.
- Mechanical Engineering* – The Bernard F. Hollenkamp, '39, Memorial Award of Excellence to the Outstanding Senior in Mechanical Engineering – donated by Louise A. and Mrs. Lucille Hollenkamp.
- Mechanical Engineering* – The Martin C. Kuntz, '12, Award of Excellence to the Outstanding Junior in Mechanical Engineering – sponsored by the University of Dayton Alumni Association since 1962.
- Mechanical Engineering* – The Class of '02 Award of Excellence for Outstanding Mechanical Engineering Achievement in memory of Warner H. Kiefaber, '05 – donated by Michael J. Gibbons, '02.
- Mechanical Engineering* – The Brother Andrew R. Weber, S.M., Award of Excellence for outstanding service and achievement in Mechanical Engineering – donated by the Poelking family.
- Mechanical Engineering Technology* – The Dayton Chapter No. 18 Society of Manufacturing Engineers Award of Excellence for outstanding service in Mechanical Engineering Technology.
- Mechanical Engineering Technology* – The Dayton Chapter No. 18 Society of Manufacturing Engineers Award of Excellence to the Outstanding Freshman in Mechanical Engineering Technology.
- Medical Technology* – Alumni Award of Excellence to the Outstanding Senior in Medical Technology.
- Military Science* – Department of the Army Award. The Superior Cadet Award, provided by the Department of the Army, is presented to the outstanding cadet of each academic year.
- Military Science* – The Lieutenant Robert M. Wallace, '65, Memorial Award to the Outstanding Junior ROTC Scholarship Cadet – donated by his family and friends.
- Performing and Visual Arts* – Music Division Senior Award for Outstanding Contribution to the University Bands.
- Performing and Visual Arts* – Sigma Alpha Iota Professional Music Society Award for Scholastic Achievement (seniors only).
- Performing and Visual Arts* – Sigma Alpha Iota National Music Society Dean's Award for Outstanding Achievement.

Academic Regulations

- Performing and Visual Arts* – Fine Arts Division – The Professor Bela Horvath Award for Excellence in Representational Art.
- Philosophy* – The Award of Excellence to the First and Second Outstanding Seniors in Philosophy – donated by Rev. Charles Polichek.
- Physical and Health Education* – The John L. Macbeth Memorial Award of Excellence to the Outstanding Student in Physical and Health Education – donated by Mrs. John L. Macbeth.
- Physical and Health Education* – The James M. Landis Memorial Award of Excellence for the Outstanding Physical and Health Education Senior in Science Core Courses.
- Physics* – The Sigma Pi Sigma Award of Excellence, to a student majoring in Physics, in memory of Caesar Castro – donated by Sigma Pi Sigma and Mrs. C. C. Castro.
- Physics* – Award of Excellence to a senior Physics major who has displayed “remarkable talent, exemplary industry, intense motivation, and mature comprehension of undergraduate Physics” – donated by the Department of Physics.
- Political Science* – The Brother Albert H. Rose, S.M., Award of Excellence to the Outstanding Senior in Political Science – donated by Joseph Zusman '65.
- Political Science* – The Eugene W. Stenger, '30, Memorial Award of Excellence to the Outstanding Junior in Political Science – donated by Mrs. Eugene W. Stenger.
- Premedical* – The Brother Francis John Moly memorial award to the Outstanding Senior in Premedicine. This is awarded annually to the student who best demonstrates the qualities of unselfishness, community service, and academic achievement. Sponsored by Alpha Epsilon Delta.
- Premedical* – Montgomery County Medical Award to the Outstanding Senior in the Pre-medical Curriculum.
- Psychology* – The Rev. Raymond A. Roesch, S.M., Award of Excellence to the Outstanding Student in Psychology – donated by Rev. Raymond A. Roesch, S.M., '36.
- Religious Studies* – The William Joseph Chaminade Award of Excellence in memory of Mr. and Mrs. George W. Dickson, to the Outstanding Student in Theology – donated by Rev. John Dickson, S.M., '36.
- Religious Studies* – The Msgr. J. Dean McFarland Award of Excellence to the Outstanding Junior majoring in Theological Studies – donated by the Poelking family.
- Scholar-Athlete* – The John L. Macbeth Memorial Award to the Outstanding scholar-athlete in football and basketball. The recipient must have completed five or more terms and must have won his varsity letter.
- School of Education* – The Daniel L. Leary Award for the outstanding research and development activity by a student seeking teacher certification in the School of Education.
- Secondary Education* – The Brother Louis J. Faerber, S.M., Award of Excellence to the Outstanding Student in Secondary School Teacher Education – donated by the University of Dayton Mothers' Club.
- Secondary Education* – The Reverend George J. Renneker, S.M., Award of Excellence for outstanding achievement in Teacher Education.
- Social Work* – The Joseph Zusman, '65, Award of Excellence to the Outstanding Senior in Social Work Studies – donated by Joseph Zusman '65.
- Sociology* – The Doctor Edward A. Huth Silver Anniversary Award of Excellence to the Outstanding Student in Sociology – donated by Joseph Zusman '65.
- Sociology* – The Dr. Martin Luther King Memorial Award in Human Relations for excellence in scholarship, Christian leadership, and the advancement of brotherhood among men – donated by Dr. Edward A. Huth.
- Student-Athlete (Special)* – The Charles R. Kendall '29 Memorial Award of Excellence for achievement in academic and athletic effort – donated by Mrs. Charles R. Kendall and Friends.
- University Relations* – Award of Excellence for contribution of service to the Community – donated by the Poelking family.

CLASS ATTENDANCE

It is desirable for students to attend all classes. Listening to the lectures of instructors and being involved in classroom discussions should (1) serve to provide guidelines and goals in the course of study, thus lending direction to the study activities of the student; (2) provide instances of the way of thinking and

methodology employed by an academic discipline in formulating and solving problems; (3) stimulate an awareness and interest in the course topics beyond the levels acquired by textbook reading. Because textbook material is generally beneath the level of the current state of knowledge, instructors acquaint the student with new ideas and integrate this material into the course topics.

Policy

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

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

To assist freshmen in their transition to college responsibilities, it is felt that a policy of compulsory attendance is necessary. Therefore, freshmen will be permitted only a limited number of absences. For freshmen, the allowable number of absences in the first term or in the second term will be equal to twice the number of class meetings per week, i.e., six absences for a class meeting three times a week (or four class days in any third-term session). A student exceeding this number will not be permitted to continue in the class unless he presents justifiable reasons for his absences to the Attendance Appeals Committee. Any student who has not accrued 30 semester hours of credit is considered a freshman.

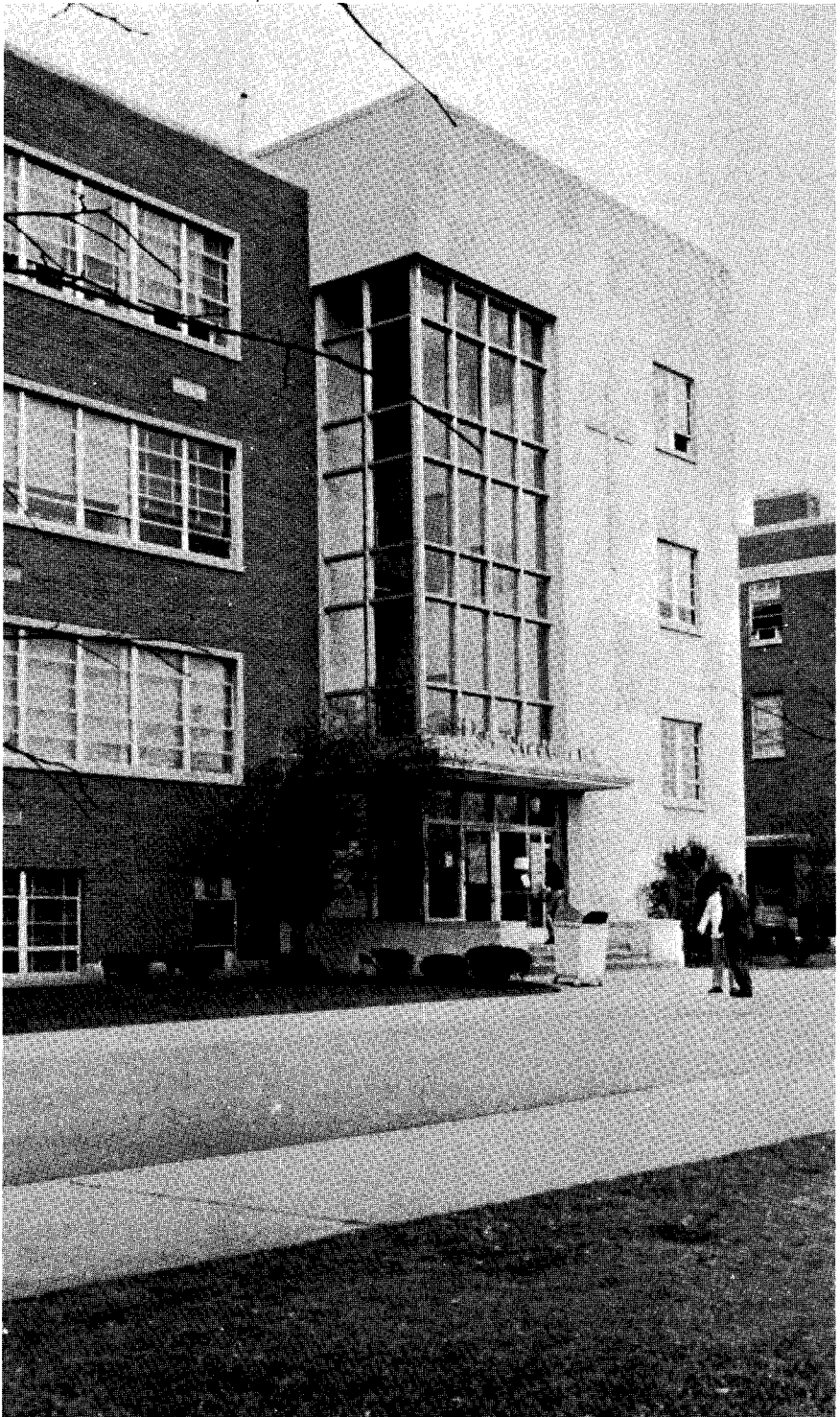
The handling of tardiness is left to the discretion of the instructor.

TRANSCRIPTS

A transcript of the permanent academic record is a confidential document to be released in compliance with the regulations of the Family Educational Rights and Privacy Act of 1974 (P.L. 93-380 as amended by S. J. Res. 40). A transcript of record will be issued by the Registrar upon receipt of a request in writing. The student may request his transcript be mailed to himself, another institution, or an organization. The first copy of a transcript requested after graduation is a complimentary copy. All Transcripts except the complimentary copy will require advanced payment.

PRIVACY RIGHTS OF PARENTS AND STUDENTS

In compliance with Section 438 of the General Education Provisions Act the University of Dayton has published regulations designed to protect the privacy of parents and students as to the access to and the release of records maintained by this institution.



VI College of Arts and Sciences

Leonard A. Mann, S.M., Dean

Rocco M. Donatelli, Associate Dean, Humanities

Ann Franklin, Assistant Dean

Richard Peterson, Assistant Dean

Sr. Ellen Murphy, O.P., Assistant to Associate Dean

The College of Arts and Sciences is fully aware that a concern of major importance to college students today is preparation for successful life-long careers: college students should not only be prepared to live as fully developed persons, capable of informed and sensitive responses to the experience of living in today's world; they must also be prepared to earn their living through career service.

However, the preparation for a career is not well planned if the practical aspects alone are considered. Careers are often short-lived: the educated person must be ready to adapt to changing situations and even to move from one career to another, should the necessity arise. A narrow, career-oriented college program may provide quick access to a job immediately after graduation, but there is no assurance that it will prepare anyone for new and unforeseen circumstances in a world of high mobility and rapid change.

For this reason, the programs offered by the College of Arts and Sciences provide both the foundation for full personal development and the latitude to accommodate to the needs of career preparation. They are intended to help the student develop habits of clear thinking and critical reasoning, a respect for the role of each person in society and in the community, and an appreciation of the aesthetic and spiritual life. Ideally, the college graduate has achieved this who can successfully confront the issues, the changes, and the problems that arise in every life with a wisdom that never loses sight of the final destiny.

It is for this reason, also, that the faculty of the College of Arts and Sciences remind the students of all the resources within their reach: faculty guidance, especially in selecting their courses and planning their programs; the campus ministry, which is dedicated to the service of their spiritual needs and to the development of the basic values which will guide them through life; the social and professional clubs and societies; the campus publications and radio station; the many musical, dramatic, and art programs; and especially the opportunity for membership on departmental and campus-wide committees where they gain experience in working with others — students, faculty members, and administrators — on projects of significance to the department or to the college.

DEGREE REQUIREMENTS

For the Bachelor of Arts or Bachelor of Science degree, it is necessary to complete all of the requirements listed in one of the programs in this chapter. Programs ordinarily include the four following components: (1) tool courses, involving skills appropriate to the particular programs, such as mathematics, English, speech, or languages; (2) a breadth requirement, involving introductory courses in the major areas of knowledge, such as the natural sciences, the social sciences, and the humanities and fine arts; (3) student electives, involving hours which must be taken but the selection of which is completely the option of the student; and (4) a concentration requirement involving advanced work in two or more disciplines along with the necessary prerequisites. Ideally the student program each term would not be limited to any one of the components. The concentration requirement ordinarily occupies about half of the total degree program.

Concentration Requirement

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

1. Departmental Concentrations

The departmental area of concentration (or major) requires a bloc of courses in a single discipline with supporting courses (or minor) in a related discipline or disciplines. The departmental bloc of courses usually does not exceed 42 semester hours. Only six specialized programs in the College presently require more than 39 semester hours in a single discipline.

Supporting courses (or minor), usually ranging from 12 to 18 semester hours, must include twelve semester hours of upper-level (300-400 level) coursework in an approved sequence.

For the Bachelor of Arts degree, possible concentrations (majors):

American Studies	Fine Arts	Philosophy
Anthropology	Geology	Political Science
Chemistry	History	Psychology
Communication Arts	Languages	Religious Studies
Economics	Mathematics	Sociology
English	Music	Theatre

For the Bachelor of Science degree, possible concentrations (majors):

Biology	Home Economics	Predental Studies
Chemistry	(General or Dietetics)	Premedical Studies
Computer Science	Mathematics	Psychology
Criminal Justice	Medical Technology	Social Work
Data Processing	Physical Science	Systems Science
Geology	Physics	Urban Life

Other programs leading to the Bachelor's degree:

Commercial Design (B.F.A.)	General Studies (B.G.S.)
Music Therapy (B. Mus.)	Fine Arts (B.F.A.) Music (B. Mus.)

2. Established Interdisciplinary Concentrations

American Studies, the Premedical, and the Predental programs are present examples of established interdisciplinary concentrations. Others are in various stages of development. Such programs are established by an interdisciplinary committee and administered by the chairman of the committee.



3. Individually Designed Interdisciplinary Concentrations

Students demonstrating extraordinary interest, special skills or needs, and sound academic status may initiate individually designed concentrations. Such concentrations are negotiated between the students and the chairmen of the appropriate departments. Long-range plans for the individually designed concentrations are submitted to the dean for final approval. Plans may be altered with appropriate supporting rationale and after the approval of chairmen and dean.

GENERAL REQUIREMENTS FOR ALL BACHELOR OF ARTS PROGRAMS

(For specific requirements consult program schedules A1 through A19 or the departmental or program chairman.)

	<i>Semester Hours</i>
Major concentration.....	30-42
At least 24 hours must be upper-level.	
Breadth requirement (See Distribution Table below)	45-69
Program and free electives	3-36
These courses must be external to the major discipline. They should be selected for further breadth, for the acquisition of additional skills, or for complementing the major field.	
Senior Synthesis (See Other Requirements below).....	6-9

DISTRIBUTION TABLE FOR BREADTH REQUIREMENT

Courses taken to fulfill the Breadth Requirement should ordinarily be external to the major discipline.

Type of Requirement

*All Programs
Semester Hours*

Natural Science, Applied Science, or Quantitative Studies.....	6-12
Biology, Chemistry, Geology, Physics, Mathematics, Computer Science, and, as approved by the student's Departmental Chairman, appropriate courses in Engineering, Technology, Accounting. At least three hours must be in natural science (Biology, Chemistry, Geology, Physics).	
Social and Behavioral Science.....	9-12
Anthropology, Economics, Political Science, Psychology, Sociology, and, with the approval of Departmental Chairman, appropriate courses in Afro-American Studies, Business Management, Criminal Justice, Education, Marketing, Military Science, Social Work, or ASI. At least 1 unit or 6 hours required with at least 3 hours from the 300-400 level. ¹	
Humanities.....	18
American Studies, Communication Arts, English, History, Humanities Studies, Languages, Performing & Visual Arts, Philosophy, Religious Studies, and, with approval of Departmental Chairman, appropriate courses in Afro-American Studies or ASI. At least 2 units each of 6 hours in humanities area with at least 3 hours in each unit from 300-400 level courses (except Languages, in which a unit may be satisfied with 6 hours at the 200 level). ¹ (The basic Philosophy, Religious Studies, and Communication Skills courses do not fulfill this requirement.)	
Philosophy and / or Religious Studies.....	12-18
Communication Skills (ENG 111, 112, SPE 101).....	0-10
Each student in the College of Arts and Sciences must demonstrate competence in written and oral communications before the completion of the freshman year. These competencies may be demonstrated through the completion of course work, proficiency examinations, or advanced standing. Information concerning this matter should be sought in the Office of the Dean.	

¹ Students electing courses in any department should be aware that some introductory or background knowledge may be expected of them even though no specific prerequisite course is listed.

OTHER REQUIREMENTS

1. Advanced Course Work – At least 48 semester hours of upper-level (300-400 numbered courses) work must be presented for the B.A. degree.
2. Senior Synthesis – The B.A. requires that every student engage during his last three terms in 6-9 semester hours of coursework which offers an opportunity to integrate the elements of undergraduate education. Senior Synthesis takes two forms, one disciplinary and the other transdisciplinary courses from the special section of the composite called "B.A. Senior Synthesis."

TYPICAL PROGRAM FOR BACHELOR OF ARTS STUDENTS

Freshman Year	<i>Semester Hours</i>
Arts & Sciences or departmental seminar.....	0
Communication Skills (by proficiency): ENG 111, 112, SPE 101.....	0-10
Humanities electives	6
Philosophy and / or Religious Studies.....	6
Science or Quantitative Studies.....	6-9
One introductory course required in Biology, Chemistry, Geology, or Physics	
Social Science electives	3-6
<hr/>	
Electives to total	30-33

Sophomore Year
Consult Departmental Advisor.

**GENERAL REQUIREMENTS FOR ALL
BACHELOR OF SCIENCE PROGRAMS**

(For specific requirements consult program schedules S1 through S16 or the departmental or program chairman.)

	<i>Semester Hours</i>
Major field or disciplinary concentration	24
Must be 300-400 level courses with a standard grade point average of at least 2.0.	
Minor field	12
Not required in all programs. Must be 300-400 level courses with a standard grade point average of at least 2.0.	
Science (Biology, Chemistry, Geology, Physics) – one full year.....	varies
At least two courses total.	
Philosophy and / or Religious Studies	12
Communication Skills (ENG 111, 112, SPE 101)	0-10

Each student in the College of Arts and Sciences must demonstrate competence in written and oral communications before the completion of the freshman year. These competencies may be demonstrated through the completion of course work, proficiency examination, or advanced standing. Information concerning this matter should be sought in the Office of the Dean.

Cumulative grade point average required..... 2.0
A standard cumulative grade point average of 2.0 in the total program is required for graduation.

ACADEMIC STANDING

For graduation, it is necessary that the standard grade point average be at least 2.0 in the major field, in the minor field, and in the total program. In the Bachelor of Fine Arts and Bachelor of Music programs, a 2.0 cumulative average is required in the nonprofessional courses as well as in the professional courses.

AMERICAN STUDIES (AMS)

The course requirement for American Studies majors is 48 semester hours, distributed as follows:

1. American Studies 300, 301, and 400; and
2. Courses in each of the three areas identified below as Groups A, B, and C, as follows:
 - a. An area of concentration must consist of 24 semester hours. (15 hours must be chosen from the recommended American courses as listed in Group A, B, or C below. The other 9 hours must be non-American courses in the same area chosen in consultation with the Director.)
 - b. A second area consisting of nine semester hours to be chosen from one of the two remaining groups listed below;
 - c. A third area consisting of six semester hours to be chosen from the remaining group.

Group A

ENG 305, 317¹, 319¹, 320¹, 325, 327, 329¹, 331¹, 335, 337, 339, 451, 453, 455, 468.
 ART 375, 376, 472, 490¹.
 MUS 304, 305, 344.

Group B

HST 358, 359, 364, 365, 390, 397, 451, 452, 454, 455, 456, 472, 474, 475, 476, 477, 478, 499¹.
 PHL 304, 311, 314, 320, 323, 330, 340, 452, 470.
 REL 326, 363¹, 372, 408¹, 428¹, 448, 473, 478.

Group C

ECO 346, 347, 430, 442, 445, 471, 480, 485, 490².
 POL 301, 303, 305, 310, 311, 312, 313, 360, 408, 411, 412, 413, 422, 450, 475, 479.
 PSY 325, 334, 341, 342, 343, 351, 358, 361, 443, 471.
 SOC 315, 318, 325, 330, 332, 422, 435W.
 ANT 250, 310, 315, 406, 449.
 SWK 337.

¹ Courses which are to be considered "listed" only when their content is entirely or mostly "American."

² Each of the Economics courses has one or two 200-level prerequisites; consult the Director.

AMS 405 may be counted as a course under A, B, or C, by consultation with the Director.

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

Semester Hours

American Studies 300, 301, 400	9
First Area Electives.....	24
These courses are chosen from Group A, B, or C, as listed above.	
Second Area Elective	9
These courses are chosen from the remaining Group A, B, or C, as listed above.	
Third Area Electives	6
These courses are chosen from the remaining Group A, B, or C, as listed above.	
Breadth Requirements	45-69
Free Electives:	
To a total of at least.....	120

1

FACULTY

Francis J. Henninger, *Director*
Associate Professor: Henninger
Assistant Professors: Alexander, Palermo

COURSES OF INSTRUCTION

AMS 300. AMERICAN CULTURES: A study of American artifacts to discern how they indicate the periods in the life of our civilization and how like artifacts can be used to determine the stages of development of all peoples. *3 sem. hrs.*

AMS 301. INTERPRETATIONS OF AMERICAN CULTURE: A critical study of various interpretations of American culture through more than a hundred years. *3 sem. hrs.*

AMS 400. INTERDISCIPLINARY RESEARCH: A study of the principles of interdisciplinary scholarship as well as of what can and probably cannot be accomplished by it. Successful interdisciplinary accomplishments will also be studied, and the students will complete interdisciplinary projects. *3 sem. hrs.*

AMS 405. TOPICS IN AMERICAN CULTURE: A course designed to offer students in all disciplines an opportunity to study American topics of wide interest whose most effective approach is interdisciplinary. *1-3 sem. hrs.*

AMS 410. FIELD STUDIES IN AMERICAN CULTURE: A course which brings the methods of interdisciplinary inquiry directly to bear upon characteristic American activities. Prerequisite: interdisciplinary course work, instructor's permission. *3-9 sem. hrs.*

ANTHROPOLOGY (ANT)

Majors 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 36 hours of course work in the department, including Anthropology 150, 151, 310, and 351 or 352; SOC 415, 401, and 402.

PROGRAM – A2: BACHELOR OF ARTS WITH A MAJOR IN ANTHROPOLOGY

	<i>Semester Hours</i>
Anthropology: ANT 150, 151, 310, and 351 or 352	12
Sociology: SOC 401, 402, and 415.....	9
Anthropology / Sociology / Social Work electives	15
Philosophy and / or Religious Studies.....	12
English 111, 112	7
Speech 101.....	3
Natural Science, Applied Science, Quantitative Studies (at least 3 semester hours in Natural Sciences).....	6-12
Social and Behavioral Science (at least 1 unit of 6 semester hours – with at least 3 semester hours on 300-400 level)	9-12
Humanities (at least 2 units of 6 semester hours each – with 3 semester hours in each unit on 300-400 level).....	18
General electives and Senior Synthesis to total at least.....	120

NOTES:

At least 48 semester hours of upper-level (300-400 numbered courses) work must be presented for the B.A. degree.

Senior Synthesis: 6-9 semester hours required in last three terms. Basic requirement: SOC 415.

For Major: At least 24 semester hours must be upper level (300-400).

FACULTY

Rev. John G. Dickson, S.M., *Chairman of the Department of Sociology, Anthropology, and Social Work*

Professor: Dickson

Assistant Professor: Bregenzer

Instructor: Reynolds

COURSES OF INSTRUCTION

ANT 110. PERSPECTIVES ON URBAN MAN: Human problems in an urban setting will be studied from the perspectives of Biology, Economics, History, Philosophy, Political Science, Psychology, Sociology, Anthropology, and Social Work. Required introductory course for Urban Life Majors.

3 sem. hrs.

ANT 150. CULTURAL ANTHROPOLOGY: Survey of man's adaptation to and creation of his environment by means of culture. Comparison of ways of life among peoples of the world. Implications of these styles of life for understanding of human behavior. The basic principles of cultural anthropology. *3 sem. hrs.*

ANT 151. EVOLUTION OF MAN AND CULTURE: Survey of man's biological and cultural evolution from prehuman ancestors until the development of settled city states. Role of hereditary and environmental factors, human genetics, meaning of "race," racial classification, and fossil record. *3 sem. hrs.*

ANT 250. SURVEY OF WORLD CULTURES: A general survey of the world's cultures and their historical development. Includes North America, Latin America, Africa, India, China, Southeast Asia, Australia, and Oceania. Application of the general principles of anthropology to the understanding of a variety of specific cultures. *3 sem. hrs.*

ANT 300. ANTHROPOLOGY OF RELIGION: Survey of Anthropological studies of religion; emphasis on how religion relates to other aspects of culture; the worldwide variety of religious beliefs and practices. *3 sem. hrs.*

ANT 310. CULTURE AND PERSONALITY: Survey of studies investigating the relationship between cultural environment and the individual. Material is drawn from both literature and nonliterature societies. *3 sem. hrs.*

ANT 315. LANGUAGE AND CULTURE: Introduction to the scientific study of language and its relationship to other aspects of human behavior. *3 sem. hrs.*

ANT 335. URBAN ANTHROPOLOGY: A survey of the socio-cultural effects of urbanization in the developed and developing areas of the world. The objective of the course will be to seek understanding of the process of urbanization and to consider what the anthropological approach has to offer in the area of urban studies. *3 sem. hrs.*

ANT 351. CULTURES OF THE CARIBBEAN: Variety of African- and Old World-derived cultures in the Caribbean and its borders. Examination of social-scientific topics, such as effects of mother-centered families on personality, importance of verbal behavior in these cultures, problems of I.Q. testing in cultures other than where the tests originate, economic adaptations, political movements, religious practices. *3 sem. hrs.*

ANT 352. CULTURES OF LATIN AMERICA: Origin and development of ancient civilizations including the Aztecs, the Maya, and the Inca. Survey of contemporary cultures, with special emphasis on peasant life. *3 sem. hrs.*

ANT 353. NATIVE CULTURES OF NORTH AMERICA: A consideration of the origins and diversity of American Indian cultures north of the Rio Grande, with particular attention to language, cultural adaptation to environment, and acculturation without assimilation. The present situation of the Indian in relation to the surrounding American culture. *3 sem. hrs.*

ANT 406. CULTURAL CHANGE: The process of social changes in the modern world; culture lag and conflict of norms; individual and social problems arising from conflicting systems of values and norms. *3 sem. hrs.*

ANT 440. INDEPENDENT STUDY: Research problems or special readings of interest to the student investigated under the guidance of an anthropology staff member. Permission of the chairman is necessary. *3 sem. hrs.*

ANT 449. ANTHROPOLOGICAL FIELD WORK: Formulation and carrying out of a research design in archaeology, physical anthropology, linguistics, or cultural anthropology. Prerequisite: Consent of instructor. *6 sem. hrs.*

BIOLOGY (BIO)

CURRICULUM DESCRIPTION FOR BACHELOR OF SCIENCE WITH A MAJOR IN BIOLOGY

	<i>Semester Hours</i>
Biology core courses (see below)	20
Biology electives (may include other sciences)	20
Supporting sciences	30
College requirements (ENG, SPE, PHL/REL)	12-22
<hr/>	
Humanities, Social / Behavioral Science, electives, to bring total to	125

Biology courses required by all majors: the general Biology sequence (BIO 151, 152L, 152L, 201L), Genetics (BIO 412), Seminar (BIO 420), at least one Organism / Environment course (Group A), and at least one Physiology / Molecular Biology course (Group B). At least three additional Biology laboratory courses are required. Normally, BIO 421 and 422 may not be used to satisfy the lab requirement. Since a four-year program includes opportunities for more than the minimum number of credits, students are strongly encouraged to choose more laboratory courses.

<i>Group A.</i>	<i>Group B.</i>
BIO 314. Plant Biology	BIO 403. Physiology
BIO 401. Evolution	BIO 411. Bacteriology
BIO 430. Ecology	BIO 440. Cell Biology
BIO 461. Invertebrate Zoology	BIO 462. Advanced Genetics
BIO 452. Aquatic Biology	BIO 540. Physiology of Higher Plants

Group C.
All other Biology courses

The remaining courses necessary to complete the required semester hours may be chosen from any of the areas of Biology (Group A, B, C). For full descriptions see Courses of Instruction in this Bulletin. Because of differing career plans, students may wish to take courses from such areas as Statistics, Computer Science, Geology, Biochemistry, Nutrition, Physics, and Engineering and / or Technology courses.

With permission of the chairman, students may select one or more of their science electives from graduate courses in the specialization areas of Ecology and Evolutionary Biology, Biofunction, and Microbiology and Cell Biology. (See Graduate Catalog for course listings.)

The Biology Honors Program offers superior students the opportunity to become engaged in independent study and research projects.

In addition to courses in the department, a B.S. degree in Biology assumes supporting courses in other scientific and / or technical areas. These are usually met by a year of Mathematics, 2 years of Chemistry including Organic Chemistry, and a year of Physics.

Humanities courses include the college requirements in English, Speech, and Philosophy and / or Religious Studies. They are meant to broaden the students' approach to life and in addition to the preceding areas may be selected from Art, History, Language, Literature, Music, Theater, etc.

Social / Behavioral Science electives help a student to understand modern problems. They may be selected from Anthropology, Administration, Economics, Education, Management, Marketing, Political Science, Psychology, Social Work, Sociology, etc.

While the exact number of credits in any of the categories may vary, students are encouraged to select a unit of at least 12 semester hours in any area of Humanities or Social / Behavioral Science.

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

Dept.	No.	Course	1st Term ¹	2nd Term
Freshman Year				
BIO	100	Freshman Seminar	1-0-0	
BIO	151-2*	Concepts of Biology	3-0-3 ¹	3-3-4
CHM	123-4	General Chemistry	3-3-4	3-3-4
MTH	—	Calculus ²	3-0-3	3-0-3
ENG	111-112	College Composition I, II	4-0-4	3-0-3
—	—	Humanities / Social Science elective ³	3-0-3	3-0-3
			17	17
Sophomore Year				
BIO	201L	Biology Laboratory Investigations	0-3-1	
BIO	—	Biology elective	3-0-3	3-0-3
CHM	313-4	Organic Chemistry	3-3-4	3-3-4
PHY	—	Physics ⁴	3-2-4	3-2-4
ENG	—	English elective		3-0-3
—	—	Humanities / Social Science elective	3-0-3	3-0-3
			15	17
Junior Year				
BIO	412	General Genetics	3-0-3	
BIO	—L	Biology Laboratory Course ⁵	3-3-4	3-3-4
—	—	Bio / Science elective	3-3-4	3-3-4
—	—	Humanities / Social Science elective	6-0-6	9-0-9
			17	17
Senior Year				
BIO	420	Seminar	1-0-1	
—	—	Bio / Science elective ⁵	6-3-7	6-6-8
—	—	Humanities / Social Science elective ⁵	9-0-9	9-0-9
			17	17

¹ For example, 3-0-3 means 3 class hrs., 0 lab hrs., 3 sem. hrs. of credit.

² Placement test may necessitate initial course in precalculus (MTH 101). Depending on background and interests, three calculus sequences are available: MTH 112-3, MTH 118-9, MTH 128-9 (see Mathematics Courses of Instruction).

³ See information under Biology Curriculum description. Courses to satisfy College requirements: SPE 101; PHL and / or REL, 12 semester hours.

⁴ Depending on math background and interests, two physics sequences are available, PHY 201-2, PHY 196 and 207-8 (see Physics Courses of Instruction).

⁵ See information under Biology Curriculum description.

⁶ While a minimum of 125 semester hours is recommended for the B.S. in Biology, a student taking 17 semester hours per term may choose to accumulate 136 semester hours in four years. These extra credits may be taken in any area of the student's interest.

* Qualified students may be invited to take part in Honors Sections of BIO 152 Lab.

FACULTY

George B. Noland, *Chairman*

Professors: Cooney, Faso, Geiger, Jaffee, Joly, Noland

Associate Professors: Bajpai, Chantell, McDougall, Ramsey, Shay, Willis

Adjunct Associate Professor: Fleischman

Clinical Associate Professor: Taylor

Assistant Professors: Burky, Laufersweiler, Schwelitz, Sonstein, Williams

Adjunct Assistant Professor: Kordenat

Clinical Assistant Professor: Stull

COURSES OF INSTRUCTION

BIO 101. GENERAL BIOLOGY I: A study of the more important biological processes and principles through analysis and synthesis. Deals primarily with the organizational aspects of living things. This course (and BIO 102) is designed for students not following the Biology core curriculum. 3 sem. hrs.

BIO 101L. GENERAL BIOLOGY LABORATORY I: Course to accompany BIO 101. One three-hour laboratory per week in which the investigational and experimental approach is stressed. 1 sem. hr.

BIO 102. GENERAL BIOLOGY II: A continuation of BIO 101. Stresses primarily the operational aspects of living matter. Prerequisite: BIO 101. 3 sem. hrs.

BIO 102L. GENERAL BIOLOGY LABORATORY II: Course to accompany BIO 102. One three-hour laboratory per week. 1 sem. hr.

BIO 114. BIOLOGICAL SCIENCE: An introduction to the various biological sciences for nonscience majors. Stresses those principles which apply to all forms of life, taking examples from plant, animal and microbial life. 3 sem. hrs.

BIO 114L. BIOLOGICAL SCIENCE LABORATORY: Laboratory course to demonstrate and emphasize those principles discussed in lecture. One two-hour lab per week. 1 sem. hr.

BIO 151. CONCEPTS OF BIOLOGY I: A study of the physico-chemical organization, the regulatory mechanisms and the energy relations of living things. Core Biology course (for majors in Biology, Medical Technology, Premedicine, etc.). 3 sem. hrs.

BIO 152. CONCEPTS OF BIOLOGY II: Continuation of BIO 151. Homeostatic mechanism. Reproduction in organisms and its relationship with genes, growth and development, population concepts, environment and evolution. Core Biology course. 3 sem. hrs.

BIO 152L. BIOLOGY LABORATORY INVESTIGATIONS I: An introduction to laboratory procedures and instrumentation through a series of modern rigorous experimental exercises. Data presentation and interpretation is stressed. Accompanies BIO 152 lecture. Core Biology course. 1 sem. hr.

BIO 201L. BIOLOGY LABORATORY INVESTIGATIONS II: Small group, specialized laboratory investigations. Areas examined may include plant sciences, field biology, animal studies, microbiology, and analytical biology. Core Biology course. 1 sem. hr.

BIO 299. BIOLOGY SEMINAR: An introduction to biological journals and abstracting materials. Practice in the reviewing, abstracting and presentation of biological information. Primarily for sophomores; not open to seniors. 1 sem. hr.

BIO 304. HISTOLOGY: Fundamentals of cell structure, tissue organization and the microscopic anatomy of organs of the vertebrate animal with special stress on the mammals. Kodachromes will take the place of microscopic laboratory work. 3 sem. hrs.

BIO 307L. HUMAN ANATOMY LABORATORY: A lecture-laboratory course in basic human anatomy. The gross morphology of the human body is examined through regional and systematic studies. Dissection works on embalmed cats. Primarily for Medical Technology majors. One three-hour lab per week. Prerequisite: One year of introductory Biology.

1 sem. hr.

BIO 309. COMPARATIVE ANATOMY OF THE VERTEBRATES: A study of the similarities and the differences in the anatomy of the different organ systems of the various vertebrate groups. Embryology, histology, and morphology play an important role in this study. Prerequisite: BIO 101-2, or 151-152.

3 sem. hrs.

BIO 309L. COMPARATIVE ANATOMY LABORATORY: Course to accompany BIO 309 lecture. Two three-hour periods per week.

2 sem. hrs.

BIO 310. MICROTECHNIQUE AND HISTOLOGY: Fundamentals of cell morphology, microscopic structure of tissues and organs, and discussion of techniques in their study. Prerequisite: BIO 101-102, or 151-152.

3 sem. hrs.

BIO 310L. MICROTECHNIQUE AND HISTOLOGY LABORATORY: Fundamentals of fixing and processing various tissues in the preparation of slides; aims at recognition of microstructure of normal tissues.

1 sem. hr.

BIO 314. PLANT BIOLOGY: A consideration of structure, function, reproduction and inheritance as applicable in the plant patterns of life. Emphasis will be on the vascular plants. Minimum prerequisite: A course in Biology.

3 sem. hrs.

BIO 314L. PLANT BIOLOGY LABORATORY: Laboratory exercises to accompany BIO 314. Emphasis on generalized structure and function of plants. One 3-hour lab per week.

1 sem. hr.

BIO 325. PARASITOLOGY: An introduction to the morphology, life history and clinical significance of parasites and other symbionts. Prerequisite: BIO 101-102 or 151-152.

3 sem. hrs.

BIO 325L. PARASITOLOGY LABORATORY: Course to accompany BIO 325 lecture. One three-hour period per week. Stresses the recognition of common human parasites. Both living and preserved forms are studied.

1 sem. hr.

BIO 398. HEREDITY AND SOCIETY: A course designed to acquaint the student with the fundamental principles of inheritance and the application of genetics to contemporary problems of society. Topics such as genetic engineering, the green revolution and environmental mutagenesis will be considered.

3 sem. hrs.

BIO 399. THE BIO-ECOLOGY OF MAN: A readings-discussion course dealing with Man's influence on the environment (population, pollution, resources). Not open to biological science majors. Prerequisite: Junior standing.

3 sem. hrs.

BIO 401. EVOLUTION: A survey of the manifestations and an examination of the mechanisms of the theory of organic evolution with primary emphasis on vertebrate animals. Minimum prerequisite: One year of introductory Biology.

3 sem. hrs.

BIO 403. PHYSIOLOGY: A physico-chemical examination of the physiological events occurring in a living system with emphasis on mammalian systems. Prerequisites: BIO 101-102, or BIO 151-152, CHM 123-124; CHM 313-314 recommended.

3 sem. hrs.

BIO 403L. PHYSIOLOGY LABORATORY: A modern and systematic approach to the acquisition and interpretation of information about the physiology of living systems. Course to accompany BIO 403 lecture.

1 sem. hr.

BIO 407. EMBRYOLOGY: Vertebrate development is analyzed with emphasis upon morphogenesis, especially organogenesis. Topics include congenital defects. Prerequisites: BIO 101-102 or 151-152; 309 recommended.

3 sem. hrs.

- BIO 407L. EMBRYOLOGY LABORATORY: Course to accompany BIO 407 lecture. One four-hour period per week. *2 sem. hrs.*
- BIO 411. GENERAL BACTERIOLOGY: A rigorous introductory course stressing the physiology, cultivation, and classification of bacteria. Their role in medicine, agriculture and industry is considered. Prerequisites: BIO 101-102 or 151-152 and CHM 313-314 recommended. *3 sem. hrs.*
- BIO 411L. GENERAL BACTERIOLOGY LABORATORY: Course to accompany BIO 411 lecture. Two two-hour periods per week. *2 sem. hrs.*
- BIO 412. GENERAL GENETICS: A study of the principles of variation and heredity covering both Mendelian and Molecular Genetics. Core Biology course. *3 sem. hrs.*
- BIO 412L. GENETICS LABORATORY: Laboratory exercises to accompany BIO 412. May be taken concurrent with or following the lecture course. *1 sem. hr.*
- BIO 420. SEMINAR: Practice in development, presentation, and discussion of papers dealing with biological research problems. Prerequisite: Junior or senior standing. *1 sem. hr.*
- BIO 421. BIOLOGICAL PROBLEMS: Laboratory research problems. Topics arranged with faculty advisors. *1-2 sem. hrs.*
- BIO 422. BIOLOGICAL PROBLEMS: Library research problems. Topics arranged with faculty advisors. *1-2 sem. hrs.*
- BIO 430. ECOLOGY: The interrelationship of plants, animals, and microorganisms with the physical-chemical environment. Will consider such things as nutrient cycles, energy flow, ecosystems and factors affecting the distribution and abundance of organisms. Prerequisite: One year of Biology. *3 sem. hrs.*
- BIO 430L. ECOLOGY LABORATORY: Field and laboratory exercises to accompany BIO 430. May be taken concurrently with or following BIO 430. *1 sem. hr.*
- BIO 440. CELL BIOLOGY: Function, structure, composition, heredity, and growth of cells. Analysis of cell concept in biochemical terms. Prerequisites: BIO 101-102 or 151-2, CHM 313 (may be taken concurrently). *3 sem. hrs.*
- BIO 440L. CELL BIOLOGY LABORATORY: Laboratory exercises to accompany BIO 440. May be taken concurrently with or following BIO 440. *1 sem. hr.*
- BIO 442. DEVELOPMENTAL BIOLOGY: Growth and differentiation analyzed from standpoint of nucleo-cytoplasmic relationships, and biochemical / physiological aspects. Topics include regeneration and metamorphosis. *3 sem. hrs.*
- BIO 442L. DEVELOPMENTAL BIOLOGY LABORATORY: Laboratory exercises to accompany BIO 442. May be taken concurrently with or following BIO 442. *1 sem. hr.*
- BIO 444. PLANT LIFE CYCLES: A survey of the major divisions of the plant kingdom in the broadest sense. Includes a consideration of the algae, fungi, bryophytes, and vascular plant groups; their generalized life histories, ecological and physiological characteristics, and evolutionary relationships. *3 sem. hrs.*
- BIO 444L. PLANT LIFE CYCLES LABORATORY: Laboratory studies of the plant groups, including life cycles, evolutionary, physiological and ecological adaptations. One three-hour lab per week. *1 sem. hr.*
- BIO 446. DEVELOPMENTAL PLANT ANATOMY: A study of the major organ systems of the vascular plants with an emphasis on the nature of their cell-types and tissue composition and their patterns of development. *3 sem. hrs.*
- BIO 446L. DEVELOPMENTAL PLANT ANATOMY LABORATORY: Laboratory to accompany BIO 446. *1 sem. hr.*

BIO 450. COMPARATIVE ANIMAL PHYSIOLOGY: Organized on a function-system basis, the course deals with environment-organism inter-action and with integrative systems of the principal phyla of animals. Three hours lecture per week. *3 sem. hrs.*

BIO 450L. COMPARATIVE ANIMAL PHYSIOLOGY LABORATORY: Laboratory to accompany BIO 450. Must be taken concurrently with BIO 450. *1 sem. hr.*

BIO 452. AQUATIC BIOLOGY: The interrelationship of organisms and stream and lake ecosystems including nutrient cycles, oceanic and lake current development, chemical limnology, adaptation to the aquatic environment, and pollution ecology. *3 sem. hrs.*

BIO 452L. AQUATIC BIOLOGY LABORATORY: Laboratory and field exercises emphasizing chemical and physical limnology, evolution of aquatic ecosystems, and pollution ecology. One lab or field trip per week. *1 sem. hr.*

BIO 461. INVERTEBRATE ZOOLOGY: A course designed to give the student a general knowledge of the structure, activities, life histories, and relationships of the invertebrate animals, with some emphasis on their origin and development. Prerequisites: BIO 101-102 or 151-152. *2 sem. hrs.*

BIO 461L. INVERTEBRATE ZOOLOGY LABORATORY: Course to accompany BIO 461 lecture. Two three-hour laboratory periods per week. *2 sem. hrs.*

BIO 462. ADVANCED GENETICS: Analysis of the nature of the gene and gene action. Particular attention will be given to genetic control of protein synthesis and to recent advances in biochemical and physiological genetics. Prerequisites: BIO 412, CHM 314. *2 sem. hrs.*

BIO 462L. ADVANCED GENETICS LABORATORY: A laboratory to accompany BIO 462, employing an experimental approach to genetic problems. Students work the entire term on a project of their choice. *1 sem. hr.*

BIO 466. PATHOGENIC BACTERIOLOGY AND SEROLOGY: The nature of infectious diseases, host-parasite relationships in resistance and infection, defense mechanisms (antigen-antibody response) and a survey of the bacteria causing disease in man will be considered. Prerequisite: BIO 411 and 411L. *3 sem. hrs.*

BIO 466L. PATHOGENIC BACTERIOLOGY AND SEROLOGY LABORATORY: Laboratory to accompany BIO 466, 3 hours per week. Laboratory experiments to demonstrate immunological, serological, determinative and medical bacteriology. *1 sem. hr.*



CHEMISTRY (CHM)

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

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term</i> ¹	<i>2nd Term</i>
(See General Requirements for the B.A. Degree.)				
Freshman Year				
ENG	111-2	College Composition I and II ²	4-0-4 ¹	3-0-3
CHM	123-4	General Chemistry ³	3-3-4	3-3-4
MTH	112-3	Introductory Calculus I and II ⁴	3-0-3	3-0-3
—	—	Humanities / Social Science elective ⁷		3-0-3
—	—	Religious Studies / Philosophy elective	3-0-3	
SPE	101	Speech ²		3-0-3
CHM	100	Arts and Sciences Orientation	1-0-0	
—	—	Elective	3-0-3	
			17	16
Sophomore Year				
CHM	201	Quantitative Analysis ³	2-4-4	
MTH	215	Basic Statistics ⁴		3-0-3
PHYS	201-2	General Physics ³	3-3-4	3-3-4
—	—	Religious Studies / Philosophy elective	3-0-3	
—	—	Humanities / Social Science elective ⁷	3-0-3	3-0-3
—	—	Elective		6-0-6
			14	16
Junior Year				
CHM	313-4	Organic Chemistry ⁵	3-3-4	3-3-4
—	—	Elective	3-0-3	3-0-3
—	—	Science Electives ⁶	3-0-3	3-0-3
—	—	Humanities / Social Science electives ⁷	6-0-6	3-0-3
—	—	Religious Studies / Philosophy elective		3-0-3
			16	16
Senior Year				
CHM	302	Physical Chemistry ⁵	3-0-3	
CHM	309	Chemical Literature		1-0-1
—	—	Religious Studies / Philosophy elective		3-0-3
—	—	Science electives ⁹	3-0-3	3-0-3
—	—	Humanities / Social Science elective ⁷	6-0-6	3-0-3
—	—	Elective and Senior Synthesis	3-0-3	6-0-6
			15	16

¹ For example: 3-0-3 means 3 class hrs., 0 lab hrs., 3 sem. hrs. of credit.² The B.A. degree requires that every student must demonstrate competence in written and oral communication before completing the freshman year. Each of these competencies may be demonstrated in one of three ways prescribed by the College of Arts and Sciences.³ May substitute more advanced course depending on background, placement test, or permission of department head.⁴ May substitute MTH 118-9 for MTH 112, 113, and 215.⁵ May substitute CHM 315-16.⁶ Must include two of the following courses: CHM 405, 412, 415, 420, 417, 404, 498, 499, 551, 552, or any graduate chemistry course with permission of the instructor.

⁷ Humanities electives must total at least 18 hours. Social Science courses must total at least 9 hours.

⁸ May substitute CHM 303-4.

⁹ Must include either two or more of the above in footnote 6, or two of the following: BIO 313, 310, 312, 325, 340, 407, 411, certain computer science, geology, etc.

PROGRAM – 52: 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>
Freshman Year				
CHM	100	Freshman Seminar	1-0-0	
CHM	123-4	General Chemistry	3-0-3 ⁸	3-0-3
CHM	123L	General Chemistry Laboratory	0-3-1	
CHM	126L	Quantitative Analysis Laboratory		0-4-2
MTH	118-9	Analytical Geometry and Calculus I and II	4-0-4	4-0-4
PHY	196	General Physics		3-2-4
ENG	111-2	College Composition I and II	4-0-4	3-0-3
SPE	101	Speech	3-0-3	
			15	16
Sophomore Year				
CHM	313-4	Organic Chemistry	3-0-3	3-0-3
CHM	315-6L	Organic Chemistry Laboratory	0-3-1	0-6-2
—	—	Foreign Language ²	3-0-3	3-0-3
MTH	218	Analytical Geometry and Calculus III	4-0-4	
PHY	207-8	General Physics II and III	3-2-4	3-2-4
—	—	Elective ³	3-0-3	
			15	15
Junior Year				
CHM	303-4	Physical Chemistry	3-3-4	3-3-4
CHM	309	Chemical Literature		1-0-1
CHM	405	Qualitative Organic Analysis	1-6-3	
CHM	415	Analytical Chemistry		2-6-4
—	—	Religious Studies / Philosophy elective	3-0-3	
—	—	Humanities / Social Science electives ³	3-0-3	
—	—	Elective ⁴	3-0-3	
CHM	—	Chemistry elective		3-0-3
			16	15
Senior Year				
CHM	—	Chemistry electives ⁴	3-0-3	3-0-3
CHM	497	Seminar	1-0-1	
—	—	Religious Studies / Philosophy electives	3-0-3	6-0-6
—	—	Humanities / Social Science electives	3-0-3	3-0-3
—	—	Electives ³	6-0-6	3-0-3
			16	15

¹ For example: 3-0-3 means 3 class hrs., 0 lab hrs., 3 sem. hrs. of credit.

² German is strongly recommended. Substitution of a humanities elective requires permission of the department chairman. For advanced placement, consult chairman, Department of Languages.

³ Elective: any course for which the student has the necessary prerequisites. A course in computer science is recommended.

⁴ Either CHM 417 (Inorganic Chemistry) or CHM 420 (Biochemistry) must be included as an elective. Chemistry electives include CHM 404, 412, 420, 498, 499, 551, and 552. An advanced physics or mathematics course may be taken in place of one chemistry elective. Any graduate course in chemistry may be taken with permission of the instructor.

FACULTY

John J. Lucier, S.M., *Chairman*

Professors: Chudd, Eveslage, Lucier, Michaelis

Associate Professors: Fox, Fratini, Keil

Assistant Professors: Singer, Knachel

Adjunct Assistant Professors: Nelson, Spencer, Hilt, Martin

COURSES OF INSTRUCTION

CHM 110. GENERAL CHEMISTRY: Fundamental principles of chemistry including a brief treatment of organic chemistry. Three class periods each week. 3 sem. hrs.

CHM 110L. GENERAL CHEMISTRY LABORATORY: Course to accompany CHM 110 lecture. One two-hour laboratory period per week. 1 sem. hr.

CHM 123-124. GENERAL CHEMISTRY: A comprehensive treatment of the fundamentals of general chemistry. Three class periods per week. Prerequisite: high school chemistry. 6 sem. hrs.

CHM 123L-124L. GENERAL CHEMISTRY LABORATORY: Course to accompany CHM 123-124 lecture. The laboratory work is devoted to semi-micro qualitative analysis. One three-hour laboratory period per week. 2 sem. hrs.

CHM 126L. QUANTITATIVE ANALYSIS LABORATORY: A laboratory course primarily for chemistry majors. One four-hour laboratory period per week. Prerequisites: CHM 123, MTH 101 or their equivalents. Second term, each year. 2 sem. hrs.

CHM 201. QUANTITATIVE ANALYSIS: A course intended for premedical, preidental, and medical technology students. Two class periods per week. Prerequisite: CHM 124. 2 sem. hrs.

CHM 201L. QUANTITATIVE ANALYSIS LABORATORY: Course to accompany CHM 201 lecture. One four-hour laboratory period per week. 2 sem. hrs.

CHM 302. PHYSICAL CHEMISTRY: A short course especially designed for premedical, preidental, or biology majors. Three lectures per week. Prerequisite: CHM 124. First term, each year. 3 sem. hrs.

CHM 303-304. PHYSICAL CHEMISTRY: For chemistry majors and chemical engineers. Three lecture hours each week. Prerequisite: CHM 126L or equivalent; corequisite: MTH 218. 6 sem. hrs.

CHM 303L-304L. PHYSICAL CHEMISTRY LABORATORY: Course to accompany CHM 303 lecture. One three-hour laboratory period each week. Corequisite: MTH 218. 2 sem. hrs.

CHM 309. CHEMICAL LITERATURE: The use of chemical literature, indexing methods, and patent procedure. Second term, each year. 1 sem. hr.

CHM 313-314. ORGANIC CHEMISTRY: A basic course in the fundamentals of organic chemistry. Recommended for chemistry majors and students in the life sciences. 6 sem. hrs.

CHM 313L-314L. ORGANIC CHEMISTRY LABORATORY: Course to accompany CHM 313-314 lecture. One three-hour laboratory period each week. 2 sem. hrs.

CHM 315L-316L. ORGANIC CHEMISTRY LABORATORY. Laboratory course required of all B.S. chemistry majors; CHM 315L consists of one three-hour session per week (1 sem. hr.); CHM 316L consists of two three-hour laboratories per week (2 sem. hrs.). 3 sem. hrs.

to certain topics such as macromolecules, spectroscopy, photochemistry and radiation chemistry. Second term, each year. *3 sem. hrs.*

CHM 405. QUALITATIVE ORGANIC ANALYSIS: A systematic study of the reactions of functional groups, as well as the physical and spectral properties of organic compounds leading to their identification. One class period per week. Prerequisite: CHM 313-314. *1 sem. hr.*

CHM 405L. QUALITATIVE ORGANIC ANALYSIS LABORATORY: Course to accompany CHM 405 lecture. Two three-hour laboratory periods per week. Second term, each year. *2 sem. hrs.*

CHM 412. INTERMEDIATE ORGANIC CHEMISTRY: This course provides an understanding of the modern theory and practice of organic chemistry. May include structure-reactivity relationships, reaction mechanism, and synthetic topics not normally treated in introductory courses. Prerequisite: Senior standing. First term, each year. *3 sem. hrs.*

CHM 415. ANALYTICAL CHEMISTRY: Methods of analysis based on modern instrumentation includes chemical, electrical, and spectral methods. Prerequisites: CHM 303-304. *2 sem. hrs.*

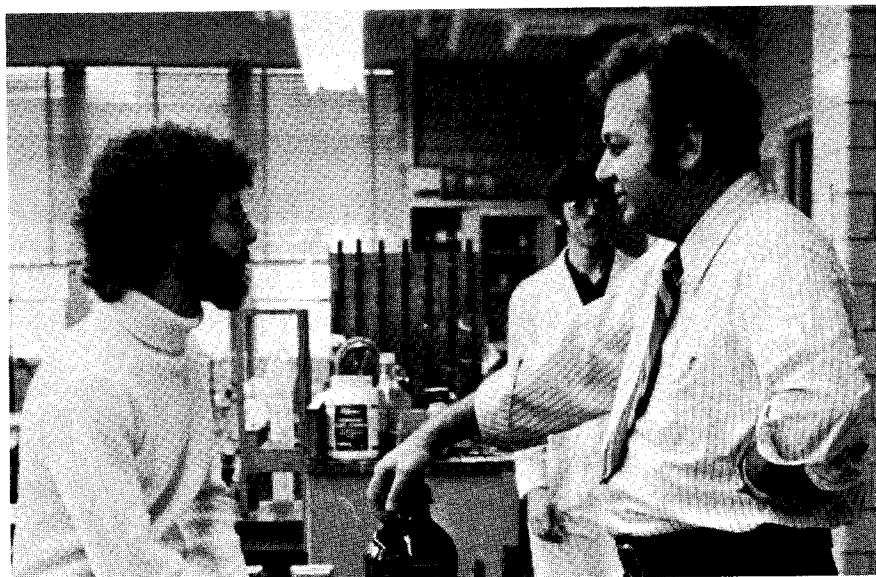
CHM 415L. ANALYTICAL CHEMISTRY LABORATORY: This course accompanies CHM 415. Two three-hour laboratory sessions each week. Prerequisites: CHM. 303L-304L. Second term, each year. *2 sem. hrs.*

CHM 417. INORGANIC CHEMISTRY: Electron distribution in atoms, nature of the chemical bond, periodicity, nucleus and its reactions, coordination compounds. Prerequisite: CHM 303-304. First term, each year. *3 sem. hrs.*

CHM 420. BIOCHEMISTRY: A course dealing with the fundamentals of biochemistry. Prerequisite: CHM 314, and CHM 302 or 303. Second term, each year. *3 sem. hrs.*

CHM 497. SEMINAR: Required of all chemistry majors. One meeting each week. First term, each year. *1 sem. hr.*

CHM 498-499. RESEARCH (HONORS): An elective for chemistry majors. Permission of department chairman required. Prerequisite: Senior standing. *2 to 6 sem. hrs.*



COMMUNICATION ARTS (COM)

The Department of Communication Arts encourages co-curricular activities: University Debaters, Flyer News, WVUD Radio, and Public Relations Student Society of America.

Minors in Communication Arts must have SPE 101 plus 12 semester hours of upper-level courses selected through consultation with the department counselors.

SPE 101 is a prerequisite for all COM, JRN, and SPE courses listed as 200 or above.

The course requirements for Communication Arts majors are 24 upper-level semester hours distributed as follows:

For General Major in Communication Arts:

1. SPE 101 and COM 200 (Introduction to Mass Communications).
2. At least one upper-level course in each of the following: Speech, Broadcasting, Journalism, and allied areas, and electives in the field selected through consultation with the department chairman.

For Concentrated Major in Communication Arts:

1. SPE 101 and appropriate 200-level course.
2. 24 semester hours of upper-level courses with a minimum of 15 semester hours in Speech, Broadcasting-Journalism, Public Relations, or allied areas.

PROGRAM – A4: BACHELOR OF ARTS WITH A MAJOR IN COMMUNICATION ARTS

	<i>Semester Hours</i>
Major Program	30
Mathematics and / or Sciences Unit (at least 3 semester hours in natural science).....	6-9
Two units of 12 semester hours each selected from Psychology, Sociology and Anthropology, Economics, Journalism, Political Science, Languages, Marketing, Accounting, Business Management, Education, and Criminal Justice. (At least 6 semester hours in each unit must be 300-400 level.).....	24
Two units of 12 semester hours each selected from English, History, Philosophy, Religious Studies, Performing and Visual Arts. (If English, Philosophy, and / or Religious Studies is chosen, then the unit of 12 semester hours excludes the hours already required by the University. At least 6 semester hours in each unit must be 300-400 level.).....	24
University Requirements	19
English 111-112	7 sem. hrs.
Philosophy and / or Religious Studies.....	12 sem. hrs.
General academic electives to total at least.....	120

FACULTY

George C. Biersack, *Chairman*

Professor: Biersack

Associate Professors: Trent, Wolff

Assistant Professors: Blatt, Farrelly, Harwood, Ilfeld, Kiernan, Weatherly

Instructors: Haynes, Lawson

Part-time Instructors: Dougherty, Sennet, Staats, Vlahos

COURSES OF INSTRUCTION

COM 200. INTRODUCTION TO MASS COMMUNICATION MEDIA: The nature and purpose of the mass communicative field. Emphasis on newspapers, television and radio, public relations, advertising, occupational opportunities, organizational structure of modern newspaper, and news facets of television and radio. 3 sem. hrs.

ALLIED AREAS

COM 303. FREE-LANCE WRITING: 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. 3 sem. hrs.

COM 304. ADVERTISING: Nature and functions of advertising; preparation of layouts, writing of copy; selection and evaluation of media. Coordination of advertising with other marketing efforts. Social implications of advertising. (See MKT 421.) 3 sem. hrs.

COM 305. PROPAGANDA ANALYSIS: Use and abuse of propaganda. Editorial persuasion. Propaganda devices and techniques. An application of the principles of Aristotelian logic to the field of mass communication. 3 sem. hrs.

COM 306. REPORT WRITING: The principles of letter writing and report writing studied and applied in conformity with the best current practices in business. (See BUS 409.) 3 sem. hrs.

COM 307. TECHNICAL WRITING: Designed for administrators, engineers, scientists, and businessmen. Views writing and language as a communications problem. Development techniques for organizing technical information in written form. 3 sem. hrs.

COM 308. INTERPERSONAL COMMUNICATIONS: The study of the student's own communication behavior through face-to-face spontaneous interaction with others. Prerequisites: SPE 101 for majors; none for nonmajors. 3 sem. hrs.



COM 391. INDEPENDENT STUDY I: Supervised study involving directed readings, individual research (library, field, or experimental) or projects in the specialized areas of Communication Arts. Prerequisites: SPE 101; JRN 200 or SPE 201. *3 sem. hrs.*

COM 401. PUBLICITY AND PUBLIC RELATIONS: For students (business, education, personnel management, etc.) who expect to direct publicity campaigns or write news releases in their future work. Explains nature, organization, and problems of newspaper publishing. *3 sem. hrs.*

COM 404. SPECIAL TOPICS IN COMMUNICATION: Concentrated study in specific areas of speech communication. May be repeated once with change of topic. *3 sem. hrs.*

COM 411. COMMUNICATION IN MODERN SOCIETY: A study of some communication problems in modern organizations, institutions, and cultures, and in interpersonal relationships. *3 sem. hrs.*

COM 430. DEVELOPMENT OF MASS MEDIA: History and analysis of the development and interdependence of mass media, print and electronic. Emphasis on its role in political and economic progress of U.S. and attendant responsibility. *3 sem. hrs.*

COM 455. PUBLIC RELATIONS WORKSHOP: Application of policy objectives to public relations program development. Students plan and carry out a public relations program for an established organization, working out realistic and efficient solutions to communications and public relations problems. Case studies in public relations in business, industry, and social institutions including schools and communities, and in governmental public relations policy. Prerequisite: COM 401 or permission of chairman. *3 sem. hrs.*

COM 491. PUBLIC RELATIONS INTERNSHIP: A practical participation in public relations activity with a recognized and approved public relations organization. Selected senior or graduate students appointed as interns in public relations department of a business, educational, philanthropic, or governmental agency work a minimum of eight hours per week in activity supervised by agency staff and school faculty. Analytical report evaluating the experience is required at end of internship. Prerequisite: COM 455 or permission of chairman. *3 sem. hrs.*

COMPUTER SCIENCE (CPS)

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

Minimum graduation requirements are distributed as follows:

Courses Associated with the Major (about 50 semester hours)

1. COMPUTER SCIENCE – Two courses in basic programming, normally CPS 140, and CPS 245, and 24 semester hours in upper-level courses, normally including CPS 341, 342, 346 and 353.
2. MATHEMATICS – basic calculus and normally 12 semester hours beyond calculus including linear algebra. Differential equations, abstract algebra and statistics are recommended.

Courses in Other Areas (about 50 semester hours)

3. HUMANITIES AND SOCIAL SCIENCES – 30 semester hours, including 12 in Religious Studies and / or Philosophy. 100-level ENG and SPE courses do not apply to this requirement.
4. SCIENCES – normally 12 semester hours; PHY 196, 207 recommended.
5. COMPOSITION AND SPEECH SKILLS – a certain level of proficiency is required in these skills. 0-10 semester hours as prescribed by the College.

Electives (about 25 semester hours)

6. Additional courses to attain the required 120 semester hours. More detailed information may be obtained from the department.

PROGRAM – S3A: BACHELOR OF SCIENCE WITH A MAJOR IN DATA PROCESSING

Minimum graduation requirements are distributed as follows:

1. COMPUTER SCIENCE – Basic programming, normally CPS 140 and CPS 245, and 24 semester hours in upper-level courses, normally including CPS 341, 342, and 346.
2. MATHEMATICS – Basic calculus and statistics – for example, MTH 112, 113, 367, 368.
3. HUMANITIES AND SOCIAL SCIENCES – 30 semester hours including 12 in Philosophy and / or Religious Studies. 100-level ENG and SPE courses do not apply to this requirement.
4. SCIENCES – a minimum of 3 semester hours in a physical science.
5. COMPOSITION AND SPEECH SKILLS – a certain level of proficiency is required in these skills. 0-10 semester hours as prescribed by the College.
6. ELECTIVES – additional courses to attain the required 120 semester hours. More detailed information may be obtained from the department.

FACULTY

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

Professor: Jehn

Associate Professors: Gee, Kester, Schoen

Assistant Professors: Kalmey, Lokai, Neuendorf

Instructor: Keim

COURSES OF INSTRUCTION

CPS 140. INTRODUCTION TO ALGORITHMIC PROCESSES: Algorithms, programs, and computers. Basic programming and program structure. Programming and computer systems. Debugging and verification of programs. Data representation. Computer solution of

numerical and nonnumerical problems using a compiler language as PL / I or FORTRAN. Fee. *3 sem. hrs.*

CPS 144. (SCIENTIFIC) PROGRAMMING: Basic programming theory and practice using a language suitable to scientific or technical problems as FORTRAN, ALGOL, or PL / I. *3 sem. hrs.*

CPS 145. (BUSINESS) PROGRAMMING: Basic programming theory and practice using a language suitable to business oriented problems as COBOL. Fee. *1-3 sem. hrs.*

CPS 146. (LIST PROCESSING) PROGRAMMING: Basic programming theory and practice using a language suitable to list processing applications as LISP or SNOBOL. Fee. *1-3 sem. hrs.*

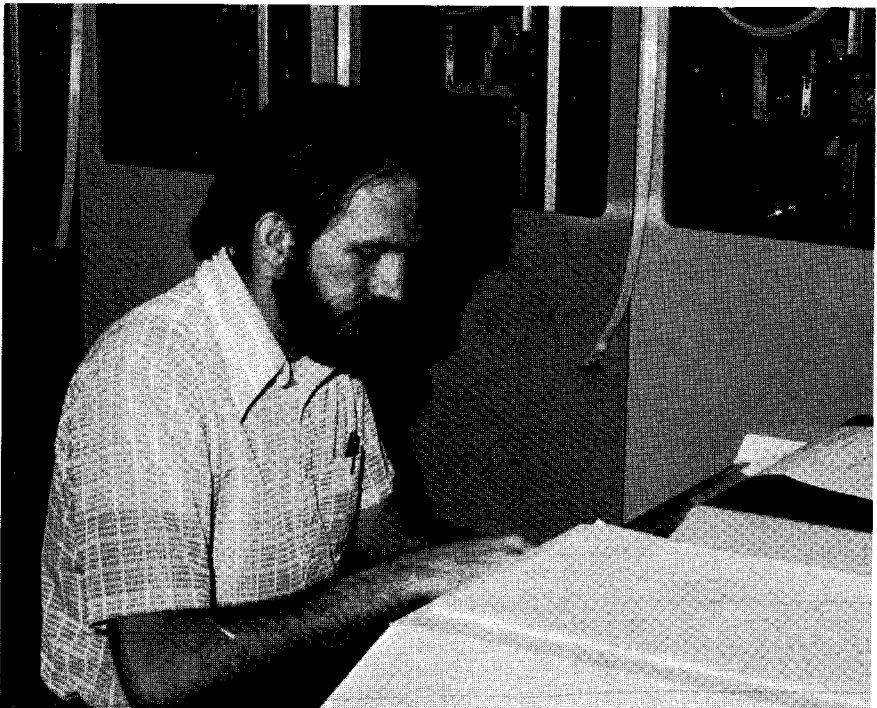
CPS 245. ASSEMBLER PROGRAMMING: Machine and assembler language programming; macros; input / output techniques. Prerequisite: CPS 140 or 144. Fee. *3-4 sem. hrs.*

CPS 246. ADVANCED ASSEMBLER PROGRAMMING: Macros, interrupt handling, input / output topics. Prerequisite: CPS 245. Fee. *2 sem. hrs.*

CPS 300-301. COMPUTER SCIENCE FOR (NAMED AREA): Various topics of Computer Science of primary interest to students in the humanities, business, education, and biological sciences. The title will reflect the material covered in any particular instance. No prerequisite for CPS 300. *1-3 sem. hrs.*

CPS 310. SYSTEMS ANALYSIS: Basic system analysis tools; identifying requirements, planning and measuring effectiveness of computer information systems; system life cycle studies. Prerequisite: programming ability. *3 sem. hrs.*

CPS 312. SYSTEMS DESIGN: Telecommunications; reliability, performance, and cost; estimation and optimization process; systems. *3 sem. hrs.*



CPS 341. DISCRETE STRUCTURES: Set algebra including mappings and relations; algebraic structures including semigroups and groups; elements of theory of directed and undirected graphs; Boolean algebra and propositional logic. *3 sem. hrs.*

CPS 342. DATA STRUCTURES: Basic concepts of data; linear lists, strings, arrays, and othogonal lists; representation of trees and graphs; multilinked structures; symbol tables and searching techniques; sorting techniques. Prerequisite: CPS 144 or equivalent. Fee. *3 sem. hrs.*

CPS 346. OPERATING SYSTEM: Study of DOS / 360 or similar system and its functions of data, job, and task management. Prerequisite: CPS 245. Fee. *3 sem. hrs.*

CPS 353-354. NUMERICAL METHODS: Solution of nonlinear equations, interpolation and approximation, differentiation and integration, curve fitting, numerical filtering and data smoothing, matrices and systems of linear equations, eigenvalues and eigenvectors; solution of difference, differential, and integral equations; boundary value problems in ordinary differential equations, elementary statistics. Emphasis placed on applications. Prerequisite: CPS 144 and MTH 218 or 228. Recommended corequisite: MTH 219 or 229. Fee. *6 sem. hrs.*

CPS 387. COMPUTER SYSTEMS DESIGN: Principles of design for arithmetic operations, including a survey of functional units for implementation; memory devices, central processors, input / output units; telecommunication principles, techniques, and devices. Prerequisite: CPS 341. *3 sem. hrs.*

CPS 404. SYSTEMS MODELING TECHNIQUES: Linear programming models, game theory, network analysis, queueing models, inventory models, and simulation. Prerequisite: CPS 353, CPS 341, MTH 367 or equivalent. *3 sem. hrs.*

CPS 415. INTRODUCTION TO ANALOG COMPUTATION AND SIMULATION: Basic principles of analog solution of linear and nonlinear differential equations, simulation, function generation. Applications to science and engineering. Prerequisite: MTH 219 or 229. Fee. *3 sem. hrs.*

CPS 416. PARALLEL HYBRID COMPUTATION: Basic principles of parallel hybrid computers, elementary logic components and their use, combinatorial logic, Boolean operations, sequential logic and synchronization, microprograms. Prerequisite: CPS 415. Fee. *3 sem. hrs.*

CPS 444-445. SYSTEMS PROGRAMMING: Analysis of compilers and their construction; programming techniques discussed in the current literature; advanced computer applications in both mathematical and nonnumeric areas. Prerequisite: CPS 342, 346. Fee. *4-6 sem. hrs.*

CPS 455-456. NUMERICAL ANALYSIS: Quadrature methods and the numerical solution of ordinary differential equations; matrices and large scale linear systems; norms and special radii of matrices; modern iterative matrix methods, including the successive overrelaxation method; numerical solution of partial differential equations. Prerequisite: CPS 353, MTH 362. *6 sem. hrs.*

CPS 482. AUTOMATA THEORY: Finite automata, sequential machines, survey of formal languages, introduction to computability, recursive functions and Turing machines. Prerequisite: CPS 341 or equivalent. *3 sem. hrs.*

CPS 498. PROBLEMS IN (NAMED AREA): Individual readings and research in a specialized area. (See CPS 499.) By arrangement. May be taken more than once for additional credit. Prerequisite: permission of the department. *1-3 sem. hrs.*

CPS 499. (SPECIAL TOPICS): Lectures and / or laboratory experience in such specialized areas as artificial intelligence, computer architecture, informational retrieval, linguistic analysis, microprogramming, multiprogramming techniques, numerical analysis, programming languages, sequential machines, simulation languages, time-sharing topics, utility programs. By arrangement. May be taken more than once for additional credit. Prerequisite: permission of the department. *1-3 sem. hrs.*

CRIMINAL JUSTICE (CRJ)

The program in Criminal Justice leading to the degree of Bachelor of Science with a Major in Criminal Justice (Program — 54) is offered in two versions. Option A is a full sequence, normally for those who have entered the University as freshmen. Option B is for students who transfer here with acceptable associate degrees in specific fields similar or closely related to Criminal Justice.

Students in other degree programs at the University of Dayton may minor in Criminal Justice. The minor requires 18 semester hours, to include CRJ 200 and CRJ 213.

It is the sole responsibility of students to inform themselves of whatever changes occur in the curriculum and to observe all the regulations, procedures, and requirements of the University and the Criminal Justice discipline.

Proficiency examinations for limited CRJ credit are available only to majors who are in-service personnel, e.g., law-enforcement officers or probation and parole officials. Such students may take their formal appeals to the director's office at the beginning of each term in order that it can be determined whether scheduling a proficiency examination during that term is warranted.

Any Criminal Justice major may elect a minor by applying the general electives to that specific discipline that is of professional interest. It is necessary that the student obtain the formal approval of the academic advisor and consult the chairman of the department the minor is taken in, in order to be fully informed.

PROGRAM — 54: BACHELOR OF SCIENCE WITH A MAJOR IN CRIMINAL JUSTICE

Option A

The student must successfully complete a minimum of 123 semester hours for the degree.

	<i>Semester Hours</i>
Humanities.....	22
ENG 111, 112: College Composition I, II.....	7
Philosophy and / or Religious Studies.....	12
SPE 101: Fundamentals of Effective Speaking.....	3
Social and Behavioral Sciences	27
ECO 203: Principles of Microeconomics	3
POL 201: The American Political System.....	3
POL 301: The American Judicial Process.....	3
POL 305: Introduction to Public Administration	3
POL 450: Civil Liberties	3
PSY 101: Introduction to Psychology.....	3
PSY 341: Social Psychology	3
SOC 307: Criminology and Penology.....	3
SOC 332: Urban Sociology	3
Criminal Justice	30
CRJ 200: Principles of Criminal Justice	3
CRJ 213: Crinimal Law	3
CRJ 320: Law of Evidence and Procedure.....	3
Electives in Criminal Justice	21
General Electives (upper divisional)	27
Sciences.....	8

ACC 301: Financial Reporting and Administration.....	3
CPS 107: Computing-General Survey, <i>or</i>	
CPS 300: Computers and Society	3
Mathematics elective.....	3

Total Program Semester Hours..... 123

Note: No more than 6 semester hours of proficiency examination credit will be permitted under Option A.

Option B

To be admitted as a major in this program under Option B a transfer student must have received an accredited associate degree in Corrections, Law Enforcement, Police Administration, Police Science, or a similar field of Criminal Justice, and must have a 2.50 cumulative average on a 4.0 grading system. For Criminal Justice majors who have completed the basic requirements for an accredited two-year Criminal Justice degree, 66 semester hours beyond the associate degree are suggested.

Any course that is specifically required of the Criminal Justice candidate by the University of Dayton for the baccalaureate degree and was taken at the institution conferring the student's associate degree, *should not be duplicated* if an overlapping of academic course content is substantively evident. Such a course is to be waived by the student's academic advisor upon the formal request of the student and replaced with another course within the same division.

Prerequisites

The following are required in addition to the baccalaureate degree requirements if they were not included in the candidate's associate degree program.

	<i>Semester Hours</i>
English	(ENG 111, 112) 7
Criminology	(SOC 307)..... 3
Introduction to Psychology	(PSY 101)..... 3
American Government	(POL 201)..... 3
Mathematics elective	3
Science electives.....	6
Accounting	(ACC 301) 3
	<i>Semester Hours</i>
Humanities.....	15
Philosophy and / or Religious Studies.....	12
SPE 101: Fundamentals of Effective Speaking.....	3
Social and Behavioral Sciences	18
ECO 203: Principles of Microeconomics	3
POL 301: The American Judicial Process.....	3
POL 305: Introduction to Public Administration	3
POL 450: Civil Liberties	3
PSY 341: Social Psychology	3
SOC 332: Urban Sociology	3
General electives (upper divisional).....	15
Criminal Justice electives, 300-400 level ¹	15
CPS 107: Computing – General Survey, <i>or</i>	
CPS 300: Computers and Society	3
Total Program Semester Hours.....	66

¹ Courses selected for matriculation should not duplicate previous accredited course work taken in one's associate degree program as a Criminal Justice major.

Note: No more than 3 semester hours of proficiency examination credit will be permitted under Option B.

FACULTY

James A. Adamitis, *Director*

Assistant Professors: Adamitis, Bench, Forscher, Ullrich
Adjunct Instructors: Cross, Meagher, Steinberg

COURSES OF INSTRUCTION

- CRJ 200. PRINCIPLES OF CRIMINAL JUSTICE: An introduction to the field of Criminal Justice. Stresses the theoretical foundations, origin, nature, methods, and limitations of Criminal Justice as a college curriculum. 3 sem. hrs.
- CRJ 213. CRIMINAL LAW: Principles of criminal liability, preparation of case materials, court procedures, and case disposition. 3 sem. hrs.
- CRJ 320. LAW OF EVIDENCE AND PROCEDURE: A comprehensive study of the rules of evidence, evaluation of evidence, and proof: physical evidence, testimony. Prerequisite: a course in Criminal Law. 3 sem. hrs.
- CRJ 322. CORRECTIONS: The administration of correctional institutions and other detention facilities with emphasis on probation and parole systems and the rehabilitation and treatment of the psychiatrically incarcerated. 3 sem. hrs.
- CRJ 325. COMMUNITY AND PUBLIC RELATIONS: Contemporary problems pertaining to Criminal Justice community relations; training programs, image development and policy implementation of releasing information to the mass media. 3 sem. hrs.
- CRJ 327. CORPORATE SECURITY MANAGEMENT: A comprehensive managerial approach in developing adequate security systems with emphasis on personnel identification and theft control procedures including the establishment of intra-security surveys for deterring espionage, sabotage, and subversive line / staff activities within a private corporate structure. 3 sem. hrs.
- CRJ 330. ORGANIZED CRIME: Consideration of the social, psychological and legal factors characterizing criminal careers and surveys of the regional, political, and financial factors influencing organized crime. Prerequisite: A course in Criminal Law. 3 sem. hrs.
- CRJ 333. FOUNDATIONS OF CRIMINAL HOMICIDE: Focus on those basic Criminal Justice theories and concepts pertinent to the various classes of homicide and the effects select heinous crimes have had on the regulatory aspects of the para-legal system. Emphasis will be on those distinguishing characteristics historically pertaining to culpable, justifiable, and excusable homicide. 3 sem. hrs.
- CRJ 336. COMPARATIVE CRIMINAL JUSTICE SYSTEMS: A comparative survey of cross-cultural uniformities and diversities in law enforcement agencies and correctional systems in selected countries. Prerequisite: An introductory course in Criminal Justice. 3 sem. hrs.
- CRJ 401. POLITICAL VIOLENCE: An interdisciplinary course offered in cooperation with the Department of Political Science. Concerned with the theoretical approaches toward understanding the process of violent change in political institutions. Examines the continuum between violence and nonviolence as a consequence of competing interests in the process of revolution, revolt, campus dissent and political assassination. Emphasis will be placed on the roles of Criminal Justice and government agencies in meeting political dissent. 3 sem. hrs.
- CRJ 405. LABOR RELATIONS IN JUSTICE ADMINISTRATION: Review of the role of law in the collective bargaining process; assessment of the activities of labor organizations, and the impact select unions have had on the administration of justice and law enforcement. Prerequisite: A course in Public Administration. 3 sem. hrs.
- CRJ 410. VICTIMOLOGY: Examination of the victimal justice process as an integral part of the Criminal Justice system. An analysis of the penal couple and victimal receptivity will be the intent of study, with special emphasis on victim-offender relationships, rape, and victim compensation. 3 sem. hrs.

CRJ 416. DRUG ABUSE: Consideration of the physical and behavioral variables contributing to drug abuse and narcotic addiction, and assessment of several rehabilitation programs and medical treatment centers within the Criminal Justice legal structure. Emphasis is placed on law and drug abuse cases. Prerequisite: An introductory course in Criminal Justice.

3 sem. hrs.

CRJ 440. INDEPENDENT STUDY AND RESEARCH: Directed study and research on selected topics of significant academic publications in law enforcement and criminal justice. Prerequisite: Permission of the instructor.

3 sem. hrs.

CRJ 447. CONTEMPORARY ISSUES IN JUSTICE ADMINISTRATION: Seminar to identify and discuss the contemporary issues in Justice Administration. Topics to be assigned by the instructor and presented for class discussion by the students. Prerequisite: An introductory course in Criminal Justice.

3 sem. hrs.

CRJ 495. INTERNSHIP IN CRIMINAL JUSTICE: Supervised experience solely in a civilian capacity in a criminal justice or law enforcement agency. Open to pre-service Criminal Justice majors only; in-service students do not qualify. Prerequisite: Permission of the director.

3 or 6 sem. hrs.



ECONOMICS (ECO)

In cooperation with the Department of Economics and Finance in the School of Business Administration, the College of Arts and Science offers the degree of Bachelor of Arts with a Major in Economics.

The College recognizes the importance of close cooperation between the student and his Economics advisor in selecting courses. Flexibility in the program is particularly important, for there are many areas of study which can augment the course work in the major field. For example:

- a. An interest in the quantitative aspect of Economics can be supported by courses in mathematics and computer science.
- b. An interest in international economic problems can be combined with proficiency in one or more foreign languages.
- c. An interest in socio-economic problems will naturally lead to coursework in other social sciences.

The requirements for the degree are as follows:

PROGRAM – A5: BACHELOR OF ARTS WITH A MAJOR IN ECONOMICS

	<i>Semester Hours</i>
Economics.....	30
ECO 203, 204, 346, 347, and 18 semester hours of upper-division electives.	
Natural Science, Applied Science, Quantitative Studies.....	6-12
3 semester hours natural science; Mathematics 207; additional courses in Mathematics, Computer Science, statistics, or natural science are recommended.	
Social Science.....	9-12
Electives from at least two of the following areas:	
Political Science, Sociology, Anthropology, Psychology.	
Humanities.....	18
American Studies, Communication Arts, English, History, Humanities Studies, Languages, Performing and Visual Arts, Philosophy, Religious Studies, and Afro-American Studies. At least two units, each of 6 semester hours in humanities with at least 3 semester hours in each unit (except languages) from 300-400 level.	
Philosophy and / or Religious Studies.....	12
Communication Skills.....	0-10
ENG 111, 112; SPE 101. Demonstrations of competence may be presented in lieu of these requirements.	
Senior Synthesis.....	6
To be arranged by the department and the student. 3 semester hours may be satisfied by taking ECO 480, Current Economic Problems. The remaining 3 semester hours are selected from approved senior synthesis courses.	

(For course descriptions, see ECO, Chapter VII.)

ENGLISH (ENG)

The University requirement in English is satisfied by the completion of English 111 and English 112. Students whose verbal scores on the SAT or ACT are sufficiently high to warrant placement in English 112 upon admission may have English 111 waived. Students who are so placed in English 112 do not receive credit for English 111 but are free to take elective course work in place of the waived course. International students for whom English is a second language must submit TOEFL scores for placement in English 111 or 112. Particulars about the freshman program and testing procedures can be obtained from the director of freshman English.

Students majoring in English must complete at least 36 semester hours of English courses, at least 24 of them at the 300-400 level. Various recommended tracks have been developed to serve the needs of students electing English as a preprofessional program (particularly pre-law), as a teaching concentration, as a pregraduate program, as a writing concentration, etc. Information about the requirements can be obtained from the department office and from the student's advisor. Majors should consult the departmental chairman for advisor assignment. English minors must take 12 semester hours of upper divisional (300-400) courses in addition to the lower divisional requirements.

The Department sponsors one co-curricular activity, Orpheus, the literary magazine of the University.

PROGRAM – A6: BACHELOR OF ARTS WITH A MAJOR IN ENGLISH

	<i>Semester Hours</i>
English.....	36
Science.....	6-9
Social and Behavioral Science.....	9
Humanities.....	18
Philosophy and / or Religious Studies.....	12
Communication Skills (English and Speech).....	0-10
Senior Synthesis.....	6
General academic electives to total at least.....	120

FACULTY

B. J. Bedard, *Chairman*

Michael H. Means, *Assistant Chairman and Director of Freshman English*

Professor: Bedard

Associate Professors: Arons, August, Cochran, Henninger, Labadie, Macklin, K. Marre, Martin, McCarthy, Means, Murphy, Patrouch, Rougier, Ruff, Stockum, Sturm

Assistant Professors: Cameron, Horst, Kimbrough, L. Marre, Palumbo, Pici

COURSES OF INSTRUCTION

ENG 111 COLLEGE COMPOSITION I: Reading analysis and writing proficiency devel-

opment. Required of every student. Waiver granted by successful performance on a verbal skills proficiency test. *4 sem. hrs.*

ENG 112. COLLEGE COMPOSITION II: An analysis of the logical, linguistic, and rhetorical structure of exposition and argument. Practical application aimed at developing perceptive readers and responsible writers. Emphasis on research and writing. Required conferences. Required of every student. Prerequisite: Successful performance on a verbal skills proficiency test or ENG 111. *3 sem. hrs.*

ENG 114H. FRESHMAN HONORS: Specific honors section of college composition for first-semester freshmen who show high proficiency. Prerequisite: Superior scores in entrance examinations. *3 sem. hrs.*

ENG 118. TOPICS IN COMPOSITION AND READING: Exploration of subjects in composition, reading, or related problems in developing writing skills. *1-6 sem. hrs.*

ENG 203. MAJOR BRITISH WRITERS: A study of four or five writers representative of the principal periods in English literature. Prerequisite: ENG 112 or its equivalent. *3 sem. hrs.*

ENG 204. MAJOR AMERICAN WRITERS: A study of four or five writers representative of the principal periods in American literature. Prerequisite: ENG 112 or its equivalent. *3 sem. hrs.*

ENG 205. MAJOR WORLD WRITERS: The study in translation of significant writings of the Western world, exclusive of English and American literature. These are among the works which have exerted great influence on both these literatures. Prerequisite: ENG 112 or its equivalent. *3 sem. hrs.*

ENG 210. POETRY: A study of representative examples of a major literary genre. Prerequisite: ENG 112 or its equivalent. *3 sem. hrs.*

ENG 212. DRAMA: A study of representative examples of a major literary genre. Prerequisite: ENG 112 or its equivalent. *3 sem. hrs.*

ENG 214. FICTION: A study of fiction as a major genre. Prerequisite: ENG 112 or its equivalent. *3 sem. hrs.*

ENG 230. TOPICS IN LITERATURE: Exploration of varying approaches to the study of literature. Can be repeated under special circumstances. (Formerly ENG 208.) Prerequisite: ENG 112 or its equivalent. *1-6 sem. hrs.*

ENG 242H. SOPHOMORE HONORS: A seminar in which selected works from the literature of Western civilization are studied. By invitation only. *3 sem. hrs.*

ENG 260. INTRODUCTION TO THE MAJOR: An introduction to the field of English, particularly the history and theory of literature, with some practice in practical criticism. Suggested for English majors. *3 sem. hrs.*

ENG 270. COLLEGE COMPOSITION III: 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. Prerequisite: ENG 112 or its equivalent. *3 sem. hrs.*

ENG 272. EXPOSITORY WRITING: Further practice in writing expository themes and documentary papers. A continuation of ENG 112 for students desiring more experience in writing. Prerequisite: ENG 112 or its equivalent. *3 sem. hrs.*

ENG 282. INTRODUCTION TO THE WRITING OF POETRY: A beginning course in analyzing and writing short plays. Prerequisite: ENG 112 or its equivalent. *3 sem. hrs.*

ENG 284. INTRODUCTION TO THE WRITING OF FICTION: A beginning course in writing short fiction. Prerequisite: ENG 112 or its equivalent. *3 sem. hrs.*

- ENG 286. INTRODUCTION TO THE WRITING OF DRAMA: A beginning course in analyzing and writing poetry. Prerequisite: ENG 112 or its equivalent. 3 sem. hrs.
- ENG 301. SURVEY OF EARLY ENGLISH LITERATURE: A survey of English literature from the Medieval period to the end of the eighteenth century. Prerequisite: ENG 112 or its equivalent. 3 sem. hrs.
- ENG 302. SURVEY OF LATER ENGLISH LITERATURE: A survey of English literature from the beginning of the Romantic period to the present day. ENG 301 is not the prerequisite: Prerequisite: ENG 112 or its equivalent. 3 sem. hrs.
- ENG 305. SURVEY OF AMERICAN LITERATURE: A survey of American literature from the Colonial period to the present day. Prerequisite: ENG 112 or its equivalent. 3 sem. hrs.
- ENG 308. ADVANCED WRITING OF POETRY: Intensive practice in the writing of poems. Prerequisite: ENG 282 or permission. 3 sem. hrs.
- ENG 310. ADVANCED WRITING OF FICTION: Intensive practice in the writing of fiction. Prerequisite: ENG 284 or permission. 3 sem. hrs.
- ENG 312. ADVANCED WRITING OF DRAMA: Intensive practice in the writing of plays. Prerequisite: ENG 286 or permission. 3 sem. hrs.
- ENG 316. ADVANCED COMPOSITION: Intensive practice in the standard forms of theme writing. Prerequisite: ENG 112 or its equivalent. 3 sem. hrs.
- ENG 317. CONTEMPORARY POETRY: A study of selected contemporary writers of poetry after the middle of the twentieth century. Prerequisite: ENG 112 or its equivalent. 3 sem. hrs.
- ENG 319. CONTEMPORARY FICTION: A study of selected contemporary novels and short fiction from recent American, English, and European writers. Prerequisite: ENG 112 or its equivalent. 3 sem. hrs.
- ENG 320. CONTEMPORARY DRAMA: A study of selected American, English and / or Continental plays to illustrate major tendencies of modern drama. Prerequisite: ENG 112 or its equivalent. 3 sem. hrs.
- ENG 322. MASTERPIECES OF WORLD LITERATURE: Selections in translation from the literature of Europe and Asia. Not open to students who have taken ENG 205. Prerequisite: ENG 112 or its equivalent. 3 sem. hrs.
- ENG 324. THE NOVEL: A consideration of novels to illustrate various fictional molds. Novels will be selected from English, American, and / or European literature. Prerequisite: ENG 112 or its equivalent.
- ENG 325. SCIENCE FICTION: A survey of science fiction with detailed analysis of selected novels and short fiction. Prerequisite: ENG 112 or its equivalent. 3 sem. hrs.
- ENG 327. STUDIES IN POPULAR FICTION: An analysis of selected artifacts of popular culture with reference to serious literature. May be repeated when topics change. Prerequisite: ENG 112 or its equivalent. 3 sem. hrs.
- ENG 329. SHORT STORY: A study of the techniques employed in the writing of the short story. Various models of the short story will be analyzed. Not open normally to students who have had ENG 214. Prerequisite: Eng 112 or its equivalent. 3 sem. hrs.
- ENG 330. DEVELOPMENT OF DRAMA: A study of the historical development of the drama from its beginnings in the Classic Age to the nineteenth century. Selected plays from each significant period are read and analyzed. Not open normally to students who have had ENG 212. Prerequisite: ENG 112 or its equivalent. 3 sem. hrs.

- ENG 331. STUDIES IN FILM: Selected films are analyzed to show developments in film technique or criticism. May be repeated when topics change. Prerequisite: ENG 112 or its equivalent. 3 sem. hrs.
- ENG 335. MODERN BLACK LITERATURE: Emphasis on the contribution of black literary artists of the twentieth century. Novelists, dramatists, and poets will be studied. Prerequisite: ENG 112 or its equivalent. 3 sem. hrs.
- ENG 337. STUDIES IN FOLKLORE: Selected studies in American and / or world folklore. May be repeated as topics change. Prerequisite: ENG 112 or its equivalent. 3 sem. hrs.
- ENG 339. NATIVE AMERICAN LITERATURE: A consideration of American Indian literature and culture. Prerequisite: ENG 112 or its equivalent. 3 sem. hrs.
- ENG 348. MODERN IRISH LITERATURE: A consideration principally of the Irish literary revival of the late nineteenth and early twentieth century with appropriate background material. Prerequisite: ENG 112 or its equivalent. 3 sem. hrs.
- ENG 350. EUROPEAN LITERATURE OF ANTIQUITY: A study of significant works from the Old Testament, Greek, Roman, English, Irish, and / or Scandinavian. Prerequisite: ENG 112 or its equivalent. 3 sem. hrs.
- ENG 351. EUROPEAN LITERATURE OF THE MIDDLE AGES: A consideration of selected literary masterpieces of Western civilization in the Middle Ages. (Formerly Eng 321.) Prerequisite: ENG 112 or its equivalent. 3 sem. hrs.
- ENG 353. LITERATURE OF THE RENAISSANCE: Literary masterpieces of England and the Continent selected to illustrate the culture and ideas of the Renaissance. Prerequisite: ENG 112 or its equivalent. 3 sem. hrs.
- ENG 354. LITERATURE OF THE ENLIGHTENMENT: Selections from English and European literature of the Age of Reason. Prerequisite: ENG 112 or its equivalent. 3 sem. hrs.
- ENG 355. LITERATURE OF THE ROMANTIC AGE: A study of the Romantic Revolution as illustrated in representative writings of English and European authors. Prerequisite: ENG 112 or its equivalent. 3 sem. hrs.
- ENG 356. EUROPEAN LITERATURE OF THE NINETEENTH CENTURY: A consideration of representative masterpieces from the literature of England and the Continent during the nineteenth century. Prerequisite: ENG 112 or its equivalent. 3 sem. hrs.
- ENG 357. EUROPEAN LITERATURE OF THE EARLY TWENTIETH CENTURY: Significant writing from English and European literature to illustrate the ideas and culture of the early modern period. Prerequisite: ENG 112 or its equivalent. 3 sem. hrs.
- ENG 358. CONTEMPORARY LITERATURE OF EUROPE: Selections from the literature of Western Europe to reveal the principal intellectual and cultural tendencies of the present age. Prerequisite: ENG 112 or its equivalent. 3 sem. hrs.
- ENG 362. SHAKESPEARE: A study of selected plays of Shakespeare. Some of these are discussed intensively in class; others are assigned for outside reading. Prerequisite: ENG 112 or its equivalent. 3 sem. hrs.
- ENG 368. THEME AND IDEA IN LITERATURE: Selected texts illustrating a universal theme or a consistent idea to serve as a base for developing critical and analytical insights and writing skills. Offered in seminar format. Prerequisite: ENG 112 or its equivalent. 2 sem. hrs.
- ENG 370. REPORT WRITING: Analyzing and practicing the techniques of preparing written reports, beginning with basic forms and moving on through those which are complex to the long, formal report. Prerequisite: ENG 112 or its equivalent. 2 sem. hrs.

ENG 372. APPLIED WRITTEN COMMUNICATIONS: Written communications appropriate to business and industrial organizations, including forms of correspondence and a job-application project but excluding formal reports. Prerequisite: ENG 112 or its equivalent.

2 sem. hrs.

ENG 374. ARGUMENTATION: Studies and practice in the patterns of argumentative writing. Recommended for the pre-professional student. Prerequisite: ENG 112 or its equivalent.

3 sem. hrs.

ENG 376. TOPICS IN WRITING: Analysis and practice in specific forms of writing. May be repeated when the form changes. Prerequisite: ENG 112 or its equivalent.

1 to 6 sem. hrs.

ENG 378. PROFESSIONAL AND TECHNICAL WRITING: Practice in developing writing skills needed in business, government, and industry. Prerequisite: ENG 112 or its equivalent.

3 sem. hrs.

ENG 380. STUDIES IN LITERATURE: A study of special topics or themes in literature. Could be repeated under special circumstances. (Formerly ENG 375.) Prerequisite: ENG 112 or its equivalent.

1-6 sem. hrs.

ENG 384. DIRECTED READINGS: A program of readings and reports in literature and the humanities, utilizing seminar and / or individual conferences. May be repeated with permission. Prerequisite: ENG 112 or its equivalent.

3 sem. hrs.

ENG 395H. JUNIOR HONORS TUTORIAL: Independent directed study on special topics for selected students. May be repeated when topic or instructor changes. Permission required.

3 sem. hrs.

ENG 405. CHAUCER: 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: A 200- or 300-level English course.

3 sem. hrs.

ENG 407. MEDIEVAL ENGLISH LITERATURE: A study of the dominant types in the literature of England from the beginning to 1500. Prerequisite: a 200- or 300-level English course.

3 sem. hrs.

ENG 410. EARLY RENAISSANCE LITERATURE: A survey of the literature of the sixteenth century from Thomas More to Sidney and Spenser. Prerequisite: A 200- or 300-level English course.

3 sem. hrs.

ENG 414. LATER RENAISSANCE LITERATURE: A survey of the literature of the early seventeenth century from Bacon, Jonson, and Donne to Marvell, exclusive of Milton. Prerequisite: A 200- or 300-level English course.

3 sem. hrs.

ENG 431. MILTON: A study of the major and minor poems and of selected prose of Milton. Prerequisite: A 200- or 300-level English course.

3 sem. hrs.

ENG 433. STUDIES IN NEO-CLASSICAL LITERATURE: The concern of the course is with the literature from Dryden to Johnson. May be repeated as topics change. Prerequisite: A 200- or 300-level English course.

3 sem. hrs.

ENG 438. ENGLISH ROMANTICISM: A study of the major poets and critics of the Romantic Age. Prerequisite: A 200- or 300-level English course.

ENG 444. STUDIES IN NINETEENTH-CENTURY ENGLISH LITERATURE: A study of the literature in England in the nineteenth century. May be repeated as topics change. Prerequisite: A 200- or 300-level English course.

3 sem. hrs.

ENG 448. TWENTIETH-CENTURY BRITISH LITERATURE: A consideration of significant developments in modern British literature. Prerequisite: A 200- or 300-level English course.

3 sem. hrs.

ENG 451. AMERICAN ROMANTICISM: A study of significant developments in American literature of the mid-nineteenth century. Prerequisite: A 200- or 300-level English course. *3 sem. hrs.*

ENG 453. AMERICAN REALISM AND NATURALISM: A study of representative writers from the post-Civil War period in American literature. Prerequisite: A 200- or 300-level English course. *3 sem. hrs.*

ENG 455. TWENTIETH-CENTURY AMERICAN LITERATURE: A study of significant developments in American literature of the twentieth century. Prerequisite: a 200- or 300-level English course. *3 sem. hrs.*

ENG 460. AN INTRODUCTION TO THE MAJOR: An introduction to the field of English, particularly the history and theory of literature, with some practice in practical criticism. (Same as ENG 260.) Suggested for English majors. Prerequisite: Upperclass standing.

ENG 468. INTRODUCTION TO LINGUISTICS: An introduction to the basic concepts and procedures of general linguistics, including language description, history, variation, theory, and acquisition. (Formerly ENG 307.) Prerequisite: A 200- or 300-level English course. *3 sem. hrs.*

ENG 470. HISTORY OF ENGLISH: A study of stages in the development of the English language and of influences shaping its development from the beginning to the present time. Prerequisite: A 200- or 300-level English course. *3 sem. hrs.*

ENG 472. THE STRUCTURE OF ENGLISH: Studies in the grammatical structure of modern English in the light of historical development. Traditional and modern linguistic points of view considered. Prerequisite: A 200- or 300-level English course. *3 sem. hrs.*

ENG 480. INDEPENDENT STUDY: Individual investigations of special topics under faculty direction. With permission. May be repeated under special circumstances. Prerequisite: At least fifteen semester hours of English. *1-6 sem. hrs.*

ENG 490. SEMINAR: Concentration on one literary figure, genre, or period for purposes of research and analysis. Reports are read at sessions. May be repeated when topic changes. Consult departmental catalog for specific prerequisites for each section. With permission. *3 sem. hrs.*

ENG 495H. SENIOR HONORS TUTORIAL: Independent directed study on special topics for selected students. May be repeated when topic or instructor changes. Permission required. *3 sem. hrs.*



FINE ARTS (ART)

The Fine Arts Division of the Performing and Visual Arts Department offers four programs:

- Bachelor of Arts with a Major in Fine Arts
- Bachelor of Fine Arts
- Bachelor of Fine Arts in Commercial Design
- Bachelor of Fine Arts with Teacher Certification

Minors are required to take 19 semester hours in art, 4 of which must be in upper level courses. All art students, regardless of their programs, are required to take ART 103-104 and ART 111-112 before taking intermediate and advanced courses.

Students entering degree programs are required to present an art portfolio for placement within the program consisting of at least four or five examples of drawing or sketching, two or three renderings in color, three to five other works of the applicant's choice. Any three-dimensional work should be photographed on 35 mm. slides. Work submitted should be evidence of the applicant's most recent efforts and must be submitted before August 15. Transfer students entering a B.F.A. program must present five samples of art work to the Division Head.

Second term sophomore candidates for degree programs must participate in a faculty critique during the spring term. All seniors of the B.F.A. and certain seniors in B.A. with art major must present a Graduation Portfolio. See programs for specific details.

Studio fees are \$15. Model fees are \$5. Fees are noted in course descriptions if required.

PROGRAM – A7: BACHELOR OF ARTS WITH A MAJOR IN FINE ARTS

University Requirements:	<i>Semester Hours</i>
Speech.....	3
English 111-112.....	7
Philosophy and / or Religious Studies.....	12..... 22

Major Program ¹ – Required Courses:

	<i>Studio</i>	
Drawing – ART 103-4.....		4
Design – ART 111-2, 217.....		6
Graphics – ART 251-2.....		4
Painting – ART 226-7.....		4
Sculpture – ART 231.....		2
Crafts – ART 261 or 263.....		2..... 22

Theory / History

Theory – ART 282.....		3
History ² – Select from ART 373, 374, 375, 473, 475.....	9.....	12..... 34
Art electives.....		8

Total in ART 42

Breadth Requirements:

(See Distribution Table for B.A. degree and consult with Department Chairman).....	45
Senior Synthesis.....	6
Electives.....	5
Total.....	120

¹ Entrance Portfolio required of all students entering program. Graduation portfolio is optional for this program but highly recommended for students entering graduate school.

² At least 6 semester hours of Art History must be taken at the 300 level.

Note: Second-term sophomores' participation in faculty critique is required.

At least 24 semester hours of the major field must be upper level.

PROGRAM – A8: BACHELOR OF FINE ARTS

University Requirements:	<i>Semester Hours</i>
Speech 101.....	3
English 111-112.....	7
Philosophy and / or Religious Studies.....	12..... 22

Major Program ³ – Required Courses:

	<i>Studio</i>	
Drawing – ART 103-4, 206-7	8	
Design – ART 111-2, 217	6	
Lettering – ART 191 or 192	2	
Graphics – ART 251-2	4	
Painting – ART 226-7	4	
Sculpture – ART 231-2	4	
Crafts – ART 261, 263 or 363 or 241	4	
Photography – PHO 101	3..... 35	
	<i>History / Theory</i>	
Art History ⁴	12	
Art Theory – ART 282	3	
Graduation Portfolio – ART 495-6	2..... 17..... 52	
Art electives selected from studio courses and art history.....	35	
	Total in ART.....	87

Breadth Requirements: Two units of 6-9 semester hours each selected from the Departments of Psychology, Sociology / Anthropology, Political Science, Mathematics, Science, Economics, Marketing, Business Management, Education, Home Economics, Business Administration Core Program (12 semester hours required).....	12-15
Two units of 6-9 semester hours each selected from the Departments of Languages, English, History, Performing and Visual Arts (other than major field), Communication Arts, Philosophy, Religious Studies. (If English, Philosophy, Religious Studies or Communication Arts is chosen, then the 6-hour requirement excludes the hours already required by the University).....	12-15..... 27
	Total.....
	136

Concentration requirement: For juniors and seniors two units of 300-400 level courses of 4-6 hours each must be selected from the areas of painting, graphics, drawing, jewelry or enameling, sculpture, and art history.

³ Entrance Portfolio required before program placement for all B.F.A. students. Portfolio required for graduation; it must consist of a minimum of 20 works (10 in the major area of concentration and 10 works showing a variety of media) properly framed, matted, or mounted. The portfolio is submitted to the faculty one month before graduation. ART 495 must be taken in the third term before graduation; ART 496 must be taken the second term before graduation. Second term sophomore candidates for B.F.A. must participate in a faculty critique during the spring term.

⁴ At least 6 semester hours of survey in art history must be at the 300 level.

MAJOR IN COMMERCIAL DESIGN

University Requirements:	<i>Semester Hours</i>
Speech 101.....	3
English 111-112.....	7
Philosophy and / or Religious Studies.....	12..... 22

Major Program ⁵ – Required courses:

<i>Studio</i>	
Drawing – ART 103-4, 206-7, 303-4.....	12
Lettering – ART 191-2.....	4
Design – ART 111-2, 217-8, 413-4.....	12
Painting – ART 226-7.....	4
Graphics – ART 251-2, 355.....	6..... 38
<i>Technical</i>	
Typography – ART 345.....	2
Commercial Graphics-Technical Problems – ART 385.....	2
Photography – PHO 101, 225, 325.....	9
Mechanical Drawing – MIT 103L.....	2..... 15
<i>Academic</i>	
Art History – ART 373, 374 or 375.....	6
Commercial Design Seminar – ART 299, 399, 499.....	6
Marketing – MKT 205, 315, 318, 421, 430.....	15..... 27..... 80
Art electives.....	7
Breadth requirements (See program listed above for Bachelor of Fine Arts.).....	27
Total.....	136

⁵ Entrance Portfolio required before program placement for regular as well as transfer students. Portfolio required for graduation. Structure of this portfolio will be determined by the standards set down by ART 499. Staff and invited professional designers will critique and approve the portfolio which is submitted one month before graduation.

Note: Second-term sophomore candidates for B.F.A. must participate in a faculty critique during the spring term.

ART EDUCATION (E11A SUPPLEMENT)

Note: Students seeking certification in the B.F.A. program must apply in the sophomore year with 40 semester hours completed and with a 2.9 cumulative point average. See also EDS.

University Requirements:	<i>Semester hours</i>
Speech 101.....	3
English 111-2.....	7
Philosophy and / or Religious Studies.....	12..... 22

Major Program ⁶ – Required courses (must be taken before placement in Student Teaching):

<i>Studio</i>	
Drawing – ART 103-4.....	4
Design – ART 111-2.....	4
Lettering – ART 191.....	2
Painting – ART 226-7, 228.....	6
Sculpture – ART 231.....	2
Graphics – ART 251, 355.....	4
Crafts – ART 261, 341, 363.....	6
Ceramics – ART 241.....	2
Photography – PHO 101.....	3
<i>History / Theory</i>	
Art History – ART 373, 374 or 375.....	6
Philosophy of Art – PHL 320.....	3
Graduation Portfolio – ART 495-6.....	2..... 44
Art electives selected from studio courses and art history.....	33
Total in Art.....	77

Education Program

Required courses:

Art Methods

Creative Teaching of Art – Elementary and Secondary – ART 483.....	4
Education requirements (to be taken in sequence, except EDF 419 and EDS 415, which may be taken together)	
Human Growth & Development – EDF 207.....	3
The Learning Process – EDF 208.....	3
Secondary School, Self & Society – EDS 351 or Teaching in Elementary Schools – EDE 296.....	3
Philosophy of Education – EDF 419 ⁷	3
Student Teaching (Special) – EDS 415.....	12
General (required for certification) ⁸	24
Social Studies.....	6
Mathematics.....	3
Natural Science.....	4
Total.....	136

⁶ Entrance Portfolio required before program placement for regular as well as transfer students. Portfolio required for graduation. This portfolio must consist of a minimum of 20 works (10 in the major area of concentration and 10 works showing a variety of media) properly framed, matted, or mounted. The portfolio is submitted to the faculty one month before graduation. ART 495 must be taken in the third term before graduation; ART 496 must be taken the second term before graduation.

Second-term sophomore candidates for B.F.A. must participate in a faculty critique during the spring term.

⁷ Philosophy of Education, EDF 419, is accepted as part of University Philosophy and / or Religious Studies requirement.

⁸ National Teachers Examination is required of all students. It should be taken during the second last term of attendance. Applications are available in the Education Office.

FACULTY

Patrick S. Gilvary, *Chairman of Performing and Visual Arts Department*

Bernard E. Plogman, *Head of Fine Arts Division*

Associate Professors: Plogman, Weber

Assistant Professors: Barrish, Richardson, Zahner

Instructors: Fiehler, Hitt

Part-time Instructors: Black, Cancannon

COURSES OF INSTRUCTION

ART 101. FUNDAMENTALS AND MATERIALS OF ART: This course is designed to acquaint beginners with the principles and concepts of art and with the various kinds of materials and techniques used in artistic expression. Studio fee. 2 sem. hrs.

ART 103-104. INTRODUCTORY DRAWING: Introduction of basic visual concepts, various drawing media, and approaches to experimental technique. Emphasis is placed on perspective, perceptual awareness and expressive freedom. ART 104 will include an introduction to figure drawing. Prerequisite for ART 104 is ART 103 or permission. Model fee for ART 104 only. 4 sem. hrs.

ART 111-112. PRINCIPLES OF DESIGN: A study of the underlying elements and principles of design as they are applied to surface pattern. Color theories and their use in creative design are a part of the course. Prerequisite for ART 112 is ART 111 or permission. 4 sem. hrs.

88 ART 181. ENJOYMENT OF ART: The course is designed to develop in the student a

greater capacity to enjoy as well as understand contemporary art expression. Major emphasis will be given to understanding the creative process and investigating the artist's point of view as well as his relationship to his audience. The course is open to all students except Art majors. One three-hour course each week. 3 sem. hrs.

ART 191-192. LETTERING AND CALLIGRAPHY: 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. Prerequisite for ART 192 is ART 191 or permission. 4 sem. hrs.

ART 206. ANATOMICAL DRAWING: Studies from the nude model, skeleton, anatomy diagrams, and drawings of the great masters. Emphasis upon knowledge of skeletal-muscular structure, external contour, and "norms" for body proportion. Prerequisites: ART 103, 104. Model fee. 2 sem. hrs.

ART 207. FIGURE DRAWING: This course encourages the integration of previous studies of visual concepts, anatomy, and expressive freedom into a personally distinctive figure drawing approach. Prerequisites: ART 104, 206 and / or instructor's permission. Model fee. 2 sem. hrs.

ART 217-218. THREE-DIMENSIONAL DESIGN: The application of the principles of design and aesthetic factors to the development of form; creative use of a wide variety of materials. Development of the knowledge, skills, and techniques necessary to design within limitations imposed by materials. Prerequisites: ART 103-104, 111-112. ART 217 is a prerequisite for ART 218. Studio fee. 4 sem. hrs.

ART 226-227. INTRODUCTORY PAINTING: Painting in oil, acrylics, and watercolor from still life, landscape, figure, and abstraction. Emphasis is placed on composition and techniques. Use of imaginative subject matter will also be encouraged. Prerequisite for ART 227 is ART 226 or permission. 4 sem. hrs.

ART 228-229. WATERCOLOR: Basic principles and techniques of transparent watercolors. Emphasis is on picture composition, value, and color sketching as preparatory steps in painting. In the second course, varying expressions and interpretations of subject material are encouraged. Prerequisites: ART 103-104, 111-112, 226-227. Model fee. 4 sem. hrs.

ART 231-232. SCULPTURE: Consideration of forms as a means of developing an understanding of mass, shape, and control of medium. Direct use of the widest possible range of materials with special emphasis on the integration of their characteristics with the expression. Prerequisite for ART 232 is ART 231 or permission. Studio fee. 4 sem. hrs.

ART 241. INTRODUCTORY CERAMICS: Introduction to the basic methods of working in clay, by way of coil, slab, and the wheel. Emphasis is on originality, creativity, and proper methods for each process. Prerequisites: ART 103-104, 111-112, or permission of instructor. Studio fee. 2 sem. hrs.

ART 251. GRAPHIC ARTS: Basic principles of relief printing as applied to the linoleum cut and the woodcut. Registration, the use of color, and the aesthetics of the relief print are explored. Discussion on printing papers, inks, proper matting procedures, and new relief techniques. Studio fee. 2 sem. hrs.

ART 252. GRAPHIC ARTS: The intaglio printing process as it is applied to acid etching. Exercises in the use of hard and soft ground etching, the art of the aquatint are presented. Emphasis is placed on working procedures, the use of the intaglio press, choice of paper and inks and proper presentation of the completed print. Prerequisite: ART 251. Studio fee. 2 sem. hrs.

ART 261. INTRODUCTORY COPPER ENAMELING: Basic principles and techniques of enameling on copper. The student works out original enamel pieces. Prerequisites: ART 103-104, 111-112, or permission of instructor. Studio fee. 2 sem. hrs.

ART 263. JEWELRY CONSTRUCTION: Original design and creativity emphasized. Individual construction procedures used rather than casting, smithing, or forging. Silver soldering is an integral part of the course. Prerequisites: ART 103-104, 111-112. Studio fee. 2 sem. hrs.

ART 282. ART THEORY: The course is required for B.F.A. and B.A. Art majors. Consists of art appreciation, art definitions, history, styles, criticism, perception, optics, habit focus, and creativity. Second-term freshman and above. One three-hour course each week. 3 sem. hrs.

ART 299. SOPHOMORE COMMERCIAL DESIGN SEMINAR: A program of professionally oriented studies and reports to introduce the student to the commercial design field. Prerequisites: MKT 205, ART 112. 2 sem. hrs.

ART 303-304. ADVANCED DRAWING: Observational and expressive drawing. The use of accumulated knowledge from previous drawing experiences in the introductory program to assist in the development of individual creativity and original style. Prerequisites: ART 206-207 or permission. Prerequisite for ART 304 is ART 303. Model fee. 4 sem. hrs.

ART 316. DESIGN AND COLOR: The study of color based principally on Albers' theories of color and its use in expressing and integrating various design problems. Prerequisites: ART 111-112, or permission of instructor. 2 sem. hrs.

ART 318. INTERMEDIATE DESIGN: Principles and practices in the application of design to the Fine Arts as well as the Practical Arts. Assignments are designed to motivate the student in design solutions of projects requiring research into original concepts. The project-oriented program includes assignments in the areas of graphic design and product design. 2 sem. hrs.

ART 321-322. ADVANCED PAINTING: A continuation of ART 226-227, Introductory Painting, with increased emphasis on the personal interpretation of the subject. The use of various painting media is encouraged, such as oils, watercolor, opaque watercolor, and synthetic paints. These courses must be taken in sequence, or with instructor's permission. Prerequisites: ART 226-227. 4 sem. hrs.

ART 325. FIGURE PAINTING: The fundamentals and practice of painting from the model. Approaches will be both representational and abstract, with stress on technical quality and personal expression. Prerequisites: ART 103-104, 207, 226-227, or permission of instructor. 2 sem. hrs.

ART 326. NEW FORMS PAINTING: The investigation of new techniques in painting such as sculptural painting, staining, use of colored cloth, plastics, wood, styrofoam, metal, shaped canvases, dyes, environmentals, and assemblages. Prerequisites: ART 231 or 217, 226-227, 321, or permission of instructor. 2 sem. hrs.

ART 331-332. ADVANCED SCULPTURE: Contemporary consideration of sculptural form. Individual expression, employing the use of modern techniques and experimental as well as traditional materials. Prerequisites: ART 231-232. Studio fee. 4 sem. hrs.

ART 331W. SCULPTURE WORKSHOP FOR ART EDUCATORS: Work designed to meet problems in shifting from two- to three-dimension art work: space, mass and form, figure-ground, figure groupings, closure parallax, monumental gravity. High school teachers. Studio fee. 2 sem. hrs.

ART 341. WEAVING: Creative exploration of fabrics with emphasis on the functional aspects of handweaving, including use of the loom. Includes fiber construction, basketry, stitchery, hooking, batik, and macrame. Prerequisites: ART 111-12. Studio fee. 2 sem. hrs.

ART 345. TYPOGRAPHY: An introduction to the basics in typography for those entering the commercial design field. Type styles, type measurements, preparing copy for printing are topics covered. 2 sem. hrs.

screen process exploiting the unique characteristics of the medium as a creative expression. All operations of screen printing are covered including stencil and resist techniques, selecting and preparing the color material, printing and displaying the finished print. Prerequisites: ART 111, 112, 251, 252, or permission of the instructor. Studio fee. *4 sem. hrs.*

ART 361. ADVANCED ENAMELING: Student explores such new processes as cloisonne, champleve, basse-taille, and plique-a-jour in depth. Prerequisites: ART 103, 104, 111, 112, 261, or permission of instructor. Studio fee. *2 sem. hrs.*

ART 363. JEWELRY CASTING: A complete experience in designing original pieces, making wax models, burning out, casting, and finishing pieces. Prerequisites: ART 103, 104, 111, 112 or permission of instructor. Studio fee. *2 sem. hrs.*

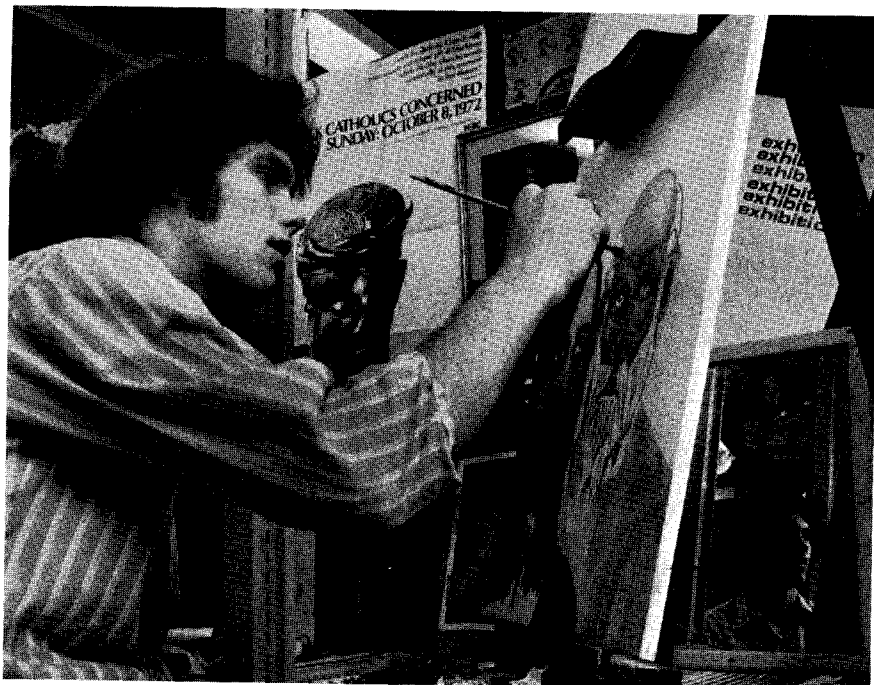
ART 373. SURVEY OF ART I: A survey of Western art and significant historical and cultural influences beginning with the art of prehistory and continuing through the Medieval and Gothic periods. Open to all University students. *3 sem. hrs.*

ART 374. SURVEY OF ART II: A continuation of ART 373 beginning with the Renaissance and continuing through the Baroque and Rococo periods. Open to all University students. *3 sem. hrs.*

ART 375. SURVEY OF ART III: A basic survey course in art history beginning with transformations in late eighteenth-century art and continuing through the twentieth century to contemporary art. Open to all University students. *3 sem. hrs.*

ART 376. AMERICAN PAINTING: A survey of major American artists from the Colonial Period to World War II, with emphasis on the problems of function and patronage. Open to all University students. *3 sem. hrs.*

ART 385. COMMERCIAL GRAPHICS-TECHNICAL PROBLEMS: Current aesthetic design principles. Theory and practice in typesetting, copy preparation, and production procedures are explored. *2 sem. hrs.*



ART 399. JUNIOR COMMERCIAL DESIGN SEMINAR: A continuation of the sophomore seminar program with special emphasis on the preparation of finished art for reproduction. Some assignments will be designed in collaboration with University Relations Department. Prerequisite: ART 299. *2 sem. hrs.*

ART 413-414. COMMERCIAL DESIGN: The study of commercial techniques such as layout, keyline, preparing roughs, color separation, illustration type, investigated through various design problems. Prerequisites: ART 111, 112, 316 and 318 or permission of instructor. *4 sem. hrs.*

ART 463. ADVANCED SILVER CASTING: Small sculptures are modeled in wax and cast. Jewelry pieces can likewise be made; however, in either area special emphasis is placed on the sculptural content of the pieces. Permission of instructor. Second term. Studio fee. *2 sem. hrs.*

ART 472. ART IN THE TWENTIETH CENTURY: The development of twentieth-century art from 1900 to the present, covering the early cubistic movement, abstract expressionism, and the various aspects of other minor art movements to the present. Open to all University students. *3 sem. hrs.*

ART 473: ART IN THE NINETEENTH CENTURY: A study of major artists and movements in European art, beginning with the late eighteenth century and continuing through the Impressionist and Post-Impressionist periods in the nineteenth century. *3 sem. hrs.*

ART 474. CONTEMPORARY TRENDS IN THE VISUAL ARTS: A seminar program for senior fine arts majors only in which only post-1950's trends in painting sculpture, architecture, new methods and materials in graphics, and theories in current art criticism are treated. Prerequisite: six semester hours of survey in art history. *3 sem. hrs.*

ART 475. CHRISTIAN ART: A study of select examples of religious and sacred art and architecture as they served the community of believers from the nascent-catacomb church until the modern era. Correlations with Judaic revelation and tradition, Christian theology, ecclesiastical history, liturgical custom, and ritual. Open to all University students. *2 sem. hrs.*

ART 483. CREATIVE ART TEACHING IN ELEMENTARY AND SECONDARY SCHOOLS: The philosophy of art education, creative teaching, use and care of tools and equipment, class management, art therapy, curriculum planning, art media, and actual teaching experience in children's classes. Art Education majors only. *4 sem. hrs.*

ART 483W. ELEMENTARY SCHOOL ART: A workshop designed to give the regular classroom teacher in the elementary level new and practical ideas on the employment of art materials and techniques in relation to seasonal interests of pupils and to holiday observances. *3 sem. hrs.*

ART 490. INDIVIDUAL STUDIES: A course reserved for art students devoted to advanced individual work in the following designated art fields: 490D-Drawing, 490E-Enameling, 490G-Graphics, 490T-Art History, 490J-Jewelry, 490L-Lettering and Calligraphy, 490M-Ceramics, 490N-Design, 490P-Painting, 490S-Sculpture, 490Z-General Fine Art. Approval based upon academic standing and instructor-division head permission. Repeatable up to 15 hours. *1-5 sem. hrs.*

ART 495-496. GRADUATION PORTFOLIO: Required of all B.F.A. candidates. The course deals with the criteria, schedule, selection of work, presentation, and exhibition in constructing a portfolio. The portfolio must consist of a minimum of 20 works (10 works in the area of major concentration). *2 sem. hrs.*

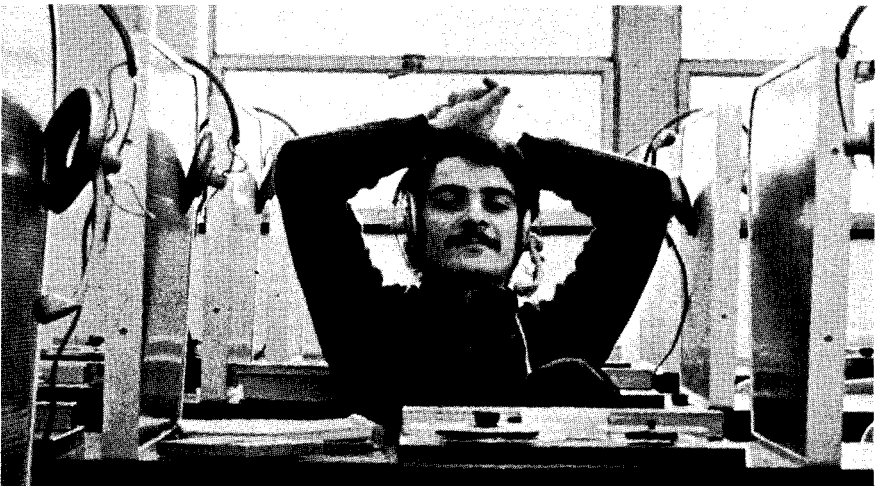
ART 499. SENIOR COMMERCIAL DESIGN SEMINAR: An immediate preparation for portfolio presentation and graduation. Personal portfolio critiques and approval by staff and invited professional designers are a required part of the seminar and the commercial design program. Prerequisite: ART 299, 399. *2 sem. hrs.*

GENERAL STUDIES (GEN)

The Bachelor of General Studies program is designed for those students who do not wish to pursue a traditional degree program with a departmental major. It permits great latitude in utilizing University resources for acquiring an education which serves individual needs. Since there are no specific requirements, the student may plan his entire program to the best advantage of his particular educational objectives.

BACHELOR OF GENERAL STUDIES PROGRAM

1. Admission requirements for the Bachelor of General Studies degree are the same as those for any other degree now offered in the College of Arts and Sciences.
2. Candidacy for the B.G.S. may be declared in the freshman year but not later than the end of the junior year. A student in good academic standing may transfer from one program to another, provided he meets the requirements of, and can be accommodated by, the program into which he wishes to transfer.
3. The first-year student is required to seek approval of course elections under the direction of the appropriate official of the College of Arts and Sciences. Thereafter, the student will be required to plan an academic program satisfying requirements for graduation in consultation with his advisor.
4. The candidate must complete 120 semester hours with an overall G.P.A. of 2.00 or better, including
 - a. a minimum of 54 semester hours of courses at the 300-400 level with a G.P.A. of 2.00 or better, and
 - b. not more than 40 semester hours of work from any one academic discipline.
5. The usual policy on prerequisites remains in effect in this program.



GEOLOGY (GEO)

The following program, leading to the degree Bachelor of Science with a major in Geology, is designed with the flexibility to present the student with the basic courses in the geological sciences and to enable him to construct a specific curriculum to suit his particular interests in areas of advanced study.

PROGRAM – S5: BACHELOR OF SCIENCE WITH A MAJOR IN GEOLOGY

	<i>Semester Hours</i>
Geology.....	38
Mathematics 118-119 ¹	8
Chemistry 123-4.....	8
Physics 201-2 ²	8
Science electives ³	16
Philosophy and / or Religious Studies.....	12
English 111-112.....	7
Speech 101.....	3
Nonscience electives.....	6
General academic electives to total at least.....	120

¹ May substitute MTH 112-3, with permission of department.

² May substitute PHY 196, 207 if MTH 118-119 is taken.

³ Choose from courses in Chemistry, Mathematics, Physics, Biology, Geology, or Engineering.

Any student wishing to pursue a Bachelor of Arts Program with a major in Geology should consult with the chairman of the department.

A student wishing to choose Geology as an area of minor concentration must take 12 semester hours in 300-400 level courses, and any prerequisites.

FACULTY

George H. Springer, *Chairman*

Professor: Springer

Associate Professor: Ritter

Assistant Professor: Gray

COURSES OF INSTRUCTION

GEO 103. PRINCIPLES OF GEOGRAPHY: An analysis of the physical factors of the earth's environment: weather, climate, land forms, oceans. 3 sem. hrs.

GEO 109. GENERAL GEOLOGY: An introduction to the earth as a planet, its composition, structure, and evolutionary development; a brief consideration of the life of the past. Designed for the nonscience major. May be taken without laboratory. 3 sem. hrs.

GEO 109L. GENERAL GEOLOGY LABORATORY: Course to accompany GEO 109. Two hours per week. 1 sem. hr.

GEO 115. PHYSICAL GEOLOGY: An introductory course in geologic principles; the composition and structure of the earth, its land forms, and the agencies active in their production. Laboratory optional for nonmajors. 3 sem. hrs.

- GEO 115L. PHYSICAL GEOLOGY LABORATORY: Course to accompany GEO 115. Two hours per week. *1 sem. hr.*
- GEO 116. HISTORICAL GEOLOGY: A comprehensive study of earth history as interpreted from the rocks of the crust. Prerequisite: GEO 115. *3 sem. hrs.*
- GEO 116L. HISTORICAL GEOLOGY LABORATORY: Course to accompany GEO 116. Two hours per week. *1 sem. hr.*
- GEO 201. MINERALOGY: An introduction to the study of minerals, their chemical and physical properties, their associations and occurrences. First term, each year. *3 sem. hrs.*
- GEO 201L. MINERALOGY LABORATORY: Course to accompany GEO 201. Three hours per week. First term, each year. *1 sem. hr.*
- GEO 204. OPTICAL MINERALOGY: Mineral determination through the use of the petrographic microscope employing crushed grains and thin sections. Prerequisite: GEO 201. Second term, each year. *2 sem. hrs.*
- GEO 204L. OPTICAL MINERALOGY LABORATORY: Course to accompany GEO 204. Four hours per week. Second term, each year. *2 sem. hrs.*
- GEO 208. ENVIRONMENTAL GEOLOGY: A study of the relationship of geologic factors to the problems of water supply, pollution, erosion, land use, and earth resources. Laboratory optional. Second term, each year. *3 sem. hrs.*
- GEO 208L. ENVIRONMENTAL GEOLOGY LABORATORY: Second term, each year. *1 sem. hr.*
- GEO 218. ENGINEERING GEOLOGY: A comprehensive study of geologic principles applicable to civil engineering practices. Second term, each year. *3 sem. hrs.*
- GEO 301. STRUCTURAL GEOLOGY: 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, 1975-1976. *3 sem. hrs.*
- GEO 301L. STRUCTURAL GEOLOGY LABORATORY: Course to accompany GEO 301. Two hours per week. First term, 1975-1976. *1 sem. hr.*
- GEO 302. GLACIAL GEOLOGY: The origin of mountain and continental glaciers; their depositional features and erosive activity; history of glaciation in geologic past with special emphasis on North American Quaternary ice advances. Prerequisites: GEO 115, 116. Second term, 1975-1976. *3 sem. hrs.*
- GEO 302L. GLACIAL GEOLOGY LABORATORY: Course to accompany GEO 302. Two hours per week. Second term, 1975-1976. *1 sem. hr.*
- GEO 303. FIELD GEOLOGY: 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. *6 sem. hrs.*
- GEO 307. GEOMORPHOLOGY: A detailed study of landforms and the erosional processes that develop them. Prerequisites: GEO 115, 116, and 301. Second term, 1976-1977. *3 sem. hrs.*
- GEO 307L. GEOMORPHOLOGY LABORATORY: Course to accompany GEO 307. Two hours per week. Second term, 1976-1977. *1 sem. hr.*
- GEO 310. STRATIGRAPHY: The interpretation of specific lithotypes and the synthesis of the stratigraphic record. Prerequisites: GEO 116, 301. Second term, 1976-1977. *3 sem. hrs.*

- GEO 310L. STRATIGRAPHY LABORATORY: Course to accompany GEO 310. Two hours per week. Second term, 1976-1977. *1 sem. hr.*
- GEO 401. PALEONTOLOGY: A study of animal life of the geologic past as shown by the fossil record. First term, 1975-1976. *3 sem. hrs.*
- GEO 401L. PALEONTOLOGY LABORATORY: Course to accompany GEO 401. Two hours per week. First term, 1975-1976. *1 sem. hr.*
- GEO 403. SEDIMENTATION: 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, 1976-1977. *3 sem. hrs.*
- GEO 403L. SEDIMENTATION LABORATORY: Course to accompany GEO 403. Two hours per week. First term, 1976-77. *1 sem. hr.*
- GEO 404. PROBLEMS IN GEOLOGY: A consideration of special problems involving advanced work in the laboratory and library; arranged to meet the needs of individual students. *3 sem. hrs.*
- GEO 411. IGNEOUS PETROLOGY: A study of the formation of igneous rocks. Prerequisites: GEO 201, 204, 309. First term, 1976-1977. *3 sem. hrs.*
- GEO 411L. IGNEOUS PETROLOGY LABORATORY: Course to accompany GEO 411. Two hours per week. First term, 1976-1977. *1 sem. hr.*
- GEO 412. INTRODUCTORY GEOCHEMISTRY: An investigation of the chemical nature and development of the earth, its interior, crust, and surface materials. Quantitative chemical and physical chemical studies of formation of rock types, ore deposition, and geochronology. Second term, 1975-1976. *3 sem. hrs.*
- GEO 412L. INTRODUCTORY GEOCHEMISTRY LABORATORY: Course to accompany GEO 412. Three hours per week. Second term, 1975-1976. *1 sem. hr.*



HISTORY (HST)

The course requirement for History majors is 36 credit hours, distributed as follows:

1. Four courses (12 semester hours) should be selected from the HST 100 / 200 sequences;
2. History 301 – 3 semester hours;
3. Seven additional courses (21 semester hours), all from the HST 300 / 400 sequences. The department firmly recommends that the student attempt to distribute these 21 hours fairly equally between the American and the non-American History areas.
4. Honors Tutorial courses (HST 497 and 498) and History 299 and 499 may be substituted for any course except History 301.

The course requirement for History minors is 24 semester hours. Four courses (12 semester hours) should be selected from the 100 / 200 sequence. Two courses should be selected from the 301-350 and 400-450 sequences, and two courses from the 351-399 and 451-495 sequences.

PROGRAM – A9: BACHELOR OF ARTS WITH A MAJOR IN HISTORY

	<i>Semester Hours</i>
History	36
Breadth Requirements (see Distribution Table and consult with department chairman for specifics).....	45-69
General academic electives and Senior Synthesis to total at least.....	120
See the department counselor for suggested programs with a major in History that lead to careers in foreign service, law, and education.	

The department considers consistent and candid counseling to be the key to academic success. Freshmen are counseled by B. A. Perkins; other History majors are usually counseled by other members of the department.

History students are strongly encouraged to participate in the Interdepartmental Summer Study Abroad Program conducted by the College of Arts and Sciences. See Chapter X.

FACULTY

Leroy V. Eid, *Chairman*

Professors: Beauregard, Donatelli, Maras, Mathias, Ruppel, Steiner

Associate Professors: Eid, King, Rhee, Soffer, Taylor

Assistant Professors: Alexander, Bannan, Palermo, Vines

Adjunct Assistant Professor: Millett

Lecturer and Counselor: Perkins

Part-time Instructors: Bradshaw, Gannon, Gaudet, Gottsman

COURSES OF INSTRUCTION

HST 103. HISTORY OF WESTERN CIVILIZATION I: A study of mankind from earliest times to 1453 A.D. The course stresses the social, cultural, and political aspects of the prehistoric, ancient, and medieval eras.

3 sem. hrs.

HST 104. HISTORY OF WESTERN CIVILIZATION II: A survey of mankind from 1453 to 1815. Emphasis will be placed on the Renaissance and Reformation, the Age of the Enlightenment, and the French Revolutionary and Napoleonic era. *3 sem. hrs.*

HST 105. HISTORY OF WESTERN CIVILIZATION III: A survey of mankind from 1815 to the present. Emphasis will be placed on the era of Nationalism and Revolution, the New Industrialism, Socialism, Imperialism, and 20th-century developments. *3 sem. hrs.*

HST 120. HISTORY OF ENGLAND: This course is designed to acquaint undergraduate students with the major forces and trends in the history of England from earliest times to the present. *3 sem. hrs.*

HST 125. HISTORY OF RUSSIA: The development of the Russian state from earliest times to the present. This course is concerned with the origins of the Russian state, political and economic growth, and the development of the modern Soviet state. *3 sem. hrs.*

HST 130. HISTORY OF THE FAR EAST: Brief review of the early historical development of the Far East, and a study of China and Japan in the 19th and 20th centuries. Emphasis on political, religious, cultural, and economic growth of China and Japan. *3 sem. hrs.*

HST 131. INTRODUCTION TO THE MIDDLE EAST: Introduction to the history of the Middle East, its unity and diversity of geography, ethnic background, and national aspirations and trends. *3 sem. hrs.*

HST 135. HISTORY OF AFRICA: Attuned to the new approach to African History, this survey, covering early times to the present, aims to display Africa's significance by examples of political grandeur, commercial ingenuity, intellectual ferment, and religious revolutions. *3 sem. hrs.*

HST 251. AMERICAN HISTORY TO 1865: A general survey of the development of the American nation from colonial times to 1865. Due consideration is given to political trends, but the economic and social foundations of American institutions are also emphasized. *3 sem. hrs.*

HST 252. AMERICAN HISTORY SINCE 1865: This course carries forward the story of the nation and its development after the Civil War. Stress is on those social, economic, and political problems, a knowledge of which is essential to an understanding of contemporary America. *3 sem. hrs.*

HST 260. SOCIAL AND CULTURAL HISTORY OF THE UNITED STATES: Social and cultural development of the American people. Emphasis upon the growth of national spirit, the impact of expansion, conflict over slavery, and problems of industrialization and urbanization. *3 sem. hrs.*

HST 265. DIPLOMATIC HISTORY OF THE UNITED STATES: Beginning with an explanation of the foundations of American foreign policy, this course continues with the diplomacy of continental expansion through the 19th century. Emphasis is placed on diplomatic problems since 1898. *3 sem. hrs.*

HST 270. ECONOMIC HISTORY OF THE UNITED STATES: A survey of the economic theories and institutions peculiar to the United States with special reference to their influence on social and political development. *3 sem. hrs.*

HST 275. LATIN AMERICAN HISTORY: A study of developing nations in search of cultural identity, social justice, and political stability. *3 sem. hrs.*

HST 299. HISTORY TOPICS: Specific sub-titles and descriptions to be announced in the composite and posted in the History Department Office. *1-6 sem. hrs.*

HST 301. RESEARCH SEMINAR: History methods, philosophy, and introductory historiography, the latter based on the professor's field of specialization. Required for junior history majors. May count towards fulfilling part of Senior Synthesis. *3 sem. hrs.*

HST 306. INTELLECTUAL AND CULTURAL HISTORY OF MODERN EUROPE: Close analysis of men, ideas, and principal cultural developments in the period beginning with the Renaissance and extending into the 20th century. *3 sem. hrs.*

HST 318. FRENCH REVOLUTION AND NAPOLEONIC ERA: 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. *3 sem. hrs.*

HST 319. FRANCE SINCE 1815: A study of French history from the Bourbon Restoration to the establishment of the 20th century Fifth Republic, with special emphasis on intellectual, social economic, political, and diplomatic trends. *3 sem. hrs.*

HST 320. MODERN ITALIAN HISTORY: A survey of Italian history from the restoration of Italy's rulers in 1815 until the declaration of a republic in 1946, with emphasis on the Risorgimento and the fascist experiment, 1922-1945. *3 sem. hrs.*

HST 328. HISTORY OF EASTERN EUROPE: Survey of 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. *3 sem. hrs.*

HST 329. MODERN GERMANY: 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. *3 sem. hrs.*

HST 332. SOCIAL AND CULTURAL HISTORY OF THE MIDDLE EAST: 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. *3 sem. hrs.*

HST 357. LATIN AMERICA IN THE 20TH CENTURY: An intensive examination of revolution and reaction in today's Latin America and the implications for those who formulate United States foreign policy. *3 sem. hrs.*

HST 358. INTELLECTUAL AND CULTURAL HISTORY OF THE U.S.: Exploration of themes that contemporary historians of the American intellectual experience consider to be particularly important. Emphasis on the relevant historiographical techniques and assumptions. *3 sem. hrs.*

HST 359. U.S. CONSTITUTIONAL HISTORY: A historical analysis of the origin and evolution of the American Constitution, constitutional theory, and constitutional practice. *3 sem. hrs.*

HST 364. HISTORY OF OHIO: Political, economic, and cultural history of the state in relation to the parallel growth of the United States. Recommended for elementary and secondary school teachers. *3 sem. hrs.*

HST 365. AMERICAN FILMS AS HISTORY: This course studies the development of American values, myths, institutions, and perspectives through the use of films as a primary source. *3 sem. hrs.*

HST 390. THE WESTWARD MOVEMENT: 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. *3 sem. hrs.*

HST 397. HISTORY OF BLACKS IN THE U.S.: 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. *3 sem. hrs.*

HST 402. MAIN CURRENTS IN ANCIENT HISTORY: Aspects of the civilizations of

the Ancient Near East, Greece, and Rome selected because of their integration into Western Civilization. Emphasized topics: the Hebrew world view and value system, Greek democracy, Roman political and social institutions. 3 sem. hrs.

HST 405. **MEDIEVAL EUROPE:** The development of European history from the fourth to fourteenth century. Topics include birth of Middle Ages; development of Christianity; Byzantine, Islamic and Carolingian Empires; feudalism; Crusades; rise of universities; and the birth of national cultures. 3 sem. hrs.

HST 407. **RENAISSANCE AND REFORMATION:** 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. 3 sem. hrs.

HST 411. **ERA OF ABSOLUTISM, ENLIGHTENMENT:** A course designed to bridge the gap between the later Reformation and the era of the French Revolution. Intellectual and cultural development will be covered, with emphasis on political, economic, and social trends of the Old Regime. 3 sem. hrs.

HST 413. **THE REVOLUTIONARY ERA, 1789-1918:** 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. 3 sem. hrs.

HST 414. **TWENTIETH CENTURY EUROPE:** 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. 3 sem. hrs.

HST 415. **SOVIET UNION SINCE 1917:** A detailed survey and analysis of the historical development of the USSR from the Revolution of 1917 to the present time. 3 sem. hrs.

HST 418. **MILITARY HISTORY:** A survey from ancient times to the present highlighting the military's role in society, the philosophy of war, and military institutions, organization, and weapons. 3 sem. hrs.

HST 424. **THE PARLIAMENTARY CONCEPT IN ENGLISH HISTORY:** A study of the origins and development of common law and parliamentary government in England, stressing the medieval period. 3 sem. hrs.

HST 425. **BRITISH LEGAL HISTORY:** Creation of the common law; the forms of action and the development of the land law and of tortious and contractual actions; the legal position of women; Blackstone's *Commentaries*. 3 sem. hrs.

HST 426. **TUDOR-STUART ENGLAND:** A study of England — 1405 to 1714. For the Tudor period, chief emphasis will be given to the development of the national state, royal absolutism, and the Reformation. The evolution of the constitutional question will be the main theme in the treatment of the Stuart era and Cromwellian Interregnum. The social, economic, and cultural aspects of the period, as well as its diplomacy, will be fully covered. 3 sem. hrs.

HST 428. **MODERN ENGLAND — 1015 TO PRESENT:** Studies the development of England as an industrialized nation and as a nineteenth-century empire. The study of the results of industrialization, urbanization, and loss of empire due to two world wars will place England in focus in today's world. 3 sem. hrs.

HST 432. **NORTH AFRICA IN MODERN TIMES:** 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. 3 sem. hrs.

HST 436. **SOUTH AFRICA IN MODERN TIMES:** 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. 3 sem. hrs.

HST 437. WEST AFRICA IN MODERN TIMES: West Africa's significance since the 18th century, with special references to the slave trade, the commercial revolution, religious ferment, imperialistic rivalry, and the recent independence movement. *3 sem. hrs.*

HST 438. THE MIDDLE EAST, 19TH AND 20TH CENTURIES: 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. *3 sem. hrs.*

HST 443. MODERN CHINA: A survey of the political, cultural, and international developments in China from the eighteenth century to the present. *3 sem. hrs.*

HST 447. DIPLOMATIC HISTORY OF THE FAR EAST SINCE 1840: A survey of the diplomatic relations of China, Korea, and Japan among themselves and with other powers. The course selects major diplomatic events from 1840 to the present. *3 sem. hrs.*

HST 448. JAPAN SINCE PERRY: A historical study of the economic, social, and political developments of modern Japan from the end of the "Seclusion" to the present time. *3 sem. hrs.*

HST 451. AMERICAN COLONIAL HISTORY: A study of the foundations of American nationality; European background of America, development of the colonial system, transplanting of ideas and institutions from the Old World, growth of democratic tendencies. *3 sem. hrs.*

HST 452. REVOLUTION AND CONFEDERATION: The course will treat the following topics: the problems of empire-relationships since 1754; the causes, conduct, and consequences of the American Revolution; the postwar problems leading to the adoption of the Federal Constitution. *3 sem. hrs.*

HST 454. THE AGE OF JEFFERSON AND JACKSON: Emphasizes the whole range of historical, cultural, social, and political trends that are traditionally associated with the presidencies of Jefferson and Jackson. The period covered extends from the 1790's to the 1850's. *3 sem. hrs.*

HST 455. THE OLD SOUTH: A study of political, social, economic, and cultural history, emphasizing presiding themes of pre-Civil War Southern life — ruralism, cotton culture, extractive economics, slavery, developing political minority status in the nation. *3 sem. hrs.*

HST 456. CIVIL WAR AND RECONSTRUCTION: Remote and immediate causes of the Civil War, especially from 1850 to 1861; problems of North and South during the war; consequences of the war, efforts to create a new Union, 1865 to 1877; problems created by those efforts. *3 sem. hrs.*

HST 472. APPALACHIA AND THE NEW SOUTH: A study and appraisal of the internal and external forces that have shaped the Southern states since the Civil War. All aspects of Southern life will be considered. *3 sem. hrs.*

HST 474. THE GILDED AGE, 1877-1900: A study in the political, diplomatic, economic, social, and cultural developments of the age. The rise of big business, organized labor, and the Populist revolt will be studied. *3 sem. hrs.*

HST 475. THE PROGRESSIVE PERIOD, 1900-1920: A study 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 upon cultural as well as political developments. *3 sem. hrs.*

HST 476. BETWEEN THE WARS: Intensive study of chief facets of United States history from 1919 to 1941. Topics emphasized include Normalcy, the Depression, the evolving New Deal, and the approach to World War II. *3 sem. hrs.*

HST 477. CONTEMPORARY AMERICAN HISTORY: A study of the immediate background of contemporary political, social and economic problems. Topics discussed: Impact of World War II on the United States, Cold War, New Frontier, and Johnson Administration. *3 sem. hrs.*

HST 478. INTERPRETATIONS IN AMERICAN HISTORY: Specific topics will be chosen for investigation and interpretation as determined by the instructor. The objective of the course is to study new interpretations of historical events. A general knowledge of American History is a prerequisite. *3 sem. hrs.*

HST 482. THE HISTORY OF MEXICO: 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. *3 sem. hrs.*

HST 484. CARIBBEAN SINCE 1801: 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. *3 sem. hrs.*

HST 497. HONORS TUTORIAL I: The study of a special topic to the selected by the instructor. Applicants will be admitted on the basis of academic record. *1-3 sem. hrs.*

HST 498. HONORS TUTORIAL II: The study of a special topic to be selected by the instructor. Applicants will be admitted on the basis of academic record. *1-3 sem. hrs.*

HST 499. TOPICS IN HISTORY: Specific sub-titles and descriptions to be announced in the composite and posted in the History Department Office. *1-6 sem. hrs.*



HOME ECONOMICS (HEC)

The undergraduate program in Home Economics at the University of Dayton has as its primary purpose to utilize principles from many disciplines in solving problems faced by individuals, families, and communities in day-to-day living. The Bachelor of Science degree in Home Economics is currently awarded in General Home Economics and Dietetics. A program (E7) for the Bachelor of Science in Home Economics Education with certification in the field of Vocational Home Economics is offered to Secondary Education students in cooperation with the Department of Home Economics. See also HEC, Chapter VIII.

General Home Economics

The flexible curriculum in the General Program allows for wide electives. The student majoring in this program may elect courses in Home Economics, Marketing, Communication Arts, Fine Arts, and the natural and social sciences to emphasize Home Economics areas in human relations, research, applied art, and consumer behavior. The E11A program, as a minor, qualifies the student for a Vocational Home Economics certificate. The department accreditation offers the possibility of Vocational certification in the School of Education and the E11A program. See also Secondary Education (SEC).

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

	<i>Semester Hours</i>
Home Economics	40
Biology 101-2 or CHM 123-4 ¹	8
English 111, 112 200-level elective	9
Social Sciences, Language or History	18
Philosophy and / or Religious Studies	12
Speech 101	3
Major, Minor, or electives ² to total at least.....	120

¹ May substitute CHM 123-4.

² Can be in Home Economics, Fine Arts, Marketing, History, English, or the Education E11A program. The E11A program requires one course in Chemistry and 51 hours in Home Economics for vocational certification. Total academic hours must total 120.

PROGRAM – S6: BACHELOR OF SCIENCE WITH A MAJOR IN HOME ECONOMICS (GENERAL HOME ECONOMICS)

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term</i> ¹	<i>2nd Term</i>
Freshman Year				
BIO	101-2	General Biology ²	3-3-4 ¹	3-3-4
ENG	111-112	College Composition I, II	4-0-4	3-0-3
HEC	101	Clothing I		2-3-3
HEC	105	Introduction to Related Art	2-3-3	
—	—	Electives ³	3-0-3	3-0-3
—	—	Philosophy and / or Religious Studies	3-0-3	3-0-3
HEC	100	Freshman Orientation Seminar	1-0-1	
			18	16

Sophomore Year			
ENG	—	Sophomore English elective	3-0-3
HEC	200	Introductory Foods	2-4-4
HEC	—	Home Economics elective	3-0-3
HEC	214	Textiles	3-0-3
—	—	Electives	9-0-9
—	—	Philosophy and / or Religious Studies	3-0-3
			15
Junior Year			
HEC	221	Consumer Education & 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	Housing and Home Furnishings	3-0-3
—	—	Electives	3-0-3
SPE	101	Fundamentals of Effective Speech	3-0-3
—	—	Minor, ³ Major, ³ elective ³	3-0-3
			15
Senior Year			
HEC	406	Home Management II	1-4-3
HEC	—	Home Economics elective	3-0-3
—	—	Minor, Major, elective ³	9-0-9
			12-0-12
			15
			12

¹ For example, 3-0-3 means 3 class hrs., 0 lab. hrs., 3 sem. hrs. of credit.

² May substitute CHM 123-4.

³ Can be in Home Economics, Fine Arts, Marketing, History, English, or the Education E11A Program. The E11A program requires one course in Chemistry and 51 hours in Home Economics for vocational certification. Academic hours must total 120.



Dietetics

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

REQUIREMENTS FOR BACHELOR OF SCIENCE WITH A MAJOR IN HOME ECONOMICS (DIETETIC INTERNSHIP)

	<i>Semester Hours</i>
Home Economics.....	36
Biology 101-2, 411.....	13
Chemistry 123-4, 313-4, 420.....	19
Physical Education 205-6 ¹	6
Psychology 201, 420 or.....	6
Philosophy and / or Religious Studies.....	12
English 111, 112, 200-level elective.....	9
Speech 101.....	3
Accounting 301.....	3
General academic electives to total at least ²	120

¹ With permission BIO 303 may be substituted for EDP 205-6.

² American Dietetic Association requires one course in learning theory, either methods of Teaching (HEC 405) or Learning Theory (EDF 208).

PROGRAM – S7: BACHELOR OF SCIENCE WITH A MAJOR IN HOME ECONOMICS (DIETETIC INTERNSHIP)

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term¹</i>	<i>2nd Term</i>
Freshman Year				
HEC	100	Freshman Seminar	1-0-0 ¹	
BIO	101	General Biology		* 3-3-4
CHM	123-4	General Chemistry	3-3-4	3-3-4
ENG	111, 112	College Composition I, II	3-0-3	3-0-3
HEC	200	Introductory Foods		2-4-4
—	—	Philosophy and / or Religious Studies	6-0-6	
—	—	Arts and Sciences Orientation	1-0-0	
SPE	101	Fundamentals of Effective Speaking	3-0-3	
			16	15
Sophomore Year				
BIO	102	General Biology	3-3-4	
CHM	313-4	Organic Chemistry	3-3-4	3-3-4
ENG	—	English elective		3-0-3
HEC	303	Nutrition and Health	3-0-3	
HEC	225	Child Development I	3-0-3	
PSY	101	General Psychology		3-0-3
—	—	Philosophy and / or Religious Studies		6-0-6
—	—	Elective	3-0-3	
			17	16

		Junior Year		
ACC	301	Financial Reporting and Administration	3-0-3	
EDP	205-6	Anatomy and Physiology ²	3-0-3	3-0-3
HEC	—	Foods elective	3-0-3	
HEC	304	Quantity Food Production		1-4-3
HEC	308	Institutional Buying	3-0-3	
HEC	323	Demonstration Techniques		2-0-2
—	—	Electives	3-0-3	6-0-6
			15	14
		Senior Year		
BIO	411	General Bacteriology	3-4-5	
HEC	—	Family Living or Child Development		3-0-3
HEC	401	Advanced Nutrition		3-0-3
HEC	402	Diet Therapy		3-0-3
HEC	407	Organization and Management		3-0-3
PSY	420	Industrial Psychology	3-0-3	
CHM	420	Biochemistry		3-0-3
HEC	405	Methods of Teaching ³	3-0-3	
—	—	Elective	3-0-3	
			14	15

¹ For example, 3-0-3 means 3 class hrs., 0 lab. hrs., 3 sem. hrs. of credit.

² May take BIO 303 with permission.

³ American Dietetic Association requires one course in Learning Theory, EDF 208, or Methods of Teaching, HEC 405.

FACULTY

Elizabeth L. Schroeder, *Chairman*
Associate Professors: Metzger, Schroeder
Assistant Professors: Lefler, Palmer
Clinical Assistant Professor: Downey
Instructor: DeLuca, Mahoney
Part-time: Freeman, Britt, Knupp, Alexander

COURSES OF INSTRUCTION

HEC 101. CLOTHING I: A study of clothing selection and construction of a basic garment using a commercial pattern with emphasis on fitting, dressmaking techniques, and finishing procedures. Two lecture periods per week. Laboratory required. 2 sem. hrs.

HEC 101L. CLOTHING I LABORATORY: A course to accompany HEC 101 lecture. One three-hour period per week. 1 sem. hr.

HEC 105. INTRODUCTION TO RELATED ART: A study of the fundamentals of design and color and their application in selection and arrangement. Three lecture periods per week. Both terms, each year. 3 sem. hrs.

HEC 200. INTRODUCTORY FOODS: Application of scientific principles to food preparation and evaluation. Two lecture periods per week. 2 sem. hrs.

HEC 200L. INTRODUCTORY FOODS LABORATORY: A course to accompany HEC 200 lecture. Two two-hour periods per week. 2 sem. hrs.

HEC 211. CLOTHING II: Detailed emphasis on principles of fitting and creating construction on underlined garment and tailored pants. Two lecture periods per week. Laboratory required. Prerequisites: HEC 101, HEC 101L. 2 sem. hrs.

HEC 211L. CLOTHING II LABORATORY: Course to accompany HEC 211 lecture. One three-hour laboratory per week. *1 sem. hr.*

HEC 214. TEXTILES: A study of the natural, thermoplastic, and nonthermoplastic fibers, including the construction and finishing of fabrics for their use and care. Three class periods per week. Second term, each year. *3 sem. hrs.*

HEC 221. CONSUMER EDUCATION AND HOME MANAGEMENT: A study of home management and the use of resources to promote the development of home and family life. The resources of time, energy, money and material goods are stressed from the consumer standpoint. Three lecture periods per week. *3 sem. hrs.*

HEC 225. CHILD DEVELOPMENT I: Developmental study of stages and principles from infancy through adolescence. Observation and work in nursery school arranged. Two lecture periods per week. First term, each year. *3 sem. hrs.*

HEC 300. CULTURAL ASPECTS OF FOOD: A study of the effect of culture and food resources on food patterns and food preparation. Historical evolution of food, especially U.S. regional food habits, is included. Two lecture periods per week. *2 sem. hrs.*

HEC 300L. CULTURAL ASPECTS OF FOOD LABORATORY: A course to accompany HEC 300 lecture. One three-hour period per week. *1 sem. hr.*

HEC 303. NUTRITION AND HEALTH: Fundamental principles of human nutrition, including requirements of the body for the nutritive essentials, the composition of foods, and the planning of adequate diets for health. Three class periods per week. *3 sem. hrs.*

HEC 304. QUANTITY FOOD PRODUCTION: Basic steps of quantity food production methods. An Independent Study Program to initiate the student into the process of self-learning. Includes faculty conferences, student-led seminars, library research, and laboratory investigations. Hours arranged. First term, each year. *3 sem. hrs.*

HEC 308. INSTITUTIONAL BUYING: Application of principles for determining needs and procuring and storing foods in quantity. Institutional equipment selection, maintenance, and layout. Second term, each year. *3 sem. hrs.*

HEC 309. HOUSEHOLD EQUIPMENT: A study of the principles involved in the selection, construction, operation, and care of household equipment and its relation to the well being of the family. Three lecture periods per week. Prerequisites: HEC 200 or equivalent. First term, each year. *3 sem. hrs.*

HEC 318. FAMILY LIVING: Developmental tasks, socio-economic and cultural influences on family interaction at each stage of the life cycle. Second term, each year. *3 sem. hrs.*

HEC 323. DEMONSTRATION TECHNIQUES: A study of lecture-demonstration techniques. Emphasis is on students' giving lecture-demonstrations. Two class periods per week. *2 sem. hrs.*

HEC 327. EXPERIMENTAL FOODS: Comparative and experimental approach to food preparation as it affects quality. Introduction to the standard experimental procedures leading to independent project of student's choice. Prerequisite: HEC 200. *2 sem. hrs.*

HEC 327L. EXPERIMENTAL FOODS LABORATORY: Course to accompany HEC 327 lecture. One three-hour laboratory period per week. Second term, each year. *1 sem. hr.*

HEC 328. HOUSING AND HOME FURNISHINGS: A study of housing and exterior design and the selection of furnishings for the home, including arrangements, furniture styles and decorative details. Three lecture periods per week. Prerequisite: HEC 105 or equivalents. Both terms, each year. *3 sem. hrs.*

HEC 329. CHILD DEVELOPMENT PRACTICUM: Supervised experience in working 107

with preschool children and their parents. Case study and nursery school participation arranged. One lecture period and 3 hours experience per week. Prerequisite: HEC 225. Second term, each year. *3 sem. hrs.*

HEC 401. **ADVANCED NUTRITION:** Extension of the student's knowledge of the science of nutrition, stressing the metabolism of food constituents and the recent advances in the field of nutrition. Three class periods per week. Prerequisites: HEC 303, CHM 420. Second term, each year. *3 sem. hrs.*

HEC 402. **DIET THERAPY:** A study of the value of good nutrition in the prevention and effective treatment of disease. *3 sem. hrs.*

HEC 404. **FASHION MERCHANDISING:** A study of the movement of fashion, the promotion of fashion including advertising and display and the trends in retail fashion distribution. Prerequisites: HEC 101, 105, or equivalent. *3 sem. hrs.*

HEC 405. **TEACHING OF HOME ECONOMICS IN SCHOOLS:** A study of vocational home economics philosophy and techniques of teaching. Planning and preparing scope and sequence units and lessons for various grade levels. Three class periods per week. *3 sem. hrs.*

HEC 406. **HOME MANAGEMENT II:** Application of managerial concepts to problems relating to the home from the consumer and community points of view. *3 sem. hrs.*

HEC 407. **INSTITUTIONAL ORGANIZATION AND MANAGEMENT:** Principles related to feeding persons in institutions. Includes personnel management, organization, administration, and cost control. *3 sem. hrs.*

HEC 415. **TAILORING:** Tailoring techniques as applied to the construction of coats and suits. One lecture period per week. Prerequisites: HEC 101, 105, 211. Laboratory required. First term, each year. *1 sem. hr.*

HEC 415L. **TAILORING LABORATORY:** Course to accompany HEC 415 lecture. Two two-hour periods per week. First term, each year. *2 sem. hrs.*

HEC 430. **PROBLEMS IN HOME FURNISHINGS:** Integration of historic and contemporary furnishings into today's house. Problems deal with investigation of the elements of interior design from economic, functional, and aesthetic points of view. Prerequisites: HEC 105, 328. *3 sem. hrs.*

HEC 436. **INDEPENDENT STUDY:** Independent study, to allow students to concentrate on a special interest to them. Original investigation, independent conferences, and reports are required. Approval of department chairman and instructor. *1-6 sem. hrs.*

HEC 437. **MEAL MANAGEMENT:** Development of the ability to plan, prepare and serve palatable, nutritious and attractive meals at various economic levels. Two lecture periods per week. Prerequisite: HEC 200. Offered as needed. *2 sem. hrs.*

HEC 437L. **MEAL MANAGEMENT LABORATORY:** Course to accompany HEC 437 lecture. One two-hour period per week. Offered as needed. *1 sem. hr.*

HUMANITIES STUDIES (HMS)

No major concentration is available.
See also Classics (LNG-CLA).

INTERDEPARTMENTAL COMMITTEE

Eugene R. August, *Chairman*

K. Marre (English); Conard (Languages); Gilvary (Performing and Visual Arts); Wening (Philosophy); Vines (History); Martin (Religious Studies).

COURSES OF INSTRUCTION

HSM 101. THE GREEK EXPERIENCE: The development of Greek ideas and ideals in the literature, art, and archaeology of ancient Greece. Among those read in English translation are Homer, the lyric poets, Aeschylus, Sophocles, Euripides, Aristophanes, Herodotus, Thucydides, and Plato. 3 sem. hrs.

HMS 102. OUR ROMAN HERITAGE: A study of Roman contributions to the modern world as evidenced in the literature, art, and archaeology of ancient Rome. Readings in Plautus, Lucretius, Catullus, Cicero, Vergil, Horace, Livy, Ovid, and Seneca — in English translation. 3 sem. hrs.

HMS 301. CIVILIZATION: An interdisciplinary course using Sir Kenneth Clark's *Civilisation* film series as the basis for exploring western thought and culture from the early Middle Ages to the present. Some selected readings pertinent to western civilization are also studied. The course is taught by three teachers from three humanities disciplines; the disciplines represented may vary from year to year. 3 sem. hrs.

HMS 305. THE ROOTS OF THE MODERN: A Philosophy-English interdisciplinary course. The philosophical inquiry explores man in time and the moral context of man's existence; the literary studies focus on the modern sensibility and the characteristic forms in which it has defined itself. Prerequisites: PHL 103 (or equivalent), ENG 111/112 (or equivalent). Also offered as ENG 352 (3 semester hours) and PHL 340 (3 semester hours). 6 sem. hrs.

INTERDISCIPLINARY STUDIES (ASI)

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

1. **Student-initiated Interdisciplinary Courses:** Such courses are formulated and credited by a group of students sharing a similar interest in a theme. They spend one term developing the course and then register for it the following term. Only students who assist in the planning may register for the course.
2. **Extrdepartmental Academic Activities:** Such activities are created and formulated by students and / or faculty members to assist others in an educationally significant activity not otherwise possible within departmental structure. Such activities are open to any student who qualifies.

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

Additional information is available in the Office of the Dean of the College of Arts and Sciences.

COURSES OF INSTRUCTION

(The following courses which have been offered are listed here as examples.)

ASI 210M. TO BE THE CHURCH: A course with the pastoral orientation of recognizing and identifying the faith-stance of a Catholic Christian in the modern world. *1 sem. hr.*

ASI 305. APPALACHIAN STUDIES: The study of the Appalachian culture in a manner involving the disciplines of history, political science, economics, psychology, sociology, education, and religion. Topics to be studied are Appalachian history and its influence on the present, problems and solutions of recent events in Appalachia, influence of local government and federal programs on the people, economic problems of underprivileged peoples and the future of industrial development in the region, ecology of the Appalachian region, literature, art, and music of the area, psychology of social change and community development in the underdeveloped regions, the area of health and mental health, and the problems of the Appalachian migrant. *3 sem. hrs.*

ASI 456. CIVILIZATION OF EARLY ENGLAND: A study of the political, intellectual, and artistic triumphs by which England developed into a great nation during the high Middle Ages and early Renaissance. May be taken for fulfilling the Senior Synthesis requirement or for Political Science, Philosophy, or English credit. *3 sem. hrs.*

ASI 489. HISTORY OF BEAVERCREEK TOWNSHIP I: Research into primary and secondary sources concerning the history and prehistory of Beaver Creek Township in Greene County, Ohio. Materials will include, but not be limited to County records, school records, interviews, back issues of newspapers, federal and state documents. The course will be independent study in format and the research developed will eventually result in a book. *3 sem. hrs.*

ASI 490. HISTORY OF BEAVERCREEK TOWNSHIP II: A continuation of ASI 489. *3 sem. hrs.*

JOURNALISM (JRN)

Journalism is an area of concentration in the Department of Communication Arts. See also requirements and courses of instruction under COM and SPE.

Majors in Journalism must take COM 200 plus 24 semester hours in JRN and COM 300-400 courses. Minors in Journalism take 12 semester hours from 300-400 courses.

FACULTY

George C. Biersack, *Chairman of the Department of Communication Arts*

Professor: Biersack

Associate Professors: Trent, Wolff

Assistant Professors: Blatt, Farrelly, Hardwood, Ilfeld, Kiernan, Weatherly

Instructors: Haynes, Lawson

Part-time Instructors: Dougherty, Sennet, Staats, Vlahos

COURSES OF INSTRUCTION

JRN 300. REPORTING AND WRITING FOR NEWS MEDIA: 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: COM 200. 3 sem. hrs.

JRN 301. ADVANCED NEWS STORY WRITING: Advanced reporting and news writing. Analysis of feature story techniques and structure in all areas, especially columns and specialized reporting. Prerequisites: COM 200 and JRN 300. 3 sem. hrs.

JRN 302. THE LAW AND NEWS MEDIA: 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. 3 sem. hrs.

JRN 398-399. JOURNALISM WORKSHOP: A practical participation in journalism activity with a recognized and approved journalistic organization. Available to students at the sophomore level and above, to a maximum of 6 semester hours, 3 of which may be applied to a Communication Arts or Journalism Major. 1 sem. hr. per term.

JRN 400. EDITING AND COPYREADING: The copy desk on large and small newspapers, editing, headline writing, page makeup, uses of pictures and type. Prerequisite: JRN 300 or permission of instructor. 3 sem. hrs.

JRN 401. EDITORIAL WRITING: Study of the methods used in preparing and writing newspaper editorials — editorial conferences to discuss topics, research necessary. 3 sem. hrs.

JRN 404. NEWSPAPER MANAGEMENT PROBLEMS: Noneditorial operations — problems of business, circulation, advertising, and printing departments as they affect operations of the news department. Special emphasis on small dailies and weeklies. 3 sem. hrs.

JUDAIC STUDIES (JUD)

The program of Judaic Studies brings Jewish scholars to our campus for specialized offerings relative to the Jewish people, the literature of the Hebrew scriptures, the archaeology and history of Israel, the Hebrew language and culture. Some scholarship funds from the Joseph and Pearl Thal Scholarship Fund (1966) are available.

FACULTY

Rev. William J. Cole, S.M., *Director*

Adjunct Professor: Rabbi Jack Riemer

Visiting Instructors: Rabbi Herbert Brichto, Dr. Eric Friedland, Dr. Samuel Green-gus, Dr. Ellis Rivkin

COURSES OF INSTRUCTION

JUD 304. JEWISH IDENTITY IN THE MODERN WORLD: Introduction to the sociology of Jewish identity in the twentieth century, reflecting on the problem of anti-Semitism, the existence of Israel, and the new relation of the Jew to the Church. *2 sem. hrs.*

JUD 305. JEWISH IDENTIFICATION: Minicourse, second semester. A seminar with field work including contacts with Jewish agencies, synagogues, the local rabbinate. Resume of content of JUD 304. *1 sem. hr.*

JUD 307. JUDAISM: A basic introduction to Judaism: its history, its faith, its worship. *3 sem. hrs.*

JUD 322. HISTORY OF ANCIENT ISRAEL: A survey of history of the chosen people from Abraham through the biblical period and through the Common Era to modern times. *2 sem. hrs.*

JUD 340. ARCHAEOLOGY AND THE BIBLE: An historical and synthetic analysis of the development of archaeology in Palestine and the subsequent impact upon the understanding of the culture of Judaism. *2 sem. hrs.*

JUD 341. MODERN DEVELOPMENTS IN ARCHAEOLOGY: Seminar. *1 sem. hr.*

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. *2 sem. hrs.*

JUD 371. PROBLEMS OF THE PSALMS: Seminar. 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.) *1 sem. hr.*

JUD 406. JEWISH THOUGHT: An historical development of Jewish thought from the close of the Old Testament Canon down to modern times, with emphasis on selected movements and / or thinkers. *3 sem. hrs.*

JUD 422. A HISTORY OF MODERN ISRAEL: A survey of history of secular Israel since 1900: the Jews under the Nazi movement; Zionism; the State of Israel. *2 sem. hrs.*

LANGUAGES (LNG)

New career fields make a double major – combining advanced language skills with areas such as social work, business, and technical training – increasingly attractive. The major requirements in the second field are determined by the respective department.

Majors and prospective language teachers are urged to spend at least a summer traveling and studying in a country in which the citizens speak the language of concentration. All students are encouraged to participate in the Interdepartmental Summer Study Abroad program conducted by the College of Arts and Sciences. (See Chapter X.)

Advanced placement based on high school study or study in foreign countries is regularly awarded. In general, one year of high school language study is equal to one term of study at the University; four years of high school language study normally prepares one for upper-level (300-400) language courses.

PROGRAM – A10: BACHELOR OF ARTS WITH A MAJOR IN LANGUAGE

(See Distribution Table for general requirements and consult chairman for specifics.)

	<i>Semester Hours</i>
English.....	7
Humanities electives ¹	18
Philosophy and / or Religious Studies.....	12
Science and Quantitative Studies.....	6-9
Speech 101.....	3
Social Science electives.....	9
General academic electives and Senior Synthesis to total at least.....	120

¹ It 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. 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.

A language major may arrange his courses, with the approval of the departmental chairman, in one of these three forms of concentration:

1. Major in a single language, requiring 24 semester hours in upper-level (300-400) courses;
2. Composite major, requiring a minimum of 20 semester hours in each of two languages (any level).²
3. A composite major in Classical Languages (Greek and Latin) may be earned by completing the following program:
 - a. minimum of 24 semester hours of courses in the Latin Language at the 300-400 level;
 - b. minimum of 12 semester hours of courses in the Greek Language at any level;
 - c. electives to minimum total of 42 semester hours, such electives to be chosen from courses in Greek or Roman History, Ancient Philosophy, Greek, or Latin.

Students with a composite major arrangement should begin their second language no later than the fourth term.

A minor in a single language requires 12 semester hours at the 300-400 level.

FACULTY

Gordon A. Neufang, Jr., *Chairman*

Professor: Conard

Associate Professors: McKenzie, Neufang, Zeinz

Assistant Professors: Cambria, Castello-Lamas, Galeano, Greely, Romaguera

Instructors: Chiodo, Hatch

COURSES OF INSTRUCTION

See specific language of interest.

CLASSICS (CLA)

COURSES OF INSTRUCTION

CLA 203. CLASSICAL MYTHOLOGY: An introduction to the principal cycles of Greek and Roman mythology, with special emphasis on the influence of classical mythology upon the literature and art of the Western World. No prerequisite. *2 sem. hrs.*

See also course offerings listed under Humanities Studies (HMS).

FRENCH (FRN)

(See requirements under LNG.)

COURSES OF INSTRUCTION

Note: FRN 300 or 301 is a prerequisite for all other upper-level courses conducted in French.

FRN 103, 104. ELEMENTARY FRENCH I, II: Basic elements of the French language with emphasis on audio-oral skills. Language laboratory required. No prerequisite for FRN 103. *4 sem. hrs. each*

FRN 199. FRENCH LANGUAGE TABLE: Weekly informal practice in conversation. Faculty supervised. Repeatable up to 3 semester hours. Does not count toward major or minor. Prerequisite: Enrollment in FRN 103 or equivalent proficiency. Native speakers welcome as guests. S / NC grade option only. *1 sem. hr.*

FRN 201, 202. INTERMEDIATE FRENCH I, II: Intensive review of French grammar, selected readings in French literature or culture, practice in spoken and written language skills. Language laboratory required. *3 sem. hrs. each*

FRN 300, 301. FRENCH CONVERSATION: Intensive drill to develop communication skills through vocabulary development, pattern drills, and use of idioms in discussions centered around French life and culture. May be taken in either sequence. One term required for majors and minors. FRN 300 or 301 is a prerequisite for all other upper-level courses conducted in French. *3 sem. hrs. each*

FRN 302. ADVANCED FRENCH COMPOSITION: Practice in composition based on topics dealing with various aspects of French life and culture. Systematic vocabulary enrichment. Basic grasp of stylistics through literary texts. *3 sem. hrs.*

FRN 305. EXPLICATION DE TEXTES: Introduction to method of analyzing literary texts by observing and doing analyses of French prose and poetry. Elements of French versification. Recommended for all French majors and prospective teachers. First term, each year. *3 sem. hrs.*

FRN 306. FRENCH PHONETICS AND DICTION: Formation of the sounds of French, rules of pronunciation, use of phonetic transcription, practical exercises in interpretive reading. Recommended for French majors and required for prospective teachers. *3 sem. hrs.*

FRN 307. FRENCH CULTURE AND CIVILIZATION: Introduction to the study of French culture with emphasis upon modern social and cultural trends. Conducted in French. *3 sem. hrs.*

FRN 313, 314. SURVEY OF FRENCH LITERATURE: Major texts, trends and authors from the Middle Ages to the present, showing the influences and continuity between the various periods. Lectures, discussions, oral and written reports. Recommended for all French majors and prospective teachers. *3 sem. hrs. each*

FRN 350. FRENCH LITERATURE IN TRANSLATION: Designed for nonmajors and nonminors to acquaint the student with major French writers and literary movements. Conducted in English. Repeatable when subtitle and content change. *3 sem. hrs.*

FRN 405. FRENCH LITERATURE: Lectures and discussions in French in such specialized areas as Medieval French Literature, French Renaissance, French Classicism, the Enlightenment, 20th-century French poetry, French drama, and the French novel. Repeatable when subtitle and content change. *3 sem. hrs.*

FRN 491. INDEPENDENT STUDY: An independent research project under the guidance of an instructor. Admission to project and number of semester hours require approval of the chairman. *1-3 sem. hrs.*

GERMAN (GER)

(See requirements under LNG.)

COURSES OF INSTRUCTION

GER 103, 104. ELEMENTARY GERMAN I, II: Basic elements of German language with emphasis upon pronunciation, speaking, reading, and grammar. Language laboratory required. No Prerequisite for GER 103. *4 sem. hrs. each*

GER 199. GERMAN LANGUAGE TABLE: Weekly informal practice in conversation. Faculty supervised. Repeatable up to 3 semester hours. Does not count toward major or minor. Prerequisite: Enrollment in GER 103 or equivalent proficiency. Native speakers welcome as guests. S / NC grade option only. *1 sem. hr.*

GER 201. INTERMEDIATE GERMAN I: Systematic grammar review. Increased use of the language in written exercises and classroom discussions based upon selected readings. Prerequisite: Successful completion of GER 104 or equivalent. *3 sem. hrs.*

GER 202. INTERMEDIATE GERMAN II: Continuation of GER 201. The student is exposed to the development of German civilization and culture. Reading, conversation, and composition. Prerequisite: Successful completion of GER 201 or equivalent. *3 sem. hrs.*

GER 304, 305. SPOKEN GERMAN: Intensive drill to develop communication skills through vocabulary development, pattern drills, and use of idioms in discussions and oral reports centered around German daily life and culture. May be taken in either sequence. One term required for majors and minors. *3 sem. hrs. each*

GER 313. SURVEY OF GERMAN LITERATURE I: German literature and its development from 750 A.D. to the end of the 17th century. A study of exemplary works and literary movements of the period. *3 sem. hrs.*

GER 314. SURVEY OF GERMAN LITERATURE II: German literature from the 18th century to the present. A study of exemplary literary works and movements of the period.

3 sem. hrs.

GER 350. GERMAN LITERATURE IN TRANSLATION: Designed for nonmajors and nonminors to acquaint the student with major German writers and literary movements. Conducted in English. Repeatable when subtitle and content change.

3 sem. hrs.

GER 440. GERMAN LITERATURE: Lectures and discussions in German in such specialized areas as Medieval German lyric, Romanticism, 20th-century German novel, modern German drama, and individual authors. Repeatable when subtitle and content change.

3 sem. hrs.

GER 491. INDEPENDENT STUDY: An independent research project under the guidance of an instructor. Admission to project and number of credits require approval of chairman.

1-3 sem. hrs.

GREEK (GRK)

COURSES OF INSTRUCTION

GRK 103, 104. ELEMENTARY GREEK I, II: A study of the essentials of classical Greek grammar with exercises and readings. No prerequisite for GRK 103.

4 sem. hrs. each

GRK 201. INTERMEDIATE GREEK: Continuation of the study of grammar. Readings from Herodotus, Xenophon, and Plato. Prerequisite: GRK 104.

3 sem. hrs.

GRK 350. GREEK LITERATURE: Lectures and discussions in such specialized areas as New Testament Greek, lyric poetry, individual authors, genres. Repeatable when subtitle and content change.

3 sem. hrs.

ITALIAN (ITA)

COURSES OF INSTRUCTION

ITA 103, 104. ELEMENTARY ITALIAN I, II: Elements of Italian, including pronunciation, reading, translation, grammar, dictation, and conversation. No prerequisite for ITA 103.

4 sem. hrs. each

ITA 199. ITALIAN LANGUAGE TABLE: Weekly informal practice in conversation. Faculty supervised. Repeatable up to 3 credits. Does not count toward major or minor. Prerequisite: Enrollment in ITA 103 or equivalent proficiency. Native speakers welcome as guests. S / NC grade option only.

1 sem. hr.

ITA 201, 202. INTERMEDIATE ITALIAN I, II: Grammar review, selected readings from modern authors, exercises in composition and conversation. Prerequisite: ITA 104.

3 sem. hrs. each

ITA 301, 302. MASTERPIECES OF ITALIAN LITERATURE: Major works from Dante to D'Annunzio, presented in literary-historical perspective. Prerequisite: ITA 202 or permission of the department.

3 sem. hrs. each

ITA 307, 308. SPOKEN ITALIAN: Development of communication skills through discussions, reports, debates. May be taken in either sequence.

3 sem. hrs. each

ITA 491. INDEPENDENT STUDY: An independent research project under the guidance of an instructor. Admission to project and number of credits require approval of chairman.

1-3 sem. hrs.

LATIN (LAT)

COURSES OF INSTRUCTION

LAT 103, 104. ELEMENTARY LATIN I, II: A college course in Latin fundamentals. No prerequisite for LAT 103. *4 sem. hrs. each*

LAT 201, 202. INTERMEDIATE LATIN I, II: Second-year course in Latin. Readings from classical authors of the pre-Christian periods. Prerequisite: LAT 104. *3 sem. hrs. each*

LAT 301. LATIN COMPOSITION AND SYNTAX: An intensive review of inflections and syntax with emphasis on original style and fluency of expression. *3 sem. hrs.*

LAT 350. LATIN LITERATURE: Lectures and discussions in such specialized areas as genre (poetry, satire, drama), individual authors. Repeatable when subtitle and content change. *3 sem. hrs.*

LAT 491. INDEPENDENT STUDY: An independent research project under the guidance of an instructor. Admission to project and number of credits require approval of chairman. *1-3 sem hrs.*

RUSSIAN (RUS)

COURSES OF INSTRUCTION

RUS 103, 104. ELEMENTARY RUSSIAN I, II: Familiarization of 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. No prerequisite for RUS 103. *4 sem. hrs. each*

RUS 201, 202. INTERMEDIATE RUSSIAN I, II: Review of the essentials of grammar, intensive conversational and comprehension exercises, reading of graded modern and contemporary prose and poetry. Prerequisite: RUS 104 or equivalent. *3 sem. hrs. each*

RUS 301, 302. RUSSIAN READING AND CONVERSATION I, II: 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 202 or equivalent. *3 sem. hrs. each*

SPANISH (SPN)

(See requirements under LNG.)

COURSES OF INSTRUCTION

Note: SPN 305 or 306 is a prerequisite for all other upper-level courses conducted in Spanish.

SPN 103, 104. ELEMENTARY SPANISH I, II: Development of a foundation for understanding, speaking, reading, and writing Spanish. Language laboratory required. No prerequisite for SPN 103. *4 sem. hrs. each*

SPN 199. SPANISH LANGUAGE TABLE: Weekly informal practice in conversation. Faculty supervised. Repeatable up to 3 semester hours. Does not count toward major or minor. Prerequisite: Enrollment in SPN 103 or equivalent proficiency. Native speakers welcome as guests. S / NC grade option only. *1 sem. hr.*

SPN 201, 202. INTERMEDIATE SPANISH I, II: Review of the basic principles of the language through composition and conversation, stressing fluency in the use of Spanish. Language laboratory required. *3 sem. hrs. each*

SPN 301, 302. SPANISH LITERATURE I, II: A survey of Spanish literature, with special emphasis on correct written Spanish. Recommended for majors and prospective teachers.

3 sem. hrs.

SPN 305, 306. SPOKEN SPANISH: Development of fluency in the vocabulary and idioms of the spoken language through discussion of topics related to contemporary living in the Hispanic world. May be taken in either sequence. One term required for majors and minors. (SPN 305 or 306 is a prerequisite for all other upper-level courses conducted in Spanish.)

3 sem. hrs. each

SPN 307. SPANISH COMPOSITION: Intensive study of the structure of Spanish with emphasis on correct written Spanish. Recommended for majors and prospective teachers.

3 sem. hrs.

SPN 310. SPANISH PHONETICS AND DICTION: Formation of the sounds of Spanish, rules of pronunciation, use of phonetic transcription, practical exercises in interpretive reading. Recommended for Spanish majors and required for prospective teachers.

3 sem. hrs.

SPN 313. EXPLICACION DE TEXTOS: Introduction to the methods of analyzing literary texts by observing and doing analyses of Spanish prose and poetry. Elements of Spanish versification. Recommended for Spanish majors and prospective teachers. Conducted in Spanish.

3 sem. hrs.

SPN 315. SPANISH CIVILIZATION AND CULTURE: Readings and discussions on the historical, social, political, and cultural phenomena of Spain. Conducted in Spanish.

3 sem. hrs.

SPN 316. IBERO-AMERICAN CIVILIZATION AND CULTURE: Readings and discussions on the historical, social, political, and cultural phenomena of Ibero-America. Conducted in Spanish.

3 sem. hrs.

SPN 350. HISPANIC LITERATURE IN TRANSLATION: Designed for nonmajors and nonminors to acquaint the student with major Spanish and Spanish-American writers and literary movements. Conducted in English. Repeatable when subtitle and content change.

3 sem. hrs.

SPN 407, 408. SPANISH LITERATURE OF THE 20TH CENTURY I, II: A study of the principal Spanish and Spanish-American authors and works of the present century. Lectures, discussions, and reports on assigned readings. Conducted in Spanish.

3 sem. hrs. each

SPN 420. SPANISH-AMERICAN LITERATURE: Lectures and discussions in Spanish in such specialized areas as Spanish-American colonial literature, contemporary Spanish-American novel, Spanish-American poetry, Spanish-American prose. Repeatable when subtitle and content change.

3 sem. hrs.

SPN 440. SPANISH LITERATURE: Lectures and discussions in Spanish in such specialized areas as Medieval Spanish literature, Spanish drama of the Golden Age, Cervantes, 19th-century Spanish novel, contemporary Spanish drama. Repeatable when subtitle and content change.

3 sem. hrs.

SPN 491. INDEPENDENT STUDY: An independent research project under the guidance of an instructor. Admission to project and number of semester hours require approval of chairman.

1-3 sem. hrs.

MATHEMATICS (MTH)

PROGRAM – A11: BACHELOR OF ARTS WITH A MAJOR IN MATHEMATICS

- A. MAJOR FIELD – Qualified students elect MTH 118 upon entering; those with weaker backgrounds elect MTH 101. Upon completion of 15 semester hours in calculus and differential equations (or demonstration of proficiency), a student will, with the approval of the department, elect 24 semester hours of upper-level course work. Students with strong mathematical ability may be invited to satisfy these requirements in the honors program offered by the department.
- B. BREADTH REQUIREMENT
1. Six semester hours of course work in any area of natural science, computer science, engineering, or accounting, 3 semester hours of which must be in natural science. Majors are strongly advised to learn computer programming.
 2. Nine hours of course work in social and behavioral science. (See departments listed in the description of the general BA program.) Six hours must be from one area, at least three of which must be upper level.
 3. Eighteen semester hours in the humanities (see listing of departments), which must include units of 6 semester hours from two areas; at least 3 semester hours in each unit must be upper level. (The basic philosophy, religious studies, and communication courses do not fulfill this requirement.)
 4. Twelve hours in religious studies and / or philosophy.
 5. Demonstration of proficiency or successful completion of Speech 101, English 111-112.
- C. Other requirements as listed in the description of the general BA program.
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PROGRAM – S8: BACHELOR OF SCIENCE WITH A MAJOR IN MATHEMATICS, MATHEMATICAL STATISTICS, OR APPLIED MATHEMATICS

- A. MAJOR FIELD – Qualified students elect MTH 118 upon entering; those with weaker backgrounds elect MTH 101. Upon completion of 15 semester hours in calculus and differential equations (or demonstration of proficiency), a student will, with the approval of the department, elect 24 semester hours of upper-level course work. Students with strong mathematical ability may be invited to satisfy these requirements in the honors program offered by the department.
- B. MINOR FIELD – The requirement for the minor normally consists in 12 upper-level semester hours. The chosen field may require prerequisite knowledge that could extend the total number of hours beyond 12. The choice of a minor and the supporting course work must be approved by the student's advisor.
- C. COURSES IN OTHER AREAS
1. Communication Skills – In addition to ENG 111, ENG 112, and SPE 101, which are university requirements, a course in programming is required of all majors, and those looking forward to research are strongly advised to elect some foreign language.
 2. Fine Arts, Humanities and Behavioral Science – A minimum of 30 semester hours, including 12 in religious studies and / or philosophy. Twelve semester hours should be concentrated in one area of the humanities. ENG 111, 112, and SPE 101 may not be counted toward the fulfillment of this requirement.
 3. Science Requirement – This requirement is fulfilled by electing the sequence of basic courses in two science areas approved by the department (physics and chemistry, for example).
 4. University Requirements, Electives – Students are subject to all general requirements of the university.
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More detailed information will be provided by the department upon request. All majors are encouraged to cooperate closely with their departmental advisors in planning their course work. Honor students may wish to follow a five-year program leading to a Master's degree in mathematics.

FACULTY

Harold G. Mushenheim, S.M., *Chairman*

Distinguished Service Professor: Schraut

Professor: Stander

Associate Professors: Back, Gantner, Gorton, McCloskey, Mushenheim, Peterson, Potoczny, Rice, Steinlage

Assistant Professors: Friel, Kauflin, Shaughnessy

COURSES OF INSTRUCTION

GENERAL OFFERINGS OF THE DEPARTMENT

MTH 098. FUNDAMENTALS OF ALGEBRA I: A review of the principles of algebra usually treated in high school. Ordinarily, registration in the course will be restricted to students enrolled in the Bachelor of Engineering program; however, others may attend if space permits. 3 hours of class. *no credit*

MTH 099. FUNDAMENTALS OF ALGEBRA II: A continuation of MTH 098. Further topics in basic algebra including systems of linear and quadratic equations, determinants, progressions, synthetic division, approximation of roots, mathematical induction. Although intended primarily for students in the Bachelor of Engineering program, others may attend if space permits. 3 hours of class. *no credit*

MTH 101. PRECALCULUS MATHEMATICS: For students whose achievement in mathematics is insufficient to profit from instruction in Mathematics 112 or Mathematics 118. Topics from algebra and trigonometry chosen to satisfy the needs of the class. *4 sem. hrs.*

MTH 107. FUNDAMENTALS OF MATHEMATICS: Sets, functions and graphs, exponents and logarithms, polynomials and algebraic equations, systems of equations. Prerequisite: One year of high school algebra. *3 sem. hrs.*

MTH 108. INTRODUCTION TO ENGINEERING MATHEMATICS I: Combined topics from college algebra, trigonometry, analytic geometry and calculus designed for students in the Bachelor of Engineering program. *3 sem. hrs.*

MTH 109. INTRODUCTION TO ENGINEERING MATHEMATICS II: A continuation of MTH 108 with topics chosen so that upon completion students are able to enter MTH 119. *3 sem. hrs.*

MTH 111. MATHEMATICS AND ITS CULTURAL ASPECTS: Historical development of mathematics, the axiomatic approach, various mathematical systems, applications. Prerequisite: One year of high school algebra. *3 sem. hrs.*

MTH 112-113. INTRODUCTORY CALCULUS I & II: 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 101 or equivalent. *3 sem. hrs.*

MTH 118. ANALYTIC GEOMETRY AND CALCULUS I: Fundamentals of analytic geometry, differentiation of algebraic functions with applications to geometry and physics, indefinite and definite integrals with application to science and engineering. Prerequisite: MTH 101 or equivalent. *2-4 sem. hrs.*

MTH 119. ANALYTIC GEOMETRY AND CALCULUS II: Continuation of MTH 118. Conic sections, differentiation of transcendental functions, indefinite and definite integrals with applications to science and engineering, infinite series; indeterminate forms, Taylor's theorem. Prerequisite: MTH 118. *2-4 sem. hrs.*

MTH 204. MATHEMATICAL CONCEPTS I: 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. *3 sem. hrs.*

MTH 205. MATHEMATICAL CONCEPTS II: Concepts necessary for an understanding of operations and structure of algebra and geometry. Prerequisite: MTH 204. *3 sem. hrs.*

MTH 207. STATISTICAL METHODS FOR THE BEHAVIORAL SCIENCES: Measures of central tendency and variability, frequency distributions, probability, the binomial distribution, normal distribution, inferences from sample means, curve fitting, correlation, analysis of variance. Prerequisite: two years of high school algebra. *3 sem. hrs.*

MTH 215. BASIC STATISTICS FOR THE BIOMEDICAL SCIENCES: A discussion of probability, sample, normal distribution, confidence intervals, tests of hypotheses, proportions, chi-square test, F-distribution, regression & correlation. Prerequisite: MTH 113 or consent of instructor. *3 sem. hrs.*

MTH 218. ANALYTIC GEOMETRY AND CALCULUS III: Continuation of MTH 119. Multi-variable calculus, solid analytic geometry, partial differentiation, multiple integrals. Prerequisite: MTH 119. *4 sem. hrs.*

MTH 219. APPLIED DIFFERENTIAL EQUATIONS: First order equations, linear differential equations of higher order with constant coefficients, power series solutions, the Laplace transformation, numerical methods, applications to physics and engineering. Corequisite: MTH 218. *3 sem. hrs.*

MTH 361. INTRODUCTION TO ABSTRACT ALGEBRA: Fundamental concepts of groups, rings, integral domains and fields. Prerequisite: MTH 218. *3 sem. hrs.*

MTH 362. INTRODUCTION TO LINEAR ALGEBRA AND MATRICES: Fundamental concepts of vector spaces, systems of linear equations, determinants, linear transformations and matrices. Corequisite: MTH 218. *3 sem. hrs.*

MTH 367. STATISTICAL METHODS I: Probability distributions including the binomial, hyper-geometric, Poisson, and normal. Monte Carlo methods, computer simulation, estimation of population mean and standard deviation. Confidence intervals and tests of hypotheses using t -, Chi-square, and F-statistics. Prerequisite: MTH 218. *3 sem. hrs.*

MTH 368. STATISTICAL METHODS II: Distribution free methods including rank tests, sign tests and Kolmogorov-Smirnov test. The method of least squares, correlation, linear regression, analysis of variance. Design of experiments. Reliability and life testing. Prerequisite: MTH 367. *3 sem. hrs.*

MTH 370. INTRODUCTION TO HIGHER GEOMETRY: Euclidean, projective, affine, and metric geometries using synthetic and analytic methods. Prerequisite: MTH 218. Second term, each year. *3 sem. hrs.*

MTH 395. DEVELOPMENT OF MATHEMATICAL IDEAS: A survey of the evolution of mathematical ideas from ancient times until the present. Famous men and famous problems are examined. The chronological outline of mathematics is compared with outlines in the sciences, history, philosophy, and astronomy. Prerequisite: MTH 112 or MTH 118 or the permission of instructor. *3 sem. hrs.*

MTH 403. APPLIED ANALYSIS I: Introduction to vector integral calculus, line and surface integrals, Green's theorem, Stokes' theorem, the divergence theorem. The Sturm-Liouville problem. Orthogonal functions. Prerequisite: MTH 219. First term, each year. *3 sem. hrs.*

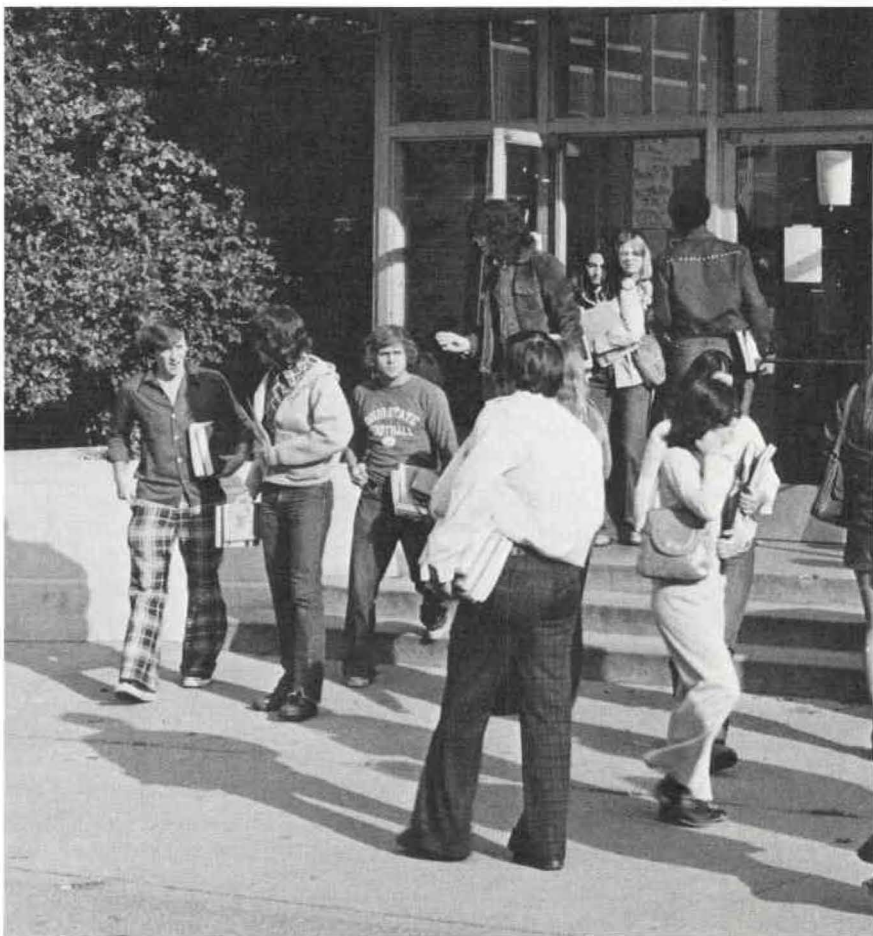
MTH 404. APPLIED ANALYSIS II: Introduction to functions of a complex variable, conformal mapping, solution of real integrals by contour integration. Special functions. Calculus of variations. Prerequisite: MTH 219 or permission of the instructor. Second term, each year. *3 sem. hrs.*

MTH 411. PROBABILITY AND STATISTICS I: Mathematical probability, stochastic variables, joint distributions, Bayes' theorem, moments, Chebyshev's inequality, limit theorems including the laws of large numbers, and Central limit theorem. Prerequisite: MTH 218. *3 sem. hrs.*

MTH 412. PROBABILITY AND STATISTICS II: 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. *3 sem. hrs.*

MTH 413. PROBABILITY AND STATISTICS III: Statistical decision theory, partitioning of sums and squares, analysis of variance, regression on several independent variables, multiple regression approach to analysis of variance, design of experiments. Prerequisite: MTH 412. Second term, each year. *3 sem. hrs.*

MTH 421. ADVANCED CALCULUS I: The number system, sequences, functions of a real variable, the Riemann integral. Prerequisite: MTH 218. First term, each year. *3 sem. hrs.*



MTH 422. ADVANCED CALCULUS II: Infinite series, uniform convergence, line integrals, multivariable calculus. Prerequisite: MTH 421. Second term, each year. 3 sem. hrs.

MTH 455-456. NUMERICAL ANALYSIS: See CPS 455-456. 6 sem. hrs.

MTH 461. INTRODUCTION TO THE THEORY OF FUNCTIONS OF A COMPLEX VARIABLE: Fundamental concepts, Cauchy integral theorem, analytic functions, analytic continuation, conformal transformations, the calculus of residues, applications to physics and engineering. Prerequisite: MTH 218. 3 sem. hrs.

MTH 463. APPLIED LINEAR ALGEBRA: Topics include linear programming and its applications, game theory, linear codes, and their error-correcting capabilities. Prerequisite: MTH 362. 3 sem. hrs.

MTH 471. TOPOLOGY: Calculus of point sets. Hausdorff and other topological spaces. Completeness, compactness, metrics, Euclidean spaces, connectedness, partial ordering, axiom of choice, homeomorphisms and continuous functions. Prerequisite: MTH 218. 3 sem. hrs.

MTH 481. MATHEMATICAL LOGIC: See CPS 481. 3 sem. hrs.

MTH. 482. AUTOMATA THEORY: See CPS 482. Prerequisite: MTH 481. 3 sem. hrs.

MTH 490. READING IN (NAMED AREA): Individual study in specialized areas carried out under the supervision of a staff member. May be taken more than once for additional credit. Prerequisite: Permission of the Department. 3 sem. hrs.

HONORS PROGRAM

The honors committee of the Department of Mathematics will, upon review, extend invitations to second-semester freshmen with a minimum 3.5 average in Mathematics and a minimum 3.0 cumulative average. Students entering with advanced placement would be considered as exceptional cases and would be reviewed by the committee.

In his senior year, each student in the Honors Program will be required to enroll in one graduate course. Students in the Honors Program are invited to inquire about the five-year Master's Degree program.

MTH 245H. SOPHOMORE HONORS MATHEMATICS: Finite dimensional vector spaces, linear transformations and matrices, linear differential equations. Prerequisites: MTH 119 and the permission of the honors committee of the department. 4 sem. hrs.

MTH 246H. SOPHOMORE HONORS MATHEMATICS: Multidimensional calculus, exterior derivatives, Stokes' theorem. Jordan canonical form, bilinear forms. Prerequisite: MTH 245H and the permission of the honors committee of the department. 4 sem. hrs.

MTH 345H. JUNIOR HONORS MATHEMATICS: Introduction to real analysis: real number system, series, sequences, derivatives, and integration. Prerequisite: Permission of the honors committee of the department. 4 sem. hrs.

MTH 346H. JUNIOR HONORS MATHEMATICS: Continuation of real analysis. Introduction to the theory of functions of a complex variable. Cauchy integral theorems. Prerequisite: MTH 345 and the permission of the honors committee of the department. 4 sem. hrs.

MTH 445H. (SPECIAL TOPICS IN NAMED AREA): Lectures in the specialized areas such as abstract algebra, applied mathematics, complex variables, differential forms, functional analysis, Galois theory, game theory, general topology, normed linear spaces, probability theory, real variables, topological groups. May be taken more than once for additional credit. Prerequisite: Permission of the honors committee of the department.

MEDICAL TECHNOLOGY (MET)

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

Completion of the Program results in a Bachelor of Science with a major in Medical Technology and qualifies the students to take the national examination given by the Registry of Medical Technologists. Because of his theoretical and practical experience in the various branches of the laboratory, the certified Medical Technologist will find positions available in all parts of the country, in hospitals, clinics, physicians' offices, public health agencies, the armed services, pharmaceutical firms, and research institutions.

Requirements for the preclinical years:

	<i>Semester Hours</i>
Biology	20
Chemistry	20
Mathematics	3
Science electives.....	8
Humanities (including Philosophy, Religious Studies, English, Language, Speech)	36
General electives.....	9
Total	96

This program is planned to meet the requirements of the University, the hospitals, and the Registry of Medical Technologists. A minimum of 90 semester hours must be completed before entering the clinical courses at one of the hospitals. Graduation from the University of Dayton will require completion of the above 96 semester hours (or the equivalent) and 28 semester hours from the clinical courses.

CLINICAL YEAR

In planning for the clinical year, the student is required to make a formal application to one or more of the local Schools of Medical Technology. This is usually done in the fall semester of the junior year. Students are then asked to arrange for an interview and a visit to one of the hospitals. Acceptance of students is based on academic performance and suitability for the profession of medical technology.

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. The senior year curriculum involves formal lectures and laboratories in addition to a rotation period in the various departments of the clinical laboratories.

Science with a major in Medical Technology and are eligible to take the certification examination of the Registry of Medical Technologists. This examination is given twice a year, in February and August, at various centers throughout the country.

PROGRAM — S9: 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>
Freshman Year				
BIO	100	Freshman Seminar	1-0-0	
BIO	151-2	Concepts of Biology	3-0-3 ¹	3-3-4
CHM	123-4	General Chemistry	3-3-4	3-3-4
MTH	—	Calculus ²	3-0-3	
ENG	111, 112	College Composition I and II	4-0-4	3-0-3
—	—	Humanities ³	3-0-3	6-0-6
			17	7
Sophomore Year				
BIO	340	Cell Biology		3-0-3
BIO	201L	Bio Lab Investigations (optional)	0-3-1	
BIO	207L	Human Anatomy		0-3-1
CHM	313-4	Organic Chemistry	3-3-4	3-3-4
ENG	—	English elective		3-0-3
CHM	201	Quantitative Analysis	2-4-4	
—	—	Humanities ³	6-0-6	6-0-6
			14 or 15	17
Junior Year				
BIO	411	Bacteriology	3-4-5	
BIO	325	Parasitology		2-3-3
—	—	Science elective ⁴	3-3-4	3-3-4
—	—	Humanities ³	3-0-3	3-0-3
—	—	General electives ⁵	3-0-3	6-0-6
MET	380	Seminar		1-0-1
			15	17

¹ For example, 3-0-3 mean 3 class hrs., 0 lab. hrs., 3 sem. hrs. of credit.

² Placement may necessitate initial course in precalculus (MTH 101). Normally, students should take MTH 112, MTH 118 or MTH 128.

³ Courses to satisfy University requirements: SPE 101, Philosophy and / or Religious Studies (12 semester hours); additional hours are electives.

⁴ The following are recommended: BIO 303, BIO 466, PHY 201-202, CHM 420.

⁵ At least one science elective recommended.

Senior Year

Semester Hours

MET 431	Introduction to Medical Laboratory Science	2
MET 431L	Introduction to Medical Laboratory Science Laboratory	2
MET 432	Clinical Chemistry.....	4
MET 432L	Clinical Chemistry Laboratory	4
MET 433	Microbiology.....	4
MET 433L	Microbiology Laboratory	3

MET 434	Hematology.....	2
MET 434L	Hematology Laboratory.....	4
MET 435	Immunology.....	1
MET 435L	Immunology Laboratory.....	2
MET 436	Renal Function.....	2
MET 436L	Renal Function Laboratory.....	2
MET 437	Immunoematology.....	1
MET 437L	Immunoematology Laboratory.....	2
MET 438	Clinical Pathology.....	2
MET 439	Clinical Pathology Seminar.....	1

FACULTY

S. A. Sonstein, *University Advisor*

Clinical Professors: Abramson, Bylsma, Funkhouser, Van Der Hoeven

Clinical Assistant Professors: Carrol, Cornett, Hedrick, Klar, Pohl

COURSES OF INSTRUCTION

The courses taken during the first three years at the University of Dayton, listed under Program S-9, are described under the individual departments. The senior year is performed at St. Elizabeth Medical Center, Good Samaritan Hospital, Miami Valley Hospital or Kettering Medical Center.

MET 380. MEDICAL TECHNOLOGY SEMINAR: Discussion to relate academic courses and clinical laboratory sciences. Prerequisite: junior standing. *1 sem. hr.*

MET 431. INTRODUCTION TO MEDICAL LABORATORY SCIENCE: A study of basic hospital and laboratory routine, terminology, ethics, instrumentation, laboratory mathematics and quality control. *2 sem. hrs.*

MET 431L. INTRODUCTION LABORATORY: Laboratory manipulations to accompany MET 431. *2 sem. hrs.*

MET 432. CLINICAL CHEMISTRY: The study of human physiological chemistry with application of analytical techniques to the examination of body fluids and tissues. *4 sem. hrs.*

MET 432L. CLINICAL CHEMISTRY LABORATORY: Laboratory manipulations to accompany MET 432. *4 sem. hrs.*

MET 433. MICROBIOLOGY: Study of microorganisms found in human infection, their isolation/identification and prophylaxis. Included are bacteria, fungi, parasites and viruses. *4 sem. hrs.*

MET 433L. MICROBIOLOGY LABORATORY: Laboratory manipulations to accompany MET 433. *3 sem. hrs.*

MET 434. HEMATOLOGY: Instruction in the morphology of the blood and blood-forming tissues. *2 sem. hrs.*

MET 434L. HEMATOLOGY LABORATORY: Laboratory manipulations to accompany MET 434. *4 sem. hrs.*

MET 435. IMMUNOLOGY: The study of the immune system, in particular antigen-antibody reaction in vitro. *1 sem. hr.*

MET 435L. IMMUNOLOGY LABORATORY: Laboratory manipulations to accompany MET 435. *2 sem. hrs.*

MET 436. RENAL FUNCTION: Various methods of performing urine and other kidney function tests with correlation based on anatomical and physiological functions of the organs. *2 sem. hrs.*

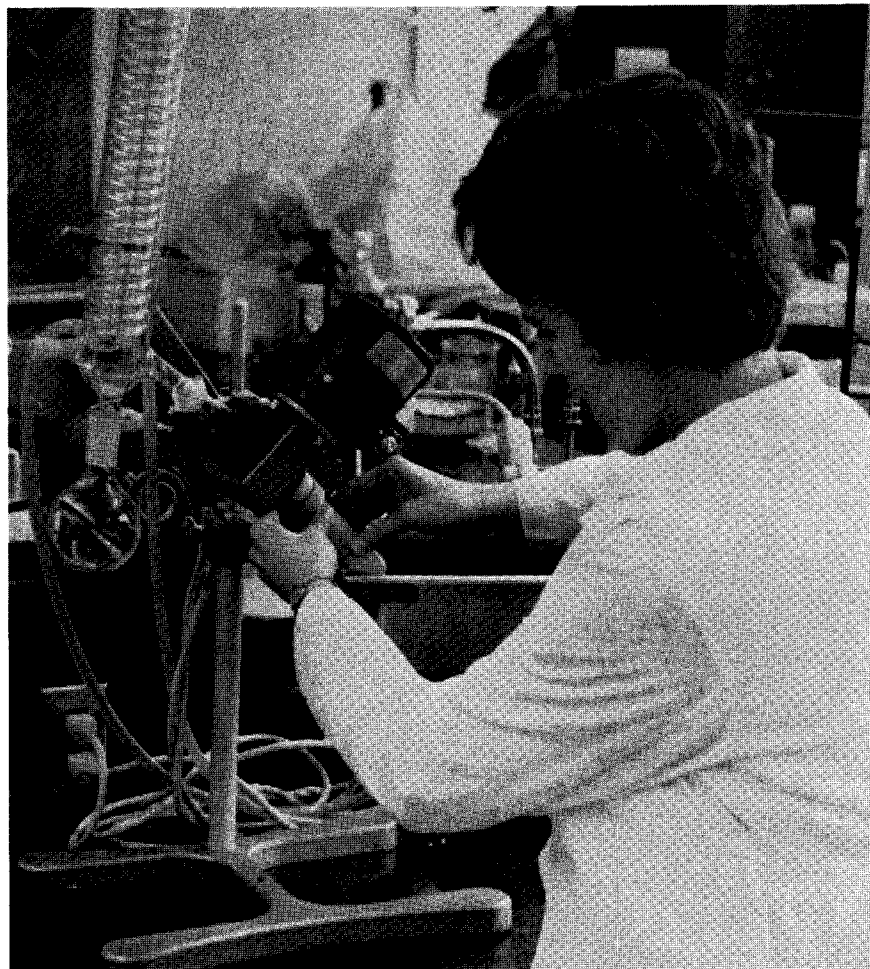
MET 436L. RENAL FUNCTION LABORATORY: Laboratory manipulations to accompany MET 436. *2 sem. hrs.*

MET 437. IMMUNOHEMATOLOGY: Study of the principles of blood banking, transplantation immunity and autoimmunity. *1 sem. hr.*

MET 437L. IMMUNOHEMATOLOGY LABORATORY: Laboratory manipulations to accompany MET 437. *2 sem. hrs.*

MET 438. CLINICAL PATHOLOGY: Lecture stressing the correlation of physiological changes in diseased states and laboratory procedures. *2 sem. hrs.*

MET 439. CLINICAL PATHOLOGY SEMINAR: Current developments and special topics. *1 sem. hr.*



MILITARY SCIENCE (MIL) ARMY ROTC

The Department of Military Science offers the Reserve Officers Training Corps (ROTC) program on the campus, providing instruction in general military subjects applicable to all branches of the Army. The purpose of the Reserve Officers Training Corps Program is to develop selected college-educated men and women for positions of responsibility as officers in the active Army and its Reserve components. If the draft is reinstated, the program will also enable qualified college graduates to fulfill their obligations as commissioned officers.

The Military Science Program is designed to develop a high degree of personal honor, self-reliance, and leadership and to provide the means of becoming a better informed student on matters of national defense. The program provides men and women who are working toward the baccalaureate degree the opportunity to become officers in the United States Army.

The four-year program is divided into a basic course (freshman and sophomore years) and an advanced course (junior and senior years), and it is offered to all students for academic credit.

The basic course emphasizes practical leadership techniques as well as management concepts which apply equally in both military organizations and private industry. Studies in national securities and global concepts as well as military history are also pursued. There is no military commitment for the basic course.

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

The ROTC program is also available to students with 3 or 2 years remaining on campus. Special programs, called the two-year and compression programs, have been established to allow second-semester freshmen and sophomores to participate in military science.

There is also a veterans program which gives the veteran credit for the first two years of Army ROTC.

Army ROTC scholarships are also available to students who participate in Army ROTC. These scholarships cover 3, 2, and 1-year periods and provide for tuition, books, fees, and \$100 a month for up to ten months of each school year. Scholarships are highly competitive and are awarded only to those who demonstrate outstanding academic and leadership ability.

All students who complete the basic course or the equivalent may enroll in the advanced course and pursue a commission. During the advanced course all cadets receive \$100 a month subsistence. They will also be paid for the advanced camp, which is normally taken in the summer between the junior and the senior year.

The camp, which is six weeks long, is designed to allow the student to apply the leadership and technical training he has received.

FACULTY

Lt. Col. Billy R. Smith, U.S. Army, *Chairman*

Professor: Smith

Assistant Professors: Turbok, Cassell, Basilotto, Durham

COURSES OF INSTRUCTION

MIL 100. LEADERSHIP DEVELOPMENT: Required with each course, MIL 101 through 402. One-hour weekly session, required of all cadets. This is a practical exercise period devoted to developing leadership potential. Cadets are placed in situations demanding the ability to coordinate, command, and supervise. Emphasis is on leadership experience, rifle marksmanship, drill and ceremonies, and physical activity. *No credit.*

MIL 101-102. DEFENSE ESTABLISHMENT: Study of the fundamentals of leadership using practical exercises and evaluations. An evaluation of the military as a profession and its role in the national picture. (One two-day field trip per year required.) *2 sem. hrs.*

MIL 201-202. MAP AND AERIAL PHOTOGRAPH READING AND INTRODUCTION TO TACTICS AND OPERATIONS: Case studies in leadership and management. Delegation of authority and responsibility, span of control, decision making. Analysis of the leader's role in directing and coordinating the efforts of individuals and small units. Military geography and the use of maps and aerial photographs. *2 sem. hrs.*

MIL 301-302. AMERICAN MILITARY HISTORY, MILITARY TEACHING PRINCIPLES, LEADERSHIP, AND SMALL UNIT TACTICS AND TECHNIQUES: Development of the student's ability to express himself clearly and accurately with emphasis on analysis of military problems, the evaluation of situations, and preparation and delivery of logical solutions. Analysis of the leader's role in directing and coordinating the efforts of individuals and small units in the execution of offensive and defensive tactical missions, to include military geography, weapons systems, communication systems, intelligence-gathering capabilities, and roles of the various branches of the Army. Development of basic methods of instruction. Military History - a study of military history viewed toward an analysis of military leaders and their use of the principles of war. (One two-day field trip per year required.) *4 sem. hrs.*

MIL 401-402. THEORY AND DYNAMICS OF THE MILITARY TEAM AND SEMINAR IN LEADERSHIP AND MANAGEMENT: Study of combat operations and the various military teams, to include military geography and the coordination and planning necessary between elements of the team. Analysis of selected leadership and management problems involved in unit administration military justice, and the Army Readiness Program. The position of the United States in the contemporary world scene discussed in the light of its impact on leadership and management problems of the military services. Application of leadership principles, stressing responsibilities of the leader and affording experience through practical exercises. Obligations and responsibilities of an officer on active duty; chain of command; officer-enlisted relationships. *4 sem. hrs.*

MUSIC (MUS)

The Music Division of the Performing and Visual Arts Department is a member of the National Association of Schools of Music and is fully accredited for professional training. Students in Performing and Visual Arts (Fine Arts, Music, Theatre, Photography-Cinematography) have a distinctive opportunity to enrich their backgrounds in other art fields or to concentrate on an interdisciplinary program. We invite students majoring in other fields to investigate the many music activities and courses open to all students.

Ensembles open to all students: University Choir and selected vocal groups, Concert Band, Marching Band (with the Majorettes), Pep Band, Jazz-Lab Band, Orchestra, and selected small instrumental ensembles.

The Music Division of the Performing and Visual Arts Department offers the following programs:

1. Bachelor of Arts with a Major in Music
2. Bachelor of Music in Performance or
Theory or
Composition
3. Bachelor of Music in Music Therapy
4. Bachelor of Music in Music Education (E-11A supplement)

In addition, the Music Division cooperates with the School of Education to prepare students for the degree of Bachelor of Science in Music Education. See Program – E5, School of Education, Chapter VIII.

PROGRAM – A12: BACHELOR OF ARTS WITH A MAJOR IN MUSIC

	<i>Semester hours</i>
Theory (MUS 111, 112, 113, 114 required).....	8-12
Literature and Conducting chosen from the following:.....	7-10
MUS 341 Baroque (3)	
MUS 342 Classic-Romantic (3)	
MUS 343 Middle Ages & Renaissance (2)	
MUS 344 Twentieth Century (2)	
MUS 321 Instrumental Conducting (2)	
MUS 351 Choral Conducting (2)	
Performance (private lessons)	10-16
Students with insufficient keyboard ability will be required to take MUS 296-299, Class Piano (1 semester hour each term) up to a specified level of proficiency.	
Ensemble	2-4
Music electives to a total music requirement of.....	42
Breadth Requirements (see Distribution Table and consult with Department Chairman for specifics).....	45-69
Electives and Senior Synthesis.....	15-39
Total minimum for degree	120

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

PROGRAM – A13: BACHELOR OF MUSIC

University Requirements:

Speech.....	3
English 111-112.....	7
Philosophy and / or Religious Studies.....	12
	22

Breadth Requirements: The student may select any combination of the following academic areas but must take at least 6 semester hours in each selection:

Psychology, Sociology / Anthropology, Economics, Political Science, Language, Business Administration Core Program (12 semester hours required), Marketing, Business Management, Education, Science, Mathematics.....	12-15
English, History, Philosophy, Religious Studies, Performing and Visual Arts (other than the major program), Communication Arts. (If English, Philosophy, Religious Studies and / or Communication Arts is chosen, then the 6 semester hour requirement excludes the hours already required by the University).....	12-15
Major Program ¹ (Per programs listed below).....	87

Total..... 136

¹ Prospective candidates will be auditioned by the Music faculty for placement in degree program. The candidate must demonstrate a high level of performance in his chosen instrument or in voice. Audition and faculty screening is required before a student is assigned to this degree program.

PERFORMANCE MAJOR

	<i>Semester hours</i>
Theory.....	20
Literature and Conducting (Piano majors: MUS 361-2 req.).....	20
Major (voice or instrument).....	24
Minor (piano)*.....	12
Ensemble.....	4-8
Music electives.....	12-15
	Total..... 87

*If piano is not the major, it will be the minor. Organ majors may choose a nonkeyboard minor.

In order to qualify for a major in a Performance subject, the student must, upon entrance, be an acceptable performer in repertoire equivalent to that listed in the Ohio Music Education Association contest lists.

For a piano major, the student's entrance audition should demonstrate the ability to play major and minor scales in parallel motion and major and minor triads in arpeggiated form. The student should have studied Hanon, Vol. I; Schmitt, Op. 16; Czerny, Op. 299; Bach's "Little Preludes and Fugues" or 2- and 3-part inventions; easy sonatas of Haydn and Mozart; easy compositions of Mendelssohn and Schubert; "Lyric Pieces" by Grieg, or the equivalent.

All majors will present ½ of a recital in the junior year and a full recital in the senior year.

THEORY OR COMPOSITION MAJOR

First Year Theory.....	8
Theory / Composition above 100 level.....	24
Literature and Conducting.....	20
Minor (piano)*	12
Ensemble	4-8
Music electives	12-15
	<hr/>
Total	87

*If piano is not the major, it will be the minor. Organ majors may choose a nonkeyboard minor.

Theory Major: The student will submit a research project in the senior year, specified by the faculty and subject to its approval.

Composition major: The student will have a specified amount of original composition performed in the junior and senior years.

MUSIC THERAPY MAJOR

	<i>Semester hours</i>
Music Therapy	18
Music Theory	16
History and Literature, Conducting and Orchestration	13
Applied Music (all instruments and voice)	24
Ensemble.....	4
Recreational Music and Music elective	3
	Total Music
	78
Psychology 101 and 363	6
Human Anatomy or Physiology	3
	Total.....
	87

Note: MUS 489 is an internship of six months, required before the student receives his baccalaureate in the Music Therapy Program.

Each Music Therapy major will present $\frac{1}{3}$ to $\frac{1}{2}$ of a recital by the senior year.

MUSIC EDUCATION MAJOR (E-11A Supplement)

Theory.....	20
History and Literature.....	8
Conducting	2
Performance (private lessons).....	12
Ensemble.....	4
Music Education.....	12
Music electives.....	12-18
	Total.....
	76
Professional Education.....	24
General Certification Requirements.....	13

Bachelor of Music students desiring teacher certification consult the Music Division Head or the P.V.A. Department Chairman for program counselling.

The choice of electives will depend on the student's needs, to be determined by periodic audition / counselling with the faculty.

The student choosing a *vocal emphasis* will demonstrate proficiency in voice and a keyboard instrument and will normally have voice or a keyboard instrument as his principal applied study. The student choosing an *instrumental emphasis* will

have an instrument as his principal applied study and will also demonstrate keyboard proficiency.

In all cases, the student must demonstrate his proficiency in areas pertinent to the requirements of teacher certification in his chosen field, prior to student teaching.

All candidates will participate in at least one large ensemble each term and will present not less than $\frac{1}{2}$ of a recital by the senior year.

FACULTY

Patrick S. Gilvary, *Chairman of Performing and Visual Arts Department*

Lawrence E. Tagg, *Head of Music Division*

Professors: Berk, Reichard

Associate Professors: Tagg, Zech

Assistant Professors: Baxter, Benedum, Miller, Minton

Instructors: Sandness, Stahl

Special Applied Music Instructors: Blair (piano), Cavally (flute), Gilley (flute), Green (percussion), Pepitone (guitar), Hotopp (voice).



COURSES OF INSTRUCTION

- MUS 101. FUNDAMENTALS OF MUSIC: For the student with no previous experience with the theory of music. Notation of music, key and time signatures, fundamental harmonic progression, and an introduction to the piano keyboard. Elementary ear training and dictation. Open to all University students. *2 sem. hrs.*
- MUS 103. MUSIC APPRECIATION: A study of the masterpieces of music with special reference to the listener: includes compositions of value to the classroom teacher. Open to all University students. *2 sem. hrs.*
- MUS 111-112. THEORY OF MUSIC I: Basic grammar of music: formation of scales and intervals, progression of triads and seventh chords, secondary dominant chords and simple modulation. Prerequisite: Placement examination. *4 sem. hrs.*
- MUS 113-114. AURAL SKILLS I: Basic technique of dictation, sight singing and rhythmic reading. Prerequisite: Placement examination. *4 sem. hrs.*
- MUS 211-212. THEORY OF MUSIC II: Analysis and writing of advanced seventh chords, continued study of modulation and secondary harmonic relationships, nonharmonic tones, and altered chords. Study of the structural designs used in composition and analysis: binary, ternary, rondo, sonata, concerto, fugue, and serial forms and techniques. Prerequisite: MUS 112. *4 sem. hrs.*
- MUS 213. AURAL SKILLS II: Advanced dictation, sight singing, and rhythmic reading. Prerequisite: MUS 114. *2 sem. hrs.*
- MUS 214. KEYBOARD HARMONY: A study of diatonic chord progressions, including simple modulations, at the keyboard; their use in accompaniment of melodies; improvisation; modern chord terminology. Prerequisite: MUS 211, four credit hours in Piano. Second Term, each year. *2 sem. hrs.*
- MUS 235-236. VOICE CLASS: Principles of good singing; development of the voice; vocal literature. May be repeated to a total of eight credit hours. Minimum of four students required for class. Open to all University students with permission of the instructor. *4 sem. hrs.*
- MUS 280. MUSIC AND MOVEMENT FOR THE HANDICAPPED I: Use of music and movement in the training of handicapped children. Students work with AIM, Inc. for supervised training in dealing with handicapped children. Prerequisite: Sophomore standing in Music or related fields. *1 sem. hr.*
- MUS 281. MUSIC AND MOVEMENT FOR THE HANDICAPPED II: Continuation of MUS 280. Experience in working with the blind, the deaf, the cerebral palsied, and the retarded. Prerequisite: MUS 200. *1 sem. hr.*
- MUS 285. INTRODUCTION TO MUSIC THERAPY I: History and development of the profession of music therapy. Survey of theoretical bases and current trends for the use of music in therapy. Survey of disability areas using music therapy. Prerequisites: PSY 101 and PSY 363. *2 sem. hrs.*
- MUS 286. INTRODUCTION TO MUSIC THERAPY II: Continuation of MUS 285, with orientation to the profession of music therapy through lectures, readings, audiovisual materials, and field trips. Supervised field experience through observation and participation in music therapy programs. Prerequisite: MUS 285. *2 sem. hrs.*
- MUS 296. CLASS PIANO I: Open to all University students. Fee. *1 sem. hr.*
- MUS 297. CLASS PIANO II: Fee. *1 sem. hr.*
- 134 MUS 298. CLASS PIANO III: Fee. *1 sem. hr.*

- MUS 299. CLASS PIANO IV: May be repeated up to 4 semester hours. Fee. 1 sem. hr.
- MUS 304. HISTORY OF AMERICAN MUSIC: Development of music in America, dating from its early psalmody of the 17th century through 19th-century forms and styles. Open to all University students. 3 sem. hrs.
- MUS 305. CONTEMPORARY TRENDS IN AMERICAN MUSIC: Survey of the contemporary American composers and their styles. The relationship of American music to the other arts. Open to all University students. 3 sem. hrs.
- MUS 311-312. EIGHTEENTH-CENTURY CONTERPOINT: 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 211. 4 sem. hrs.
- MUS 315. THE OPERA: A survey of operas written in classical, romantic, and modern periods; particular attention to works currently performed by major opera companies. Open to all University students. 2 sem. hrs.
- MUS 317-318. ORGAN CLASS: A general survey of organ performance techniques, registration, and literature. Prerequisite: Permission of instructor, demonstrable keyboard proficiency. 4 sem. hrs.
- MUS 321. INSTRUMENTAL CONDUCTING: Techniques of conducting instrumental music in orchestra, band, and other ensembles. Practical experience with campus instrumental groups. Prerequisite: Junior standing in music, permission of the instructor. 2 sem. hrs.
- MUS 322. INSTRUMENTATION AND ORCHESTRATION: 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, permission of the instructor. 3 sem. hrs.
- MUS 323. RECORDER CLASS: Basic technique and solo literature; history and performance practice. Prerequisite: Ability to read music, permission of instructor. 1 sem. hr.
- MUS 324. GUITAR FOR THE CLASSROOM TEACHER: Practical application of the guitar as a tool for music teaching in elementary and junior high school classes. Supplements or replaces piano in classroom teaching. Prerequisite: MUS 101 or equivalent. 1 sem. hr.
- MUS 325. STRINGED INSTRUMENTS I: Class instruction in violin, viola, cello, bass. Teaching stringed instruments in the schools. Open to any qualified University students. Prerequisite: Ability to read music, permission of the instructor. Fee. 2 sem. hrs.
- MUS 326. REED AND WOODWIND INSTRUMENTS: Class instruction in reed and woodwind instruments. Teaching reeds and woodwinds in the schools. Open to any qualified University student. Prerequisite: Ability to read music, permission of the instructor. Fee. 1 sem. hr.
- MUS 327. BRASS INSTRUMENTS: Class instruction in brass instruments. Teaching brass instruments in the schools. Open to any qualified University student. Prerequisite: Ability to read music, permission of the instructor. Fee. 1 sem. hr.
- MUS 328. PERCUSSION INSTRUMENTS: Class instruction in percussion instruments. Teaching percussion instruments in the schools. Open to any qualified University student. Prerequisite: Ability to read music, permission of the instructor. 1 sem. hr.
- MUS 329. STRINGED INSTRUMENTS II: Continuation of Stringed Instruments I to further skills in teaching and performance. Concentration on one instrument. Prerequisite: MUS 325 or equivalent, permission of the instructor. Fee. 2 sem. hrs.

- MUS 331. VOCAL MUSIC IN THE HIGH SCHOOL: Methods and materials for large and small ensembles. Prerequisite: Junior standing in Music Education. 2 sem. hrs.
- MUS 332. THE SCHOOL BAND AND ORCHESTRA: A general course in the organization and teaching of instrumental music in the schools; materials; survey of equipment and facilities necessary for the instrumental music program. Prerequisite: Junior standing in Music Education. 2 sem. hrs.
- MUS 335. MUSIC IN THE ELEMENTARY GRADES: The music education program in the elementary grades; materials and their presentation; problems and responsibilities of the music teacher. Prerequisite: Sophomore standing in Music Education. 3 sem. hrs.
- MUS 341. BAROQUE MUSIC: Literature and performing practices from 1600 to 1750; the relationship of music to social and cultural movements. Open to all University students. 3 sem. hrs.
- MUS 342. CLASSIC AND ROMANTIC MUSIC: Literature and performing practices from 1750 to 1900; the relationship of music to social and cultural movements. Open to all University students. 3 sem. hrs.
- MUS 343. MEDIEVAL AND RENAISSANCE MUSIC: The development of music from circa 400 to 1600, including plainchant, early polyphony, Ars Nova, and Renaissance music; the relationship of music to other arts and to its historical context. Open to all University students. 2 sem. hrs.
- MUS 344. TWENTIETH-CENTURY MUSIC: A study of twentieth-century music, its styles, and its cultural contexts, including Post-Romantic, Impressionistic, Neo-Classic, and Avant-Garde. Open to all University students. 2 sem. hrs.
- MUS 351. CHORAL CONDUCTING: Development of conducting skills, with concentration on choral techniques. Practical experience with campus choral ensembles. Prerequisite: Junior standing in music, permission of the instructor. 2 sem. hrs.
- MUS 361. PIANO PEDAGOGY I: A systematic preparation for the development of piano technique and tone; a survey and study of graded teaching material of Grades I and II. Prerequisite: Four terms of piano study or the equivalent. 2 sem. hrs.
- MUS 362. PIANO PEDAGOGY II: A continuation of Piano Pedagogy I through the material of Grades III and IV. Prerequisite: MUS 361 or five terms of piano study or equivalent. 2 sem. hrs.
- MUS 371. PIANO LITERATURE I: A comprehensive survey of literature for the piano from the early keyboard music to the Romantic period. Required of piano majors. Prerequisite: Permission of the instructor. 2 sem. hrs.
- MUS 372. PIANO LITERATURE II: Continuation of a comprehensive survey of literature of keyboard music from the Romantic period to the present day. Required of piano majors. Prerequisite: Permission of the instructor. 2 sem. hrs.
- MUS 385. INFLUENCE OF MUSIC ON BEHAVIOR: Review of the theoretical bases and experimental evidence of the influence of music on human behavior. Characteristics of functional music in various world cultures. Principles underlying applications of music in therapy. Prerequisites: MUS 285, 286, and senior standing in music. 3 sem. hrs.
- MUS 386. MUSIC IN THERAPY: Development of procedures for the use of music in a clinical setting. Study and application of techniques and survey of materials for use in music therapy programs. Relating theory to practice with field projects. Prerequisites: MUS 285, 286, 385. 3 sem. hrs.

MUS 390. MUSIC ENSEMBLES: Ensembles are open to all University students by audition. Participation for music majors is specified in the various degree programs; in general, majors must participate in one ensemble each term.

MUS 390A. University Choir.....	1 sem. hr.	MUS 390H. Symphonic Band.....	1 sem. hr.
MUS 390B. Vocal Ensemble.....	½sem. hr.	MUS 390I. Brass Choir.....	½sem. hr.
MUS 390C. String Ensemble.....	½sem. hr.	MUS 390J. Jazz Lab Band.....	½sem. hr.
MUS 390D. Piano Ensemble.....	½sem. hr.	MUS 390K. Small Brass Ensemble..	½sem. hr.
MUS 390E. Marching Band.....	1 sem. hr.	MUS 390M. Percussion Ensemble...	½sem. hr.
MUS 390F. Pep Band.....	No credit	MUS 390N. Woodwind Ensemble..	½sem. hr.
MUS 390G. Concert Band.....	1 sem. hr.		

MUS 399. PERFORMANCE STUDIES: Private instruction in piano, voice, organ, violin, viola, cello, bass, flute, oboe, clarinet, bassoon, saxophone, trumpet-cornet, French horn, trombone, baritone, tuba, percussion, guitar. Fee. 2 sem. hrs.

MUS 400. RECITAL: All music majors are required to attend scheduled concerts and recitals of student soloists and ensembles, to develop critical listening experience. All students in Performance Studies are required to perform as specified in the particular course and degree program. No credit

MUS 411-412. COMPOSITION: Guided composition of melodies, sectional forms (song, binary, ternary, rondo), and polyphony. Prerequisites: MUS 212, permission of instructor. 4 sem. hrs.

MUS 415-416. NINETEENTH- AND TWENTIETH-CENTURY STYLES: Analysis of the harmonic and contrapuntal devices used after Bach with special emphasis on contemporary music and composers. Prerequisites: Junior standing in music, permission of the instructor. 4 sem. hrs.

MUS 417-418. SIXTEENTH-CENTURY COUNTERPOINT: A study of the medieval modes and the vocal polphony of the motet and the Mass, up to and including five-part writing; original student compositions. Prerequisites: Permission of the instructor. 4 sem. hrs.

MUS 421-422. LABORATORY IN ORCHESTRATION: Advanced work in orchestration; special problems in scoring for full orchestra, symphonic band, or ensembles; transcription of orchestral works for band. Prerequisites: MUS 322, permission of the instructor. 4 sem. hrs.

MUS 425-426. PROBLEMS IN INSTRUMENTAL MUSIC: Practical problems and experience in instrumental music in teaching or other professional situations approved by the Music Division. Prerequisites: Senior standing in Music or in Music Education, approval of instructor. 4 sem. hrs.

MUS 429. MARCHING BAND TECHNIQUES: Materials and methods of organization and instruction for the Marching Band. Prerequisite: Participation in the Marching Band. 2 sem. hrs.

MUS 431-432. PROBLEMS IN VOCAL MUSIC: Practical experience in a vocal or choral project approved by the Music Division. Prerequisites: Senior standing in Music, approval of the instructor. 4 sem. hrs.

MUS 433-434. RESEARCH IN THEORY OR COMPOSITION: Practical experience in analysis for Theory majors; original composition for Composition majors. Prerequisites: Senior standing in Music, permission of instructor. 4 sem. hrs.

MUS 441-442. LABORATORY IN COMPOSITION: Advanced work in musical composition; writing multi-movement forms of both vocal and instrumental music. Prerequisites: MUS 411, 412, permission of the instructor. 4 sem. hrs.

MUS 451-452. CHAMBER MUSIC AND SYMPHONY: Formal and harmonic analysis of chamber music and the symphonies of the Classicists, the Romanticists, and the Impressionists. Prerequisites: MUS 211, 212. 4 sem. hrs.

MUS 485. PSYCHOLOGICAL FOUNDATIONS OF MUSIC I: Study of the psycho-socio-physiological processes involved in responses of man to music and sound. Acoustical properties of music and physiology of sound perception. Nature of music ability and its measurement. Prerequisites: PSY 101, Junior standing in music, permission. 2 sem. hrs.

MUS 486. PSYCHOLOGICAL FOUNDATIONS OF MUSIC II: Continuation of Psychological Foundations of Music I. Study of research through review of literature on experimental studies concerning the psychological foundations of music. Criticism of original research studies, with proposal and formal written paper for an experimental research study. Prerequisite: MUS 485. 2 sem. hrs.

MUS 487. RECREATIONAL MUSIC: Functional use of nonsymphonic instruments, rhythm band instruments, musical games, and community singing, for both children and adults. 2 sem. hrs.

MUS 489. MUSIC THERAPY INTERNSHIP: A minimum of six months' supervised clinical training through resident internship in an approved neuropsychiatric hospital with an established music therapy program. This precedes the granting of the degree. Prerequisite: Senior standing in Music Therapy, permission. 2 sem. hrs.

MUS 499. PERFORMANCE FOR MAJORS: Private instruction in piano, voice, organ, orchestral instruments. Admission by permission of instructor-advisor. Fee. 4 sem. hrs.

MUSIC FEES

The following fees include practice privileges.

MUS 296-299	Class Piano	Term Fee \$10.00
MUS 325	Stringed Instruments I (class)	10.00
MUS 326	Reed and Woodwind Instruments (class)	10.00
MUS 327	Brass Instruments (class)	10.00
MUS 329	Stringed Instruments II (class)	10.00
MUS 399	One private lesson per week in Performance Studies subjects	Term Fee \$40.00
MUS 499	Two private lessons per week in Performance Studies subjects	Term Fee \$40.00



PHILOSOPHY (PHL)

Philosophy as a major can be pursued

1. to aid competence in the history of philosophical ideas and in contemporary philosophy;
2. as a preparation for graduate studies in philosophy and related areas leading to teaching, research, and academic counseling at universities, colleges, junior colleges, and conceivably the high school level;
3. as a preparation for professional studies in law, education, public service, commerce, etc.;
4. in conjunction with other majors such as English or Psychology.

Courses required for a major: PHL 103 plus 27 semester hours of upper-division courses. A minimum of 15 semester hours must be on the 400 level (exclusive of PHL 495).

Courses required for a minor: PHL 103 plus 12 semester hours of upper-division courses. At least 3 of these semester hours must be on the 400 level (exclusive of PHL 495).

Students should consult the chairman or program advisor concerning electives.

PROGRAM – A14: BACHELOR OF ARTS WITH A MAJOR IN PHILOSOPHY

	<i>Semester Hours</i>
Philosophy.....	30
Natural Science, Applied Science, or Quantitative Studies.....	6
Social and Behavioral Science.....	9
Humanities.....	18
Religious Studies and / or Philosophy (Religious Studies recommended).....	12
Communication Skills ¹	0-10
Senior Synthesis ¹	6
Program and free electives to total at least.....	120

¹ See also Distribution Table for Bachelor of Arts programs.

PROGRAM – A14: BACHELOR OF ARTS WITH A FIRST MAJOR IN PHILOSOPHY

Effective 1976-77

	<i>Semester Hours</i>
Philosophy.....	30
At least 24 semester hours of upper-level work at the 300 and 400 course level.	
Natural Science or Applied Science.....	8
Quantitative Studies.....	3
Social and Behavioral Sciences.....	9
Humanities.....	18
Religious Studies / Philosophy.....	12
Religious Studies are recommended. Philosophy courses taken to satisfy this University requirement do not normally count towards the degree program for a first major in Philosophy.	
Communication Skills.....	0-10
Senior Synthesis.....	6
Program and free electives to total at least.....	120

Programs of study in Philosophy leading to a second major, a concentration area, or a minor in Philosophy are available. Students should contact the chairman of the department.

FACULTY

Raymond M. Herbenick, *Chairman*

Distinguished Service Professor: Baker

Professor: Dieska

Associate Professors: Herbenick, Kunkel, Monasterio, Nersoyan, Rhodes, Tibbetts, Ulrich, Wening

Assistant Professors: Quinn, Richards, Rinderly, Thompson

Instructor: Zembaty

COURSES OF INSTRUCTION

PHL 103. INTRODUCTION TO PHILOSOPHY: An introduction to the areas of philosophy through an examination of the central concerns which philosophers address. Such issues as the nature of philosophy, man's place in the world, moral responsibility, the problems of knowledge, the notion of existence, and the problem of God will be considered. Prerequisite to upper-level courses. 3 sem. hrs.

PHL 301. PRACTICAL LOGIC: Introduction to sound patterns of ordinary reasoning through the study of valid rules of mediate and immediate deductive inference and corresponding fallacies. Includes the categorical syllogism, hypothetical syllogism, and chain arguments. Also examines inductive inference. 3 sem. hrs.

PHL 302. SYMBOLIC LOGIC: Concentrated study of the valid forms of deductive argument and proof in the propositional logic and the predicate logic. Includes the study of formal systems, logic and language, and the logic of science. Also examines inductive logic. 3 sem. hrs.

PHL 303. PHILOSOPHY OF NATURE: Introduction to the philosophical presuppositions and implications of man in nature with special emphasis on understanding population issues and consumption issues in an ecologically concerned era. 3 sem. hrs.

PHL 304. PHILOSOPHY OF MAN: A study of the nature of life in general, the relationship of man to the world, human interactions, the dignity and destiny of man. 3 sem. hrs.

PHL 306. PHILOSOPHY OF KNOWLEDGE: A consideration of the validity of sensory and intellectual knowledge; the problem of the sources of knowledge as approached by skepticism, idealism, realism, empiricism, and relativism; the possibility of attaining truth. 3 sem. hrs.

PHL 308. PHILOSOPHY OF BEING: A study of the historical positions on the problem of reality and appearance; the nature of ultimate reality; the possibility of metaphysical judgments. 3 sem. hrs.

PHL 310. SOCIAL PHILOSOPHY: A study of social concepts expressive of such ideals as liberty, justice, and equality and of various social principles and policies concerning harms, benefits, wants, needs, and rights in society. Includes topical studies on such social issues as punishment and rehabilitation, insanity and responsibility, abortion, and others at the discretion of the instructor. 3 sem. hrs.

PHL 311. PHILOSOPHY OF RELIGION: An analysis of the main issues involved in religious belief and practice, such as the relationship between reason and revelation. A critical presentation of the views of the main writers in the field. 3 sem. hrs.

PHL 312. ETHICS: An exploration of the various types of moral and ethical theory in the Western tradition and of the major problems involved; the extent of human responsibility; the conditions for making ethical judgments. 3 sem. hrs.

PHL 313. BUSINESS ETHICS: A case study analysis of the ethical relationships between the firm and its employees, consumers, competitors, and the local community. 3 sem. hrs.

PHL 314. PHILOSOPHY OF LAW: Nature of law; natural and positive law; implications and juridical origin and effect of law; justice; genetic origin of law. 3 sem. hrs.

PHL 315. MEDICAL ETHICS: An introduction to morality in general and an inquiry into the major moral problems of medical practice. Discussion centers around human life and the preservation of its integrity. 3 sem. hrs.

PHL 320. PHILOSOPHY OF ART: A consideration of the principles and applications of art expressed by philosophers, artists, and critics. It is intended to develop in the student the skills of appreciation and evaluation of art and to offer an opportunity to work in various art media. 3 sem. hrs.

PHL 323. PHILOSOPHY OF LITERATURE: A study of the subject matter, characteristics, and special processes of literature compared with those of philosophy. Examples such as Dostoevsky, Nietzsche, Hesse, and Camus are considered. 3 sem. hrs.

PHL 330. PHILOSOPHY OF SCIENCE: A study of the philosophical presuppositions and implications of scientific methodology from a humanistic viewpoint. Included are the ethics and logic of scientific discovery and scientific explanation. Emphasis may be given to the natural sciences, the life sciences, or the social and behavioral sciences. 3 sem. hrs.

PHL 340. SPECIAL PROBLEMS IN PHILOSOPHY: Seminar, to gain insight into the perennial and contemporary problems of philosophy. May be repeated when topic varies. 3 sem. hrs.

PHL 350. GREEK PHILOSOPHY: The major philosophical problems as formulated by the Greek philosophers, especially Plato and Aristotle, with consideration of their relevance for current thinking. 3 sem. hrs.

PHL 351. MEDIEVAL PHILOSOPHY: The major philosophical problems from the 4th through 16th centuries and their importance for shaping current beliefs and traditions in the Augustinian, Jewish, Islamic, Thomist, and Oxford cultural settings. Such problems as human action, conscience, freedom, and law will be considered. 3 sem. hrs.

PHL 352. MODERN PHILOSOPHY: The development of philosophical thought in the 17th, 18th, and 19th centuries; its impact on the culture of the age and on current philosophical thinking. 3 sem. hrs.

PHL 353. CONTEMPORARY PHILOSOPHY: Recent 20th-century philosophers and issues. Various styles of philosophy, e.g. phenomenology, logical empiricism, pragmatism, Marxism, ordinary language philosophy. 3 sem. hrs.

PHL 355. INTRODUCTION TO EASTERN PHILOSOPHY: An introduction to the ways of Asian wisdom, considering the Oriental view of philosophy as a specialized learning directed to the attainment of a higher state of being. 3 sem. hrs.

PHL 358. MARXISM: An introduction to the thought of Karl Marx through a study of the historical setting of the man and his writings, accompanied by recent interpretations of his thought. 3 sem. hrs.

PHL 360. EXISTENTIALISM: The major themes found in the chief representatives of the existentialist movement. Such themes as human freedom, the absurdity of human existence, the primacy of action, and the role of speculation and the emotions will be considered. 3 sem. hrs.

PHL 390. SUMMER NONRESIDENCE COURSE: This course is designed for those students who are regularly enrolled at the University of Dayton and who cannot attend classes in the third term. The course will be done by correspondence with the professor involved. Topics will be determined by the professor. Prerequisites: three hours of Philosophy and the permission of the instructor. *3 sem. hrs.*

PHL 414. CONTINENTAL RATIONALISM: Thorough study of the philosophies of Descartes, Spinoza, and Leibniz; their views on man, the world, and God. *3 sem. hrs.*

PHL 416. BRITISH EMPIRICISM: A careful analysis of the major writings of Locke, Berkeley, and Hume, with emphasis on their theories of knowledge, ethics, religion, science, and language. *3 sem. hrs.*

PHL 420. NINETEENTH-CENTURY GERMAN THOUGHT: A critical examination of the major areas of philosophic interest in 19th-century Germany: the split of Hegelianism into right-wing and left-wing, renewed interest and controversy over the soul, the role of consciousness in nature and history, the problem of value experience. *3 sem. hrs.*

PHL 431. PHILOSOPHY OF PLATO AND ARISTOTLE: Readings and classroom discussion of selections from Plato's dialogues and the basic works of Aristotle, comparing their doctrines on such fundamental problems as being, man, knowledge, and morality. *3 sem. hrs.*

PHL 434. ST. THOMAS AQUINAS: Readings and seminar discussion of the basic texts of St. Thomas, treating God, man, law, habit, virtue, and emotions. *3 sem. hrs.*

PHL 435. RECENT CHRISTIAN PHILOSOPHIES: A study of the major issues of Christian philosophy from the end of the 19th century to the present, its sources, development, effects, main authors, and place in the Christian tradition. Such authors as Marcel, Jaspers, Maritain, and Gilson will be treated. *3 sem. hrs.*

PHL 440. ADVANCED PROBLEMS IN PHILOSOPHY: Seminar, to examine in a detailed way some of the more technical problems of philosophy as well as those problems which arise in interdisciplinary settings upon which philosophers have brought their technical skills to bear. May be repeated when the topic varies. *3 sem. hrs.*

PHL 451. SEMINAR IN INDIVIDUAL PHILOSOPHERS: Seminar, to study thoroughly the thought of an individual philosopher (e.g., Descartes, Kant, Hegel, Heidegger) who is of sufficient importance to warrant special study. May be repeated when the topic varies. *3 sem. hrs.*

PHL 452. CONTEMPORARY PROCESS PHILOSOPHY: A study of the metaphysical positions which resulted from the impact of evolutionary thought upon Western philosophy. Special emphasis will be given to Bergson and Whitehead, and constant attention will be paid to the question of compatibility between evolutionary and classical thought. *3 sem. hrs.*

PHL 455. INTRODUCTION TO PHENOMENOLOGY: An examination of the historical origin of phenomenology, its nature, goals, and scope. The influence exerted by phenomenology on the social sciences, psychology, and psychiatry. The major emphasis is on the thought of Husserl. *3 sem. hrs.*

PHL 459. PHILOSOPHY OF ORDINARY LANGUAGE: An introduction to recent trends in language philosophy with concentration on the problems of meaning and truth, in order to clarify such action concepts as intention, freedom, and responsibility. *3 sem. hrs.*

PHL 470. CLASSICAL AMERICAN PHILOSOPHY: An introduction to some of the influential writings of the American pragmatists Peirce, James, and Dewey. The richness and variety within the pragmatic movement will be stressed. A comparison with the philosophical views of Royce, Santayana, and Whitehead will be included. *3 sem. hrs.*

PHL 476. CONTEMPORARY PROBLEMS IN THE PHILOSOPHY OF GOD: An analysis and discussion of the works in contemporary philosophies of God: existentialism; neo-Thomism, philosophy of process, naturalism, personalism, linguistic analysis. 3 sem. hrs.

PHL 481. MATHEMATICAL LOGIC: A study of the properties (consistency, completeness, decidability, independence, etc.) of first-order predicate calculi with consideration of specialized topics such as Lowenheim-Skolem theorem, Godel's incompleteness theorem, recursive functions, applications to the foundations of mathematics. Prerequisite is PHL 302 or equivalent competency. Some as CPS 481 and MTH 481 formerly. 3 sem. hrs.

PHL 490. DIRECTED READINGS: Primarily for Philosophy majors but open to anyone who has completed twelve hours in Philosophy. Normally, three semester hours credit will be granted. In certain cases the chairman may approve one, two, or four credit hours. This course may be repeated when the topic varies. Permission required. 3 sem. hrs.

PHL 495. SENIOR SYNTHESIS: An opportunity for senior students to integrate, in an interdisciplinary way, their learning from a variety of areas. The seminar context will include attention to knowing skills, value commitments, etc. of each area of study and their contribution to the formation of humanistic values. Specific topics will be determined by the students. Not counted toward the fulfillment of 400-level requirements of a Philosophy major or minor. Prerequisite is three semester hours of Philosophy. 3 sem. hrs.



PHOTOGRAPHY-CINEMATOGRAPHY (PHO)

Any student interested in Photography-Cinematography as a major or minor field should consult with Mr. Wilkinson or the Performing and Visual Arts Department office.

Fees are noted in course descriptions if required. These are variable. Current fees are obtainable in Photography-Cinematography office.

FACULTY

Patrick S. Gilvary, *Chairman of Performing and Visual Arts Department*

Instructor: Sean Wilkinson

Part-time Instructors: Cahan, Debruge

COURSES OF INSTRUCTION

PHO 101. BASIC PHOTOGRAPHY: Fundamentals of black and white still photography. No previous experience required. The course covers camera function: exposure, film processing, and printing. Emphasis on gaining sound technical and creative control of the medium. Studio fee. 3 sem. hrs.

PHO 201. INTERMEDIATE PHOTOGRAPHY: Specific projects designed to increase technical competence and expand visual awareness. Review of historical and contemporary trends and influences in photography. Prerequisite: PHO 101 or equivalent. Studio fee. 3 sem. hrs.

PHO 215. HISTORY OF PHOTOGRAPHY: The technical and aesthetic history of photography from the camera obscura to the present. The changing perception of the medium and its development as an art form is examined. Prerequisite: PHO 201. Studio fee. 3 sem. hrs.

PHO 225. PHOTOGRAPHY TECHNIQUES: Experiments and discoveries in the control of photography materials. Relationships and variables in photographic chemistry, exposure interpretation and print manipulation, as well as the uses of graphic arts, color and nonsilver imagery. Prerequisite: PHO 101 or equivalent. Studio fee. 3 sem. hrs.

PHO 251. HISTORY OF FILM I – SILENT CINEMA: Analysis of the international development of film in the silent era; includes history and criticism of major contributors – e.g. Griffith, Lubitsch, Clair, Pabst, Eisenstein and Pudovkin – accompanied by screening of selected films. Film rental fee. 3 sem. hrs.

PHO 252. HISTORY OF FILM II – SOUND CINEMA: An analysis of the effects of sound evolution on cinema, including history and analysis of major films from silent era through contemporary time. Includes such contributors as Mamoulian, Marx Brothers, Ford, Hitchcock, Selznick, Renoir, Rossellini, DeSica, Wells, Antonieux, Bergman, Bunuel, Truffaut and others. Selected film screenings. Film rental fee. 3 sem. hrs.

PHO. 302. COLOR PHOTOGRAPHY I: An introduction to the theory and techniques of color transparency, color negative, and color printing. Individual practices in the areas of lighting, color emulsions, filtration, and corrections. Prerequisite: PHO 225. Studio fee. 3 sem. hrs.

PHO 325. PHOTOGRAPHIC APPLICATION: An examination of the uses of photographic imagery in a wide variety of contexts. Those qualities that are characteristic of the

medium and that influence its commercial and aesthetic applications will be explored through contact with working photographers and individual projects. Prerequisite: PHO 201. Studio fee. *3 sem. hrs.*

PHO 330. COMMERCIAL AND ILLUSTRATIVE PHOTOGRAPHY: Photographic work in commercial, industrial, architectural, and illustrative both in the studio and on location. Individual practices in solving problems associated with professional photography. Prerequisite: PHO 410. Studio fee. *3 sem. hrs.*

PHO 371. THE MOVING IMAGE AS COMMUNICATION: A study of photographic images (still and motion picture) as media of communication in terms of purpose, content, design, and effects upon selected audiences. *3 sem. hrs.*

PHO 402. COLOR PHOTOGRAPHY II: A further study of the techniques and aesthetics peculiar to color photography. Straightforward and manipulated printing methods are explored as well as masking, color analysis, chemical variations, and the dye transfer process. The emphasis is on gaining complete creative control of this complex medium. Prerequisite: PHO 302. Studio fee. *3 sem. hrs.*

PHO 410. ADVANCED PHOTOGRAPHY: Students with a substantial commitment to photography and with demonstrated technical skills work on individual projects and participate in group critiques and discussion. Prerequisites: PHO 201, 215, 225, 302, 325. Studio fee. *3 sem. hrs.*

PHO 420. PHOTOJOURNALISM: A variety of ways of using photography as documentation, narrative and propaganda. Assignments place the student in various situations where specific goals must be met to serve predetermined needs. Also required is a personal photographic essay. Editing of work, layout, image-text relationships and many other areas are covered. Prerequisite: PHO 325. Studio fee. *3 sem. hrs.*

Photography studio fees — \$25-40.
Film rental fees — \$10.

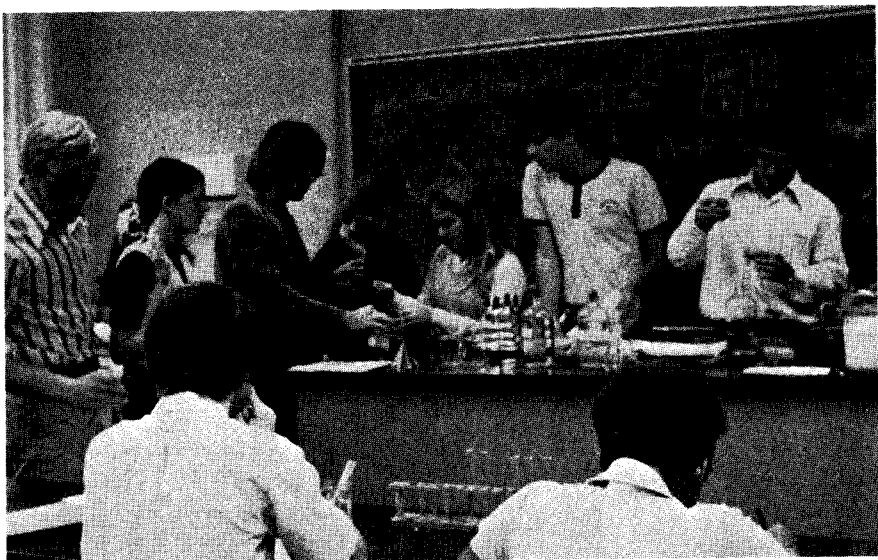
PHYSICAL SCIENCE (PSC)

The Physical Science Program is administered by the Department of Physics. It provides sound training for those who will communicate knowledge of the physical sciences to new generations, primarily in the secondary schools. Because it is less specialized than one in a single science, this program better allows its students to relate the physical sciences to other parts of our culture.

Program – S10, leading to a Bachelor of Science degree with a major in Physical Science, requires 24-28 semester hours of Physics, 20-24 of Chemistry, and 21 of Mathematics. It has, furthermore, provision for sufficient electives to include all the School of Education’s requirements for secondary school teachers. Students interested in this option should consult the E-11 program, School of Education.

Curriculum description for Bachelor of Science with a Major in Physical Science:

	<i>Semester Hours</i>
Physics 196, 207-8, 12 semester hours of upper-level.....	24
Physics or Chemistry elective (upper level).....	4
Chemistry 123-4, 201, 302, 313	19
Mathematics 101, 118-9, 218, 219.....	19
Computer Science 144.....	2
Minor (300-400 level).....	12
English 111-2.....	1
Philosophy and / or Religious Studies.....	12
Speech 101.....	3
General academic electives to total at least	120



PROGRAM – S10: BACHELOR OF SCIENCE IN PHYSICAL SCIENCE

Dept.	No.	Course	1st Term ¹	2nd Term
Freshman Year				
PHY	100	Freshman Seminar	1-0-0 ¹	
CHM	123-4	General Chemistry	3-3-4	3-3-4
ENG	111-112	College Composition I, II	4-0-4	3-0-3
MTH	101	Pre-Calculus Mathematics	4-0-4	
MTH	118	Analytical Geometry & Calculus I		4-0-4
PHL	103	Introduction to Philosophy	3-0-3	
—	—	Philosophy and / or Religious Studies	3-0-3	
SPE	101	Fundamentals of Effective Speaking		3-0-3
—	—	Elective ²		3-0-3
			18	17
Sophomore Year				
CPS	144	Basic Programming	2-0-2	
CHM	201	Quantitative Analysis		2-4-4
MTH	119-218	Analytical Geometry & Calculus II, III	4-0-4	4-0-4
PHY	196-207	General Physics I, II	3-1½-3	3-1½-3
PHY	196L-207L	General Physics Laboratory I, II	0-3-1	0-3-1
—	—	Philosophy and / or Religious Studies	3-0-3	
—	—	Elective	3-0-3	3-0-3
			16	15
Junior Year				
CHM	313-302	Organic & Physical Chemistry	3-3-4	3-0-3
MTH	219	Applied Differential Equations	3-0-3	
PHL	—	Elective	3-0-3	
PHY	208	General Physics III	3-0-3	
PHY	208L	General Physics III Laboratory	0-3-1	
PHY	451	Upper-level Physics		3-3-4
PHY	452	Upper-level Physics		3-3-4
—	—	Minor ³	3-0-3	3-0-3
—	—	Philosophy and / or Religious Studies		3-0-3
			17	17
Senior Year				
PHY	—	Upper-level Physics	3-3-4	
—	—	Minor	3-0-3	3-0-3
—	—	Philosophy and / or Religious Studies	3-0-3	
—	—	Electives	2-0-2	12-0-12
—	—	Upper-level Physics or Chemistry elective	3-3-4	
			16	15

¹ For example, 3-0-3 means 3 class hrs., 0 lab hrs., 3 sem. hrs. of credit.² This elective is to be used to meet any prerequisites necessary for the minor field; consult with department chairmen.³ Minor can be replaced by electives.

PHYSICS (PHY)

A major in Physics should have completed all upper-level hours of Physics courses with a minimum grade-point average of 2.0. Group I courses and 7 hours from Group II courses (listed below) must be included in the program. The student who is planning for graduate work in Physics or closely allied areas should take all the courses listed in Groups I and II; the courses listed in Group III are additional electives of value for such students.

<i>Group I</i>	<i>Group II</i>	<i>Group III</i>	
PHY 301	PHY 304	PHY 409	MTH 362
PHY 303	PHY 404	MTH 403	MTH 367
PHY 390	PHY 420	MTH 404	MTH 368
PHY 408	PHY 421	MTH 551	MTH 461
PHY 314	PHY 432	MTH 552	CPS 353
PHY 431	PHY 433	PHY 441	CPS 354

For majors in Physics a formal minor is not necessary. If one is chosen, it can be in any academic area of the University with the provision that the student have the permission of the Physics chairman and the chairman in the minor field. Students planning graduate work in medicine, modern engineering, applied mathematics, computer science, business, etc., should use the minor and open electives to gain competence in the discipline of interest.

Students in other disciplines who wish a minor in Physics may take any twelve upper-level Physics semester hours from the above list. It is recommended that courses in Group I be chosen to provide the widest possible spectrum of courses.

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

Curriculum description for Bachelor of Science with a Major in Physics:

	<i>Semester hours</i>
Physics.....	36
PHY 196, 207, 208 and the associated laboratories	(12)
Physics courses at the 300-400 level.....	(24)
Mathematics 118, 119, 228-9.....	15
Chemistry 123-4.....	8
Minor (300-400 level) if chosen.....	12
Humanities and nonscience courses	24
At least 12 of the 24 semester hours to be in Religious Studies and / or Philosophy. It is recommended that 12 be in one subject area to encourage some depth of knowledge.	
Basic Skill Courses	11
College Composition, ENG 111, 112, Speech 101 and Computer Programming CPS 144. Some of these requirements can be waived if the student has demonstrated ability in a given area.	
General academic electives to total at least	120

PROGRAM – S11: BACHELOR OF SCIENCE WITH A MAJOR IN PHYSICS

Dept.	No.	Course	1st Term ¹	2nd Term
Freshman Year				
PHY	100	Seminar		
CHM	123-4	Chemistry	1-0-0	1-0-0
MTH	118-9	Analytic Geometry and Calculus	3-0-3	3-0-3
PHY	196-207	Physics I, II	4-0-4	4-0-4
PHY	196-207L	Laboratory	3-1½-3	3-1½-3
—	—	Nonscience ²	0-3-1	0-3-1
—	—	Basic skill and electives ³	3-0-3	3-0-3
			3-0-3	3-0-3
			17	17
Sophomore Year				
PHY	—	Seminar	1-0-0	1-0-0
CHM	123-4L	Chemistry Laboratory	0-3-1	0-3-1
MTH	228-9	Mathematics	4-0-4	3-0-3
PHY	208	Physics III	3-0-3	
PHY	208L	Physics Laboratory	0-3-1	
PHY	301	Statistical Thermodynamics ⁴		3-0-3
—	—	Electives and basic skills	2-0-2	6-0-6
—	—	Nonscience	6-0-6	3-0-3
			17	16
Junior Year				
PHY	303-304	Intermediate Mechanics		
PHY	314	Electronics	3-0-3	3-0-3
PHY	390	Quantum Mechanics	2-4-4	
PHY	421	Nuclear Physics		3-0-3
PHY	431	Advanced Laboratory	3-0-3	
PHY	—	Seminar		0-4-2
—	—	Minor ⁵	1-0-0	1-0-0
—	—	Electives ⁶	3-0-3	3-0-3
—	—	Nonscience		3-0-3
			3-0-3	3-0-3
			16	17
Senior Year				
PHY	408	Intermediate Electricity & Magnetism	3-0-3	
PHY	420-404	Solid State Physics – Physical Optics	3-0-3	3-0-3
PHY	—	Seminar	1-0-0	1-0-0
—	—	Minor	3-0-3	3-0-3
—	—	Electives	6-0-6	6-0-6
			15	15 ⁷

¹ The 3-1½-3 signifies 3 hours of lecture, 1½ hours of lab (or recitation), 3 semester hours credit.

² The 24 semester hours must include 12 of Philosophy and / or Religious Studies.

³ Students should show proficiency in composition by the end of the freshman year and facility in computer programming by the end of the sophomore year.

⁴ In this example, 30 upper-level semester hours in the major are shown.

⁵ Consult Department Chairman concerning minor.

⁶ Electives can be used for developing a second major or a second minor, or be "free" electives.

⁷ In this example, 130 total semester hours are shown; the minimum required is 120; with some summer work, advanced credit, credit by examination, etc., a student can complete the program in 3½ or even 3 years.

FACULTY

James R. Schneider, *Chairman*

Professors: Bueche, Kepes, L. Mann, Schneider

Associate Professors: Cothorn, Graham, R. Mann, O'Hare, Yaney

Assistant Professor: Crivello

COURSES OF INSTRUCTION

PHY 100. SEMINAR: The student has an opportunity to acquaint himself with the broad spectrum of modern science through periodic meetings with the entire department. Films, talks, book reviews, and informal discussions. All Physics and Physical Science majors. *no credit*

PHY 105. THE PHYSICAL SCIENCES: Applies fundamental principles of nature to physics, chemistry, astronomy, meteorology. Gives the student a broad understanding of man's physical environment. *4 sem. hrs.*

PHY 151. GENERAL PHYSICS: Designed to give nonscience students an appreciation of physics using minimal mathematical formalism. The concept of energy is used as a unifying theme. No laboratory is required with this course. Prerequisites: None. First term, each year. *3 sem. hrs.*

PHY 151L. GENERAL PHYSICS LABORATORY: For students who wish to have a laboratory experience. Students choose a group of traditional laboratory experiments or work on projects of their own making in physics or on the relation of physics to society. Prerequisites: None. First term each year. *1 sem. hr.*

PHY 152. GENERAL PHYSICS: The methodology of science, including general problem-solving approaches. Physics of perception using the energy concept. The value of science to society. Prerequisites: None. Second term, each year. *3 sem. hrs.*

PHY 152L. GENERAL PHYSICS LABORATORY: A continuation of Phy 151L for students seeking a laboratory experience. Prerequisites: None. Second term, each year. *1 sem. hr.*

PHY 196. GENERAL PHYSICS I MECHANICS: An introductory course in mechanics. Any calculus concepts used are developed as needed. Three lectures, one and $\frac{1}{2}$ hours recitation per week. By invitation only. *3 sem. hrs.*

PHY 196H. GENERAL PHYSICS I MECHANICS (HONORS): An introductory course in mechanics for students with a strong background in physics. Three lectures, one and $\frac{1}{2}$ hours recitation per week. By invitation only. *3 sem. hrs.*

PHY 196L. GENERAL PHYSICS LABORATORY I: Introduction to laboratory methods, handling of data, analysis, experiments in classical mechanics for students in Sciences. Two hours laboratory, one hour recitation per week. Corequisite: PHY 196. *1 sem. hr.*

PHY 201. GENERAL PHYSICS: A discussion of mechanics and heat without the formalism of the calculus. Three class periods per week. First term, each year. *3 sem. hrs.*

PHY 201L. GENERAL PHYSICS LABORATORY: Accompanying laboratory course to PHY 201. Designed to verify and apply theory, and to teach scientific techniques. One two-hour period per week. First term, each year. *1 sem. hr.*

PHY 202. GENERAL PHYSICS: A continuation of PHY 201, covering the fields of magnetism, electricity, sound, and light. Three class periods per week. Prerequisite: PHY 201. Second term, each year. *3 sem. hrs.*

PHY 202L. GENERAL PHYSICS LABORATORY: A continuation of PHY 201L, with experiments in magnetism, electricity, sound, and light. One two-hour period per week. Prerequisite: PHY 201L. Second term, each year. *1 sem. hr.*

PHY 203. MODERN TECHNICAL PHYSICS: A basic introduction to topics in modern physics without the formalism of calculus. Three lectures per week. Prerequisites: Trigonometry, college algebra, and introductory statics and dynamics. First term, each year. 3 sem. hrs.

PHY 207. GENERAL PHYSICS II ELECTRICITY AND MAGNETISM: The basic principles of electricity and magnetism are studied. Three lectures, one and ½ hours recitation per week. Prerequisite: PHY 196, MTH 118 or 128. 3 sem. hrs.

PHY 207H. GENERAL PHYSICS II ELECTRICITY AND MAGNETISM (HONORS): Basic principles of electricity and magnetism. Three lectures, one and ½ hours recitation per week. By invitation only. 3 sem. hrs.

PHY 207L. GENERAL PHYSICS LABORATORY II: Open-ended experiments in mechanics and electricity and magnetism, tailored to the background of students. Two hours laboratory, one hour recitation per week. Corequisite: PHY 207. 1 sem. hr.

PHY 208. GENERAL PHYSICS III MECHANICS OF WAVES: Introduction to wave phenomena including sound, light and matter waves leading to basic concepts in modern physics. Three lectures per week. Prerequisite: PHY 207, MTH 129 or 119; or PHY 201-2, MTH 113. 3 sem. hrs.

PHY 208H. GENERAL PHYSICS III MECHANICS OF WAVES (HONORS): An introduction to modern physics through a study of wave phenomena including sound, light and matter waves. Three class meetings per week. By invitation only. 3 sem. hrs.

PHY 208L. GENERAL PHYSICS LABORATORY III: The students perform a number of experiments emphasizing modern physics. Two hours laboratory, one hour recitation per week. Prerequisite: PHY 207L; corequisite: PHY 208. 1 sem. hr.

PHY 250. DESCRIPTIVE ASTRONOMY: A descriptive course designed for all students who have little or no previous exposure to astronomy. Material covered extends from ancient times up through the recent discoveries including pulsars and quasi-stellar objects. Prerequisite: None. 3-4 sem. hrs.

PHY 299. SPECIAL PROBLEMS: Special topical courses, laboratory, tutorial or library work in areas of current interest. Students should consult the composite. 1-4 sem. hrs.

PHY 301 STATISTICAL THERMODYNAMICS: The thermodynamical descriptions of many particle systems obtained from microscopic statistical considerations. Topics include laws of thermodynamics, kinetic theory of dilute gases, and Fermi-Dirac and Bose-Einstein statistics. Three class periods per week. Corequisite: MTH 219 or MTH 229. Second term, each year. 3 sem. hrs.

PHY 303. INTERMEDIATE MECHANICS I: The fundamental concepts of mechanics. The topics covered include virtual work, kinematics, special theory of relativity, Lagrange's equation and central forces, particle dynamics. Three class periods per week. Corequisite: MTH 219. First term, each year. 3 sem. hrs.

PHY 304. INTERMEDIATE MECHANICS II: A continuation of PHY 303. Topics include scattering of particles, fluid flow, rotating systems, rigid bodies, coupled systems and the transition to wave mechanics. Three class periods per week. Prerequisite: PHY 303. 3 sem. hrs.

PHY 314. ELECTRONICS FOR SCIENTISTS: Introduction to electronic circuits covering transistors, FET, SCR, linear IC, digital IC, and other semiconductor devices. Includes demonstrations and bench-top experience. Prerequisites: PHY 202L or 207L or equivalent. First term, each year. 4 sem. hrs.

PHY 351. INTRODUCTION TO ASTRONOMY: History of astronomy, apparent motions of celestial bodies, planetary systems, spectral classifications, multiple systems, variable stars, structure of the universe. Prerequisites: MTH 228, PHY 208. 3 sem. hrs.

- PHY 390. INTRODUCTION TO QUANTUM MECHANICS: Basic postulates of quantum mechanics, applications made to atomic physics. Prerequisite: PHY 303 or consent of instructor. Second term, each year. *3 sem. hrs.*
- PHY 399. SPECIAL PROBLEMS: Special topical courses, laboratory, tutorial or library work in areas of current interest. Students should consult the composite. *1-4 sem. hrs.*
- PHY 404. PHYSICAL OPTICS: The wave theory of light, interference, diffraction, dispersion, polarization, velocity of light and electromagnetic theory of light. Three class periods per week. Prerequisite: PHY 208; Corequisite: MTH 219. *3 sem. hrs.*
- PHY 408. INTERMEDIATE ELECTRICITY AND MAGNETISM I: 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 207, MTH 219. First term each year. *3 sem. hrs.*
- PHY 420 INTRODUCTION TO SOLID STATE: 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. Prerequisites: PHY 208, MTH 219. *3 sem. hrs.*
- PHY 421. NUCLEAR PHYSICS: Radioactivity, particle accelerators, the interaction of nuclear radiation with matter, particle detection, fission, and cosmic rays. Three class periods a week. Prerequisites: PHY 208 or consent of instructor. First term, each year. *3 sem. hrs.*
- PHY 430. ADVANCED LABORATORY I: A course in basic electronic circuit elements and devices. One four-hour period per week. *2 sem. hrs.*
- PHY 430H. INDEPENDENT RESEARCH: Independent experiments in electronics. Approximately four hours per week. Prerequisite: Previous experience in circuitry, permission of departmental chairman. *2 sem. hrs.*
- PHY 431. ADVANCED LABORATORY II: A course in which the student studies advanced experiments in optics, mechanics, electricity and magnetism, and modern physics. One four-hour period per week. Corequisite: an advanced course in physics. *2 sem. hrs.*
- PHY 431H. INDEPENDENT RESEARCH II: Independent experiments in classical physics. Approximately four hours per week. By invitation only. *2 sem. hrs.*
- PHY 432. ADVANCED LABORATORY III: A continuation of PHY 431 with emphasis on solid state physics but may be taken without having had PHY 431. One four-hour period per week. Corequisite: an advanced course in physics. *2 sem. hrs.*
- PHY 432H. INDEPENDENT RESEARCH III: Senior thesis, a laboratory problem in solid state, nuclear physics, or other modern research areas. By invitation only. *2 sem. hrs.*
- PHY 433. ADVANCED LABORATORY IV: A continuation of PHY 431, 432, but may be taken without having had either. Basic experiments in nuclear physics. One four-hour period per week. Corequisite: an advanced course in physics. *2 sem. hrs.*
- PHY 433H. INDEPENDENT RESEARCH IV: Senior thesis, a laboratory problem in solid state, nuclear physics, or other modern research areas. By invitation only. *2 sem. hrs.*
- PHY 437. MODERN PHYSICS: Basic postulates of quantum mechanics, special relativity with practical application to atomic, nuclear and solid state physics. Prerequisite: PHY 208 or equivalent. *3 sem. hrs.*
- PHY 440. X-RAYS: 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. *3 sem. hrs.*

PHY 441. TOPICS IN MODERN PHYSICS: Elements of modern optics, solid state and other selected subjects. Prerequisite: PHY 390 or equivalent; consult chairman of department.
3 sem. hrs.

PHY 451-452-453. INTERMEDIATE PHYSICS: A selection of modern and classical physics from the junior-senior curriculum chosen to emphasize understanding of principles and explanation of the physics as opposed to the detailed mathematical analysis. The laboratory involves basic laboratory practice, demonstration, and independent design of experiments. For students of Physical Science and Physical Science Education. Prerequisites: PHY 308, 208L.
Each 4 sem. hrs.

PHY 460. SEMINAR: Presentation of papers by undergraduate students, faculty and guest lecturers on topics of concern to the modern physicist. Reviews of books and films appropriate to the group are also given. Two meetings per week.
1 sem. hr.

PHY 499. SPECIAL PROBLEMS IN (NAMED AREA) (HONORS): Laboratory, tutorial or library work in one of such selected topics as Solid State Physics, Polymer, X-Rays, Nuclear Physics, Modern Optics, Theoretical Physics, General Physics. Prerequisite: permission of department chairman.
1-6 sem. hrs.



POLITICAL SCIENCE (POL)

A major in Political Science includes POL 201, 202, 415 or 416, and 421, plus six advanced courses. The six advanced courses must be chosen by the student in consultation with his advisor and in accordance with his academic or career objective. Students concentrating in Pre-Law, Urban Affairs, or Public Administration are encouraged to take POL 495, Internship. A minor in Political Science includes POL 201 and any four advanced courses.

PROGRAM – A15: BACHELOR OF ARTS WITH A MAJOR IN POLITICAL SCIENCE

A student must successfully complete a minimum of 120 semester hours for the degree with at least 48 hours of upper-level courses (300-400 numbered courses).

	<i>Semester Hours</i>
<i>Natural Science or Applied Science</i>	6
Courses chosen from Biology, Chemistry, Geology, Physics; and, with the approval of department chairman, appropriate courses in Engineering or Technology. At least 3 semester hours must be in natural science.	
<i>Quantitative Studies</i>	6
a. One unit of 6 semester hours from the following courses in Accounting (207, 208, 301, 302, 340 and 470)	
b. One unit of 6 semester hours in Computer Science (300 or 301 and one programming course)	
c. One unit of 6 semester hours in Mathematics and Statistics (101 or 107 and 207)	
<i>Social and Behavioral Sciences</i>	12
Courses chosen from Anthropology, Economics, Psychology, Sociology; and, with the approval of department chairman, appropriate applied social science courses in Afro-American Studies, Business Management, Criminal Justice, Education, Marketing, or Social Work. At least one unit of 6 semester hours required with at least 3 semester hours from the upper-level courses.	
<i>Humanities</i>	18
Courses chosen from American Studies, Communication Arts, English, History, Humanities Studies, Languages, Performing and Visual Arts, Philosophy, Religious Studies; and, with the approval of department chairman, certain humanities-related courses in Afro-American Studies. At least two units each of 6 semester hours in humanities with 3 semester hours in each unit from upper-level courses. If English, Communication Arts, Philosophy, or Religious Studies is chosen, the unit of 6 semester hours excludes courses already required in Philosophy-Religious Studies and communication skills.	
<i>Philosophy and / or Religious Studies</i>	12
<i>Communication Skills</i>	10
The B.A. degree requires that every student must demonstrate competence in written and oral communication before completing the freshman year.	
<i>Political Science</i>	30
Courses must include POL 201, 202, 415 or 416 and 421. The other 18 semester hours must be chosen by the student from 300-400 level courses in the Department in consultation with his advisor and in accordance with his academic or career objective.	

Senior Synthesis..... 6
(See General B.A. requirements.)

Area Concentrations

A student may elect an area concentration in Education under the E-11 Program or any one of four multi-disciplinary area concentrations in urban affairs, pre-legal training, international affairs, or public administration developed by the Political Science Department:

I. Urban Affairs

Students are required to take POL 360, Urban Politics; SOC 332, Urban Sociology; and any three of the following courses:

BIO	399	The Bio-Ecology of Man or GEO 208 Environmental Geology
HST	396	History of the Negro in the New World, or AAS 242, Afro-American History after 1900
PSY	342	Community Problems and Psychology
SOC	325	American Ethnic and Racial Minorities
ANT	110	Perspectives on Urban Man or ANT 335 Urban Anthropology
CRJ	401	Political Violence
AAS	360	Educational Systems and Urban Ghetto
ECO	445	Public Finance or ECO 485 Urban and Regional Economics

Students electing this area concentration are encouraged to take POL 495, Government Internship, to acquire practical introduction to urban processes.

II. Pre-Law

Students are required to take POL 301, American Judicial Process, and any four of the following courses:

BUS	301	Corporate Finance
ECO	204	Principles of Macroeconomics
ECO	442	Money, Banking and Monetary Policy
ENG	205	Major World Writers
HST	359	U.S. Constitutional History
PHL	301	Logic
PHL	314	Philosophy of Law
PSY	341	Social Psychology
SOC	307	Criminology and Penology
SOC	363	Sociology of Law
SPE	302	Fundamentals of Debate

Students electing this concentration are encouraged to take POL 495, Internship in Law, to acquire practical experience in the legal profession or judicial process.

III. International Affairs

Students are required to take POL 314, Principles of International Relations, in addition to the required courses in Political Science and should select upper-level courses in the areas of American political process, comparative politics, international law, and international organization.

In order to broaden their background in cross-cultural disciplines, communication skills, and language competencies, students are encouraged to select their humanities and social sciences requirements from the following areas: English grammar and comparative literature, comparative religion, comparative philosophy, cultural anthropology and area studies, comparative and international economics, and social psychology.

Students electing this area concentration are strongly encouraged to participate in the Interdepartmental Summer Study Abroad program conducted by the College of Arts and Sciences. (See Chapter X.)

IV. Public Administration

Students are required to take POL 305, Introduction to Public Administration; POL 495, Internship in Government; and at least four of the following courses:

ACC	301	Financial Reporting and Administration
BUS	314	Personnel Management
BUS	318	Human Relations for Management
COM	401	Publicity and Public Relations
CPS	300-301	Computer Science for Social Sciences

CPS	144	Programming
CRJ	447	Contemporary Issues in Justice Administration
ECO	445	Public Finance (ECO 203 a prerequisite)
MTH	207	Statistical Methods for Behavioral Sciences
SOC	360	Political Sociology
SWK	418	Community Organization

Dept.	No.	Course	1st Term	2nd Term
Freshman Year				
POL	100	Freshman Seminar	1-0-0	
ENG	111, 112	College Composition I, II ¹	4-0-4	3-0-3
—	—	Humanities electives	3-0-3	3-0-3
—	—	Philosophy and / or Religious Studies	3-0-3	3-0-3
—	—	Natural Science requirement	3-0-3	3-0-3
—	—	Social Science requirement	3-0-3	3-0-3
			16	15
Sophomore Year				
POL	201	The American Political System	3-0-3	
POL	202	Introduction to Comparative Politics		3-0-3
—	—	Humanities electives	3-0-3	3-0-3
—	—	Philosophy and / or Religious Studies	3-0-3	3-0-3
—	—	Social Science requirement	3-0-3	3-0-3
—	—	Quantitative Studies	3-0-3	3-0-3
SPE	101	Fundamentals of Effective Speaking ¹		3-0-3
			15	18

(For junior and senior years, see areas of concentration, above, and consult with the Chairman of the Department of Political Science.)

¹ Students whose communication skills requirements are waived are encouraged to take humanities and Political Science courses.

FACULTY

Antonio E. Lapitan, *Chairman*

Associate Professors: Anna, Kerns, Lapitan, Liebler, Patyk

Assistant Professors: Fogel, Howard, Halverson

Adjunct Professors: Hillman, Schneider, Walker

Lecturers: Abbott, Anderson, Steinbicker

COURSES OF INSTRUCTION

POL 201. THE AMERICAN POLITICAL SYSTEM: A study of the American political system, its constitutional base, historical and cultural setting, structures, processes, and some of its major outputs. 3 sem. hrs.

POL 201H. THE AMERICAN POLITICAL SYSTEM (HONORS): By permission only. Limited enrollment. 3 sem. hrs.

POL 202. INTRODUCTION TO COMPARATIVE POLITICS: Analysis of major concepts and approaches in the study of comparative government and politics. 3 sem. hrs.

POL 301. THE AMERICAN JUDICIAL PROCESS: A study of the American judicial system with emphasis on the courts and the bar. The criminal and civil legal processes are taken in detail. 3 sem. hrs.

POL 303. STATE GOVERNMENT AND POLITICS: A comparative study of the political institutions, processes, and systems of the fifty states and their effect upon the content and administration of selected public policies, programs, and services. *3 sem. hrs.*

POL 305. INTRODUCTION TO PUBLIC ADMINISTRATION: A study of basic principles of organization and management in executive departments of government at all levels. Questions of planning, leadership, and control are also considered. *3 sem. hrs.*

POL 306. PUBLIC POLICY ANALYSIS: An introduction to the study of public policy-making systems and the methodology of policy analysis. Emphasis is given to theories of policy formulation, the policy-making process, means for measuring policy effectiveness, and the analysis of proposals for policy change. *3 sem. hrs.*

POL 310. PARTIES AND INTEREST GROUPS: A descriptive analysis of the nature and interaction of parties and interest groups, and their role in the American political system. *3 sem. hrs.*

POL 311. PUBLIC OPINION AND POLITICAL BEHAVIOR: A systematic examination of the formation, maintenance, change, and impact of public opinion in the American political system. Emphasis is on the role of theory and analysis of data in understanding public and political behavior. *3 sem. hrs.*

POL 312. THE LEGISLATIVE PROCESS: A study of the United States Congress, its organization and procedures, and its powers and influence in the political system. *3 sem. hrs.*

POL 313. THE AMERICAN PRESIDENCY: A study of the American presidency, the development of presidential powers, and its leadership role in the political system. *3 sem. hrs.*

POL 314. PRINCIPLES OF INTERNATIONAL RELATIONS: An analysis of the dynamic forces influencing nations in their conduct of world affairs. *3 sem. hrs.*

POL 320-326. COMPARATIVE POLITICS: Analysis of governmental institutions and processes of selected countries in each of the following areas:

POL 320 — Western Europe

POL 324 — Southern Asia

POL 321 — Russia and Eastern Europe

POL 325 — The Middle East

POL 322 — The Far East

POL 326 — Africa

POL 323 — Latin America

3 sem. hrs. each

POL 360. URBAN POLITICS: A study of the nature of urban political systems in the United States with emphasis on explanation of differences in their policy responses. *3 sem. hrs.*

POL 406. INTERNATIONAL LAW AND ORGANIZATION: Study of rules governing the community of nations; their nature, sources, and development; and the international agencies which are responsible for their development, interpretation, and administration. *3 sem. hrs.*

POL 408. AMERICAN FOREIGN POLICY: A critical study of the American foreign policy process and an evaluation of the substance of American foreign policy. *3 sem. hrs.*

POL 410. COMPARATIVE FOREIGN POLICY: Comparative analysis of the foreign policies of major states with emphasis on the process of policy development and on the national and international determinants of policy behavior. *3 sem. hrs.*

POL 411. CONSTITUTIONAL LAW: An examination of the basic law of the United States. Analysis of the general principles inherent in the Constitution and some of the more significant provisions in the document — the commerce clause, the taxing and spending power, due process, and the dimensions of presidential authority. *3 sem. hrs.*

POL 412. METROPOLITAN POLITICAL REFORM: A thorough investigation and evaluation of the variety of governance systems utilized in metropolitan areas to coordinate policy and provide services on an area-wide basis. *3 sem. hrs.*

- POL 413. THE AMERICAN BUREAUCRACY: An examination of the nature and meaning of bureaucracy in contemporary American society and the devices for its evaluation and control. *3 sem. hrs.*
- POL 415. CLASSICAL POLITICAL THEORY: An analysis of the significant political ideas of the leading Western political philosophers from Plato to Machiavelli. Special emphasis on their interpretations of the nature of man and of government. Concepts such as freedom, authority, justice, legitimacy, and power will be emphasized. *3 sem. hrs.*
- POL 416. MODERN POLITICAL THEORY: An analysis of the significant political ideas of the leading Western political philosophers from the Protestant Reformation to Lenin. Special emphasis on their conceptions of freedom, authority, justice, legitimacy, power, and property. *3 sem. hrs.*
- POL 419. TWENTIETH-CENTURY POLITICAL THOUGHT: A study of the principal contributors to political thinking and orientation in the 1900's. These would include Lenin, the theorists of fascism, Durkheim, Dewey, Fromm, Niebuhr, and Skinner. Emphasis on their conceptions of the political problems of authority, community, and citizenship. *3 sem. hrs.*
- POL 421. SEMINAR IN POLITICAL SCIENCE: Seminar on current problems and issues in political science. May be taken more than once when the content changes. Prerequisite: Permission of professor. *3 sem. hrs.*
- POL 422. AMERICAN AND BRITISH LEGAL THOUGHT: An examination of the main currents in American and British legal theory with emphasis on contemporary jurists and their respective legal thoughts, the criminal law and punishment area, and the moral evaluation and criticism of law. *3 sem. hrs.*
- POL 431. INDEPENDENT STUDY AND RESEARCH: Individual reading and research on selected topics under the direction of a faculty member. Recommended for seniors only. Prerequisite: Permission of professor. *3 sem. hrs.*
- POL 450. CIVIL LIBERTIES: An analytical examination of civil liberties in the United States with special emphasis on the Supreme Court as arbiter in the endless conflict between the demand for individual liberty and the needs of constitutional authority. *3 sem. hrs.*
- POL 452. POLITICAL VIOLENCE: Consideration of the theoretical approaches toward understanding the process of violent change in political institutions. Examination of the continuum between violence and nonviolence as a consequence of competing interests in the process of revolution, revolt, campus dissent, and political assassination. *3 sem. hrs.*
- POL 475. AMERICAN POLITICAL THOUGHT: A careful study of the significant ideas that have shaped the American political system as it is today. Concentration on the impact of Puritanism, the American Revolution, Hamiltonianism, Jeffersonianism, racism, nativism, social Darwinism, the New Deal, and contemporary liberalism and conservatism. *3 sem. hrs.*
- POL 479. SELECTED TOPICS IN PUBLIC POLICY: An intensive examination of the policy process, policy outcomes, and policy impact in a specific area or areas of American public policy selected by the instructor. The particular policy area will vary from semester to semester among such topics as transportation, education, welfare, national defense, urban and community development, civil rights, and science and technology. May be repeated once when the topic changes. *3 sem. hrs.*
- POL 481. MODERN POLITICAL ANALYSIS: An examination of the scope and methods of political science ranging from the descriptive to the more quantitative approaches. Emphasis on the more scientific methods of political analysis. Recommended for majors planning to pursue graduate work in the discipline. *3 sem. hrs.*
- POL 495. INTERNSHIP: Supervised experience in government agencies and programs. Pre-law students are assigned to law firms and judicial chambers. Prerequisite: Permission of supervising professor. *3 sem. hrs.*

PREMEDICAL (MED) AND PREDENTAL STUDIES (DEN)

Students who intend to continue their education at the professional school level (medical, dental, osteopathic) should choose undergraduate majors that hold the greatest interest for them. The minimum academic requirements for admission to professional schools are met by a number of science degree programs at the University of Dayton. Students with strong interests in biology or chemistry should enroll in Program—S1 (B.S. in Biology) or Program—A2 (B.A. in Chemistry). From an academic standpoint students in these and other science programs are as fully qualified for admission to professional schools as are those students who follow the formal premedical curriculum. These students may utilize all the premedical counseling and advisory facilities available at the University. *However*, in order to receive adequate counseling, these latter students *must* declare their professional school intentions to a premedical advisor as early as possible. (See list of advisors below.)

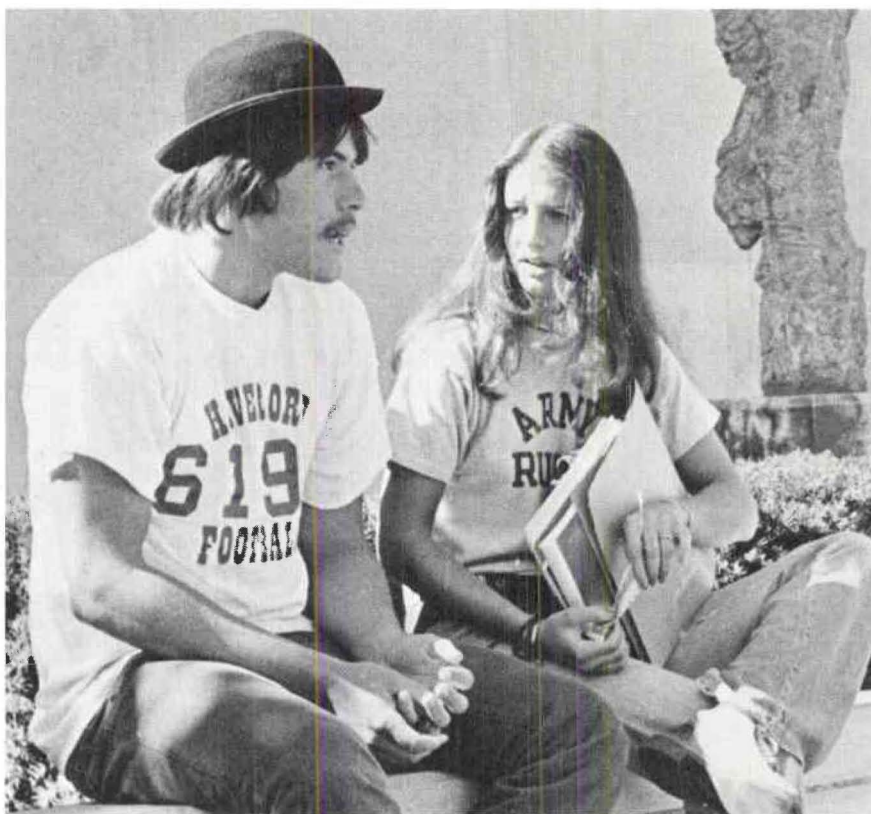
Program—S12, the B.S. for Premedical and Predental students, is recommended for (1) students who have no strong interest in a conventional major and (2) students who wish to follow an abbreviated program prior to entrance to schools of occupational therapy, optometry, pharmacy, physical therapy, veterinary medicine, etc. The full four-year program meets the admission criteria (required and recommended courses) of all approved medical and dental schools. In addition to the basic sciences, it includes an adequate study of the humanities and the social sciences. Students contemplating a career in medicine should realize that preference is given to candidates who have the most complete education, as well as good scholastic standing. Program—S12 offers a maximum choice of science and nonscience electives.

Up to twenty semester hours of science electives are available in Program—S12. While these electives can be chosen from any science area (biology, chemistry, computer science, mathematics, physics), current medical school catalogs indicate that the most frequently required and / or recommended advanced science courses are physical chemistry, embryology, genetics, cell biology, biochemistry, and comparative anatomy. Thus, it is strongly recommended that at least four of the five science electives be from this group.

A Premedical / Predental Faculty Committee is responsible for curriculum requirements, program changes, course advising, general counseling, and the preparation of recommendation letters that are required of all applicants to the health professional schools. The following professors are currently members of this committee: *Chairman* — C. J. Chantell (Biology), L. B. Fox (Chemistry), C. I. Michaelis (Chemistry), J. M. Ramsey (Biology), and K. C. Schraut (Mathematics).

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

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



obtained from the premedical advisors.

The increasingly high admission standards for professional schools make it imperative that the premedical and pre dental student give full time to study. The undergraduate cumulative grade-point average is an important criterion in gaining admission to a professional school. The minimum acceptable cumulative average for most medical schools is 3.0; for most dental schools, 2.8. For this reason, the Premedical Faculty Committee conducts a sophomore evaluation of all students enrolled in Program—512. Any student whose cumulative average after 2 years is below 2.7 will be directed to change his major.

Premedical-Pre dental Curriculum Summary

Sixteen science courses (58 to 64 semester hours), ten of which are specified (e.g., BIO 151, CHM 313) and the remainder are elective (in BIO, CHM, CPS, MTH, PHY; see footnotes 2, 4, 7).

Four courses (12 semester hours) in Philosophy and / or Religious Studies.

One Speech course (3 semester hours).

Four Behavioral Science-Social Science courses (12 semester hours in PSY, SOC, ANT, POL).

One English course beyond ENG 112 or 114H (6 to 10 semester hours).

Ten or more humanities-general elective courses (28 to 34 semester hours) from COM, ECO, ENG, HST, ART, MUS, PHL, POL, PSY, SOC, REL, etc to bring the total number of semester hours to a *minimum* of 120.

**PROGRAM – S12: BACHELOR OF SCIENCE WITH A CONCENTRATION IN
PREMEDICAL AND PREDENTAL STUDIES**

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term¹</i>	<i>2nd Term</i>
Freshman Year				
BIO	151-2	Concepts of Biology	3-0-3 ¹	3-3-4
CHM	123-4	General Chemistry	3-3-4	3-3-4
MTH	—	Calculus ²	3-0-3	3-0-3
ENG	111-2	College Composition I, II	4-0-4	3-0-3
—	—	Humanities ³	3-0-3	3-0-3
BIO	100	Premedical or Predental Orientation Seminar	1-0-0	
			17	17
Sophomore Year				
CHM	313-4	Organic Chemistry	3-3-4	3-3-4
PHY	—	Physics ⁴	3-2-4	3-2-3
—	—	Humanities ³	6-0-6	3-0-3
—	—	Behavioral Science-Social Science elective ⁶	3-0-3	3-0-3
—	—	Science elective ⁷		3-3-4
			17	18
Junior Year				
CHM	201	Quantitative Analysis		2-4-4
—	—	Science elective ⁷	3-3-4	3-3-4
—	—	Behavioral Science-Social Science elective ⁶	3-0-3	3-0-3
—	—	General electives ⁸	9-0-9	6-0-6
			16	17
—	—	Science elective ⁷	3-3-4	3-3-4
—	—	Humanities ⁹	3-0-3	3-0-3
—	—	General electives ⁸	9-0-9	9-0-9
			16	16

¹ For example: 3-0-3 means 3 class hrs., 0 lab. hrs., 3 sem. hrs. of credit.

² Depending on background, interests and placement scores, two calculus sequences are available, MTH 112-3, MTH 118-9 (See Mathematics Courses of Instruction). Placement scores may necessitate initial course in precalculus (MTH 101).

³ Philosophy or Religious Studies.

⁴ Depending on mathematics background and interests, two physics sequences are available, PHY 201-2, PHY 196 and 207-8 (See Physics Courses of Instruction).

⁵ A modern language is recommended. Language begun in secondary school should be continued at 200 level; new language may start at 100 level. Otherwise take ENG, HST, ECO, SPE, SOC, PSY, etc. Take 200-level English course if sequence has been ENG 111-2.

⁶ PSY 201, 301, 306, SOC 204, 301, 150, etc.

⁷ Recommended that science electives be chosen from among BIO 209, 303, 312, 340, 407, 411; CHM 302, 420; MTH 215.

⁸ ECO, ENG, HST, PHL, POL, PSY, REL, SOC, etc.

⁹ Philosophy or Religious Studies.

PSYCHOLOGY (PSY)

Psychology is the scientific study of human behavior, its causes, problems, etc., and as such is a diverse field which touches all aspects of human endeavor.

The objectives of the Department of Psychology are to provide students with learning experiences in and out of the classroom which will serve to increase their critical thinking skills, facilitate their acquisition of the body of knowledge inherent in the study of man's behavior, equip them with its research methodology, and prepare them for employment or graduate school. The department is large enough to have all the academic and social benefits that a university department can provide and small enough to provide individual attention to every student who needs it.

The Psychology Department at the University of Dayton offers both Bachelor of Arts and Bachelor of Science degrees. Each student, in consultation with his advisor, selects a program leading to either a Bachelor of Arts or a Bachelor of Science degree with appropriate elective credits. Each Psychology major must complete PSY 101, 216, and 217 (and their prerequisites) in sequence early in his academic career.

All graduate (500-level) courses are open for credit in Psychology to the undergraduate with permission from the student's advisor and the instructor. See the Graduate issue of the Bulletin for a listing of these courses.

Not more than a total of six semester hours of 400-level courses from whatever source (i.e. either credits earned at this University or transfer graduate credits) will apply toward a Master's degree.

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

	<i>Semester Hours</i>
Psychology 101, 216, 217, electives.....	31
(May substitute MTH 207 or MTH 215 for PSY 216)	
Natural Science, Applied Sciences, or Quantitative Studies ¹	10
Social and Behavioral Sciences ²	9
Humanities ³	18
Philosophy and / or Religious Studies.....	12
Communications Skills (Speech 101, English 111 and 112) ⁴	10
Departmental Synthesis ⁵	3
General academic electives and Transdisciplinary Senior Synthesis to total at least	120

¹ MTH 107 and 7 hours of science required: 7 semester hours must include 3 of natural science (BIO, CHM, GEO, PHY) and 1 of lab. Other hours may include Mathematics, Computer Science, and as approved by the student's departmental chairman, appropriate courses in engineering, technology, accounting.

² Exclude Psychology for Psychology majors. Anthropology, Economics, Political Science, Sociology, and (with approval of departmental chairman) Criminal Justice, Education, Marketing, or Social Work. At least one unit of 6 semester hours required with at least 3 semester hours from 300-400 level.

³ Exclude Philosophy and Religious Studies. Include American Studies, Communication Arts, English, History, Humanities Studies, Languages, Performing & Visual Arts, and (with the

approval of departmental chairman) appropriate courses in Afro-American Studies. At least 2 units each of 6 semester hours with at least 3 semester hours in each unit from 300-400 level (except Languages, in which a unit may be satisfied with 6 semester hours at the 200 level).

¹ Proficiency may be demonstrated by compliance with alternatives.

² To be taken in last 3 terms; may include any of the transdisciplinary courses listed in the course composite.

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

	<i>Semester Hours</i>
Psychology 101, 216, 217, electives (May substitute MTH 207 or MTH 215 for PSY 216)	31
Science (Biology, Chemistry, Computer Science, Physics, Geology).....	24
Mathematics 112 and 113 ¹	6
English 111 and 112 or 114 required ²	6
Language ³	6
Philosophy and / or Religious Studies.....	12
Speech 101 ²	3
General Academic Electives ⁴ to total at least.....	120

¹ May substitute MTH 101 for 112 and 112 for 113.

² Proficiency may be demonstrated by compliance with alternatives.

³ French, German or Russian preferred. However, student may substitute general electives in lieu of a language. See advisor as graduate study often requires language.

⁴ Senior Synthesis is recommended in senior year (may include any of the transdisciplinary courses and / or PSY 495).

FACULTY

Richard J. Popp, *Chairman*

Associate Professors: Bowers, DaPolito, Popp

Assistant Professors: Berg, Brown, Butter, Jacobson, Katsuyama, Kimble, Korte, Meyers-Abell, Ludwigsen, Polzella, Rotton.

Part-time Instructors: Ernst, McLeod, Moore, Nixon, Peters, Rueth, Schindler, Seeman, Szoke

COURSES OF INSTRUCTION

PSY 101. INTRODUCTORY PSYCHOLOGY: Studies man as an integrated personality including development, motivation, emotion, adjustment, learning, perception, and the general application of psychological principles to personal, social, and industrial problems. Required of all Psychology majors. 3 sem. hrs.

NOTE: PSY 101 is the prerequisite to all other Psychology courses.

PSY 216. ELEMENTARY STATISTICS: An introduction to basic probability and applied statistics, this course covers combinational arithmetic, binomial probability, measures of central tendency and dispersion, sampling, estimation, hypothesis testing, tests between means, linear regression, and correlation. Prerequisites: PSY 101, and MTH 107 or equivalents. 3 sem. hrs.

PSY 217. EXPERIMENTAL PSYCHOLOGY: Introduces the student to the basic concepts of scientific methods as applied to psychological problems. Experiments are conducted to familiarize students with the application of scientific methodology to the study of psychological process of man. Methodology covered is applicable to all areas of Psychology. Required of all Psychology majors. Prerequisites: PSY 101, 216. 4 sem. hrs.

PSY 261. DYNAMICS OF ADJUSTMENT: Explains the psychology of adjustment

through the relation of social, psychological, and biological factors. Emphasis is on personality dynamics and effective behavior. *3 sem. hrs.*

PSY 318. EXPERIMENTAL DESIGN AND INFERENCE: Develops rationale for the design and interpretation of experiments, including analysis of variance, correlational analysis, and data transformations. Students work with instructor to design and conduct their own experiments. Prerequisites: PSY 101, 216 or equivalent. *3 sem. hrs.*

PSY 321. COGNITIVE PROCESSES: An information-processing approach to attention, perception, memory imagery, and thought. Theoretical structures including neuron modeling of higher cognitive and experimental process are discussed. Prerequisite: PSY 101. *3 sem. hrs.*

PSY 322. LEARNING: The foundations of the learning process. Classical instrumental paradigms and variants of each are considered prior to investigations of complex learning. Prerequisite: PSY 101. *3 sem. hrs.*

PSY 323. PSYCHOLOGY OF PERCEPTION: Introduction to the major theoretical and experimental work in perception. Includes visual, auditory, proprioceptive, and other sensory systems. Prerequisite: PSY 101. *3 sem. hrs.*

PSY 325. THE PSYCHOLOGY OF CONSCIOUSNESS: A systematic exploration of the nature of human consciousness using traditional as well as esoteric psychological literature. The course includes a study of various phenomena including perception, rational and intuitive thought, psychophysiology of consciousness, meditation, biofeedback, and the psychology of time. *3 sem. hrs.*

PSY 331. INTERVIEWING AND COUNSELING: Techniques and theories of interviewing and counseling are discussed and evaluated. Practice is provided through role playing and case study. Prerequisite: PSY 101, or permission of the instructor. *3 sem. hrs.*

PSY 333. PSYCHOLOGICAL TESTS AND MEASUREMENTS: Survey of major tests of intelligence, aptitude, interest and personality as presently used in clinics, schools, personnel offices and research settings. Emphasis is placed on evaluation and comparison of tests, rationale of test construction, and ethical considerations. Prerequisites: PSY 101, 216 or equivalent. *3 sem. hrs.*

PSY 334. INDUSTRIAL PSYCHOLOGY: Introduces modern efforts to improve human performance in industrial organization and society. Studies selection and placement of employees, morale, training, and incentives. Prerequisites: PSY 101, 216. *3 sem. hrs.*

PSY 341. SOCIAL PSYCHOLOGY: Covers the major theoretical and experimental work in the field. Topics include attitudes, conformity, emotions, group dynamics. Prerequisite: PSY 101. *3 sem. hrs.*

PSY 342. COMMUNITY PROBLEMS AND PSYCHOLOGY: A more advanced course in the practical application of psychology to community problems such as crime, drug abuse, alcoholism, poverty, race relations, overcrowding, suicide, and mental health. Students will be required to do one of several term projects, such as volunteer work for a community organization that addresses itself to one or more of these problems. Prerequisite: PSY 341. *3 sem. hrs.*

PSY 343. ENVIRONMENTAL PSYCHOLOGY: A survey of theoretical approaches, methodologies, and findings from the study of man-environment interaction. This course concentrates upon psychological and social consequences of overcrowding, noise pollution, temperature, environmental complexity, and architectural design; in doing so, it considers individual and community action programs for responding to environmental pollution. *3 sem. hrs.*

PSY 351. CHILD PSYCHOLOGY: An introduction to the study of psychological processes from the developmental point of view. Emphasis will be placed on developmental changes in perception, cognition, emotion, and social behavior during infancy and through the preschool and elementary school years. Prerequisite: PSY 101. *3 sem. hrs.*

PSY 352. FIELD EXPERIENCE IN CHILD PSYCHOLOGY: An opportunity to participate with one of several agencies in the community which provide instructional, recreational, therapeutic services for children. (Between 3-5 hours per week must be spent at the agency selected in consultation with the instructor.) Prerequisites: PSY 101, and previous or concurrent registration in PSY 351. Satisfactory / No credit grade option only. *1 sem. hr.*

PSY 355. PSYCHOLOGY OF EXCEPTIONAL CHILDREN: An overview of the problems facing those children with exceptional intellectual, emotional, sensory, and / or motor developmental patterns. Provides an introduction to concepts of learning and motivation as related to the processes which result in differences between these children and their normal peers. Prerequisite: PSY 351. *3 sem. hrs.*

PSY 356. INTRODUCTION TO MENTAL RETARDATION: History, definitions, incidence, etiology, psychological theories, and special research problems of mental retardation will be discussed. There will be no consideration of these areas as they apply to treatment of the retarded. The central interest will be how theories of mental retardation enlarge our understanding of behavior in general. Prerequisite: PSY 351. *3 sem. hrs.*

PSY 358. ADOLESCENT PSYCHOLOGY: An overview of the interrelated physical, social, emotional, and cognitive development of adolescents. Prerequisite: PSY 101. *3 sem. hrs.*

PSY 361. PERSONALITY: An introduction to the study of personality through theoretical views and clinical and experimental findings. Prerequisite: PSY 101. *3 sem. hrs.*

PSY 363. BEHAVIOR DISORDERS: Describes patterns of disordered behavior. Examines social, psychological, and physiological factors in addition to theoretical explanations of abnormal behavior. Prerequisite: PSY 101. *3 sem. hrs.*

PSY 367. BEHAVIOR MODIFICATION: A description of approaches to the modification of behavior integrating material from and fields of learning theory, abnormal behavior and psychotherapy. Prerequisite: PSY 322 or equivalent. *3 sem. hrs.*

PSY 421. PSYCHOLINGUISTICS: Several areas of investigation including the relationship between language and perception and thought, the acquisition of speech and language, and pathological language. Prerequisite: PSY 101. *3 sem. hrs.*

PSY 422. PHYSIOLOGICAL PSYCHOLOGY: Neurophysiological analysis of attention, sensation, perception, emotion, motivation, and learning. Electrophysiological methods are discussed as techniques in the study of the nervous system. Prerequisite: PSY 101. *3 sem. hrs.*

PSY 435. HUMAN FACTORS: Designed to provide the 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 216. *3 sem. hrs.*

PSY 436. HUMAN FACTORS LABORATORY: Selected experiments on display and other equipment to illustrate the application of human factors principles to design of equipment. Must be taken with lecture course. One two-hour laboratory period each week. Prerequisite: PSY 216, concurrent registration in PSY 435. *1 sem. hr.*

PSY 443. PSYCHOLOGY OF WOMEN: A scholarly approach to a current topic. Areas to be covered include sex role learning, images of women in the mass media, sex differences, and pros and cons of the women's liberation movement. While being about women, the course is not designed to be exclusively for women. It is open to all interested students. Students will be required to write a term paper on some aspect of the area. Prerequisite: PSY 101. *3 sem. hrs.*

PSY 452. COGNITIVE DEVELOPMENT IN CHILDREN: Major theories and approaches to the study of cognitive development will be considered. Topics include attentional and mediational development as demonstrated in children's learning, information processing, memory, and problem solving, followed by a survey of concepts and findings relevant to

language development and Piagetian theory. Prerequisite: PSY 351, or permission of the instructor. 3 sem. hrs.

PSY 471. HISTORY OF PSYCHOLOGY: Traces the evolution of psychology from its origins in philosophy, science, clinical, and applied settings. Emphasis is placed on integrating these systems and schools of thought with the spectrum of modern psychology. Prerequisite: PSY 101 or permission of the instructor. 3 sem. hrs.

PSY 491. HONORS SEMINAR FOR SENIORS IN PSYCHOLOGY: This course will allow senior students with a high academic achievement to equate and discuss a comprehensive overview of a selective topic, allowing him to further discuss and integrate the knowledge he has obtained through the Psychology Department's curriculum. Prerequisite: Permission of instructor. 3 sem. hrs.

PSY 493. INDEPENDENT STUDY: Problems of special interest to the student are investigated under individual faculty direction. Area and criteria for evaluation to be specified prior to registration. May be repeated for up to six hours total credit. Permission of the instructor is required. 1-6 sem. hrs.

PSY 494. READINGS IN PSYCHOLOGY: Directed reading in a specific area of interest to the student, conducted under faculty supervision. Topic and criteria for evaluation to be specified prior to registration. May be repeated for up to six hours total credit. Permission of instructor is required. 1-6 sem. hrs.

PSY 495. SPECIAL TOPICS IN PSYCHOLOGY: Covers various topics of special interest to faculty and students, provides an intensive critical evaluation of the appropriate literature in the field. Permission of instructor is required. 1-3 sem. hrs.



RELIGIOUS STUDIES (REL)

The Department of Religious Studies sees itself as a community of scholars and experts with various competencies serving the University community and the local community by teaching, research, prophetic criticism, and action. The members of this community come from a variety of religious traditions and thus reflect the ecumenical situation of the church-world after Vatican II.

The main concern of the department is an understanding and elucidation of the Judaeo-Christian religious experience, as it is exemplified in the Roman Catholic tradition. This implies not only a deep investigation of the Roman Catholic position but also a dialogue with other Christian traditions and an exploration of the religious heritage of the human race.

According to its competencies, the department seeks to be of service to all members of the student body, faculty, staff, and administration, as well as to the local community. Its special concern is to Roman Catholic students seeking a better understanding of their faith.

The department realizes also that it cannot perform its function adequately if it isolates itself from other departments of the University. It, therefore, has engaged in and will seek to engage itself even more in interdisciplinary and inter-departmental studies.

For their first 3 semester hours in Religious Studies, students may take any 100- or 200-level course. Majors (33 semester hours) and minors (18 semester hours) should consult the chairman.

PROGRAM — A17: BACHELOR OF ARTS WITH A MAJOR IN RELIGIOUS STUDIES¹

Semester Hours

Religious Studies.....	33
a. One course in each of these four areas:	
Biblical Studies	
Historical Theology	
Systematic Theology	
Christian Ethics / Religion and Culture	
b. Electives	
Breadth Requirement.....	42-52
Natural Science, Applied Science, Quantitative Studies.....	6
Social and Behavioral Sciences	9
Humanities.....	18
Philosophy	9
Communication Skills	0-10
Program, free electives, and Senior Synthesis.....	35-45
Total	120

¹ See also Distribution Table for Bachelor of Arts programs.

PROGRAM – A17A: BACHELOR OF ARTS WITH A MAJOR IN RELIGIOUS
STUDIES
CONCENTRATION IN RELIGIOUS EDUCATION ¹

	<i>Semester Hours</i>
Religious Studies.....	42
Religious Education.....	15
History of Religions, Biblical Studies, Systematic Theology, Christian Ethics... 27	
Philosophy.....	9
Natural Science, Mathematics.....	6
Communication Skills.....	0-10
Business, Education, Sociology, Psychology.....	12-24
Humanities.....	24-30
Senior Synthesis (outside the department).....	3
Total	120

¹ See also Distribution Table for Bachelor of Arts program.

FACULTY

Rev. Matthew F. Kohmescher, S.M., *Chairman*

Professors: Burns, Cole, Kohmescher

Associate Professors: Anderson, Boulet, Brady, Friedland, Frost, Martin

Assistant Professors: Barnes, Donnellan, L'Heureux, Murray, Ryan

COURSES OF INSTRUCTION

REL 392. SPECIAL QUESTIONS: An examination of issues pertinent to religion in either one or a series of courses. May be repeated when a different issue is discussed. 1-3 sem. hrs.

REL 399. READINGS IN RELIGIOUS STUDIES: Directed readings in a specific area of interest under the supervision of a staff member. May be taken more than once. By permission only. 3-6 sem. hrs.

REL 490. SEMINAR: Research projects and discussions designed to help students integrate their university studies and relate them to their own future. Senior majors. Others by permission. 3 sem. hrs.

REL 492. INTERDISCIPLINARY SEMINAR: A seminar in which the perspectives of various academic disciplines are brought to bear on specific issues. By permission only. 3 sem. hrs.

REL 498. EUROPEAN DIALOGUE: An opportunity to meet in dialogue with selected students and professors at several European universities. Offered only in May-June. Prerequisites: 9 semester hours in Religious Studies; 9 semester hours in Philosophy. By permission only. 3-6 sem. hrs.

HISTORY OF RELIGIONS

REL 200. ASIAN RELIGIONS: An introduction to the study of the major religions of the Far East, such as Hinduism, Buddhism, Confucianism, Taoism, Shinto. 3 sem. hrs.

REL 305. ANCIENT NEAR EASTERN RELIGIONS: An examination of the religions of the ancient Near East, with special attention to their relation to the Old Testament. 3 sem. hrs.

REL 307. JUDAISM: A basic introduction to Judaism; its history, its faith, its worship.

3 sem. hrs.

REL 406. JEWISH THOUGHT: An historical development of Jewish thought from the close of the Old Testament canon down to modern times, with emphasis on selected movements and / or thinkers. *3 sem. hrs.*

REL 408. ISSUES IN THE HISTORY OF RELIGIONS: An examination of current issues in the study of the history of religions. May be repeated when a different issue is discussed. *3 sem. hrs.*

BIBLICAL STUDIES

REL 211. THE OLD TESTAMENT IN MODERN STUDY: An introduction to the historical and prophetic literature of the Old Testament. The material is surveyed in the light of contemporary historical, literary, and form-critical methodologies. *3 sem. hrs.*

REL 212. THE NEW TESTAMENT IN MODERN STUDY: An introduction to selected books of the New Testament. The material is surveyed in the light of contemporary historical, literary, form-critical, and reaction-critical methodologies. *3 sem. hrs.*

REL 219. HISTORY OF EARLY CHRISTIANITY: An examination of the formative years of the early Christian Church (AD 30-130) in the context of the political, social, and economic developments of the time. *3 sem. hrs.*

REL 311. RELIGION OF ISRAEL: An historical survey of the religious faith and practice of ancient Israel from the Age of the Patriarchs to the emergence of Judaism in the post-Exilic period. The biblical traditions are constantly seen against the background of Ancient Near Eastern history and religion. *3 sem. hrs.*

REL 316. SYNOPTIC GOSPELS: EARLY LIVES OF JESUS: Each of the Synoptic Gospels offers a distinct view of the life and ministry of Jesus. An attempt will be made both to compare and to differentiate the Markan, Matthean, and Lukan interpretations of the person of Jesus, his function in the community, and his message to the people. *3 sem. hrs.*

REL 317. STUDIES IN ST. JOHN – REALIZATION OF HOPE: The Gospel of John proclaims the total fulfillment of God's promises and man's expectations in Jesus Christ. The theological argumentations of the fourth gospel will be analyzed, as well as the significance of the Johannine position in view of the current theology of hope. *3 sem. hrs.*

REL 318. STUDIES IN ST. PAUL – MODELS OF SALVATION: St. Paul's theology as the product of a man who was exposed to a diversity of religions, cultures, and ideologies. A discussion of a variety of topics, motifs, symbols, and structures exhibited in Pauline theology will disclose numerous possibilities for a Christian approach to life and death. *3 sem. hrs.*

REL 411. THE PROPHETS – RADICAL TRADITIONALISTS: The prophetic traditions of the Old Testament as an attempt to say that tradition can function in times of crisis. The course will attempt to understand the prophets and then to question their validity for the contemporary situation. *3 sem. hrs.*

REL 418. BIBLICAL ISSUES: An examination of specific biblical themes, motifs, problems, and traditions. May be repeated when a different issue is discussed. *3 sem. hrs.*

HISTORICAL THEOLOGY

REL 326. PROTESTANT CHRISTIANITY: A survey of the development of Protestant thought from the Reformation. *3 sem. hrs.*

REL 428. ISSUES IN HISTORICAL THEOLOGY: An examination of a specific issue in the development of Christian thought, such as Fathers of the Church, Reformation Theology, Modernism, and Vatican II. May be repeated when a different issue is discussed. *3 sem. hrs.*

SYSTEMATIC THEOLOGY

- REL 140. CATHOLICISM TODAY: A general course to acquaint students with current theological thinking on Catholic belief and practice. *3 sem. hrs.*
- REL 145. MAN AND RELIGION: A study of the relation between the human quest for personal values and identity, and the religious experience of man. *3 sem. hrs.*
- REL 243. MODERN RELIGIOUS THOUGHT: An attempt to help the student become more aware of theological thought in modern times through the study of selected topics and / or movements. *3 sem. hrs.*
- REL 245. SEARCH FOR IMMORTALITY: An examination of how other disciplines regard the question of immortality and a theological evaluation of their insights. *3 sem. hrs.*
- REL 341. SIGNIFICANCE OF JESUS: An historical discussion of what has been thought about the person and significance of Jesus in the past, with emphasis upon modern assessment of Jesus. *3 sem. hrs.*
- REL 438. CONTEMPORARY THEOLOGIES: An examination of one or more of the major current schools of thought, such as Process Theology, Theology of Hope, Neo-Thomism, Christian Existentialism. May be repeated when a different issue is discussed. *3 sem. hrs.*
- REL 441. THEOLOGY OF MARY: Study of the place of the Mother of God in the great truths of faith in the light of chapter eight of the Constitution on the Church. *3 sem. hrs.*
- REL 442. PROBLEM OF GOD: A study of some recent contributions made by theology, philosophy, psychology, and the humanities to the current discussion of God's existence, nature, and relationship to man. *3 sem. hrs.*
- REL 445. ISSUES OF THE CHURCH TODAY: Contemporary theological thought on an aspect of the mystery of the church today, e.g., nature of the church, sacraments, liturgy. May be repeated when a different issue is discussed. *3 sem. hrs.*
- REL 448. ISSUES IN THEOLOGY: An examination of a selected issue or major theme of the Christian faith in the light of modern knowledge and sensibilities, such as faith and doubt, science and religion, or theology of death. May be repeated when a different issue is discussed. *3 sem. hrs.*

CHRISTIAN ETHICS — RELIGION AND CULTURE

- REL 265. CHRISTIAN ETHICS: An introduction to the reflection upon Christian morality. Includes a discussion of various approaches in Christian Ethics, the elements involved in ethical judgments, and some specific ethical issues. *3 sem. hrs.*
- REL 271. AMERICAN RELIGIOUS EXPERIENCE: A study of American Christianity, Protestant and Catholic, within American culture past and present. The course will investigate the origins and expansion of American Christian churches and the roles these churches have played in shaping an American culture. *3 sem. hrs.*
- REL 363. CURRENT SOCIAL ISSUES: An examination of one or more current social issues such as the theology of revolution, world peace, race relations. May be repeated when a different issue is discussed. *3 sem. hrs.*
- REL 364. CURRENT ETHICAL ISSUES: An examination of one or more issues in contemporary reflection on Christian moral life, such as the New Morality, City Without God, faith and moral problems. May be repeated when a different issue is discussed. *3 sem. hrs.*
- REL 365. CHRISTIAN MARRIAGE: Analysis of the sanctifying dignity of Christian marriage as a sacrament and commitment to share in the divine creative plan. *3 sem. hrs.*

REL 372. RELIGION AND FILM: A study of the issues common to narrative films and religious thought. The study considers the power of various film techniques, the dominant models in religious and film reflection, and the similar role imaginations play in film and religious thought. *3 sem. hrs.*

REL 473. RELIGIOUS QUEST IN LITERATURE: A joint study of literature and religion, seeking the sacred in the secular, discussing the doctrines of man and of God in major modern writings, especially those of current collegiate interest. *3 sem. hrs.*

REL 478. RELIGION AND CULTURE: An examination of a specific issue in Western culture, especially American culture, in light of the Judaeo-Christian tradition, such as religion and art, religion and music. May be repeated when a different issue is discussed. *3 sem. hrs.*

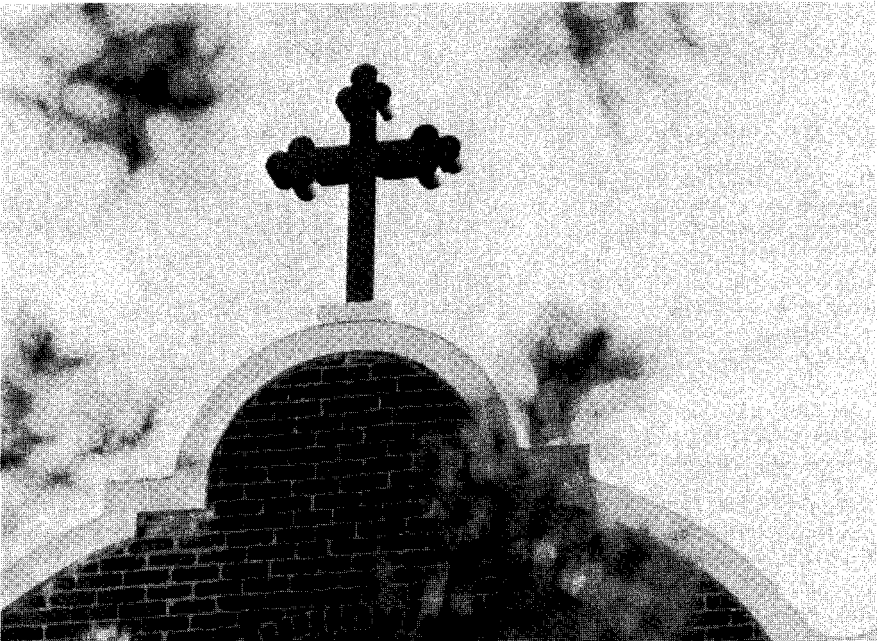
RELIGIOUS EDUCATION

REL. 382. LANDMARKS IN CATECHESIS: An attempt to introduce the students to an historical perspective on the evolution of modern catechesis, to explore the significant developments in catechesis from the patristic catechumenate to the contemporary catechetical movement, to develop an awareness of pastoral needs in relation to catechesis. *3 sem. hrs.*

REL 383. PHILOSOPHY OF RELIGIOUS EDUCATION: An attempt to construct a philosophy of religious education. This will entail an exploration of the various contemporary theoretical models, the dimensions of teaching religion in a pluralistic society, and the polarization generated. *3 sem. hrs.*

REL 483. PRACTICUM I: A course that enables the student to become acquainted with and survey the resources and activities in religious education in the Greater Dayton Area. *3 sem. hrs.*

REL 484. PRACTICUM II: A supervised in-service program in an area of religious education chosen by the student. By permission only. *3 sem. hrs.*



SECONDARY EDUCATION (EDS)

COLLEGE BACCALAUREATE PROGRAM WITH TEACHER CERTIFICATION (E11A)

Students enrolled in the College of Arts and Sciences may enroll in the teacher education program (E11A) of the School of Education without transferring to the School of Education. The E11A program is designed for those students in the College of Arts and Sciences who wish to pursue secondary-school teaching certification and a major program of studies concurrently. Students admitted to the program must satisfy all the requirements for the degree of Bachelor of Arts or Bachelor of Science in the College as well as the requirements designated by the School of Education and the State of Ohio for secondary school certification.

Certification is available for the following principal fields whose requirements can be satisfied by courses in various appropriate departments of the College of Arts and Sciences: Art, Biological Science, Chemistry, English, General Science, History, Home Economics, Languages (Latin, French, German, Spanish), Mathematics, Physics, Political Science, Sociology, Social Psychology, Theology (Religious Studies).

The Education courses listed below constitute a minor concentration in the College degree program. For course descriptions see EDS and EDF, Chapter VIII.

Semester Hours

Term A

EDS 109 Personal and Professional Development of Secondary Teachers I.....	2
EDF 206 Educational Foundations I: Adolescent in the Educative Process.....	3
Fine Arts and Music majors take EDF 207	

Term B

EDS 110 Personal and Professional Development of Secondary Teachers II.....	2
EDF 208 Educational Foundations II: Teaching-Learning in the Educative Process.....	3

Term C

EDS 351 The Secondary School, Self, and Society.....	3
EDS 4__ Methods Course.....	3

Term D

EDS 414 Student Teaching (Secondary).....	14
A full semester in actual classroom under supervision	
EDF 419 Educational Foundations III: Philosophy of the Educative Process.....	3

Application for admission to the program is made through the Office of the Dean of the College of Arts and Sciences after completion of the freshman year. Applicants should normally have a cumulative grade point average of at least 2.9 at the time of their application.

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

SELF-DIRECTED LEARNING (SDL)

Self-Directed Learning provides an opportunity for students to design courses around their own needs and interests in consultation with members of the faculty. In line with the University's goals of individualizing and diversifying programs and making them more flexible, SDL offers students a wide range of options in both content and methods of learning. Students may earn from 6 to 17 semester hours per term in SDL, normally on a Satisfactory / No Credit basis. They may participate for more than one term, though the limit is four terms. Students may thus complement the usual college experience with an alternate approach to learning in which they place the responsibility for learning on their own shoulders and test their ability to direct themselves by designing and carrying out lines of study of their own choosing.

Regarding content: students may do work in areas not covered by regular course offerings, for example, dance therapy, radical feminism, and interdisciplinary studies. They may take a problem-centered rather than a discipline-centered approach, for example, a feasibility study for a campus day-care center.

Regarding method: SDL encourages students to use experiential and experimental approaches, to develop skills in learning how to learn, to strengthen intrinsic motivation and self-confidence, and to take initiative and responsibility for furthering their own learning. Students may utilize a variety of learning resources in addition to the classroom and library, namely field experiences, field trips, independent study, internships, individual and group projects, conferences, and work with community agencies and with community resource persons.

Each student works with a faculty advisor and a three-person evaluation committee which has the task of helping develop and evaluate the individual program and interpret the resultant learnings to the academic community.

Work done in SDL earns ASI (Arts and Sciences Interdisciplinary) credit which can be applicable to a student's general electives, breadth requirements, senior synthesis requirement, or, with the permission of the department chairman of the student's major field, to departmental requirements. See also ASI.

STAFF

Bruce M. Taylor, *Director*

Janet Kalven, *Associate Director*

Brady (Religious Studies), Kunkel (Philosophy), Taylor (History)

COURSES OF INSTRUCTION

ASI-SDL. SELF-DIRECTED LEARNING: Upon acceptance into the program, the SDL student registers for a block of ASI-SDL credit. At the end of the term, this block of credit is subdivided into the principal areas of learning. Appropriate titles are then listed on the student's transcript with the number of semester hours of credit awarded in each area. Student rationales, which describe the work of the semester and justify the credits awarded, are kept on file.

6-17 sem. hrs., each term

SOCIAL WORK (SWK)

The Social Work Program of the University of Dayton meets all professional educational standards established by the Council on Social Work Education and is an accredited member of that body. The objectives of the Social Work Program are (1) to prepare students for beginning professional practice in social work; (2) to offer an academic and applied educational experience of such quality that students will be prepared for graduate schools of social work; (3) recognize individual and personal needs of students and assist them in realizing their potential as productive members of society; and (4) provide students the opportunity to round out their educational experience through exploration of subjects in the humanities and the social, behavioral, and biological sciences. As a part of course requirements, students are placed in community agencies and institutions to receive firsthand experience in assisting individuals and groups with psychosocial problems.

Requirements for Majors, Minors, and Certification

Students wishing to major, minor, or receive Certification in Social Work are to consult faculty advisors for individual planning of course work. The student's four-year program will be designed to meet the objectives of the program noted above and at the same time allow the student the opportunity to pursue courses in areas of special interest and individual ability. Those students majoring in Social Work must complete a total of 52 semester hours in the program. Courses required include SOC 101, 401, and 402; SWK 206, 206L, 305, 306, 337, 421, 423, 431, and 432. Those wishing to minor in Social Work must have SWK 206, 206L, 305, 306, 337, and 423. Students holding the BS or BA degree in other fields may receive a certification in Social Work upon completion of 24 semester hours of planned course work. Requirements for certification are planned with the director on an individual basis.

A committee comprised of social work faculty and students evaluates each candidate at the conclusion of the student's second year of study. The evaluation focuses upon the following factors: (1) quality point average in course work, (2) physical and emotional fitness, (3) personal attitudes and moral traits, and (4) motivation to pursue a professional career. Students failing to meet the above criteria for advanced study are given one additional semester to correct their deficiencies before being advised to change their major field of study. Departmental faculty make every effort to assist the student in his or her attempt to meet the program's requirements.

PROGRAM S14 – BACHELOR OF SCIENCE WITH A MAJOR IN SOCIAL WORK

	<i>Semester Hours</i>
Social Work: 100, 206, 206L, 305, 306, 337, 421, 423, 431, 432, elective credit.....	43
Sociology: 101, 401, 402.....	9
Social Science electives.....	9
Minor (300-400 level).....	12

Humanities electives	6
Psychology: 101.....	3
Philosophy or Religious Studies	12
English: 111, 112.....	7
Speech: 101.....	3
Science with laboratory.....	8
General Academic electives to total at least ¹	120

¹ Electives may not be taken in the Department of Sociology, Anthropology and Social Work.

FACULTY

Rev. John G. Dickson, S.M., *Chairman of the Department of Sociology, Anthropology, and Social Work*

Jack P. McDonald, *Director of Social Work*

Associate Professor: McDonald

Assistant Professors: DeWire, Royce, Sens

COURSES OF INSTRUCTION

SWK 206. INTRODUCTION TO SOCIAL WORK: A comprehensive overview of social work as a professional discipline. To include the historical development of the field, social work methodology, community social work resources, and roles and responsibilities for the social worker in the community. A prerequisite for all majors and minors in social work. Must be taken with SWK 206L. 3 sem. hrs.

SWK 206L. INTRODUCTION TO SOCIAL WORK LABORATORY: An introduction to field instruction. Students are assigned to community agencies to observe the roles and responsibilities of professional social workers in practice. Must be taken with SWK 206. A prerequisite for all majors and minors in social work. 1 sem. hr.

SWK 220. CHILD WELFARE SERVICES: An intensive study of child welfare services with emphasis on the role, training, and preparation of social workers in service to children. Emphasis on the deprived, abused, neglected, and special child. Evaluation of procedures and practices in protective services, foster care, day care, adoption, and institutional or group settings. Consideration of Children's and Parents' Rights, treatment approaches, child advocacy, and community responsibility for all children. No prerequisite. 3 sem. hrs.

SWK 305. SOCIAL WORK METHODS I: The first in a sequence of two courses dealing with human behavior and the social environment. Identifies the generic concepts and methodology focused in casework, group work, and community organization practice. Explores theories and techniques related to psycho-social dysfunction, diagnosis, and treatment. Places primary emphasis on the one-to-one enabling relationship. Introduction to group work. Required of all social work majors and minors. 3 sem. hrs.

SWK 306. SOCIAL WORK METHODS II: A continuation of the exploration of techniques and approaches in the practice of generic social work. Emphasis on the theory and processes of social group work in a variety of settings and on the concepts and approaches to community organization and social planning. Methods of developing, maintaining, extending, and coordinating social welfare agencies and practices to meet changing community needs. Interdisciplinary relationships. Racial and ethnic considerations. Required of all social work majors and minors. 3 sem. hrs.

SWK 334. PROBLEM FAMILY IN THE COMMUNITY: An examination of the troubled family in the community with emphasis on treatment approaches. Consideration of situations such as single-parent families, unmarried parenthood, low-income families, families with mental retardation or chronic physical illness, families where abuse or neglect is

suspected, and multi-problem families. Special emphasis on what effect ethnic and racial minority family patterns may have on working with families as well as how attitudes toward human sexuality may affect family functioning and counseling approaches. Elective credit. No prerequisites. *3 sem. hrs.*

SWK 336 (AAS 337). CLIENT INTERVENTION IN THE URBAN COMMUNITY: A course designed to develop an understanding of the conditions in American society which negatively affect the lives of black people. To develop an appreciation for and an understanding of the mechanisms and the processes by which black people have adapted to these conditions; to develop an understanding of and an appreciation for cultural differences among various groups in American society; to develop an understanding of the influence of social conditions or the need for social services; to acquire knowledge of the factors to be considered in providing social services to black people. Elective credit. *3 sem. hrs.*

SWK 337. PUBLIC WELFARE: A survey of the historical development of the public welfare system and a critical analysis of present social security and public assistance policies and programs. Alternatives to the present welfare system are examined: reform proposals, negative income tax, guaranteed annual income, revenue sharing, national health insurance. Special emphasis on the effect of present programs on the social service system: the caseworker role and recipient concerns. Public welfare services to ethnic and minority groups examined. Required of all social work majors and minors. *3 sem. hrs.*

SWK 376. APPROACHES TO SOCIAL PROBLEMS: Research study and applied community experience in the alleviation of selected social welfare problems. Students are to explore factual information on specific social problems and present a workable design to meet the problem. Field placement in appropriate agencies is a part of the student's experience. Elective credit. *3 sem. hrs.*

SWK 421. SENIOR SEMINAR IN SOCIAL WORK: A concentrated integration of social work philosophy, theory, and methodology. Primary focus is upon current trends taking place in social work research, administration, and practice. Required of all social work majors. *3 sem. hrs.*

SWK 423. SOCIAL WORK SEMINAR IN POLITICAL SYSTEMS AND STRUCTURES: Analysis of federal, state, and local political systems and structures as they affect the delivery of social services. Emphasis is on the role of the social work profession in social policy-making and planning. The political process and how social workers might influence legislation are examined, and involvement in the legislative process during the semester is required. Analysis of the advocacy role of social work. Required of all social work majors and minors. *3 sem. hrs.*

SWK 431. SOCIAL WORK FIELD EXPERIENCE: Students involved in the field experience program will be expected to spend 12 hours each week in the agency they are placed with, to attend seminar meetings at the University and to complete an evaluation of their work. It is expected during this semester that students begin to develop basic social work skills and become aware of the operation of health and welfare services in the community. They will be expected to begin to assess their own interest in, and motivation for, a career in social service and to test their capacity to enter the social work profession. Prerequisites: SWK 206, 206L, 305, 306, 337. Required of all social work majors. *6 sem. hrs.*

SWK 432. SOCIAL WORK FIELD EXPERIENCE: This student is expected to meet the same requirements as outlined for SWK 431. The goal is to provide students with an opportunity for more intensive exposure to social welfare and to provide opportunity for expanded client-worker involvement. Experience gained through this semester will more fully acquaint the student with the social work profession and provide him with beginning social work skills. Prerequisites: SWK 206, 206L, 305, 306, 337, and 431. Required of all social work majors. *6 sem. hrs.*

SWK 443. THANATOLOGY: A STUDY OF DEATH, DYING AND SUICIDE: Study of the phenomena of death and dying. Exploration of the personal meaning of one's own death and the view of professionals in working with the dying. A comprehensive study of suicide in this society. No prerequisite. Elective credit. *3 sem. hrs.*

SWK 444. TRANSACTIONAL ANALYSIS: Exploration of transactional analysis (TA) as a theory in personality development and as a process in diagnosis and treatment of psychosocial dysfunctions encountered by social work practitioners. No prerequisite. *3 sem. hrs.*

SWK 455. SOCIAL SERVICES IN THE HEALTH FIELD: Exploration of the role of the social worker as a health care professional. Issues in health care as well as social services in health care facilities and governmental health programs are examined. Methods of intervention with geriatric patients, the terminally ill, the chronic patient, in out-patient clinics, emergency rooms, pediatric, mental health, and other specialized wards are discussed. The social worker as the family and community liaison, patient advocate, and medical team member is also examined. *3 sem. hrs.*

SWK 465. INDEPENDENT STUDY: Individual research, study and readings on specific topics and / or projects of importance to social work practitioners, supervisors, and administrators. Under individual faculty direction. Permission of program director required. *3 sem. hrs.*



SOCIOLOGY (SOC)

The curriculum of the Department of Sociology, Anthropology, and Social Work is organized around the five basic social institutions: the family, religion, economics, politics, and education. Thus courses cover such societally important fields as anthropology, preprofessional 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, Anthropology, and Social Work are designed for various groups of students: (1) those desiring scientific knowledge of social relationships as a part of their general equipment for living; (2) those planning to enter a public service profession such as social work, nursing, medicine, dentistry, and law; (3) those expecting to engage in a form of public relations work that will require a broad grasp of the nature of society, public opinion, and social change; (4) those anticipating a career in social research and planning; (5) those looking forward to the teaching of social studies, social work, sociology, or anthropology; and (6) those intending to pursue graduate training in social work, sociology, or anthropology.

Majors 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 36 semester hours of course work in the department, including SOC 101, 401, 402, 415, 420, or 422; SOC 204 and any 300 or 400 level sociology or anthropology courses may be chosen to complete the remaining 21 semester hours.

The minor in Sociology is SOC 101 plus four upper-level courses.



Each freshman major or minor is urged to make out a tentative plan covering all four years at the University. This plan can be changed or updated as needed in the following semesters. It is possible for a major in Sociology to minor in Anthropology or Social Work; Anthropology majors may minor in Sociology or Social Work.

PROGRAM – A18: BACHELOR OF ARTS WITH A MAJOR IN SOCIOLOGY

	<i>Semester Hours</i>
Sociology: SOC 101, 401, 402, 415, and 420 or 422	15
Sociology / Anthropology / Social Work Electives	21
Philosophy and / or Religious Studies	12
English 111, 112	7
Speech 101	3
Natural Science, Applied Science, Quantitative Studies (at least 3 hours in Natural Sciences)	6-12
Social and Behavioral Science (at least 1 unit of 6 hours – with 3 hours on 300-400 level)	9-12
Humanities (at least 2 units of 6 hours each – with 3 hours in each unit on 300-400 level)	18
General electives and Senior Synthesis to total at least	120

NOTES:

At least 48 semester hours of upper-level (300-400 numbered courses) work must be presented for the B.A. degree.

Senior Synthesis: 6-9 hours required in last three terms.

Basic requirement: SOC 415.

For Major: At least 24 hours must be upper level (300-400).

FACULTY

Rev. John G. Dickson, S.M., *Chairman of the Department of Sociology, Anthropology, and Social Work.*

Professors: Dickson, Huth

Assistant Professors: Bregenzer, Riegel

Instructors: Baldwin, Fresina, Reynolds, Skerl

COURSES OF INSTRUCTION

SOC 101. INTRODUCTION TO SOCIOLOGY: Introduction to the nature of sociological inquiry and to concepts and principles of sociology. Focus on structure and function of society and culture. Required for Sociology and Social Work majors and minors and nondepartmental majors taking a bloc of Sociology courses. 3 sem. hrs.

SOC 204. MODERN SOCIAL PROBLEMS: The sociological perspective is used to examine aspects of American culture and institutions which are the course of behaviors associated with areas of contemporary concern such as criminality, minority groups, mental and emotional disorders, and economic dislocations. 3 sem. hrs.

SOC 213. JUVENILE DELINQUENCY: Analysis of the relationship of the home, school, church, peer group, neighborhood, mass media, and other elements in the community – the child guidance clinic, detention home, and juvenile court – to delinquency as regards its causes, prevention, and treatment. 3 sem. hrs.

SOC 250. COLLECTIVE BEHAVIOR: The nature of crowds, mobs, manias, panics, fads, social movements, reforms, and revolutions; consideration of public opinion and propaganda in relation to those phenomena. 3 sem. hrs.

SOC 255. SOCIOLOGICAL ASPECTS OF HUMAN SEXUALITY: A critical evaluation of the sociological variables which influence sexual life styles, as well as an analysis of the impact of human sexuality upon the individuals and institutions in society. 3 sem. hrs.

SOC 301. MARRIAGE AND THE FAMILY: Factors in problems in parent-child and interspousal relationships. Research, education, counseling, legislation, cultural reconstruction relevant to treatment or prevention of such problems. 3 sem. hrs.

SOC 307. CRIMINOLOGY AND PENOLOGY: Cultural nature, origin and development of crime; trends in criminal law; psychological and sociological factors involved in criminal behavior; current programs for treatment and prevention. 3 sem. hrs.

SOC 309. SOCIOLOGY OF EDUCATION: Structural and social psychological analyses of institutionalized educational patterns within the context of professional community. Studies in the social aspects of education, including education as a socialization process, the social structure of education, and the role of the school in social change. 3 sem. hrs.

SOC 311. SOCIOLOGY OF RELIGION: Objective analysis of the interrelations between religious phenomena and social institutions, social structure and behavior. 3 sem. hrs.

SOC 315. INDUSTRIAL SOCIOLOGY: Sociological aspects of work as related to facts, conditions, consequences of industrialization. 3 sem. hrs.

SOC 317. SOCIAL GERONTOLOGY: An examination of recent theoretical issues and selected empirical findings pertaining to the study of the aged in their relationship to society. An introduction to the inclusive field embracing the entire study of the aged. 3 sem. hrs.

SOC 318. SOCIAL STRATIFICATION: Survey of empirical and theoretical literature on the formation and changes in social class systems. Social mobility, class, status, and their impact on personality, ethnic relations, political power. 3 sem. hrs.

SOC 325. AMERICAN ETHNIC AND RACIAL MINORITIES: The studies of the cultures of the major immigrant and racial groups in the United States and of their assimilation into the dominant culture. 3 sem. hrs.

SOC 330. SOCIOLOGY OF MASS COMMUNICATION: A social-psychological analysis of the role of mass media in modern society. The impact of the media will be examined in such diverse areas as family relationships, advertising, religion, and recreational patterns. 3 sem. hrs.

SOC 332. URBAN SOCIOLOGY: Physical and social characteristics of urban areas; urban ecology; major problems of urban life; urban planning and renewal. 3 sem. hrs.

SOC 340. THE CULTURES AND SOCIAL INSTITUTIONS OF SOUTHERN EUROPE: A comparative study of the evolution of the social institutions of Southern Europe and the impact of their development on Southern European and surrounding cultures. 3 sem. hrs.

SOC 350. POPULATION AND HUMAN ECOLOGY: Economic and social significance of world population trends. Changing composition of population, relation of population to natural resources, standard of living and markets, national policies affecting population. 3 sem. hrs.

SOC 360. POLITICAL SOCIOLOGY: Analysis of law and legal structure in its social context with emphasis on the Anglo-American legal system and the socio-economic factors which influence political processes. 3 sem. hrs.

SOC 363. SOCIOLOGY OF LAW: An examination of the phenomena of law from a sociological standpoint. Particular emphasis will be placed upon the evolution, maintenance, and termination of various laws, as well as the unique nature of law in a mass society. Recommended for upper-level Sociology and related majors. 3 sem. hrs.

180 SOC 401. SOCIAL RESEARCH METHODS: Principal methodological approaches and

basic statistical techniques in social research. Required of Sociology, Anthropology, and Social Work majors. *3 sem. hrs.*

SOC 402. SOCIAL ANALYSIS: A course aimed at the professional training of students of the social and behavioral sciences in empirical research methodology and statistics. The course will provide an integrated presentation of research design and statistical analysis as applied to testing hypotheses and generating social theory. Appropriate computer applications will be taught as part of the course. Prerequisite: SOC 401. *3 sem. hrs.*

SOC 415. SENIOR SEMINAR IN SOCIOLOGY: Individual and group projects developed around such topics as marriage and family problems, urban renewal, and deviant behavior. Required of Sociology and Anthropology majors. *3 sem. hrs.*

SOC 420. CLASSICAL SOCIOLOGY THEORY: Examination of the important questions concerning man's relationship to society, drawing upon the classical literature of the Western tradition. *3 sem. hrs.*

SOC 422. CONTEMPORARY SOCIOLOGY THEORY: Consideration of leading sociological theorists' works and of major trends in sociological thought during the 19th and 20th centuries. *3 sem. hrs.*

SOC 425. SOCIOLOGY OF DEVIANCE: An examination of the phenomena of deviance from a sociological perspective. Particular emphasis will be on the methodological and ethical problems, social interaction within the deviant subcultures which have arisen, and the reaction of society to the deviant. Recommended for upper-level Sociology and related majors. *3 sem. hrs.*

SOC 435W. HUMAN RELATIONS WORKSHOP: 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 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. *6 sem. hrs.*

SOC 436. URBAN LIFE PRACTICUM: A student majoring or minoring in the Urban Life Program will be required to devote 12 hours each week for one term to service as a community organizer, research assistant, or administrative intern in a local public or private agency under the combined direction of a University of Dayton practicum coordinator and agency supervisors. Each student participating in the practicum must attend periodic evaluative seminars and submit a final research paper summarizing learning experiences. Required for Urban Life Program. *6 sem. hrs.*

SOC 440. INDEPENDENT STUDY: Research problems or special readings of interest to the student are investigated under the guidance of a sociology staff member. Permission of the chairman is necessary. *3 sem. hrs.*

SOC 450. THE SOCIOLOGY OF UNDERDEVELOPED AREAS: Study of the special social problems characterizing technologically underdeveloped areas and analysis of the relationships between the problems of these areas and those of the technologically advanced nations. *3 sem. hrs.*

SPEECH (SPE)

Speech is an area of concentration in the Department of Communication Arts. See requirements and other courses of instruction under COM.

FACULTY

George C. Biersack, *Chairman of the Department of Communication Arts*

Professor: Biersack

Associate Professors: Trent, Wolff

Assistant Professors: Blatt, Farrelly, Hardwood, Ilfeld, Kiernan, Weatherly

Instructors: Haynes, Lawson

Part-time Instructors: Dougherty, Sennet, Staats, Vlahos

COURSES OF INSTRUCTION

SPE 101. FUNDAMENTALS OF EFFECTIVE SPEAKING: Introductory course in the 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. 3 sem. hrs.

SPE 201. SPEAKING TECHNIQUES: 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. 3 sem. hrs.

SPE 300. VOICE AND DICTION: Course treating the four phases of speech production: proper breathing, phonation, resonance, and articulation. Projection, quality, and clarity of speech are emphasized. Student's voice is analyzed through tape recordings. 3 sem. hrs.

SPE 301. SPEECH COMPOSITION: Study of speech structure and composition. Critical analysis of model speeches, in conjunction with the preparation and presentation of original speeches or current public questions. 3 sem. hrs.

SPE 302. ADVOCACY IN CONTEMPORARY SOCIETY: Examination of the arguments of contemporary advocates through application of the basic elements of argumentation (analysis, reasoning, evidence, fallacies). Argumentation principles also applied through participation in debates on selected propositions of policy. 3 sem. hrs.

SPE 310. INTERPRETATIVE READING I: Oral interpretation of poetry and prose. Combines a study of vocal modulations, pitch, inflection, and tone color with intellectual and emotional analysis of selections to develop a deeper appreciation of literature. 3 sem. hrs.

SPE 312. PERSUASION: 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. 3 sem. hrs.

SPE 320. INTERPRETATIVE READING II: A continuation of SPE 310, with a deeper penetration into oral interpretation. Individual problems are given more particular attention. Impromptu reading. Prerequisite: SPE 310. 3 sem. hrs.

SPE 400. SPEECH CORRECTION: Investigation of 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.

3 sem. hrs.

SPE 430. SEMINAR IN THE SPEECH ARTS: Individual research and report on a problem of interest in the field of speech, theater, or broadcasting. Communication Arts majors or minors only, with permission.

3 sem. hrs.

BROADCASTING

SPE 306. FUNDAMENTALS OF BROADCASTING: A lecture course dealing with broadcasting as a business and as a cultural influence. Broadcast regulation, programming, and organization of the typical radio and TV station discussed in detail.

3 sem. hrs.

SPE 316. RADIO WORKSHOP: Development of voice, articulation, and reading skills. Exercises in microphone techniques. Development of radio stations' staff requirements and responsibilities. Project shows are taped for analysis.

3 sem. hrs.

SPE 409. TELEVISION PRODUCTION: 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 permission.

3 sem. hrs.

SPE 419. BROADCASTING PERFORMANCE: Participation in exercises designed to improve a variety of "on-air" skills and completion of an intensive supervised commercial laboratory experience in a single area with the consent of the instructor.

3 sem. hrs.



SYSTEMS SCIENCE (ISE)

The program leading to the degree Bachelor of Science with a major in Systems Science is interdisciplinary, with a major in Industrial and Systems Engineering and supporting courses in cognate fields of interest to the student. This program is administered by the Office of the Dean of the College of Arts and Sciences with the Division of Technical Studies and Services of the School of Engineering serving as academic advisor to all students in the program.

The Systems Science Program prepares students to use applied mathematics in solving real-world problems. The program is extremely flexible since approximately 40 per cent of the curriculum is electives with which the student may meet particular interests or needs. The principal constraint in selection of electives is that a student select courses that are appropriate to his overall program and pertinent to achieving his educational and professional goals.

The basic difference between systems science and traditional engineering disciplines is one of approach. The systems scientist is trained to approach problems from the top down. He is the one who accepts a problem in all its complexity (including socio-economic, political, and human relations aspects) and translates it into quantitative terms, including objectives, restrictions, and means of comparing alternate solutions. The systems scientist is naturally concerned with achieving the desired result at a minimum cost, where costs are measured in human as well as monetary values.

PROGRAM – S15: BACHELOR OF SCIENCE WITH A MAJOR IN SYSTEMS SCIENCE

	<i>Semester Hours</i>
Industrial and Systems Engineering courses (upper level).....	24
Mathematics 112-113, 367-368 ¹	12
Physics 201-202 ²	8
Computer Science	6
Psychology 101, elective	6
English 111-112	7
Philosophy and / or Religious Studies.....	12
Speech 101.....	3
Humanities and / or Social Science electives.....	9
Sciences and / or Mathematics electives.....	8
General academic electives to total at least.....	120

¹ May substitute MTH 118-119 for MTH 112-113.

² May substitute PHY 196-207-208.

A detailed counseling booklet describing this program is available in the Office of the Dean of the College of Arts and Sciences. See also ISE, Chapter IX, for descriptions of Industrial and Systems Engineering courses.

THEATRE (THR)

The Theatre Division of the Department of Performing and Visual Arts offers an extensive program of theatrical activities for those students interested in acting, directing, and technical work. Our purposes are to serve students with the best possible classroom methods and activities for our discipline and provide excellent entertainment with our productions throughout the year. Theatre majors are required to participate in each major production; credit for participation is received in THR 100 or THR 300. All roles and stage positions are open, however, to the entire University of Dayton student body.

PROGRAM – A19: BACHELOR OF ARTS WITH A MAJOR IN THEATRE

	Semester hours
Major program – required courses: THR 100 and / or 300, 105, 205, 210, 211, 325 or 326, 330, 340, 415 or 425, 485 or 490	26
Theatre electives.....	12
Total	38
Breadth requirements (See Distribution Table and consult with Department Chairman for specifics).....	45-69
Program, free electives and Senior Synthesis	15-39
Total.....	120

FACULTY

Patrick S. Gilvary, *Chairman of the Department of Performing and Visual Arts*

Charles Schultz, *Head of Theatre Division*

Associate Professors: Gilvary, Schultz

Assistant Professor: Selka

Part-time Instructors: Anderson, Longo

COURSES OF INSTRUCTION

THR 100. THEATRE LABORATORY: Credit allowance for role playing and / or play production in major productions. Fifty hours of work minimum for one credit. Repeatable up to three credits in the freshman-sophomore year. All registration retroactive. No advance registration. Three hours required of all majors from THR 100 or THR 300. 1-3 sem. hrs.

THR 105. INTRODUCTION TO THE THEATRE: Analysis of the nature of theatre, its origin, and development from the standpoint of the play, the physical theatre, and its place in our culture. Required of all majors. Open to all University students. 3 sem. hrs.

THR 202. STAGE MAKEUP: The basic principles of the art and technique of makeup so that the student may use them creatively in design and execution to develop and project the character. Open to all University students. First term. 2 sem. hrs.

THR 205. THEATRE STAGECRAFT: Study and application of scene construction, rigging, backstage organization, production analysis, and technician-designer relationship. Required of all Theatre majors. Open to all University students. Studio fee. First term.

THR 207. THEATRE LIGHTING: Study and application of lighting for the stage. Covers instrument, controls, sources, elements of electricity, and lighting design for all types of theatres, as well as graph representation. Studio fee. *3 sem. hrs.*

THR 210. ACTING I: Study and practice in the fundamentals of acting, with stress upon the physical, mental, and emotional background of characterization. Prerequisite: THR 105 or permission. Open to all University students. Required of all Theatre majors. Corequisite: THR 211. *3 sem. hrs.*

THR 211. THEATRICAL MOVEMENT I: A laboratory corequisite with THR 210 concentrating on the development of physical strength, balance, flexibility, and coordination to awaken the student's sensitivity to body language and widen his vocabulary of movement. Required of all Theatre majors. *3 sem. hrs.*

THR 220. SELECTED READINGS IN THEATRE: An introduction to the vast bibliography in the theatre by means of preselected topics for investigation. A different topic each term. One credit repeatable up to three credits. Prerequisite: THR 105 or permission. *1-3 sem. hrs.*

THR 300. THEATRE LABORATORY: The third and fourth year level of credit allowance for role playing and / or play production. Requirements and registration same as THR 100. *1-3 sem. hrs.*

THR 303. SCENE PAINTING: Investigation of the basic principles of color paint theory and materials. Investigation of various scene-painting techniques. Four hours a week — two hours lecture, two hours studio. Students provide brushes; all other materials provided. *3 sem. hrs.*

THR 323. ACTING II: A further development and practice of fundamental principles set down in the elementary course in acting. Emphasis is on more specialized character portrayal. Prerequisites: THR 105, 210-211, or permission. *2 sem. hrs.*

THR 324. THEATRICAL MOVEMENT II: A laboratory corequisite with THR 323, concentrating on the development of physical strength, balance, flexibility, and coordination to awaken the student's sensitivity to body language and widen his vocabulary of movement. *2 sem. hrs.*

THR 325. THEORY AND CRITICISM OF THE STAGE I: Survey of representative plays as a basis for theatrical production and dramatic criticism from classical to neo-classical periods. Prerequisite: THR 105. (THR 325 or 326 may be taken to meet this requirement for majors.) First term each year. *3 sem. hrs.*

THR 326. THEORY AND CRITICISM OF THE STAGE II: Continuation of THR 325 from romantic to modern periods. Prerequisite: THR 105. (THR 325 or 326 may be taken to meet this requirement for majors.) Second term each year. *3 sem. hrs.*

THR 330. CONCEPTS OF SCENE DESIGN: Studies in the principles of composition and aesthetic theory as applicable to scene design. Development of personal design approach to plays of various styles. *3 sem. hrs.*

THR 340. THE DIRECTOR IN THE THEATRE: The basic functions of a director in the production of a play: interpretation, composition, movement, characterization, rhythm, design concept, and actor training. Prerequisites: THR 105, 205, 210, 211. *3 sem. hrs.*

THR 350. THEATRE STYLES: An examination of the relationships among playwright, audience, actor, designer, and director in the development of major theatre styles of expression. First term each year and summer term every other year. *3 sem. hrs.*

THR 414. SCENE DESIGN: Individual development in scenic design through instruction in graph representation, scene painting, and the execution of designs to the point of construction. Prerequisites: THR 205, 207, 300. *3 sem. hrs.*

THR 415. HISTORY OF THE THEATRE I: A history of theatre from pre-Grecian through Elizabethan, with emphasis on the physical theatre as a reflection of and an influence on man, utilizing pictorial and literary evidence. THR 414 or 415 required of all majors. Open to all University students. *3 sem. hrs.*

THR 424. PLAY DIRECTING: A study of the evolution of the modern director and the direction of two one-act plays. Prerequisite: THR 340. *3 sem. hrs.*

THR 425. HISTORY OF THE THEATRE II: A continuance of 415 from the French Renaissance to the present day. THR 424 or 425 required of all majors. Open to all University students. *3 sem. hrs.*

THR 440. PROBLEMS IN THEATRE PRODUCTION AND DESIGN: Individual research and project work of the student's selection under the direct supervision of faculty. Innovation and creativeness emphasized. Prerequisite: THR 205, 207, 330, 414 or permission. Second term every other year. *3 sem. hrs.*

THR 485. THEATRE SEMINAR: Concentration on one theatrical figure, genre, or period for research and analysis. Alternative requirement with THR 490 for all Theatre majors. Second semester every other year. Repeatable up to six semester hours. *3-6 sem. hrs.*

THR 490. SPECIAL PROBLEMS IN THEATRE: Individual research and report on a topic of the student's choice in the field of theatre under direct supervision of faculty / staff. Alternative requirement with THR 485 for all majors. Repeatable up to 15 semester hours. *3-5 sem. hrs.*



URBAN LIFE (ULP) URBAN COMMUNITY DEVELOPMENT (UCD)

Among the ways that universities can articulate their urban concern is the preparation of well trained people for careers in agencies that work for the betterment of cities and the lives of those who inhabit them. One such effort at the University of Dayton is embodied in the Urban Life Program and its affiliate Program in Urban Community Development, both administered by the chairman of the Department of Sociology, Anthropology, and Social Work.

These programs, to give thorough and practical training for service in real and currently existing jobs, provide their students as many options as possible. The student can perhaps best arrive at course choices through a consideration of two concepts: *Career Ladder* – upward mobility in career areas. The possibility of promotion from the level of job responsibility at which the graduate enters a career should be very real. *Career Lattice* – lateral mobility in several career areas. A graduate finding one job ending would be well qualified for other jobs in a variety of agencies and institutions.

A student enrolling in either of the programs will design an individual sequence of courses with the assistance of an advisor.

PROGRAM – S16: BACHELOR OF SCIENCE IN URBAN LIFE

I. General Requirements: 48 semester hours	<i>Semester hours</i>
English.....	12
History.....	6
Philosophy and / or Religious Studies.....	12
Science (no laboratory necessary).....	6
ECO 203: Principles of Microeconomics.....	3
POL 201: The American Political System.....	3
PSY 101: Introductory Psychology.....	3
SPE 101: Fundamentals of Effective Speaking.....	3
II. Tools of Research: 10-13 semester hours	
Four semesters of the following, in any combination:	
A. Two semesters of Spanish language.	
B. Two semesters of Mathematics (MTH 101-Precalculus Mathematics; MTH 107-Fundamentals of Mathematics).	
C. Two semesters of Computer Science (CPS 140-Introduction to Algorithmic Processes; CPS 144-Scientific Programming).	
D. SOC 401-Social Research Methods, and MTH 207-Statistical Concepts for Behavioral Sciences.	
III. Urban Life courses:	
A. Required Courses: 24 semester hours	<i>Semester hours</i>
ANT 110: Perspectives on Urban Man.....	3
ANT 335: Urban Anthropology.....	3
ECO 485: Urban and Regional Economics.....	3
POL 360: Urban Politics.....	3
SOC 332: Urban Sociology.....	3
SOC 415: Senior Seminar – Sociology.....	3
SOC 436: Urban Life Practicum.....	6

B. Elective Courses: 24 semester hours chosen from the following:

AAS 242; ANT 406; BIO 399; CIE 390; CRJ 325; CRJ 400; GEO 208; POL 303; POL 305; POL 310; POL 311; PSY 341; SOC 213; SOC 250; SOC 307; SOC 315; SOC 318; SOC 325; SOC 330; SOC 350; SWK 337; REL 363; REL 364.

IV. General electives to total 120 semester hours.

PROGRAM – S16A: ASSOCIATE IN URBAN COMMUNITY DEVELOPMENT

	<i>Semester Hours</i>
Afro-American Studies 242, 334.....	6
Political Science 360.....	3
Psychology 101.....	3
Anthropology 110.....	3
English 111-112 ¹	7
Philosophy and / or Religious Studies.....	6
Humanities electives.....	3
Sciences and / or Mathematics electives.....	9
Structured Practicum Experiences.....	6
General academic electives to total at least.....	62

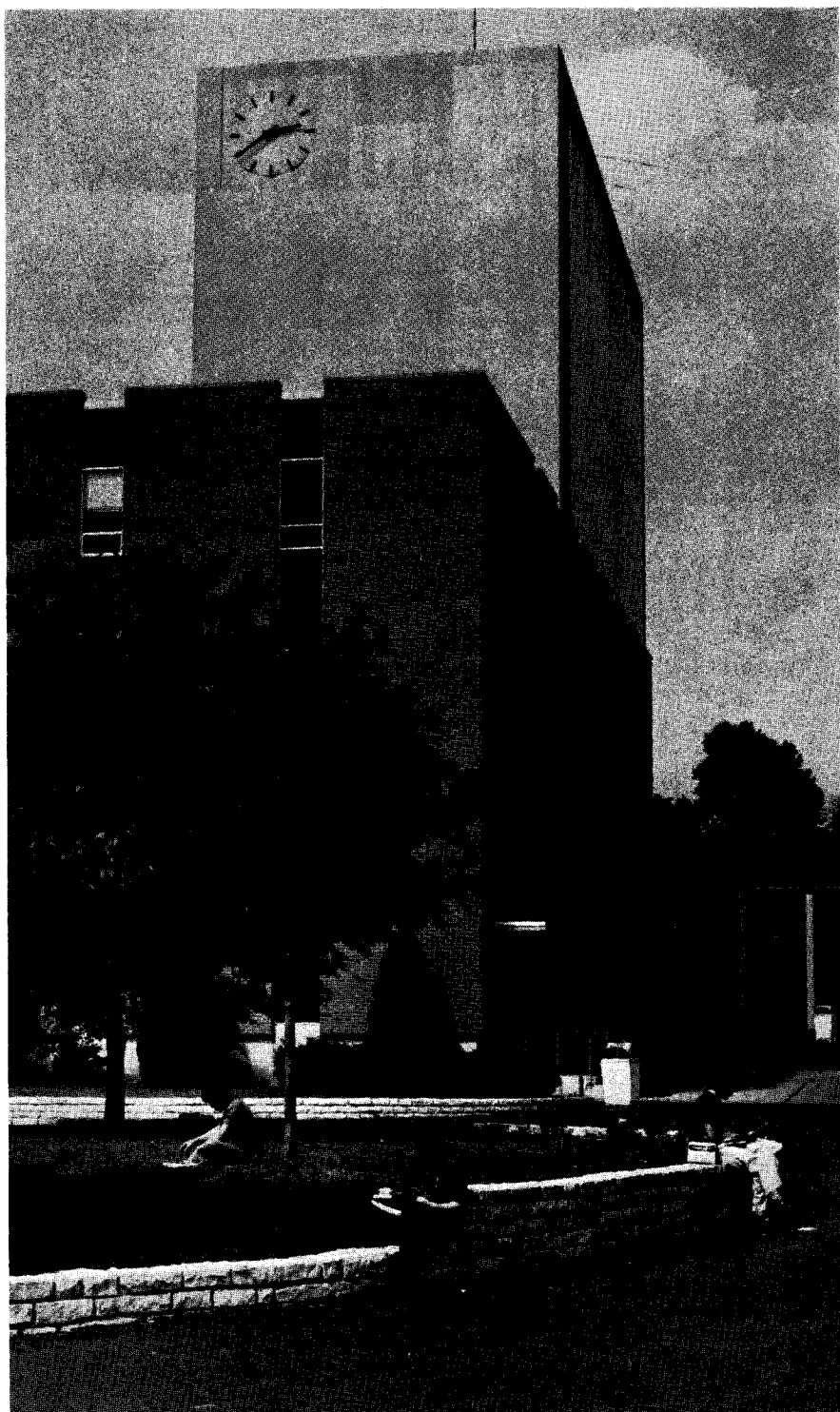
¹ Students must demonstrate competencies as listed under Communication Skills requirements for B.A. Programs.

FACULTY

Rev. John G. Dickson, S.M., *Chairman of the Department of Sociology, Anthropology, and Social Work, Director of the Programs*

James A. Stocks, *Director of the Center for Afro-American Affairs*





VII School of Business Administration

William J. Hoben, Dean
Walter L. Wilson, Assistant Dean
Robert U. Knueven, Administrative Assistant

The School of Business Administration operates in accord with the educational philosophy and purposes of the University. It believes that Judeo-Christian principles of thought and action are essential to the complete formation of an educated person. Through instruction and related activities it aims to develop in the student a moral excellence and firmness along with 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 human development.

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.

REQUIREMENTS FOR THE BACCALAUREATE DEGREE

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 a broad and liberal education in preparation for more specialized training in Business Administration and Economics.
2. Each candidate must earn a cumulative grade point average of at least 2.00 in the total semester hours required for the degree and in the major.
3. Each candidate must complete at least 54 upper-level semester hours, with a minimum of 36 semester hours in 300-400-level courses in the School of Business Administration consisting of the following:
 - a. Fifteen semester hours (or more) in the core courses required of all students enrolled in the Upper Division of the School of Business Administration.
 - b. Eighteen semester hours (or more) in one of the Upper Division areas of concentration offered in the School of Business Administration.

4. A minimum of 120 semester hours.

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 semester hours applicable to degree requirements. Business courses listed in the program shown below should ordinarily be taken in the sequence listed because they are prerequisites to core and major courses.

FRESHMAN-SOPHOMORE BUSINESS ADMINISTRATION PROGRAM

Dept.	No.	Course	1st Term ¹	2nd Term
The following are required of freshmen:				
BUS	102	<i>American Business Environment</i> ²	3-0-3 ¹	
BUS	110-111	Quantitative Analysis ³	3-0-3	3-0-3
ENG	111-112	College Composition I and II ⁴	4-0-4	3-0-3
The following are ordinarily taken during the freshman year: ⁵				
SPE	101	<i>Fundamentals of Effective Speaking</i> ⁶	3-0-3	
PHL	103	<i>Introduction to Philosophy</i>	3-0-3	
—	—	<i>Philosophy or Religious Studies elective</i>		3-0-3
—	—	<i>Natural Science</i> ⁷		3-1-4
—	—	<i>Humanities elective</i> ⁸		3-0-3
			15-16	15-16
The following are ordinarily taken during the sophomore year: ⁵				
ECO	203-204	Principles of Economics	3-0-3	3-0-3
ACC	207-208	Principles of Accounting	3-0-3	3-0-3
BUS	210-211	Quantitative Analysis	3-0-3	3-0-3
BUS	215	<i>Principles of Management</i>	3-0-3	
MKT	205	<i>Principles of Marketing</i>		3-0-3
—	—	<i>Philosophy or Religious Studies elective</i>	3-0-3	
—	—	<i>Social Science elective</i> ⁹		3-0-3
			15	15

¹ For example, 3-0-3 means 3 class hrs., 0 lab. hrs., 3 sem. hrs. of credit.

² Courses listed in *italics* may be taken in either the first or the second term.

³ BUS 108 is recommended for students with insufficient knowledge of secondary mathematics. This would be an additional course for those taking it.

⁴ Students testing out of ENG 111 take ENG 112 first term and a general elective second term.

⁵ Courses "ordinarily taken during the freshman year" may be transposed with courses "ordinarily taken during the sophomore year." For example, the student may take SPE 101 as a sophomore, BUS 215 or ECO 203-204 as a freshman, etc. Consult with program advisor.

⁶ Students testing out of SPE 101 will subsequently elect an additional speech course.

⁷ Choose a basic science course in Chemistry 110, Physics 105, Geology 109, or Biology 114.

⁸ Choose a 100-200-level course from one of the following departments: History, English, Communication Arts, Performing and Visual Arts, Language, Philosophy, or Religious Studies.

⁹ Choose a 100-200-level course from one of the following departments: Psychology, Political Science, or Sociology.

UPPER-DIVISION PROGRAMS

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, business management, economics, finance, or marketing.

Each curriculum is organized to include 6 to 12 semester hours 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.

Double majors and minors can be arranged.

For programs leading to the degree of Bachelor of Science in Business Administration, see ACC (Accounting), BUS (Business Management), ECO (Economics), FIN (Finance), and MKT (Marketing).

OTHER PROGRAMS

The School of Business Administration participates in the University of Dayton Cooperative Education Program. See Chapter X.

The Department of Executive Secretarial Studies conducts a program leading to the Associate Degree in Business Administration. See SEC.

The University of Dayton, through its evening classes, offers an Associate Degree in Business Administration, specializing in accounting, general business management, or marketing. Further information about these programs can be obtained from the office of the Dean of the School of Business Administration.



ACCOUNTING (ACC)

Accounting focuses on the measurement and reporting, in monetary terms, of the resources of businesses and other organizations. It collects, processes, evaluates, and reports on the resources controlled by an organization, the claims against those resources, and the flows of resources into and out of an organization.

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

Graduates with an Accounting major enter careers in public accounting, in industrial and other business enterprises, or in federal, state, or local government agencies.

PROGRAM – B1: BACHELOR OF SCIENCE WITH A MAJOR IN ACCOUNTING

Dept.	No.	Course	1st Term ¹	2nd Term
Junior Year				
ACC	303	Cost Accounting		3-0-3
ACC	305-306	Intermediate Accounting	3-0-3 ¹	3-0-3
FIN	301	<i>Business Finance</i> ²		3-0-3
BUS	303	<i>Business Law I</i>		3-0-3
ECO	347	<i>Intermediate Macroeconomics</i>	3-0-3	
—	—	Communications electives ³	3-0-3	3-0-3
ACC	340	<i>Fundamentals of Data Processing</i> ⁴	3-0-3	
—	—	Philosophy and / or Religious Studies elective	3-0-3	
—	—	General electives ⁶	3-0-3	
			18	15
Senior Year				
ACC	407	Federal Income Taxes	3-0-3	
ACC	301	Auditing Principles		3-0-3
ACC	—	Accounting electives ⁵	3-0-3	3-0-3
BUS	423	Business Policies and Management		3-0-3
—	—	General electives ⁶	9-0-9	6-0-6
			15	15

¹ For example, 3-0-3 means 3 class hrs., 0 lab. hrs., 3 sem. hrs. of credit.

² Courses listed in *italics* may be taken in either the first or the second term.

³ A total of 6 sem. hrs. to be elected from the following courses: BUS 409 (3 sem. hrs.); ENG 368 (2 sem. hrs.); ENG 370 (2 sem. hrs.); ENG 372 (2 sem. hrs.); COM 308 (3 sem. hrs.); SPE 312 (3 sem. hrs.); or JRN 389-99 (1-2 sem. hrs.).

⁴ A course in computer science programming or computer language may be substituted for ACC 340.

⁵ Select in consultation with program advisor.

⁶ Choose either business or nonbusiness courses. The following are specially recommended: BUS 304, BUS 316, BUS 401, ECO 346, ECO 442, MKT 340, and MKT 405. At least 12 of these semester hours must be at the 300-400 level.

For a minor in Accounting 18 semester hours are required:
ACC 207-208. Principles of Accounting (ACC 301-302 will substitute)
ACC 305-306: Intermediate Accounting
ACC407: Federal Income Taxes

plus any one of the following:

ACC 303: Cost Accounting
ACC 308: Advanced Accounting
ACC 401: Auditing
ACC 413: Advanced Accounting Problems

FACULTY

Willard C. Clark, *Acting Chairman*

Professors: Hoben, Rodgers

Associate Professors: Clark, Eley, Ellis, Fioriti, and Sanford

Assistant Professors: Heidtke and Keyes

Instructor: Fornwalt

Part-time Instructors: Brack, Pelfrey, Luthman, Schubert, Snow, Trentman, Weckesser

COURSES OF INSTRUCTION

ACC 203. SURVEY OF ACCOUNTING: Replaced by MBA 500B. See also ACC 301.

ACC 207-208. PRINCIPLES OF ACCOUNTING: An introduction to accounting concepts, terminology, and procedures, for the business student. Develops an understanding of the purposes of all financial statements, including published reports and those used internally for the management of the business firm or institution; furnishes an introduction to cost accounting and managerial accounting concepts. This is a prerequisite for all upper-level Accounting courses except ACC 301. 6 sem. hrs.

ACC 301. FINANCIAL REPORTING AND ADMINISTRATION: An introduction to accounting concepts, terminology, purposes and applications for the nonbusiness student; this course is not available to students in the School of Business Administration. It will provide students with a useful introduction to financial statements, financial control procedures, and other accounting techniques. 3 sem. hrs.

ACC 302. INTRODUCTION TO MANAGERIAL ACCOUNTING: How accounting information is used to manage a business or nonprofit institution. Budgeting, cost accounting, differential accounting for analysis and decision making, and institutional accounting for nonprofit organizations. Available to all students who have completed ACC 207-208 or ACC 301, except Accounting majors. This course is recommended for non-Accounting majors in the School of Business, Political Science majors, and those who wish additional accounting beyond an introductory course. 3 sem. hrs.

ACC 303. COST ACCOUNTING: An introduction to cost accounting procedures and the uses of cost accounting data. Covers common procedures for determining product costs and the use of cost data for managerial decision making; emphasizes methods and procedures used to control costs. Prerequisites: ACC 207-208. 3 sem. hrs.

ACC 305-306. INTERMEDIATE ACCOUNTING: A two-term study of fundamental accounting procedures and the underlying concepts; gives a comprehensive coverage of accounting concepts and practices for the professional accountant, and a basis for advanced courses in accounting. Prerequisites: ACC 207-208. 6 sem. hrs.

ACC 340. FUNDAMENTALS OF BUSINESS DATA PROCESSING: This course gives students a comprehensive understanding of modern business data-processing equipment and procedures, with an emphasis on the data flows throughout business organizations and the needs which cause the data flows. Requires an understanding of business operations and describes systems that will provide managers with the information needed for decision making. Prerequisites: ACC 207-208 or ACC 301. *3 sem. hrs.*

ACC 341. MANAGEMENT INFORMATION SYSTEMS: This course develops for the business student an understanding of the simple and complex data-processing systems now found in business organizations, and how those systems evolve into integrated systems to produce information for managers. The use of computers for this purpose is studied and evaluated, so that a comprehensive knowledge of the capabilities and limitations of computers, for these purposes, is developed. Also covers the impact of computerized systems on the organization structure, and emphasizes the use of "structured decision making" to make computers more useful to managers. Prerequisite: ACC 340. *3 sem. hrs.*

ACC 401. AUDITING PRINCIPLES: Introduction to the work of the independent public accountant that leads to his stated opinions on financial statements. The standards for auditing procedures are extensively covered, and generally accepted accounting principles are comprehensively reviewed. Includes considerable orientation to the environment in which the auditor works, and the scope and depth of his professional responsibilities. Prerequisite: ACC 305-306. *3 sem. hrs.*

ACC 404. ADVANCED COST ACCOUNTING: This course examines cost accounting methods and explores the literature, relating concepts and methods to the needs of managers and other users of accounting data. Emphasizes quantitative models for decision making, especially those that are understandable and usable by managers with limited quantitative skills. Prerequisite: ACC 303. *3 sem. hrs.*

ACC 407. FEDERAL INCOME TAXES: A conceptual, rather than a procedural, examination of the income tax statutes and regulations, comprehending economic and social objectives of the tax laws, and the impact and influence of the tax laws on business decisions of individuals and firms. Develops a broad understanding of the interaction between social and economic conditions and the tax laws. *3 sem. hrs.*

ACC 408. ADVANCED ACCOUNTING: Covers accounting theory and practice applied to related corporations and groups of corporations, thus is concerned with consolidated statements, mergers, acquisitions, etc. Also deals with partnerships, installment and consignment sales, fiduciaries, and institutions. Prerequisites: ACC 305-306. *3 sem. hrs.*

ACC 413. ADVANCED ACCOUNTING PROBLEMS: A comprehensive review of the application of accounting principles, using specific problems and development of approaches to problem solving. Useful as intensive preparation for the C.P.A. examination. Prerequisites: ACC 303, 305-306, and 308. *3 sem. hrs.*

ACC 414. SEMINAR IN ACCOUNTING: A study of current accounting issues and recent authoritative pronouncements, by student panel discussions, case studies, presentations by professional accountants, and extensive access to accounting literature. Prerequisites: 15 sem. hrs. of upper-level accounting courses or permission of the instructor. *3 sem. hrs.*

ACC 497. LABORATORY WORK EXPERIENCE: Off-campus work experience, in a business firm or other institution; assignments are arranged by the School of Business Administration, cooperating with the sponsoring firm or institution. Prerequisites: Approval of department chairman. *3 to 6 sem. hrs.*

BUSINESS MANAGEMENT (BUS)

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

The following outline of courses constitutes the upper-level work required for a Bachelor of Science with a major in Business Management.

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

Dept.	No.	Course	1st Term ¹	2nd Term
Junior Year				
FIN	301	<i>Business Finance</i> ²	3-0-3 ¹	
BUS	303	<i>Business Law I</i>		3-0-3
BUS	318	<i>Human Relations for Management</i>		3-0-3
BUS	316	<i>Production Management</i>	3-0-3	
—	—	Communications elective ³	3-0-3	3-0-3
ACC	340	<i>Fundamentals of Business Data Processing</i> ⁴		3-0-3
ECO	347	<i>Intermediate Macroeconomics</i>	3-0-3	
—	—	Philosophy or Religious Studies elective		3-0-3
—	—	General elective ⁶	3-0-3	
			15	15
Senior Year				
ECO	346	<i>Intermediate Macroeconomics</i>	3-0-3	
BUS	423	<i>Business Policies and Management</i>		3-0-3
BUS	—	Business Management elective ⁵	6-0-6	3-0-3
—	—	General electives ⁶	6-0-6	9-0-9
			15	15

¹ For example 3-0-3 means 3 class hrs., 0 lab. hrs., 3 sem. hrs. of credit.

² Courses listed in *italics* may be taken in either the first or the second term.

³ A total of 6 sem. hrs. to be elected from the following courses: BUS 409 (3 sem. hrs.); ENG 368 (2 sem. hrs.); ENG 370 (2 sem. hrs.); ENG 372 (2 sem. hrs.); COM 308 (3 sem. hrs.); SPE 312 (3 sem. hrs.); or JRN 398-99 (1-3 sem. hrs.).

⁴ A course in computer science programming or computer language may be substituted for ACC 340.

⁵ Select three courses in Business Management (BUS) in consultation with program advisor.

⁶ At least 15 of these semester hours must be taken at 300-400 level.

For a minor in Business Management, 15 semester hours are required:

BUS 215: Principles of Management

BUS 316: Production Management, or BUS 318: Human Relations plus

9 semester hours of 300-400-level Business Management courses other than

BUS 409: Business Communications and Report Writing and

BUS 423: Business Policies and Management.

Note: Students enrolled in the School of Business Administration may not use core courses for this purpose.

FACULTY

Stanley J. Stough, *Acting Chairman*

Professors: Darr, McClaine, Scheidler

Associate Professor: Marrinan

Assistant Professors: Berger, Casey, Fuszara, Gillespie, Miller, Stough, Tewari, Washing, White

Part-time Instructors: Baughan, Gaston, Goldhamer, Hample, Hickey, Holland, Maiorano, Quinn, Steinlage, Stephenson, Yaross, Weckesser.

COURSES OF INSTRUCTION

BUS 102. AMERICAN BUSINESS ENVIRONMENT: A survey of the environment of business. Historical determinants and present-day influences on the business climate.

3 sem. hrs.

BUS 108. FUNDAMENTALS OF MATHEMATICS: Recommended for students with insufficient working knowledge of secondary mathematics. Three hours are added to the graduation requirements of those taking this course.

3 sem. hrs.

BUS 109. COLLEGE MATHEMATICS FOR BUSINESS AND ECONOMICS: The mathematics of business and economics, including topics from college algebra, analytic geometry, trigonometry, modern algebra, and introductory calculus. Credit is obtainable only through College-Level Examination Program (CLEP).

4 sem. hrs.

BUS 110-111. QUANTITATIVE ANALYSIS: Includes systems of equations and inequalities, an introduction to linear programming and matrix algebra, logarithms, compound interest and annuities, and an introduction to calculus. Prerequisite: BUS 108 or sufficient college preparatory mathematics.

6 sem. hrs.

BUS 110A-111A. APPLICATION IN QUANTITATIVE ANALYSIS FOR BUSINESS: Independent study for students who have passed BUS 109 by means of CLEP. Linear equations and systems, linear programming, and matrix algebra with emphasis on business applications. Mathematics of finance. Introduction to calculus with emphasis on business applications. By arrangement.

2 sem. hrs.

BUS 210-211. QUANTITATIVE ANALYSIS: 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.

6 sem. hrs.

BUS 215. PRINCIPLES OF MANAGEMENT: A basic course in the managerial functions of planning, organizing, and assembling resources and directing operations for a business.

3 sem. hrs.

BUS 303. BUSINESS LAW I: CONTRACTS: 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.

3 sem. hrs.

BUS 304. BUSINESS LAW II: SALES AND NEGOTIABLE INSTRUMENTS: A consideration of the law of sales and negotiable instruments. Prerequisite: BUS 303.

3 sem. hrs.

BUS 312. QUANTITATIVE BUSINESS ANALYSIS: Development of the basic tools of quantitative analysis and introduction to the principal decision models that are used for management analysis in the context of managerial process. Prerequisite: BUS 110-111 and BUS 210-211 or equivalent.

3 sem. hrs.

BUS 313. BUSINESS STATISTICS: A survey of statistical methods including sampling, tabulations, graphics, averages, dispersions, index numbers, time series, trends, and simple correlations.

3 sem. hrs.

BUS 314. PERSONNEL MANAGEMENT: A study of managerial principles and practices as they pertain to the total work force, including selection, training, compensation, employee services, and industrial relations. *3 sem. hrs.*

BUS 316. PRODUCTION MANAGEMENT: Place of management, factors underlying management decisions; product designs, physical facilities, location, layout, job evaluation, classification; plant operation, output; control of purchases and inventories. Prerequisite: BUS 215. *3 sem. hrs.*

BUS 318. HUMAN RELATIONS FOR MANAGEMENT: Analysis of reactions, interactions, attitudes, and activities of individuals and groups within a goal-seeking organization. Includes leadership, morale and goal-oriented behavior. *3 sem. hrs.*

BUS 322. WORK SYSTEMS DESIGN: Approaches to motion and time study, work flow analysis, work and system analysis, and related areas. *3 sem. hrs.*

BUS 403. BUSINESS LAW III: THE LAW OF BUSINESS ORGANIZATION AND PROPERTY: A treatment of the law of partnerships and corporations and the law of property. Prerequisite: BUS 303. *3 sem. hrs.*

BUS 409. BUSINESS COMMUNICATION AND REPORT WRITING: The principles of letter writing and report writing studied and applied in conformity with the best current practices in business. *3 sem. hrs.*

BUS 410-411. ANALYSIS OF DECISIONS UNDER UNCERTAINTY: Logical analysis of decisions that arise under uncertainty in the practice of business administration. Stress on decision making under logical principles; understanding of the objective and subjective inputs and outputs. Use of computer programs and tables to evaluate the reliability of sample information. Assessment of preference and probabilities, sampling and simulation, short-term decisions, cash flow analysis, and sensitivity analysis. Prerequisites: BUS 110-111 and 210-211. *6 sem. hrs.*

BUS 412. WAGE AND SALARY ADMINISTRATION: A discussion of role of wages and salaries for individual, firm, and society. Problems in determination of wage levels, structures, methods of compensation. Prerequisite: BUS 314 or permission of instructor. *3 sem. hrs.*

BUS 413-414. OPERATIONS RESEARCH I AND II: Significant ideas in management science which are both fundamental and long lasting, with an analysis of their strengths and inherent limitations. Identification of areas needing further conceptual and methodological development within an overview of management science as an intellectual innovation, and demonstration of the cohesiveness of present management-science methodology. Prerequisites: BUS 110-111 and BUS 210-211. *6 sem. hrs.*

BUS 415. PRODUCTION METHODS AND CONTROLS: 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. *3 sem. hrs.*

BUS 417. INDUSTRIAL RELATIONS: Interrelationships and interaction of the employer and the employee in the public and private sectors in conflict and accommodation. The structure and nature of management-union relationships and agencies created by these relationships. *3 sem. hrs.*

BUS 419. COLLECTIVE BARGAINING, MEDIATION, AND ARBITRATION: 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. *3 sem. hrs.*

BUS 420. LABOR LEGISLATION: A study of the National Labor Relations Act as amended. *3 sem. hrs.*

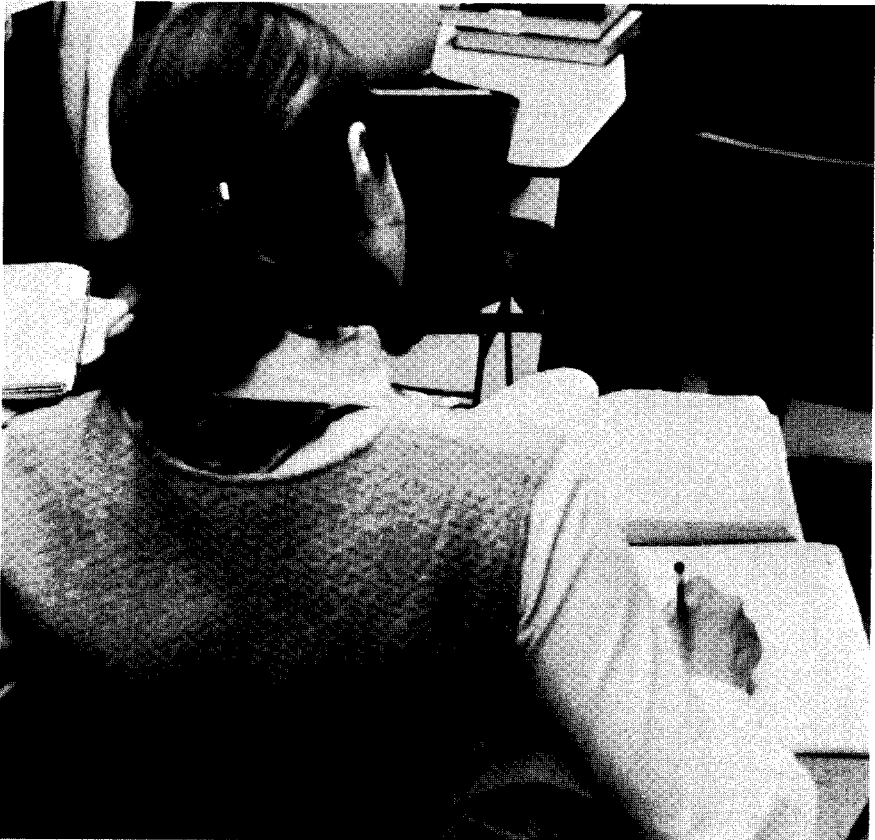
BUS 423. BUSINESS POLICIES AND MANAGEMENT: Coordination and integration of knowledge and techniques acquired in previous courses in Business Administration. The case method is used. Prerequisite: Senior standing. *3 sem. hrs.*

BUS 450H. BUSINESS MANAGEMENT SEMINAR (HONORS): A course in research on a subject within the student's major. Open only to those who have attained a cumulative grade point average of 3.00 or above in their sophomore and junior years. *1-6 sem. hrs.*

BUS 455. BUSINESS ETHICS: Application of philosophy in the area of employee discipline with emphasis on rights, duties, and the purpose of discipline. Examination of arbitration cases in discipline. *3 sem. hrs.*

BUS 492. TRAINING PROGRAM, GRADUATE ASSISTANT INSTRUCTORS: Lectures, readings, discussions, and pre-classroom practice directed toward preparing the graduate assistant to assume the role of instructor in introductory business subjects. *1 sem. hr.*

BUS 497. LABORATORY WORK EXPERIENCE: An off-campus laboratory work position carried out under the auspices of a participating industrial, commercial, educational, health care, or governmental organization located in the greater Dayton area under the ordinary supervisory authority of the participating organization. Positions offered to students are compensatory or noncompensatory. Noncompensatory positions are oriented toward a research project or a special project for the benefit of the participating organization. This offering is available to full-time undergraduate students pursuing a two-year or four-year program. *3-6 sem. hrs.*



ECONOMICS (ECO)

The major program in Economics is designed for students seeking careers as economists in education, government, or business. The major is excellent preparation for graduate work in either economics or business administration and for law school. The student is equipped with the tools for the systematic analysis of the economics of the firm, the industry, the nation, and the world.

The major in Economics consists of ECO 203-204; ECO 346, Intermediate Microeconomics; ECO 347, Intermediate Macroeconomics; and 18 semester hours of Economics electives. ECO 442, Money and Banking, is strongly recommended. Students in the College of Arts and Sciences desiring to major in Economics will follow the program for the Bachelor of Arts degree in Economics. (See ECO, Chapter VI.)

 PROGRAM – B3-A: BACHELOR OF SCIENCE WITH A MAJOR IN ECONOMICS

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term</i> ¹	<i>2nd Term</i>
Junior Year ²				
FIN	301	Business Finance	3-0-3 ¹	
BUS	303	Business Law I		3-0-3
ECO	346	Intermediate Microeconomics	3-0-3	
ECO	347	Intermediate Macroeconomics		3-0-3
—	—	Communications electives ³	3-0-3	3-0-3
ACC	340	Fundamentals of Business Data Processing ⁴		3-0-3
—	—	Philosophy or Religious Studies elective	3-0-3	
ECO	—	Economics elective		3-0-3
—	—	General elective ⁵	3-0-3	3-0-3
			15	18
Senior Year ²				
BUS	423	Business Policies and Management		3-0-3
ECO	—	Economics electives	9-0-9	6-0-6
—	—	General electives ⁵	6-0-6	6-0-6
			15	15

¹ For example, 3-0-3 means 3 class hrs., 0 lab hrs., 3 sem. hrs. of credit.

² Most courses may be taken either term. Consult with program advisor.

³ A total of 6 sem. hrs. to be selected from the following courses: BUS 409 (3 sem. hrs.); ENG 368 (2 sem. hrs.); ENG 370 (2 sem. hrs.); COM 308 (3 sem. hrs.); SPE 312 (3 sem. hrs.); or JRN 398-99 (1-3 sem. hrs.).

⁴ A course in computer science programming or computer language may be substituted for ACC 340.

⁵ At least 15 of these sem. hrs. must be at the 300-400 level.

For a minor in Economics, 18 semester hours are required:
 ECO 203-204: Principles of Micro-and Macroeconomics
 ECO 346-347: Intermediate Micro-and Macroeconomics
 plus any two (2) elective courses from Economics.

FACULTY

John E. Rapp, *Chairman of the Department of Economics and Finance*

Professors: Rapp, Matlin, Louis, Wilson, Whalen (on leave)

Associate Professors: Raney, Weiler, Winger

Assistant Professors: Frasca, Oyen

Part-time Instructors: White, Jackson

COURSES OF INSTRUCTION

ECO 203. PRINCIPLES OF MICROECONOMICS: Examination of pricing under conditions of perfect and imperfect competition. Considers distribution of income, principles of international trade, problems of economic development, and alternative economic systems.

3 sem. hrs.

ECO 204. PRINCIPLES OF MACROECONOMICS: 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.

3 sem. hrs.

ECO 346. INTERMEDIATE MICROECONOMIC ANALYSIS: Analysis of the theory of consumer behavior, production theory, equilibrium of the firm, price determination in various market structures, distribution of income, allocation of resources, welfare economics. Prerequisite: ECO 203.

3 sem. hrs.

ECO 347. INTERMEDIATE MACROECONOMIC ANALYSIS: National income accounting and the determination of the level of income and employment; classical, Keynesian, and post-Keynesian models; private, government, and foreign sectors; theories of inflation and economic growth. Prerequisite: ECO 204; ECO 203 recommended.

3 sem. hrs.

ECO 430. HISTORY OF ECONOMIC THOUGHT: Development of economic thinking from Biblical times to the present day. An overview of mercantilism, physiocratism, classical, utilitarian, socialist, neoclassical, and Keynesian streams of thought. Surveys of the major industrialists who put these theories into action in many continents under varying circumstances. Prerequisites: ECO 203 and 204.

3 sem. hrs.

ECO 441. ECONOMETRICS: Regression analysis applied to the empirical measurement of micro-and macroeconomic phenomena from field data; mathematical model building; testing of the mathematical model for goodness-of-fit; statistical testing of the model parameters for establishing their significance. Use of computer for determining parameters and their statistical characteristics. Prerequisites: Permission of instructor; ECO 346 and 347, or finishing the second concurrently; elementary calculus and statistics.

3 sem. hrs.

ECO 442. MONEY, BANKING, AND MONETARY POLICY: Principles of money and monetary systems; commercial banking and the role of the Federal Reserve System; monetary theory and policy; the mechanism of international payments. Prerequisites: ECO 203 and 204; ECO 347 recommended.

3 sem. hrs.

ECO 445. PUBLIC FINANCE: The economic aspects of government finance at the local, state, and especially national level. Emphasis on the behavioral effects of various taxes, efficiency in spending, the changing role of the U.S. government, fiscal policy, and intergovernmental revenue and expenditure programs. Particular attention to relating analytical tools to current developments. Prerequisites: ECO 203 and 204.

3 sem. hrs.

ECO 450. COMPARATIVE ECONOMIC SYSTEMS: Analysis of the principal types of economic systems of the world, primarily capitalism, socialism and communism. The course also examines the economic conditions of over 25 nations, especially natural resources, agriculture, industries, foreign trade, and currency strength. Prerequisites: ECO 203 and 204.

3 sem. hrs.

ECO 460. ECONOMIC DEVELOPMENT AND GROWTH: Inquiries into the nature of economic growth in both preindustrial and industrial societies within their individual institutional frameworks. Analysis of theories of growth, domestic and international policy issues. Prerequisite: ECO 203 and 204. *3 sem. hrs.*

ECO 461. INTERNATIONAL ECONOMICS: Study of international trade and international monetary relations, theoretical and practical aspects of flows of commodities and production resources, protection, balance of payments adjustment mechanism and policy, and international economic organizations. Prerequisites: ECO 203 and 204. *3 sem. hrs.*

ECO 471. LABOR ECONOMICS: Consideration of 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. Prerequisites: ECO 203 and 204. *3 sem. hrs.*

ECO 480. CURRENT ECONOMIC PROBLEMS: An opportunity for the student to apply the tools and principles of economics to the analysis of a variety of contemporary issues. Topics vary from term to term. Some examples would include inflation, unemployment, consumer protection, restraint of trade, and environmental problems. Prerequisites: ECO 203 and 204. *3 sem. hrs.*

ECO 485. URBAN AND REGIONAL ECONOMICS: Treatment of certain theoretical concepts such as location theory and theories of land use and land rent. An economic interpretation for the existence of cities. Emphasis is also on applying economic analysis to the problems of traffic congestion, pollution, race, poverty, and urban sprawl. Student research on a topic of interest is requisite. Prerequisite: ECO 203; ECO 346 recommended. *3 sem. hrs.*

ECO 490. MARKET PERFORMANCE AND ANTITRUST: An analysis of industrial organization, including the economics of pertinent antitrust laws. Prerequisite: ECO 203; ECO 346 recommended. *3 sem. hrs.*

ECO 497. LABORATORY WORK EXPERIENCE: An off-campus laboratory work position carried out under the auspices of a participating industrial, commercial, educational, health care, or government organization located in the greater Dayton area, under the ordinary supervisory authority of the participating organization. Positions offered to students are compensatory or noncompensatory. Noncompensatory positions are oriented toward a research project or a special project for the benefit of the participating organization. This offering is available to full-time undergraduate students pursuing a two-year or four-year program. *3-6 sem. hrs.*

ECO 498H. STUDIES IN ECONOMICS (HONORS): Directed readings and research in selected fields of Economics. The number of credit hours will depend on the amount of work chosen. The course will involve periodic discussions with other students and faculty in the program. May be taken more than once for additional credit. Prerequisite: 3.0 average in Economics with a minimum of 9 semester hours in Economics, and permission. *1-6 sem. hrs.*

EXECUTIVE SECRETARIAL STUDIES (SEC)

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

Shorthand and Typewriting Placement Tests: During registration week, the Department of Executive Secretarial Studies offers placement tests in both shorthand and typewriting. These tests are required of all students who have had prior training in either of these skills.

PROGRAM – B6: ASSOCIATE DEGREE IN BUSINESS ADMINISTRATION

Dept.	No.	Course	1st Term ¹	2nd Term
Freshman Year				
—	—	Elective		3-0-3 ¹
ENG	111	College Composition ²	4-0-4	
SEC	101 or	Fundamental Shorthand		
SEC	101A	Fundamental Shorthand (Refresher)	5-0-3	
SEC	102	Intermediate Shorthand		5-0-3
SEC	103 or	Fundamental Typing		
SEC	103A	Fundamental Typing (Refresher)	5-0-3	
SEC	104	Intermediate Typing		5-0-3
SEC	110	Secretarial Mathematics	3-0-3	
SPE	101	<i>Fundamentals of Effective Speaking</i> ⁴		3-0-3
—	—	Philosophy and / or Religious Studies elective	3-0-3	3-0-3
			15-16	15
Sophomore Year				
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	205	Administrative Secretarial Practicum	4-0-3	
SEC	206	Advanced Administrative Secretarial Practicum		4-0-3
SEC	207	Business Machines	3-0-3	
SEC	208-9	Secretarial Accounting	3-0-3	3-0-3
SEC.	210	Introduction to Business Data Processing		3-0-3
			15	15

¹ For example, 3-0-3 means 3 class hrs., 0 lab. hrs., 3 sem. hrs. of credit.

² Students testing out of ENG 111 will take ENG 112 (3 sem. hrs.).

³ Refresher courses for qualified students with prior training.

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

FACULTY

Mary C. Civile, *Chairman*

Associate Professor: Civile

Assistant Professor: Huff

Instructor: Forthofer

COURSES OF INSTRUCTION

SEC 101. FUNDAMENTAL SHORTHAND: An introductory course in Century 21 Shorthand. The entire theory is covered. Transcription is introduced. Five class periods a week.

3 sem. hrs.

SEC 101A. FUNDAMENTAL SHORTHAND (REFRESHER): Shorthand review. Emphasis is on the mastery of the basic principles, brief forms, and phrasing of Gregg Diamond Jubilee shorthand through rapid reading and writing practice. Transcription is introduced. Five class periods a week.

3 sem. hrs.

SEC 102. INTERMEDIATE SHORTHAND: Reinforcement of shorthand principles. Emphasis is on transcription with further development of business vocabularies and English usage. Five class periods a week.

3 sem. hrs.

SEC 103. FUNDAMENTAL TYPEWRITING: The keyboard is mastered. Emphasis is on good techniques in the use and care of typewriters. Manuscript writing, tabulation, and letter formats are introduced. Five class periods a week.

3 sem. hrs.

SEC 103A. FUNDAMENTAL TYPEWRITING (REFRESHER): A thorough review of the keyboard and the operative parts of the typewriter, followed by the development of good typewriting techniques and work habits. Manuscript writing, tabulation, and letter formats are introduced. Five class periods a week.

3 sem. hrs.

SEC 104. INTERMEDIATE TYPEWRITING: The development of further skills in the operation of the typewriter. Basic typing problems with emphasis on the fundamentals needed in office employment. Five class periods a week.

3 sem. hrs.

SEC 107. PERSONAL TYPEWRITING: Typing for personal use — knowledge of the typewriter and preparation of outlines, manuscripts, business letters, fill-in forms, rough drafts, etc. Three class periods a week.

2 sem. hrs.

SEC 110. SECRETARIAL MATHEMATICS: Review and development of mathematical skills needed in preparation for a business career. Emphasis is on application of theory through realistic problems.

3 sem. hrs.

SEC 201. DICTATION AND TRANSCRIPTION: Shorthand and English principles reviewed. Emphasis is on sustained writing periods and mailable transcription. Five class periods a week.

3 sem. hrs.

SEC 202. ADVANCED DICTATION AND TRANSCRIPTION: A course intended to develop competency in dictation and transcription necessary for high-level secretarial positions. Five class periods a week.

3 sem. hrs.

SEC 203. ADVANCED TYPEWRITING: Stress on advanced typing problems and emphasis on techniques, knowledges, and skills necessary in office work. Five class periods a week.

3 sem. hrs.

SEC 204. PRODUCTION TYPEWRITING: Specifically designed for job competency in high-level office employment. Stress is on accuracy and mailable output at high-level speeds. Five class periods a week.

3 sem. hrs.

SEC 205. ADMINISTRATIVE SECRETARIAL PRACTICUM: Extensive training in duplicating processes and development of competency in the use of dictating-transcribing

machines. Supervised secretarial work experience. Four class periods a week. Prerequisites: SEC 102 and 104. *3 sem. hrs.*

SEC 206. ADVANCED ADMINISTRATIVE SECRETARIAL PRACTICUM: A study of filing fundamentals and records control. Training in the principles and application of effective business communications. Supervised secretarial work experience. Executive secretarial development in modern office procedures. Four class periods a week. Prerequisite: SEC 205. *3 sem hrs.*

SEC 207. BUSINESS MACHINES: Basic training in and application of the correct usage of the principal types of ten-key and full-bank adding machines; printing, rotary, key-driven, and electronic display calculators. Prerequisite: SEC 110. *3 sem. hrs.*

SEC 208-209. SECRETARIAL ACCOUNTING: A study of the principles of business accounting especially designed for executive secretaries. The accounting cycle-journals, ledgers, working papers, and the preparation of financial statements-applied to retail stores and personal service occupations. Realistic work designed to test the student's ability to apply knowledge of the accounting principles. Three class periods a week. Prerequisites: SEC 110 (or equivalent) and SEC 207. *6 sem. hrs.*

SEC 210. INTRODUCTION TO BUSINESS DATA PROCESSING: An overview of punch card equipment and the computer. The student will gain an understanding of business procedures and the various interrelationships that exist. The student will be required to analyze, code, and key punch business transactions which will then be run on the computer. Two class periods per week. Prerequisite: SEC 208-209 or equivalent. *3 sem. hrs.*

SEC 297. LABORATORY WORK EXPERIENCE: An off-campus laboratory work position carried out under the auspices of a participating industrial, commercial, educational, health care, or government organization under the ordinary supervisory authority of the participating organization. Positions offered to students are compensatory or noncompensatory. Noncompensatory positions are oriented toward a research project or a special project for the benefit of the participating organization. This offering is available to full-time undergraduate students. *3-6 sem. hrs.*



FINANCE (FIN)

The major program in Finance is designed for students seeking careers in finance, banking, security analysis, or financial institutions. A major in Finance, combined with a major in Accounting or Economics, qualifies students for excellent jobs upon graduation. The major is also excellent background for law school.

The student majoring in Finance will complete FIN 301, Business Finance; FIN 401, Investments; FIN 431, Financial Institutions; ECO 442, Money and Banking; and a minimum of 9 semester hours of Finance electives.

PROGRAM – B3-B: BACHELOR OF SCIENCE WITH A MAJOR IN FINANCE

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term¹</i>	<i>2nd Term</i>
Junior Year ²				
FIN	301	Business Finance	3-0-3 ¹	
BUS	303	Business Law I	3-0-3	
ECO	347	Intermediate Macroeconomics	3-0-3	
ECO	442	Money and Banking		3-0-3
—	—	Communications electives ³	3-0-3	3-0-3
ACC	340	Fundamentals of Business Data Processing ⁴		3-0-3
—	—	Philosophy or Religious Studies elective	3-0-3	
FIN	401	Investments		3-0-3
—	—	General elective ⁵		3-0-3
			15	15
Senior Year				
FIN	431	Financial Institutions	3-0-3	
BUS	423	Business Policies		3-0-3
FIN	—	Finance electives ⁶	3-0-3	6-0-6
—	—	General electives ⁵	9-0-9	6-0-6
			15	15

¹ For example, 3-0-3 means 3 class hrs., 0 lab hrs., 3 sem. hrs. of credit.

² Most courses may be taken either term. Consult with program advisor.

³ A total of 6 sem. hrs. to be selected from the following courses: BUS 409 (3 sem. hrs.); ENG 368 (2 sem. hrs.), 370 (2 sem. hrs.), 372 (2 sem. hrs.); SPE 308 (3 sem. hrs.), 312 (3 sem. hrs.); or JRN 398-99 (1-3 sem. hrs.)

⁴ A course in computer science programming or computer language may be substituted for ACC 340.

⁵ At least 15 of these sem. hrs. must be at the 300-400 level. Intermediate and advanced courses in Accounting, and ECO 445, Public Finance, are strongly recommended.

⁶ A minimum of 9 sem. hrs. chosen from FIN 330, 336, 440, 450, 490, and 498.

For a minor in Finance, 15 semester hours are required:

FIN 301: Business Finance

FIN 401: Investments

FIN 431: Financial Institutions

ECO 442: Money, Banking, and Monetary Policies

plus any one (1) other Finance course.

FACULTY

John E. Rapp, *Chairman of the Department of Economics and Finance*

COURSES OF INSTRUCTION

FIN 200. PERSONAL FINANCE: Procedures and methods of managing personal finance and property. Examination and analysis of expenditures, budgeting, taxation, financial institutions, investments, pensions, and estate planning. Designed to serve the needs of both nonbusiness and business majors. Does not count toward finance major. No prerequisite.

3 sem. hrs.

FIN 301. BUSINESS FINANCE: 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.

3 sem. hrs.

FIN 330. INSURANCE AND RISK MANAGEMENT: A study of the basic concepts of business and personal risks from the standpoint of creation, identification, reduction, elimination, and evaluation of risks. Emphasis on the use of insurance in meeting problems of risk.

3 sem. hrs.

FIN 336. PRINCIPLES OF REAL ESTATE: Survey of real estate industry with emphasis on its structure, regulation, growth, needs, financing, and future. Analysis of the methods of determining land use and evaluation of the theories of city development.

3 sem. hrs.

FIN 401. INVESTMENTS: A study of the basic features and principles underlying sound investments. Short-term as well as long-term investments, and the bond and stock markets are considered. Prerequisite: FIN 301.

3 sem. hrs.

FIN 431. FINANCIAL INSTITUTIONS: Integrated and comprehensive analysis of financial institutions with particular emphasis on financial intermediaries and the influence of government on the financial system. Prerequisite: FIN 301.

3 sem. hrs.

FIN 440. PORTFOLIO MANAGEMENT AND SECURITY ANALYSIS: Advanced valuation theory; fundamentals of security analysis, portfolio construction and management. Prerequisite: FIN 301, 401.

3 sem. hrs.

FIN 450. INTERNATIONAL BUSINESS FINANCE: Introduction to problems facing financial management of international companies, including environmental factors, organizing, financing of international trade, investment, production, and international accounting and control. Prerequisite: FIN 301.

3 sem. hrs.

FIN 490. ADVANCED FINANCIAL ANALYSIS: Study of current developments in financial planning, acquisition of funds, asset management valuation. Policy strategy and techniques in financial decision making. Prerequisites: FIN 301, 401, 431.

3 sem. hrs.

FIN 497. LABORATORY WORK EXPERIENCE: An off-campus laboratory work position carried out under the auspices of a participating industrial, commercial, educational, health care, or government organization located in the greater Dayton area under the ordinary supervisory authority of the participating organization. Positions offered to students are compensatory or noncompensatory. Noncompensatory positions are oriented toward a research project or a special project for the benefit of the participating organization. This offering is available to full-time undergraduate students pursuing a two-year or four-year program.

3-6 sem. hrs.

FIN 498H. STUDIES IN FINANCE (HONORS): Directed readings and research in selected fields of Finance. The number of credit hours will depend on the amount of work chosen. The course will involve periodic discussions with other students and faculty in the program. May be taken more than once for additional credit. Prerequisite: 3.0 average in Finance with a minimum of 9 semester hours in Finance.

1-6 sem. hrs.

MARKETING (MKT)

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

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

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

Within the marketing specialization the purpose is as follows:

1. To develop a student of marketing who has the tools and groundwork for continued study after graduation. Applications of the social sciences and quantitative techniques are stressed. Communication skills are emphasized. Understanding of institutions and nomenclature is essential.
2. To develop a practitioner of marketing with interests, attitudes, and sufficient understanding to be potentially productive at a responsible level of decision making.
3. To provide flexibility through choice of courses of marketing majors and provide some breadth of choice of marketing courses as electives for non-marketing majors from both 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, the American Marketing Association, the Audit Bureau of Circulation, the Direct Mail Marketing Association, and the Sales and Marketing Executives International. The courses and programs of the department are in accord with the recommendations of these professional groups.

The breadth and selection of courses available provide for either a broad coverage of marketing or specialization in the form of one or more options. Thus the student with the help of an advisor can choose any of the marketing courses in fulfilling the required 18 hours of marketing electives.

Some of the options which provide limited specialization in the named fields are the following:

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.

Industrial Marketing

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

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.

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.

Multinational Marketing

Students interested in multinational marketing as a concentrated area of study take the following sequence of courses: MKT 430 Marketing Research, MKT 405 Consumer Behavior, MKT 440 Multinational Marketing.

Retailing

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

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.

NOTE: A major in marketing requires three advanced marketing courses in addition to those listed in each option. A minor in Marketing requires MKT 205 Principles of Marketing and 12 semester hours of courses at the 300-400 level in a pattern chosen in consultation with the chairman of the Department of Marketing.

PROGRAM – B4: BACHELOR OF SCIENCE WITH A MAJOR IN MARKETING

Dept.	No.	Course	1st Term ¹	2nd Term
Junior Year				
FIN	301	<i>Business Finance</i> ²		3-0-3 ¹
BUS	303	<i>Business Law I</i>		3-0-3
—	—	Communications electives ³	3-0-3	3-0-3
ACC	340	Fundamentals of Business Data Processing ⁴	3-0-3	
—	—	Philosophy and / or Religious Studies elective	3-0-3	
MKT	—	Marketing courses ⁵	6-0-6	3-0-3
—	—	General electives ⁶		3-0-3
			15	15

		Senior Year			
ECO	347	<i>Intermediate Macroeconomics</i>	3-0-3		
BUS	423	<i>Business Policies and Management</i>		3-0-3	
MKT	—	Marketing courses ⁵	3-0-3	6-0-6	
—	—	General electives ⁶	9-0-9	6-0-6	
			15	15	

¹ For example: 3-0-3 means 3 class hrs., 0 lab. hrs., 3 sem. hrs. of credit.
² Most courses may be taken either term. Consult with program advisor.
³ A total of 6 sem. hrs. to be elected from the following courses: BUS 409; ENG 368, 370, 372; COM 308, 312; or JRN 398-99.
⁴ A course in computer programming or computer language may be substituted for ACC 340.
⁵ A total of three marketing courses selected in consultation with program advisor.
⁶ At least 12 of these semester hours must be at the 300-400 level.

FACULTY

Harry C. Murphy, *Chairman*
 Professor: Murphy
 Associate Professors: Comer, Jain, King
 Assistant Professors: Capella, Kline
 Part-time: Metzger, Szecsy

COURSES OF INSTRUCTION

- MKT 205. PRINCIPLES OF MARKETING: 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. 3 sem. hrs.
- MKT 310. SALESMANSHIP: A study of the basic principles underlying all selling and their practical application to specific cases. 3 sem. hrs.
- MKT 315. RETAIL MERCHANDISING: Survey of basic merchandising principles and problems of large and small retail stores. Includes organization, location, buying and selling, cost reductions, current practices, and trends. 3 sem. hrs.
- MKT 318. RETAIL ADVERTISING AND SALES PROMOTION: Principles and practices of retail advertising and other sales promotional activities; where, when, and what to promote; budgeting and planning of special events and activities; emphasis upon coordination. Prerequisite: MKT 315. 3 sem. hrs.
- MKT 335. ADVANCED MARKETING: Applications of the principles of marketing; marketing policies of manufacturers and / or wholesalers; analysis of current problems and literature relating to marketing efficiency. Prerequisite: MKT 205. 3 sem. hrs.
- MKT 340. INDUSTRIAL MARKETING: Fundamental basis and problems of marketing industrial goods and services. Analysis of the industrial market, channels of distribution, industrial sales, promotional practices, research, and marketing policies. Illustrative case studies utilized. Prerequisite: MKT 205. 3 sem. hrs.
- MKT 405. CONSUMER BEHAVIOR: The consumer-firm relationship studied in terms of concepts drawn from contemporary social sciences as related to present and prospective business activities. 3 sem. hrs.
- MKT 411. SALES MANAGEMENT: The structure of the sales organization, determination of sales policies, the selection, training, and motivation of salesmen, the establishing of sales territories and quotas. Prerequisite: MKT 205. 3 sem. hrs.

MKT 417. RETAIL BUYING AND MERCHANDISING: Determining what to buy, how much, market resources, and model stocks, as well as the mathematic principles involved in purchase planning, planning initial markup, terms and dating, stockturn, inventory methods. Prerequisite: MKT 315. *3 sem. hrs.*

MKT 420. MARKETING COMMUNICATIONS: Problems of marketing considered as problems of effective communication in such functional areas as advertising, personal selling, packaging, research, display, and pricing. Prerequisite: MKT 205. *3 sem. hrs.*

MKT 421. ADVERTISING: Nature and functions of advertising; the preparation of layouts; the writing of copy; selection and evaluation of media. The coordination of advertising with other marketing efforts. Social implications of advertising are discussed. *3 sem. hrs.*

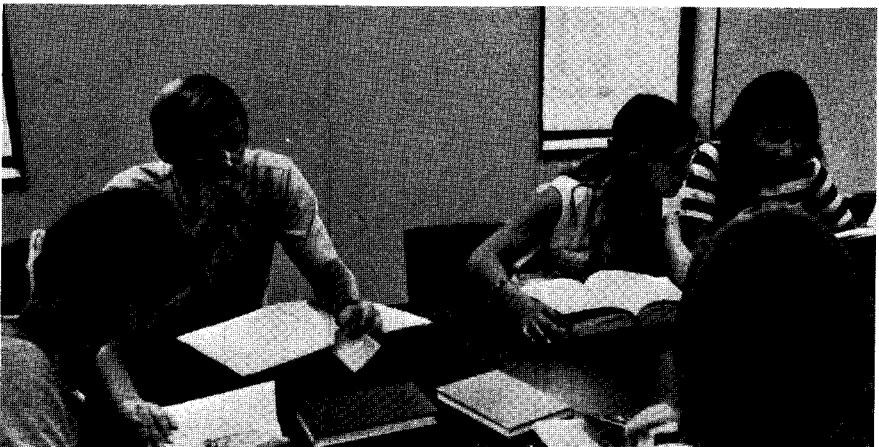
MKT 430. MARKETING RESEARCH: A study of the application of the specific method to the definition and solution of marketing problems. Examines the range of activities and the problems faced in market research. Prerequisite: MKT 205. *3 sem. hrs.*

MKT 440. MULTINATIONAL MARKETING: Emphasis on understanding foreign marketing environments, developing skills of foreign market analysis, designing marketing strategies to suit various foreign markets, decision making in the context of multinational marketing, and developing appropriate marketing strategies. Prerequisite: MKT 205. *3 sem. hrs.*

MKT 450. MARKET DEVELOPMENT, PROGRAMMING, AND POLICIES: Marketing responsibilities approached from the managerial perspective utilizing the systems view of today's complex business organization. Comprehensive discussion of cases involving a variety of products and environmental circumstances. Prerequisites: Six semester hours of Marketing including MKT 205. Enrollment limited. *3 sem. hrs.*

MKT 497. LABORATORY WORK EXPERIENCE: An off-campus laboratory work position carried out under the auspices of a participating industrial, commercial, educational, health-care, or governmental organization in the greater Dayton area under the supervisory authority of the participating organization. Positions offered to students are compensatory or noncompensatory. Noncompensatory positions are oriented toward a research project or a special project for the benefit of the participating organization. This offering is available to full-time undergraduate students pursuing a four-year program. *3-6 sem. hrs.*

MKT 499H. PROBLEMS IN MARKETING (HONORS CREDIT): A study of one or more specific aspects of the marketing process with emphasis on individual student reading and research. Subject matter to be determined by the instructor on the basis of interest and need of the student. Enrollment limited. *1-6 sem. hrs.*



PACKAGING MANAGEMENT (SCP)

This program is offered as part of the Dayton-Miami Valley Consortium School of Packaging, which consists of the University of Dayton, Sinclair Community College, and Wright State University. All 200- and 300-level Packaging Management courses are offered only at Sinclair Community College. The 400-level courses will be offered at the University of Dayton in the August-December term in 1976.

PROGRAM – B5: BACHELOR OF SCIENCE WITH A MAJOR IN
PACKAGING MANAGEMENT

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term</i> ¹	<i>2nd Term</i>
Freshman Year				
BUS	102	<i>American Business Environment</i>	3-0-3 ¹	
BUS	110-111	<i>Quantitative Analysis</i>	3-0-3	3-0-3
ENG	111-112	<i>College Composition I and II</i> ⁴	4-0-4	3-0-3
SPE	101	<i>Fundamentals of Effective Speaking</i>		3-0-3
ACC	207-208	<i>Principles of Accounting</i>	3-0-3	3-0-3
BUS	215	<i>Principles of Management</i>		3-0-3
SCP	205	<i>Principles of Packaging</i> ²	2-0-2	
SCP	215	<i>Materials of Packaging</i> ²		3-0-3
			15	18
Sophomore Year				
BUS	210-211	<i>Quantitative Analysis</i>	3-0-3	3-0-3
ECO	203	<i>Principles of Microeconomics</i>	3-0-3	
ECO	204	<i>Principles of Macroeconomics</i>		3-0-3
ART	111-112	<i>Principles of Design or</i>		
ART	251-252	<i>Graphic Arts</i>	2-0-2	2-0-2
PHY	105-105L	<i>The Physical Sciences and Laboratory or</i>		
PHY	201-201L	<i>General Physics and Laboratory</i>	3-1-4	
MKT	205	<i>Principles of Marketing</i>		3-0-3
—	—	<i>Social Science elective</i> ³		3-0-3
SCP	—	<i>Required upper-level Packaging elective</i> ^{2, 5}	2-0-2	3-0-3
			13-1-14	17

¹ For example, 3-0-3 means 3 class hours, 0 lab. hours, and 3 sem. hrs. of credit. All credits are given in semester hours.

² These Packaging courses are offered at Sinclair Community College only.

³ Choose a 100- or 200-level course from one of the following departments: Psychology, Sociology, or Political Science.

⁴ Students testing out of English 111 take English 112 in the first term and an elective in the second term.

⁵ For the first and second terms students may choose one or both courses from SCP 335 Government Packaging (2 sem. hrs.) or SCP 355 Packaging and Physical Distribution (2 sem. hrs.). For the second term only SCP 402 Packaging Shock and Vibration (2 sem. hrs.) may be selected. SCP 345 Package Graphics and Packaging Printing Processes (3 sem. hrs.) is also available and may be taken with the approval of the program director.

Dept.	No.	Course	1st Term ¹	2nd Term
Junior Year				
—	—	Philosophy and / or Religious Studies elective	3-0-3	3-0-3
ECO	347	<i>Intermediate Macroeconomics</i>	3-0-3	
BUS	301	<i>Corporation Finance</i>	3-0-3	
BUS	303	<i>Business Law I</i>		3-0-3
SCP	401	Packaging Environment ²	3-0-3	
SCP	403	Packaging System ²		3-0-3
SCP	—	Required Upper-Level Packaging elective ^{2, 3}		3-0-3
—	—	Communications electives ⁶	3-0-3	3-0-3
			15	15
Senior Year				
ACC	340	<i>Fundamentals of Business Data Processing</i> ⁷		3-0-3
BUS	423	<i>Business Policies and Management</i>	3-0-3	
—	—	Philosophy and / or Religious Studies elective	3-0-3	3-0-3
SCP	445	Package Developmental Techniques and Analysis — Macro ²	3-0-3	
SCP	446	Package Developmental Techniques and Analysis — Micro ²		2-0-2
SCP	495, 496	Special Problems in Packaging I, ² II ⁹	2-0-2	2-0-2
—	—	General electives	6-0-6	3-0-3
			17	13

² These Packaging courses are offered at Sinclair Community College only.

⁶ Choose any combination to total 6 semester hours: BUS 409 (3 sem. hrs.), ENG 368 (2 sem hrs.), ENG 370 (2 sem. hrs.), ENG 371 (2 sem. hrs.), COM 308 (3 sem. hrs.), SPE 312 (3 sem hrs.), JRN 398-399 (1-3 sem. hrs.).

⁷ Upper-level computer science course in programming may be substituted. CPS 300 Cobo Programming is recommended.

⁸ Choose one 3-semester-hour course from SCP 345 or SCP 402. See footnote 5.

⁹ As a substitute for SCP 496 choose a 2- or 3-semester-hour course from among SCP 335, 345, 355, or 402 that was not taken in the sophomore or junior year. See footnote 5 for complete listing.

FACULTY

Thomas J. Kusza, *Program Director*

COURSES OF INSTRUCTION

SCP 205. PRINCIPLES OF PACKAGING: A general course in packaging principles covering the growth and development of the field and technological and motivational problems involved in present-day packaging. Consideration will be given to the basic functions of the package and the relation to the needs and wants of our society. Three lecture hours per week. 2 sem. hrs.

SCP 215. MATERIALS OF PACKAGING: A study of the various materials used in the broad field of packaging with a discussion of important characteristics and common applications of each. Emphasis on the engineering properties of the materials and the techniques used to measure such properties. The course includes a laboratory which will familiarize the student with common test methods used in analyzing packaging materials. Three lecture hours and two laboratory hours per week. 3 sem. hrs.

SCP 335. GOVERNMENT PACKAGING: A detailed study of government and military packaging requirements, standards, and specifications. Three lecture hours per week. Prerequisite: SCP 215. 2 sem. hrs.

SCP 345. **PACKAGE GRAPHICS AND PACKAGING PRINTING PROCESSES:** A discussion of the elements of package design as it relates to color, graphics, and general aesthetics. Printing methods of Letterpress, Lithography, Flexography, Gravure, Silk Screen, Heat Transfer, etc. will be discussed. Three lecture hours and two laboratory hours per week. Prerequisites: SCP 205, 215. *3 sem. hrs.*

SCP 355. **PACKAGING AND PHYSICAL DISTRIBUTION:** A study of the package's ability to create time and place utility. Physical distribution concepts of channel selection, geomarket selection, transportation modes, rates, regulation, inventory allocations, warehousing, and system design will be discussed as they relate to packaging. Three lecture hours per week. Prerequisites: SCP 205, 215. *2 sem. hrs.*

SCP 401. **PACKAGING ENVIRONMENT:** A study of the distribution systems of today's world. Analysis and measurement techniques of the environmental conditions in handling, storage, and shipping all types of commodities. Three lecture hours and two laboratory hours per week. Prerequisites: SCP 205, 215. *3 sem. hrs.*

SCP 402. **PACKAGING SHOCK AND VIBRATION:** A study of the function of the package system in relation to basic theory of shock, vibration, and compression for design of protective packaging. Laboratory simulation of distribution environment is stressed. Three lecture hours and two laboratory hours per week. Prerequisites: SCP 401, BUS 110, 111, PHY 201, 201L or PHY 105, 105L. *3 sem. hrs.*

SCP 403. **PACKAGING SYSTEMS:** A study of package design and use. Students will construct packages of the various materials studied in SCP 215. Environmental parameters, cost, production capabilities, etc. will be considered. This course does not study graphics or copy philosophy but rather centers on the mechanics of packages. Three lecture hours and two laboratory hours per week. Prerequisite: SCP 401, BUS 110, 111, PHY 201, 201L, or PHY 105, 105L. *3 sem. hrs.*

SCP 445. **PACKAGE DEVELOPMENTAL TECHNIQUES AND ANALYSIS-MACRO:** Techniques with which to manage the packaging process. SCP 445 encompasses all company facets in order to achieve the objectives of a systematic plan that will be needed. This course draws heavily on previous packaging courses and unifies them. Systems, Value Engineering, Pert, etc. will be introduced. Four lecture hours and one laboratory hour per week. Prerequisite: SCP 403. *3 sem. hrs.*

SCP 446. **PACKAGE DEVELOPMENTAL TECHNIQUES AND ANALYSIS-MICRO:** The concepts of value analysis and value engineering, introduced in SCP 445, are expanded. Cost value, esteem value, exchange value, and use value in the package context. Three lecture hours per week. Prerequisite: SCP 445. *2 sem. hrs.*

SCP 495. **SPECIAL PROBLEMS IN PACKAGING, I:** Student and a faculty member will select an area of research which the student is interested in and qualified to pursue. Goals, materials, facilities, grading, etc. will be determined by the student and faculty member before enrollment. Time to be arranged. Prerequisite: Approval of the director. *2 sem. hrs.*

SCP 496. **SPECIAL PROBLEMS IN PACKAGING, II:** Continuation of SCP 495. Prerequisite: Approval of the director. *2 sem. hrs.*

SECONDARY EDUCATION (EDS)

SCHOOL OF BUSINESS ADMINISTRATION BACCALAUREATE PROGRAM WITH TEACHER CERTIFICATION (E11B)

Students matriculating in the School of Business Administration may enroll in the teacher education program (Secondary Education Program) of the School of Education without transferring to the School of Education. For requirements in professional education courses and in teaching fields consult the Chairman of the Department of Secondary Education.

Enrollment in these programs 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. These include the maintenance of at least a 2.50 average in the principal teaching field and taking the comprehensive National Teacher Examination (NTE).

In order to finish in four years, a student in the School of Business Administration will need to process his application for admission to the teacher education program no later than the third semester of his matriculation. He will need to begin his professional education sequence no later than his fourth semester. Failure to enroll on time would necessitate his going beyond the normal four years in order to qualify for teacher certification and graduation. The requirements for the School of Business Administration and those of the School of Education must be completed before any degree is granted.

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

When the duly enrolled student has completed all the requirements for teacher certification, he should make application for the standard State Teaching Cer-

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- Interest income 12.50
- Note receivable - Parker (old) 1500.
- 1/2 on 1500.
- Account interest receivable 34.61
- Interest income 34.61
- 10/1 to 12/31 = $\frac{83}{360} \cdot 1500 \cdot 5\% = 20.75$
- 1/6 to 12/31 = $\frac{55}{360} \cdot 1512.50 \cdot 6\% = 13.86$
- 1512.50
- 15.12
- 34.61
- 1527.64

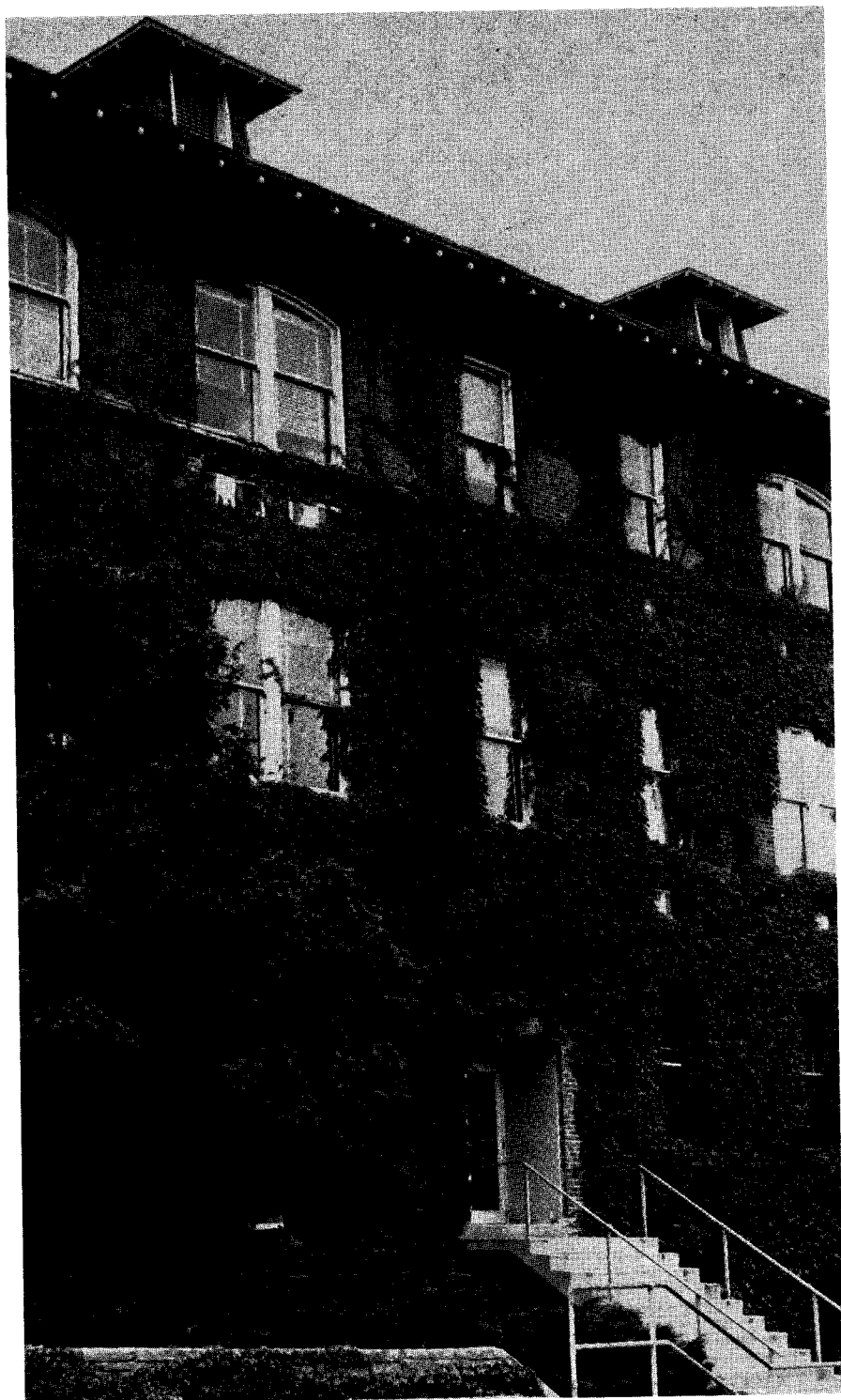
tificate through the official recommending officer of the School of Education. See also EDS, Chapter VIII.

PROGRAM E11B: SECONDARY SCHOOL TEACHING CERTIFICATION

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term</i>	<i>2nd Term</i>
Freshman Year				
<i>Semester Hours</i>				
BUS	102	American Business Environment	3	
BUS	110-111	Quantitative Analysis	3	3
ENG	111-112	College Composition I, II	4	3
PHL	103	Introduction to Philosophy (Catholics and non-Catholics)	3	
SPE	101	Fundamentals of Effective Speaking		3
—	—	Philosophy and / or Religious Studies elective		3
—	—	Natural Science: Biology, Physics, Geology, Chemistry	4	
BUS	215	Principles of Management		3
EDF	206	EDF I: Adolescent in the Educative Process		3
			17	18
Sophomore Year				
BUS	210-211	Quantitative Analysis	3	3
ACC	207-208	Principles of Accounting	3	3
ECO	203-204	Principles of Economics	3	3
MKT	205	Principles of Marketing	3	
PHL	301	Practical Logic (Catholics and non-Catholics)		3
EDF	208	EDF II: Teaching-Learning in the Educative Process		3
SEC	103-104	Fundamental and Intermediate Typewriting	3	3
			15	18
Junior Year				
—	—	M.B.E.A. ¹ – Any required major field course		3
FIN	301	Business Finance	3	
BUS	303	Business Law I: Contracts		3
ACC	340	Fundamentals of Business Data Processing ²		3
—	—	M.B.E.A. ¹ – Any required major field course		3
EDS	351	Secondary School, Self & Society (Tutoring w/EDS 351)	3	
ECO	347	Intermediate Macroeconomic Analysis	3	
—	—	Open elective	3	
—	—	M.B.E.A. ¹ – Any required major field course	3	
—	—	M.B.E.A. ¹ – Any required major field course	3	
MKT	315	Retail Merchandising		3
			18	15
Senior Year				
EDS	414	Student Teaching		14
EDF	419	EDF III: Philosophy of the Educative Process		3
MKT	421	Advertising	3	
BUS	423	Business Policies and Management	3	
EDS	327	Business Education in the Secondary School	3	
—	—	M.B.E.A. ¹ – Any required major field course	3	
—	—	M.B.E.A. ¹ – Any required major field course	3	
MKT	310	Salesmanship	3	
			18	17

¹ M.B.E.A. – Marketing, Business Management, Economics, Accounting

² A course in computer programming may be substituted for ACC 340.



VIII School of Education

Ellis A. Joseph, Dean
Joseph E. White, Assistant Dean

In conformity with the University's purposes, the School of Education endeavors to foster both the development of those general capacities of the students which flow directly from their human nature and the development of those particular capacities which enable them to become effective practitioners in the field of professional education.

The general capacities of the students are developed through a broad and sound general education. It acquaints them with the major areas of knowledge and provides planned opportunities for personal, social, and ethical development.

The particular 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 common to all teaching, and (3) through specialized study of the principles underlying a particular type and level of teaching.

DEGREE REQUIREMENTS

In this chapter are described specific four-year course requirements for certification in kindergarten-primary, elementary, educable mentally retarded, secondary, and special (music, art, physical education, health-education) teaching. All of these programs lead to the same degree – Bachelor of Science in Education (B.S. in Ed.).

Toward the close of the freshman year each student is required to be approved for admission to the sophomore class. At this point his work is reviewed by a faculty committee to determine the extent to which his personal traits, academic work, etc. point toward the likelihood of his 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 as well as those of the State in which they desire to teach. (Consult *Requirements for Certification* by Woellner, University of Chicago Press; this book is constantly available both in the Education Office, Room C-104, and in the Curriculum Materials Center, Room C-114.)

Requirements for graduation and teacher certification are the following:

1. Evidence of such general scholarship and personal and moral qualities as give promise of professional success.
2. Evidence of participation in a variety of planned field experiences essential to the development of the resourcefulness needed by teachers.
3. Successful completion of a minimum of 124 semester hours in approved courses.
4. An overall cumulative point average of at least 2.00 (C average) and a cumulative point average of at least 2.50 for the professional education courses and for the principal teaching field. A 2.00 cumulative average is required for other teaching field(s).
5. Successful completion of the following professional education sequence:

Semester Hours

A. Personal and Professional Development of the Teacher.....	2-4
B. Educational Foundations I: Children-Adolescents in the Educative Process.....	3
C. Educational Foundations II: Teaching-Learning Process.....	3
D. Teaching in the Elementary School (or)..... The Secondary School: Self and Society.....	3
E. Special Methods ¹	3
F. Educational Foundations III: Philosophy of Educative Process.....	3
G. Student Teaching.....	6-12

¹ Students 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 the kindergarten-primary level.

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

6. Completion of University requirements in General Education, including the following courses in Religious Studies and Philosophy – 12 semester hours:
 - (1) 3 semester hours in Religious Studies,
 - (2) 3 semester hours in PHL 103,
 - (3) 6 semester hours in Religious Studies and / or Philosophy electives.
7. Completion of the National Teacher Examination, a comprehensive examination involving the following: General Education, Professional Education, and Specialization (principal teaching field). The examination **MUST** be taken no later than one term prior to the term in which the student expects to be graduated. Delay in taking the examination will lead to postponement of graduation and certification. Students should be sure to consult the Education Office for dates on which the examination will be administered.

COUNSELING

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

STUDENT TEACHING

Student teaching, which consists of actual classroom teaching under competent supervision, involves full-day sessions for approximately one semester. During the semester of student teaching, the student is not ordinarily permitted to carry more than three 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 the semester.

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

Prerequisites for candidacy for student teaching are (1) official enrollment in a teacher education program at the University, (2) prospective completion of the minimum residence requirement of thirty semester hours inclusive of student teaching, (3) formal application for processing by the screening committee to whom application must be submitted a term in advance of student teaching. (Application blanks may be secured from the Chairmen's Offices, C-205, C-211.)

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.

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

TEACHER PLACEMENT

Students who qualify for teacher certification through the School of Education are aided in securing teaching positions by the School's placement service in Chaminade Hall, Room C-115. Placement requires cooperation from the candidate in filling out the necessary papers and in submitting names for references. Interviews with prospective employers which are conducted in the School of Education Placement Office are announced in advance.

TEACHER CERTIFICATION

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

The State of Ohio also has reciprocity arrangements enabling teachers with Ohio provisional certificates to qualify for the regular initial teaching certificates

issued by these states: Alaska, California, Connecticut, Delaware, Florida, Hawaii, Indiana, Kentucky, Maine, Maryland, Massachusetts, Michigan, New Hampshire, New York, New Jersey, North Carolina, Oklahoma, Pennsylvania, Rhode Island, South Dakota, Utah, Vermont, Virginia, Washington, West Virginia, and Wisconsin.

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, health education, driver education, music, and the teaching of the educable mentally retarded.

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

ATHLETIC COACHING CERTIFICATION

Students who pursue the prescribed courses in this program will be presented with a Coaching Certificate. This program will prepare students (both full- and part-time) for athletic administrative functions, coaching, and youth leadership on all levels. See EDD, Department of Physical and Health Education.

CORRECTIVE THERAPY CERTIFICATION

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

BACCALAUREATE PROGRAMS

The School of Education offers and administers eleven basic programs leading to the baccalaureate degree. (Nine of these are outlined and their requirements and options discussed in detail later in this chapter, under code designations of course subject matter – for example, EDE signifies Elementary Education.) These are as follows:

PROGRAM – E1: ELEMENTARY EDUCATION, grades 1-8
 E1a: ELEMENTARY EDUCATION, kindergarten-primary
 E1b: ELEMENTARY EDUCATION, educable mentally retarded
 See EDE.

PROGRAM – E2: SECONDARY EDUCATION
 See EDS.

PROGRAM – E3: PHYSICAL EDUCATION
 See EDP (also EDD, EDH).

School of Education

PROGRAM – E4: HEALTH EDUCATION
See EDH (also EDD, EDP).

PROGRAM – E5: MUSIC EDUCATION
See MUS. See also MUS, Chapter VI.

PROGRAM – E6: ART EDUCATION
See ART. See also ART, Chapter VI.

PROGRAM – E7: HOME ECONOMICS EDUCATION (VOCATIONAL)
See HEC. See also HEC, Chapter VI.

PROGRAM – E8: RETRAINING (POST-GRADUATE)
For holders of provisional high school certificates or provisional special certificates who desire certification valid for elementary teaching. See EDE.

PROGRAM – E9: CERTIFICATION (POST-GRADUATE)

For graduates of the University of Dayton or of other accredited institutions who hold nonprofessional degrees (B.A., B.S., or equivalent) and who are interested in becoming certified teachers. The program involves approximately 30 semester 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 nonprofessional 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; and
3. meet the standards which the School of Education uses for screening transfer students.

PROGRAM – E10: SECOND DEGREE (POST-GRADUATE)

For nonprofessional degree holders who desire, in addition to certification (see Program – E9 above), 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 hours beyond the first degree;
2. qualify for the Provisional Elementary Certificate by completing a pattern of courses substantially equivalent to the curriculum outlined in Program – E1, OR qualify for the Provisional High School Certificate by completing a pattern of courses substantially equivalent to the curriculum outlined in Program – E2,

including the prescribed minimum requirements for a principal and a second teaching field, both of which must be certifiable, and

3. complete the general curriculum requirements prescribed by the University for all undergraduate degrees.

PROGRAM – E11A: TEACHER CERTIFICATION for students in the College or Arts and Sciences

E11B: TEACHER CERTIFICATION for students in the School of Business Administration.

See EDS.

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, social agency counselors, college student personnel professionals, school administrators, and educational research specialists. (For details on the graduate programs request a copy of the Graduate Catalog Issue of the University of Dayton Bulletin.)



COUNSELOR EDUCATION & HUMAN SERVICES (EDC)

The Department of Counselor Education and Human Services equips students to be professional school counselors, school psychologists, visiting teachers, college service personnel, and social agency counselors.

FACULTY

Eugene K. Moulin, *Chairman*

Professor: Moulin

Associate Professors: Anderson, Diethorn

COURSES OF INSTRUCTION

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

EDUCATIONAL ADMINISTRATION (EDA)

The Department of Educational Administration offers students the opportunity to become certified as elementary school principals, high school principals, and superintendents of school systems.

FACULTY

John R. O'Donnell, *Chairman*

Professor: O'Donnell

Associate Professors: Edgington, Morton

Part-time Instructor: Overly

COURSES OF INSTRUCTION

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

ELEMENTARY EDUCATION (EDE)

The Department of Elementary Education stresses for its students a close and continual relationship with local schools. The Department has been recognized by the American Association of Colleges for Teacher Education as having one of the five most innovative programs in the U.S.

PROGRAM – E1: ELEMENTARY EDUCATION

(Leading to Ohio Provisional Elementary Certificate: grades 1-8)

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term</i> ¹	<i>2nd Term</i>
Freshman Year				
BIO	114	Biological Science (and Laboratory) ²	3-2-4 ¹	
EDE	109-10	Personal and Professional Development	2-0-2	2-0-2
EDF	205	EDF I: Child in the Educative Process ³		3-0-3
ENG	111-12	College Composition I ⁴ , II	4-0-4	3-0-3
HST	—	Elective on Western Culture ⁵	3-0-3	
PHL	103	Introduction to Philosophy		3-0-3
PHY	105	The Physical Sciences		4-0-4
REL	—	Elective	3-0-3	
ART	101	Foundations and Materials in Art		2-0-2
			16	17
Sophomore Year				
EDF	208	EDF II: Teaching-Learning Process	3-0-3	
EDP	102	Personal and Community Health ⁶	2-0-2	
ENG	—	English elective ⁷		3-0-3
—	—	American Studies elective ⁸	3-0-3	
HST	—	Non-Western culture ⁹		3-0-3
MTH	204	Mathematical Concepts I		3-0-3
—	—	Electives in Religious Studies or Philosophy	3-0-3	3-0-3
—	—	Social Science elective ¹⁰	3-0-3	
EDE	296	Teaching in the Elementary School	3-0-3	
—	—	Elective in area of specialization ¹¹		3-0-3
MUS	103	Music Appreciation ¹²		2-0-2
			17	17
Junior Year				
EDE	320	Reading and Language Arts	6-0-6	
EDE	325	Interdisciplinary Approach to Social Studies	3-0-3	
EDE	360	Children's Literature	3-0-3	
EDE	403	Mathematics in the Elementary School	3-0-3	
EDE	481	Art in Elementary Education	2-0-2	
EDE	413	Student Teaching		x-x-12
—	—	Elective in area of specialization ¹¹		3-0-3
			17	15
Senior Year				
EDF	419	EDF III: Philosophy of Educative Process	3-0-3 ¹	
—	—	Humanities elective ¹³	3-0-3	3-0-3
—	—	Social Science elective		3-0-3
226	EDE	483-4	Music in Elementary Education ¹⁴	2-0-2

	—		6-0-6	3-0-3
EDP	414	Elective in area of specialization Physical Education in the Elementary School ¹⁵		3-0-3
			—	—
			14	12

PROGRAM – E1a: ELEMENTARY EDUCATION

(Leading to Ohio Provisional Kindergarten-Primary Certificate: Kindergarten-Grade 3)

EDE	219	Kindergarten-Primary Instruction ¹⁶	3-0-3
EDE	410	Student Teaching-Kindergarten ¹⁷	x-x-3
EDE	413	Student Teaching ¹⁷	x-x-9

PROGRAM – E1b: ELEMENTARY EDUCATION

(Leading to Ohio Certificate for Teaching Educable Mentally Retarded)

EDE	390	Learning and Behavior Disorders ¹⁶	3-0-3
EDE	480	Psychology and Education of the Retarded ¹⁶	3-0-3
EDE	487	Occupational Orientation and Job Training ¹⁶	2-0-2
EDE	492	Educational Practices for E.M.R. ¹⁶	6-0-6
EDE	411	Student Teaching-E.M.R. ¹⁸	x-x-6
EDE	413	Student Teaching ¹⁹	x-x-9

- ¹ For example: 3-0-3 means 3 class hrs., 0 lab. hrs., 3 sem. hrs. of credit.
- ² Most courses can be taken in terms other than listed. Consult advisor.
- ³ Evening students may substitute EDF 207.
- ⁴ If ENG 111 is waived, take ENG 118 or 200-level ENG course to replace it.
- ⁵ Possible choices: HST 103, 104, 105, 120, 275, 329, 357, 306.
- ⁶ Or EDP 101 plus EDP 130.
- ⁷ Possible choice: ENG 200-level elective.
- ⁸ Possible choices: HST 251, 252, 260, 270, 396, or POL 201.
- ⁹ Possible choices: HST 130, 131, 135.
- ¹⁰ Possible choices: ANT 150, 151, SOC 204, 325, 435, EDE 325, POL 360, ECO 203, AAS 332.
- ¹¹ A specialization of 12 or more semester hours, above other course requirements, in a field or area of interest. EDE courses in E.M.R. can also count for second certificate.
- ¹² Students without piano background take MUS 101.
- ¹³ Six hours of Humanities required. Can be used for area of specialization.
- ¹⁴ EDE 483 is for primary level; EDE 484 is for intermediate level.
- ¹⁵ Or EDP 413 or 223.
- ¹⁶ Course requirements are in excess of Program E1.
- ¹⁷ Substitute for 12 hours required in Program E1.
- ¹⁸ To be done in senior year concurrently with EDE 487 and 492.
- ¹⁹ To be done in junior year.

PROGRAM – E8: 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 semester hours of credit.

EDF 205. Educational Foundations I: Child in the Educative Process.....	3
EDE 296. Teaching in the Elementary School.....	3
EDE 320. Reading and Language Arts in Elementary School.....	3
(Special arrangements with chairman)	
EDE 403. Mathematics in the Elementary School.....	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. Conversion to a Standard 4-Year Provisional Elementary Certificate is possible when the appropriate pattern of training has been completed.

FACULTY

Simon J. Chavez, *Chairman*

Professors: Chavez, Klosterman

Associate Professors: Anderson, Waters, Fuchs

Assistant Professors: Beitzel, Lutz, Rapp

Part-time Instructors: Jende, Hackman, Hickson

COURSES OF INSTRUCTION

EDE 109. PERSONAL AND PROFESSIONAL DEVELOPMENT OF THE ELEMENTARY SCHOOL TEACHER: The first course in the professional education sequence. Helps the student define his professional goals and assess his strengths and weaknesses in light of competencies deemed essential for an elementary school teacher. 2 sem. hrs.

EDE 110. PERSONAL AND PROFESSIONAL DEVELOPMENT OF THE ELEMENTARY SCHOOL TEACHER: A continuation of EDE 109. Practicum experiences on campus and in local area schools are provided to help the student explore his interests and to test whether he is willing to commit himself to the teaching profession. A block of 3 hrs. one day a week is required. 2 sem. hrs.

EDE 296. TEACHING IN THE ELEMENTARY SCHOOL: Study of the role of the teacher in the classroom, the structuring and organization for learning, and provisions for teacher-pupil interaction. 3 sem. hrs.

EDE 320. READING AND LANGUAGE ARTS IN ELEMENTARY SCHOOL: An integrated language arts course with reading as its core subject. Acquisition of a certificate in handwriting required. Practicum 2 hrs. 3 days each week. 6 sem. hrs.

EDE 325. INTERDISCIPLINARY APPROACH TO SOCIAL STUDIES INSTRUCTION: 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. 3 sem. hrs.

EDE 360. CHILDREN'S LITERATURE: The history of children's literature, poetry for various age levels, folk tales, story telling. Required of and limited to students in Elementary Education. 3 sem. hrs.

EDE 380. KINDERGARTEN-PRIMARY INSTRUCTION: Theory and practical skills necessary to meet the needs of children in kindergarten-primary levels. EDE 410 should be taken concurrently if kindergarten-primary certification is desired. Prerequisites: EDE 109, 110, 296, EDF 205, 208. 3 sem. hrs.

EDE 403. MATHEMATICS IN THE ELEMENTARY SCHOOL: Distribution of content according to grade levels, methods of presentation, diagnosis of learning difficulties, remedial instruction, testing. Directed observation of teaching. Prerequisite: MTH 204. 3 sem. hrs.

EDE 410. STUDENT TEACHING - KINDERGARTEN: Required for kindergarten-primary certification. Must be taken concurrently with EDE 380. 3 or 6 sem. hrs.

EDE 412. STUDENT TEACHING - SUMMER: Supervised teaching in actual classroom situations during the summer period. Seminar on campus twice a week. Restricted to students who have had previous full-time teaching experience. Prerequisite: Special permission of the chairman. 6 sem. hrs.

EDE 413. STUDENT TEACHING (ELEMENTARY): Teaching in actual classroom situations for full semester under close supervision. Seminar once a week. Prerequisite: Formal admission to student teaching a full semester in advance; also EDE 296, 320, 403.

6-12 sem. hrs.

EDE 414. OUTDOOR EDUCATION PRACTICUM: Must be taken concurrently with the outdoor education five-week student teaching assignment. On-site learning experiences relating to ecological understanding and field and classroom teaching methods.

3 sem. hrs.

EDE 431. AUDIO-VISUAL INSTRUCTION: Study of 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.

2 sem. hrs.

EDE 451. ADVANCED KINDERGARTEN-PRIMARY INSTRUCTION: Deals with current problems and practices of kindergarten through the third grade in relation to child and curriculum. Prerequisite: EDE 219.

3 sem. hrs.

EDE 460. SCIENCE IN THE ELEMENTARY SCHOOL: 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.

3 sem. hrs.

EDE 481. ART IN THE ELEMENTARY SCHOOL

2 sem. hrs.

EDE 483. MUSIC IN ELEMENTARY EDUCATION - PRIMARY

2 sem. hrs.

EDE 484. MUSIC IN ELEMENTARY EDUCATION - INTERMEDIATE

2 sem. hrs.

EDUCATION FOR THE EDUCABLE MENTALLY RETARDED

EDE 390. LEARNING AND BEHAVIOR DISORDERS: A survey course dealing with the nature and characteristics of handicapping conditions in children.

3 sem. hrs.

EDE 411. STUDENT TEACHING - E.M.R.: Teaching in an actual classroom situation under supervision. Includes a seminar. Prerequisites: EDE 390, 413, 482.

6 sem. hrs.

EDE 480. PSYCHOLOGY AND EDUCATION OF THE RETARDED: A survey course giving a broad overview of mental retardation. Includes one-half day practicum once a week. Prerequisites: EDE 296 (may be taken concurrently) and 390.

3 sem. hrs.

EDE 487. OCCUPATIONAL ORIENTATION AND JOB TRAINING FOR THE E.M.R.: Principles and practices in the guidance, training, and placement of adolescent and young adult retarded persons. Prerequisite: EDE 480.

2 sem. hrs.

EDE 492. CURRICULUM, MATERIAL, AND INSTRUCTIONAL PROCEDURES FOR TEACHING ACADEMIC AND SOCIAL SKILLS FOR E.M.R.: Preparation, selection, and adaptation of instructional material; principles and practices in curriculum planning and program development in communication, arithmetic, social studies, and social skills for the educable mentally retarded; and instructional processes and methodology in basic academic skills. Prerequisites: EDE 390, 480, 413.

6 sem. hrs.

INTERDISCIPLINARY

EDI 496. THE USE OF MEDIA-THE NEWSPAPER IN THE CLASSROOM: A course designed to teach preservice and in-service teachers how a newspaper can be used as a living textbook to teach "media literacy" and academic skills to elementary, junior high, and senior high school students. Students will also learn the tasks various personnel perform in publishing a newspaper. The course is co-sponsored by the Dayton Journal Herald.

2 sem. hrs.

FINE ARTS (ART)

The School of Education cooperates with the Fine Arts Division of the Department of Visual and Performing Arts to offer Program – E6, which leads to the degree of Bachelor of Science in Art Education.

For specific course descriptions and further information, see also ART, Chapter VI, and consult with the director of the Fine Arts Division.

PROGRAM – E6: BACHELOR OF SCIENCE IN ART EDUCATION

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term</i> ¹	<i>2nd Term</i>
Freshman Year				
ART	103-4	Introductory Drawing	2-0-2 ¹	2-0-2
ART	111-12	Principles of Design	2-0-2	2-0-2
ART	226-27	Introductory Painting	2-0-2	2-0-2
ART	191	Lettering and Calligraphy		2-0-2
EDS	109-10	Personal and Professional Development	2-0-2	2-0-2
EDH	102	Personal and Community Health	2-0-2	
EDP	101	Sport in the Culture		1-0-1
ENG	111-112	College Composition I ² , II	4-0-4	3-0-3
PHL	103	Introduction to Philosophy	3-0-3	
REL	—	Elective		3-0-3
			17	17
Sophomore Year				
ART	231	Sculpture	2-0-2	
ART	251	Graphics	2-0-2	
ART	261	Introductory Copper Enameling		2-0-2
ART	228	Watercolor		2-0-2
PHO	101	Basic Photography		3-0-3
ART	341	Weaving	2-0-2	
ART	—	Elective ⁴	2-0-2	
EDF	207	EDF I: Child/Adolescent in Educative Process	3-0-3	
EDF	208	EDF II: Teaching-Learning Process		3-0-3
EDP	130	Physical Education Activity		1-0-1
—	—	Electives in Religious Studies or Philosophy	3-0-3	3-0-3
HST	—	100-level electives	3-0-3	3-0-3
			17	17
Junior Year				
ART	355	Silk Screen Serigraphy	2-0-2	
ART	—	Art History electives ³	3-0-3	3-0-3
ART	363	Jewelry Casting		2-0-2
ART	—	Electives ⁴		4-0-4
ART	241	Ceramics		2-0-2
ART	483	Creative Art Teaching	4-0-4	
EDS	351	Secondary School, Self and Society ⁵	3-0-3	
—	—	Science course ⁶	3-2-4	
MTH	111	Mathematics and Its Cultural Aspects		3-0-3
—	—	General Education elective		3-0-3
			16	17

		Senior Year	
ART	—	Art History or Appreciation ⁷	6-0-6
ART	—	Electives ⁴	4-0-4
—	—	General Education elective	3-0-3
EDF	419	EDF III: Philosophy of Educative Process	3-0-3
EDS	415	Student Teaching ⁸	
			16
			12

¹ For example, 3-0-3 means 3 class hrs., 0 lab. hrs., 3 sem. hrs. of credit.

² If ENG 111 is waived, take ENG 118 or a 200-level ENG course to replace it.

³ Art History electives should be chosen from ART 373, 374, 375, 376.

⁴ Choose ART electives from Design, Drawing, Crafts, Graphics, Painting, Sculpture, Photography, Interior Design, and Art History.

⁵ Students should leave one-half day open for tutoring.

⁶ Take BIO 114 or PHY 105 or GEO 109.

⁷ Electives in Art History, Art Criticism, Aesthetics, Photography, or Environmental Design.

⁸ All required ART courses must be taken prior to Student Teaching.



FOUNDATIONS OF EDUCATION (EDF)

The Department of Foundations of Education makes it possible for undergraduate students to become aware of human growth and learning as these are related to teaching and classroom performance. For information on its offerings at the graduate level, see the Graduate Catalog issue of the Bulletin.

FACULTY

M. Audrey Bourgeois-Grob, *Chairman*

Professors: Faerber, Britt

Associate Professors: Bourgeois-Grob, Emling, Geiger, Gray, Petit

COURSES OF INSTRUCTION

EDF 205. EDUCATIONAL FOUNDATIONS I: CHILD IN THE EDUCATIVE PROCESS: A course that combines the theories and empirical research of developmental psychologists and sociologists with the perspective provided by the child and literature to develop in future teachers an understanding of the child and a commitment to his education. Emphasizes selected principles of development in the intellectual, physical, social, psychological, and moral areas as well as home and peer-group relationships as they relate to the child's performance in the classroom. Students are required to study the child in the classroom situation. 3 sem. hrs.

EDF 206. EDUCATIONAL FOUNDATIONS I: ADOLESCENT IN THE EDUCATIVE PROCESS: A course that combines the theories and empirical research of developmental psychologists and sociologists with the perspective provided by the adolescent and literature to develop in future teachers an understanding of the adolescent and a commitment to his education. Emphasizes selected principles of development in the intellectual, physical, social, psychological, and moral areas as well as home and peer-group relationships as they relate to the adolescent's performance in the classroom. Students are required to study the adolescent in the classroom situation. 3 sem. hrs.

EDF 207. EDUCATIONAL FOUNDATIONS I: CHILD / ADOLESCENT IN THE EDUCATIVE PROCESS: A course that combines the theories and empirical research of developmental psychologists and sociologists with the perspective provided by the child and adolescent and literature to develop in future teachers and understanding of the child and adolescent and a commitment to their education. Emphasizes selected principles of development in the intellectual, physical, social, psychological, and moral areas as well as home and peer-group relationships as they relate to the child's and adolescent's performance in the classroom. Students are required to study the child in the classroom situation. 3 sem. hrs.

EDF 208. EDUCATIONAL FOUNDATIONS II: TEACHING-LEARNING IN THE EDUCATIVE PROCESS: A course that combines various theories and empirical research to provide the prospective teacher with a fundamental understanding of the interactions involved in the teaching-learning process. Emphasis is on those factors which facilitate learning in school situations. Students required to illustrate the use of some of the principles for their teaching fields. Prerequisite: EDF 205, 206, or 207. 3 sem. hrs.

EDF 419. EDUCATIONAL FOUNDATIONS III: PHILOSOPHY OF THE EDUCATIVE PROCESS: A philosophical critique of educational theories and key educational concepts related to society. The course attempts to provide guidelines for the development of a comprehensive critical theory of education. Special emphasis is given to the directive function of educational theory as a guide to specific teaching activities intended to effect the genuinely humane teacher and student. Prerequisites: EDF 205, 206, or 207; and EDF 208. 3 sem. hrs.

EDF 423. EDUCATIONAL FOUNDATIONS III: PHILOSOPHY OF THE EDUCATIVE PROCESS – CATHOLIC: The educand, the aims and agencies of education, and the philosophy of the curriculum studied in the light of Catholic theology and philosophy. This course may be taken in lieu of EDF 419. Prerequisites: EDF 205, 206, or 207; and EDF 208.

3 sem. hrs.

EDF 440. EDUCATIONAL FOUNDATIONS IV: SEMINAR IN SELECTED TOPICS IN FOUNDATIONS OF EDUCATION: Course content dependent on the mutual interests of the students and the instructor. Permission of chairman of Foundations of Education required. No prerequisite.

3 sem. hrs.



HOME ECONOMICS (HEC)

A program (E7) for the Bachelor of Science in Education with certification in the field of Vocational Home Economics is offered to Secondary Education students in cooperation with the Department of Home Economics. It leads to the degree of Bachelor of Science in Home Economics Education.

For specific course descriptions and further information, see also HEC, Chapter VI, and consult with the Department Chairman.



PROGRAM – E7: BACHELOR OF SCIENCE IN HOME ECONOMICS
EDUCATION (VOCATIONAL)

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term</i> ¹	<i>2nd Term</i>
Freshman Year				
BIO	114	Biological Science		3-2-4
CHM	110	General Chemistry	3-2-4	
EDS	109-10	Personal and Professional Development	2-0-2	2-0-2
ENG	111-12	College Composition I, 2 II	4-0-4	3-0-3
HEC	105	Introduction to Related Art ²	3-0-3	
HEC	200	Introductory Foods ⁴		2-4-4
EDP	101	Sport in the Culture ⁵	1-0-1	
EDP	130	Physical Education Activity ⁶		0-2-1
PHL	103	Introduction to Philosophy		3-0-3
REL	—	Elective	3-0-3	
			17	17
Sophomore Year				
ECO	208	Principles of Economics I		3-0-3
EDF	201	EDF II: Teaching-Learning Process	3-0-3	
HEC	101, 211	Clothing I and II ⁴	2-3-3	2-3-3
HEC	214	Textiles		3-0-3
HEC	221	Consumer Education & Home Management	3-0-3	
HEC	225, 329	Child Development I and II	2-2-3	2-2-3
MTH	—	Mathematics course ⁶	3-0-3	
—	—	Elective in Religious Studies or Philosophy	3-0-3	3-0-3
			18	15
Junior Year				
EDS	351	The Secondary School, Self and Society ⁷		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	323	Demonstration Techniques	2-0-2	
HEC	328	Housing and Home Furnishings	3-0-3	
HEC	—	Home Economics electives	3-0-3	3-0-3
—	—	General Education electives	6-0-6	3-0-3
			17	15
Senior Year				
EDF	419	EDF III: Philosophy of Educative Process	3-0-3	
EDS	415	Student Teaching		1-x-12
HEC	405	Teaching of Home Economics ⁷	3-0-3	
HEC	406	Home Management II	1-4-3	
—	—	General Education electives	6-0-6	
			15	12

¹ For example, 3-0-3 means 3 class hrs., 0 lab hrs., 3 sem. hrs. of credit.

² If ENG 111 is waived, take ENG 118 or a 200-level ENG course to replace it.

³ ART 111-112 Principles of Design may be substituted.

⁴ Foods and Clothing I & II may be interchanged.

⁵ EDP 101 and 130 may be replaced by taking EDP 102, Personal and Community Health.

⁶ Choose from MTH 101, 107, 111, 207.

⁷ Students should leave one half day open for teacher-aide activities.

MUSIC (MUS)

The School of Education cooperates with the Music Division of the Department of Visual and Performing Arts to offer Program – E5, which leads to the degree of Bachelor of Science in Music Education.

An audition is required before a student is admitted to this program. Performance majors are required to perform at least once each term and all students in Performance subjects are required to present not less than one-half of a recital as the Senior requirement.

For specific course descriptions and further information, see also MUS, Chapter VI, and consult with the director of the Music Division.

PROGRAM – E5: BACHELOR OF SCIENCE IN MUSIC EDUCATION

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term¹</i>	<i>2nd Term</i>
Freshman Year				
EDS	109-10	Personal and Professional Development	2-0-2 ¹	2-0-2
ENG	111-12	College Composition I ² , II	4-0-4	3-0-3
EDP	101	Sport in the Culture	1-0-1	
EDP	130	Physical Education Activity	0-1-1	
MUS	111-12	Theory of Music I	3-0-2	3-0-2
MUS	113-14	Aural Skills I	3-0-2	2-0-2
MUS	—	Performance ³	1-0-1	1-0-1
REL	—	Elective	3-0-3	
PHL	103	Introduction to Philosophy		3-0-3
—	—	Science course ⁴		3-2-4
			16	17
Sophomore Year				
EDF	207	EDF I: Child/Adolescent in Educative Process	3-0-3	
EDF	208	EDF II: Teaching-Learning Process		3-0-3
EDH	102	Personal and Community Health	2-0-2	
HST	—	100-level elective	3-0-3	3-0-3
MUS	211-12	Theory of Music II	3-0-2	3-0-2
MUS	213	Aural Skills II	3-0-2	
MUS	214	Keyboard Harmony		3-0-2
MUS	331	Vocal Music in High School		3-0-2
MUS	—	Music History ⁵		3-0-3
MUS	—	Performance ³	2-0-2	2-0-2
MUS	335	Music in Elementary Grades	3-0-3	
			17	17
Junior Year				
MUS	—	Music History ⁵	3-0-3	2-0-2
MUS	322	Instrumentation and Orchestration		3-0-3
MUS	321	Instrumental Conducting OR	2-0-2	
MUS	351	Choral Conducting ⁶	(2-0-2)	
MUS	332	School Band and Orchestra		2-0-2
MUS	—	Music electives ⁷	2-0-2	2-0-2
MUS	399	Performance ³	2-0-2	2-0-2
236	—	Religious Studies or Philosophy Elective	3-0-3	3-0-3

MTH	111	Mathematics and Its Cultural Aspects		3-0-3	3-0-3
EDS	351	Secondary School, Self and Society		<u>3-0-3</u>	<u> </u>
				15	17
			Senior Year		
MUS	399	Performance ³		2-0-2	
EDF	419	EDF III: Philosophy of Educative Process		3-0-3	
EDS	415	Student Teaching			x-x-12
MUS	429	Marching Band Techniques ⁶		2-0-2	
MUS	—	Music Education electives ⁷		3-0-3	
MUS	—	Music electives ⁷		<u>5-0-5</u>	<u> </u>
				15	12

¹ For example, 3-0-3 means 3 class hrs., 0 lab hrs., 3 sem. hrs. of credit.

² If ENG 111 is waived, take ENG 118 or a 200-level ENG course to replace it.

³ Performance includes private instruction courses in piano, organ, voice, and orchestral instruments. Class Piano (MUS 296-7-8-9) is required of students who have not previously studied piano.

⁴ Take BIO 114 or PHY 105 or GEO 109.

⁵ MUS 341, 342, 343, 344.

⁶ Students should leave one half day open for tutoring.

⁷ Check with advisor in Music Division.

⁸ Required of students planning to teach instrumental music in secondary schools.



PHYSICAL AND HEALTH EDUCATION (EDD, EDH, EDP)

The Department of Physical and Health Education offers its students the opportunity to gain field experience and to do student teaching in area schools. Students may be certified as teachers of health and physical education in grades K-12. They also may become formally prepared for coaching.

PROGRAM – E3: PHYSICAL EDUCATION

Dept.	No.	Course	1st Term ¹	2nd Term
Freshman Year				
BIO	114	Biological Science (and Laboratory)		3-2-4
MTH	—	Mathematics course	3-0-3 ¹	
ENG	111-12	College Composition I ² , II	4-0-4	3-0-3
REL	—	Elective	3-0-3	
PHL	103	Introduction to Philosophy		3-0-3
EDD	109-10	Personal and Professional Development	2-0-2	2-0-2
EDP	180-197	Physical Education Activities	0-8-2	0-4-1
HST	—	100-200-level electives	3-0-3	3-0-3
			17	16
Sophomore Year				
EDF	207	EDF I: Child / Adolescent in the Educative Process	3-0-3	
EDF	208	EDF II: Teaching-Learning Process		3-0-3
—	—	Elective in Religious Studies or Philosophy	3-0-3	3-0-3
EDP	200	Motor Learning	2-0-2	
EDP	223	Movement Education	2-2-3	
EDP	213	Principles & History of Physical Education		2-0-2
EDD	251	School Health Program		3-0-3
EDP	180-197	Physical Education Activities	0-8-2	0-4-1
—	—	General electives	3-0-3	2-0-2
EDP	—	Electives		2-0-2
			16	16
Junior Year				
EDD	305-6	Anatomy and Physiology	3-0-3	3-0-3
EDD	336	Standard First Aid and Personal Safety		2-0-2
EDS	351	The Secondary School, Self, & Society ³	3-0-3	
EDF	419	EDF III: Philosophy of Educative Process		3-0-3
EDP	300	Methods of Teaching Physical Education	3-0-3	
EDP	324	Elementary Physical Education		3-0-3
EDP	—	Electives	2-0-2	2-0-2
—	—	General electives	5-0-5	3-0-3
			16	16
Senior Year				
EDP	409	Kinesiology	2-0-2	
EDP	409L	Kinesiology Laboratory	0-2-1	
EDP	408	Physiology of Exercise	2-0-2	
EDP	410	Adapted Physical Education	2-0-2	
EDP	402	Organization and Administration of Physical Education	2-0-2	
238 EDP	405	Tests and Measurements	2-0-2	

		General electives	5-0-5	
EDP	417	Student Teaching (Special Field) OR		x-x-12
EDP	418	Student Teaching (Principal Field)		x-x-12
			16	12

- ¹ For example, 3-0-3 means 3 class hrs., 0 lab. hrs., 3 sem. hrs. of credit.
- ² If ENG 111 is waived take ENG 118 or 200-level ENG course to replace it.
- ³ Students should leave one half day open for tutoring.

PROGRAM – E4: HEALTH EDUCATION

Dept.	No.	Course	1st Term ¹	2nd Term
Freshman Year				
BIO	114	Biological Science (and Laboratory)		3-2-4
MTH	—	Mathematics Course	3-0-3 ¹	
ENG	111	College Composition I ² , II	4-0-4	3-0-3
REL	—	Elective	3-0-3	
PHL	103	Introduction to Philosophy		3-0-3
EDD	109-10	Personal and Professional Development	2-0-2	2-0-2
EDH	116	Personal Health	2-0-2	
EDH	118	Community Health		2-0-2
HST	—	100-200-level electives	3-0-3	3-0-3
			17	17
Sophomore Year				
EDF	207	EDF I: Child/Adolescent in Educative Process	3-0-3	
EDF	208	EF II: Teaching-Learning Process		3-0-3
EDP	130	Physical Education Activities ³	0-2-1	0-2-1
EDD	251	School Health Program		3-0-3
—	—	Elective in Religious Studies or Philosophy	3-0-3	3-0-3
SOC	204	Modern Social Problems	3-0-3	
EDH	—	Electives	2-0-2	2-0-2
—	—	General electives	4-0-4	4-0-4
			16	16
Junior Year				
EDD	305-6	Anatomy and Physiology	3-0-3	3-0-3
EDH	309	School Health Instruction	3-0-3	
EDD	336	Standard First Aid and Personal Safety	2-0-2	
EDS	351	The Secondary School, Self, and Society ⁴		3-0-3
EDH	—	Electives	2-0-2	2-0-2
—	—	General electives	6-0-6	9-0-9
			16	17
Senior Year				
EDH	430	Principles of Health Education	2-0-2	
EDH	407	Current Issues in Health Education	2-0-2	
EDF	419	EDF III: Philosophy of Educative Process	3-0-3	
EDH	419	Student Teaching (Health)		x-x-12
—	—	General electives	9-0-9	
			16	12

- ¹ For example, 3-0-3 means 3 class hrs., 0 lab. hrs., 3 sem. hrs. of credit.
- ² If ENG 111 is waived, take ENG 118 or 200-level ENG course to replace it.
- ³ For a teaching field in Physical Education, take EDP 180-197.
- ⁴ Students should leave one half day open for tutoring.

CERTIFICATE IN ATHLETIC COACHING

Formal preparation in coaching is useful not only to physical education majors but to those who coach in addition to teaching classroom courses and also to those who work in camps, tennis clubs, recreation centers, etc. The Department of Physical Education offers a curriculum in coaching sports that can lead to either a Coaching Certificate or a Letter of Completion in Coaching. The courses in the Coaching curriculum prepare students for coaching, related administrative work, and youth leadership at all levels.

The curriculum is flexible, to meet individual needs whenever possible. For example, a student may be granted permission to select a course in another academic area, such as business, communications, or sociology, if it is pertinent to a special interest (pro shop management, coaching youth sports, YMCA work, etc.). The Department offers summer-term workshops that may be used as coaching specialty courses or electives.

The Letter of Completion in Coaching represents a minimum of 10 semester hours, to include EDP 330, 403, 404, a coaching specialty course, and one elective. The Coaching Certificate represents a minimum of 21 semester hours, outlined below:

<i>Dept.</i>	<i>No.</i>	<i>Courses</i>	<i>Semester Hours</i>
EDP	403	Seminar in Principles of Coaching.....	2
EDP	330	Athletic Injuries or	
EDP	336	First Aid and Safety.....	2
EDP	200	Motor Learning.....	2
EDP	346	Organization and Administration of Extracurricular Activities.....	2
EDP	408	Physiology of Exercise.....	2
EDP	409	Kinesiology.....	2
EDP	409L	Kinesiology Laboratory.....	1
Coaching Specialty Course chosen from among the following:.....			2
	EDP 301M	Coaching Basketball.....	2
	EDP 312M	Coaching Football.....	2
	EDP 313W	Coaching Field Hockey.....	1
	EDP 314M	Coaching Baseball.....	1
	EDP 315W	Coaching Basketball.....	1
	EDP 316M	Coaching Soccer.....	1
	EDP 317	Coaching Track and Field.....	1
	EDP 318	Coaching Gymnastics.....	2
	EDP 322	Coaching Volleyball.....	1
	EDP 323	Coaching Wrestling.....	1
	EDP 404	Coaching Internship (Internships will be arranged with schools or agencies).....	2
Electives.....			4
			Total of 21

RECOMMENDED ELECTIVES

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>Semester Hours</i>
EDE	431	Audio Visual Instruction.....	2
SPE	101	Fundamentals of Effective Speech.....	3
SPE	102	Speaking Techniques.....	3
EDP	319M	Officiating Football and Wrestling.....	1
EDP	319W	Officiating Field Hockey.....	1
EDP	320M	Officiating Basketball and Baseball.....	1
EDP	320W	Officiating Basketball.....	1

EDP 321W	Officiating Volleyball.....	1
EDP 330 or 336	2
Additional Coaching courses	1-2

FACULTY

James B. LaVanche, *Chairman*

Professors: Drees, LaVanche

Associate Professors: Leonard, Schleppe,

Assistant Professors: Boyce, Jayson, Morefield, Roberts, Siciliano, Wanke

Part-time Instructors: Donoher, Marciniak

COURSES OF INSTRUCTION

EDP 101. SPORT IN THE CULTURE: Development of appreciation and understanding of sport in the society. Sport and related areas in the American and selected European cultures are studied. 1 sem. hrs.

EDH 102. PERSONAL AND COMMUNITY HEALTH: Appropriate health topics, selected by the students, discussed with emphasis on the individual's development of positive health attitudes and behavior. 2 sem. hrs.

EDP 130. PHYSICAL EDUCATION ACTIVITIES: Skills and understanding basic to an appreciation of selected activities. Open to all University students. Consult the official composite for current offerings. 1 sem. hr. each term

EDD 109. PERSONAL AND PROFESSIONAL DEVELOPMENT OF THE TEACHER: A course designed to help the student define his professional goals and assess his personal strengths and weaknesses in the light of competencies deemed essential for a physical and / or health education teacher. 2 sem. hrs.

EDD 110. PERSONAL AND PROFESSIONAL DEVELOPMENT OF THE TEACHER: Practicum experiences on campus and in local area schools to enable the student to explore his interests and to test whether he is willing to commit himself to the teaching profession. 2 sem. hrs.

EDH 116. PERSONAL HEALTH: Evaluation of personal health attitudes, habits, and knowledge by surveying current health topics appropriate to college students. Second term, each year. 2 sem. hrs.

EDH 118. COMMUNITY HEALTH: Incidence, prevention, and control of health problems through family, school, and community interrelationships. Includes a survey of public and private health agencies and other resources available to the health educator. Second term, each year. 2 sem. hrs.

EDP 180-197. PHYSICAL EDUCATION ACTIVITIES: Fundamentals of physical activities for physical education majors. Development of skills and knowledge needed to teach team and individual sports. Proficiency must be shown in at least eleven (11) of the following activities: Archery, Badminton, Basketball (W), Bowling, Conditioning, Fencing, Field Hockey, Flag Football, Golf, Gymnastics & Tumbling, Handball, Racquetball, Soccer, Softball, Speedway, Tennis, Track & Field, Volleyball, Wrestling (M). Six semester hrs. selected from the listed activities are required for Physical Education majors. Prerequisite to EDP 300.

EDP 200. MOTOR LEARNING: Investigation of fundamental principles of human movement. Physical and psychological variables essential to motor learning are considered. Prerequisite for EDP 300. 2 sem. hrs.

EDP 213. PRINCIPLES AND HISTORY OF PHYSICAL EDUCATION: A study of the historical development of physical education, as well as its aims and the scope of its psychological, sociological, and biological aspects in relation to its role in the general education process. 2 sem. hrs.

EDP 223. **BASIC MOVEMENT EDUCATION:** The study of movement fundamental to all the traditional content areas of games and sports, dance, and gymnastics. Prerequisite for EDP 324. *3 sem. hrs.*

EDP 245. **MODERN DANCE:** Emphasis on basic and intermediate techniques involved in Modern Dance. The study of dance as an art form. Second term, every other year. Elective. *2 sem. hrs.*



EDD 251. THE SCHOOL HEALTH PROGRAM: The organization and administration of a school health program with emphasis on principles of health education, health services, healthful school living, and physical inspection. 3 sem. hrs.

EDP 300. METHODS OF TEACHING PHYSICAL EDUCATION: Methods to teach individual, dual, and team activities in physical education classes. Practicum. Prerequisite: EDP 200. 3 sem. hrs.

EDD 305-306. HUMAN ANATOMY AND PHYSIOLOGY: A study of the human body with emphasis on the interdependent relationships of structure and function. Prerequisite: BIO 114. Prerequisite to EDP 408-409. 6 sem. hrs.

EDH 309. SCHOOL HEALTH INSTRUCTION: A study of the instructional phase of the school health program with emphasis on the methods of teaching health in the elementary and secondary schools. 3 sem. hrs.

EDP 310M. COACHING BASKETBALL: The theory, skills, strategies and methods of coaching basketball. First term, each year. Elective. 2 sem. hrs.

EDP 312M. COACHING FOOTBALL: The theory, skills, strategies and methods of coaching football. Second term, each year. Elective. 2 sem. hrs.

EDP 313W. COACHING OF FIELD HOCKEY: The theory, strategies, and methods of coaching women's field hockey. First term, every other year. Elective. 1 sem. hr.

EDP 314M. COACHING BASEBALL: The theory, skills, strategies and methods of coaching baseball. Second term, each year. Elective. 1 sem. hr.

EDP 315W. COACHING BASKETBALL: The theory, strategies, and methods of coaching women's basketball. Second term, each year. Elective. 1 sem. hr.

EDP 316M. COACHING SOCCER: The theory, skills, strategies, and methods of coaching soccer. First term, each year. Elective. 1 sem. hr.

EDP 317. COACHING TRACK AND FIELD: The theory, skills, strategies, and methods of coaching track and field. Elective. 1 sem. hr.

EDP 318. COACHING GYMNASTICS: The theory, skills, strategies, and methods of coaching gymnastics. Second term, each year. Elective. 2 sem. hrs.

EDP 319M. THEORY AND TECHNIQUES OF OFFICIATING FOOTBALL AND WRESTLING: An application of the rules and techniques of officiating to game situations. Opportunity for taking O.H.S.A.A. Officials Examination. First term, every other year. Elective. 1 sem. hr.

EDP 319W. THEORY AND TECHNIQUES OF OFFICIATING FIELD HOCKEY: An application of the rules and techniques of officiating to game situations. Elective. 1 sem. hr.

EDP 320M. THEORY AND TECHNIQUES OF OFFICIATING BASKETBALL AND BASEBALL: An application of the rules and techniques of officiating to game situations. Opportunity for taking O.H.S.A.A. Officials Examination. Second term, every other year. Elective. 1 sem. hr.

EDP 320W. THEORY AND TECHNIQUES OF OFFICIATING BASKETBALL: An application of the rules and techniques of officiating to game situations. Students are required to officiate in intramurals. Second term, every other year. Elective. 1 sem. hr.

EDP 321W. THEORY AND TECHNIQUES OF OFFICIATING VOLLEYBALL: An application of the rules and techniques of officiating to game situations. Students are required to officiate in intramurals. First term, every other year. Elective. 1 sem. hr.

EDP 322. COACHING VOLLEYBALL: The theory, skills, strategies, and methods of coaching volleyball. Elective. *1 sem. hr.*

EDP 323M. COACHING WRESTLING: Theory, skills, strategies, and methods of coaching wrestling. Elective. *1 sem. hr.*

EDP 324. ELEMENTARY PHYSICAL EDUCATION: Designed to equip the physical education teacher with basic theory, techniques and methods for conducting a program for elementary students. Prerequisite: EDP 223. *3 sem. hrs.*

EDP 330. ATHLETIC INJURIES: Application of principles involved in prevention, care and treatment of athletic injuries. First term, each year. Elective. *2 sem. hrs.*

EDD 336. STANDARD FIRST AID AND PERSONAL SAFETY: Study of basic principles involving personal safety and accident prevention. Application of first aid knowledge and skills in emergencies. National Red Cross Instructor's certificate for Standard First Aid and Personal Safety may be obtained. *2 sem. hrs.*

EDP 346. ORGANIZATION AND ADMINISTRATION OF EXTRACURRICULAR ACTIVITIES: Theory and practice in the organization and administration of extra-curricular responsibilities. First term, every other year. Elective. *2 sem. hrs.*

EDP 348. ORGANIZATION AND ADMINISTRATION OF RECREATION: Study of the philosophy, leadership, standards, facilities, and programs of recreation. Second term, every other year. Elective. *2 sem. hrs.*

EDH 360. ADDICTION: View of psychic dependence as repetition of a pleasant experience; attempts will be made to determine the causes, effects, and alternatives of addiction in our society. Offered on demand. Elective. *2 sem. hrs.*

EDH 361. HEALTH CONSUMERSHIP: Sorting fad from fact in using products and services from the present market; includes fad diets, nutrition nonsense, quackery, advertising tricks, beauty gimmicks, a survey of medical hoaxes, and protection that is available to all consumers. Offered on demand. Elective. *2 sem. hrs.*

EDH 362. ENVIRONMENTAL HEALTH AND ECOLOGY: A detailed study of present environmental conditions; emphasis is on improvement through individual effort and community action. Offered on demand. Elective. *2 sem. hrs.*

EDH 363. EMOTIONAL HEALTH: Study of emotions, behavior, personality, social relationships, and adjustments to change. The aim is toward increased self-understanding. Offered on demand. Elective. *2 sem. hrs.*

EDH 364. SEX EDUCATION: A detailed study of maturation, reproduction, pregnancy, birth, and physiological development in humans. Emphasis will be given to the psychological concept of sexuality in American society. Offered on demand. Elective. *2 sem. hrs.*

EDP 402. ORGANIZATION AND ADMINISTRATION OF PHYSICAL EDUCATION: Basic principles and techniques involved in solving organizational and administrative problems in physical education, intramurals, and athletics. *2 sem. hrs.*

EDP 403. SEMINAR IN PRINCIPLES OF COACHING: General principles governing the administrative and coaching functions of planning, organizing, and instructing athletic teams. Elective. *2 sem. hrs.*

EDP 404. COACHING INTERNSHIP: Practical coaching experience working in local schools with interscholastic teams. Elective. *2 sem. hrs.*

EDP 405. TESTS AND MEASUREMENTS IN PHYSICAL EDUCATION: A direct relationship of tests and measurements to the teaching situation. *2 sem. hrs.*

EDH 407. CURRENT ISSUES IN HEALTH EDUCATION: A seminar on current health topics with emphasis on prevention, solution, and the related roles of the health educator. Second term, each year. 2 sem. hrs.

EDP 408. PHYSIOLOGY OF EXERCISE: Detailed study of the effects of exercise on human functions, thus providing a basis for the study of physical fitness, motor skills, and athletic training. Prerequisites: EDD 305-306. 2 sem. hrs.

EDP 408L. PHYSIOLOGY OF EXERCISE LABORATORY: Elective to accompany EDP 408. One two-hour laboratory per week in which the practical applications of exercise physiology will be stressed. Elective. 1 sem. hrs.

EDP 409. KINESIOLOGY: The investigation and analysis of human motion based on anatomical, physiological, and mechanical principles. Prerequisites: EDD 305-306. 2 sem. hrs.

EDP 409L. KINESIOLOGY LABORATORY: Course to accompany EDP 409. One two-hour laboratory per week, stressing the practical applications of kinesiology. 1 sem. hr.

EDP 410. ADAPTIVE PHYSICAL EDUCATION: A study of the atypical child in order to organize and administer a program which will meet individual needs. 2 sem. hrs.

EDH 413. HEALTH EDUCATION FOR THE ELEMENTARY EDUCATOR: A study of the total school health program. The Standard First Aid course is given. Elementary Education majors only. 3 sem. hrs.

EDP 414. PHYSICAL EDUCATION FOR THE ELEMENTARY EDUCATOR: A course designed to equip the elementary education major with basic theory, techniques, and methods for conducting a physical education program for elementary students. Elementary Education majors only. 3 sem. hrs.

EDP 417. STUDENT TEACHING (SPECIAL TEACHING FIELD): 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. 12 sem. hrs.

EDP 418. STUDENT TEACHING (PRINCIPAL TEACHING FIELD): Teaching under close supervision in the specialized subject area in the 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. 12 sem. hrs.

EDH 419. STUDENT TEACHING - HEALTH: 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. 12 sem. hrs.

EDP 420. SENIOR LIFE SAVING: The American Red Cross Senior Life Saving Course. Prerequisite: Advanced Swimming. First term, each year. Elective. 1 sem. hr.

EDP 421. WATER SAFETY INSTRUCTION: The American Red Cross Safety Instructor's Course. Prerequisite: Senior Life Saving. Second term, each year. Elective. 2 sem. hrs.

EDH 430. PRINCIPLES OF HEALTH EDUCATION: Establishment of the need for health education, historical development, survey of various philosophies, and discussion of specific professional standards, all aimed toward conceptualization of a personal philosophy by the health educator. Offered on demand. 2 sem. hrs.

EDP 440. INTRODUCTION TO DRIVER AND TRAFFIC SAFETY EDUCATION (ELECTIVE): Specifics of classroom instruction in the various subject-matter fields. Selection of presentation and evaluation techniques based on recognized course objectives. First term, each year. 3 sem. hrs.

EDP 441. ORGANIZATION AND ADMINISTRATION OF DRIVER AND TRAFFIC SAFETY EDUCATION: Organizational and administrative aspects of driver and traffic education as they relate to the total school and other specialized programs. Prerequisite: EDP 440. Second term, each year. Elective. *3 sem. hrs.*

EDP 450. SELECTED STUDIES IN PHYSICAL EDUCATION: Investigating, analyzing, and reporting on a problem in the area of physical education or recreation. Permission by Chairman. Elective. *1-3 sem. hrs.*

EDH 450. SELECTED STUDIES IN HEALTH: Investigating, analyzing, and reporting on a problem in the area of health. Permission by chairman. Elective. *1-3 sem. hrs.*

EDP. CORRECTIVE THERAPY CLINICAL TRAINING: The corrective therapy clinical training program is offered to students who major in health and physical education. Involves 400 clock hours of directed clinical training at the Veterans Administration Center, Dayton, and Veteran Administration Center, Brocksville, Ohio. *No credit.*

EDD. ATHLETIC COACHING CERTIFICATION: A program designed to prepare those who wish to coach or become leaders of young people in sports. *21 sem. hrs.*



SECONDARY EDUCATION (EDS)

The Department of Secondary Education stresses the need for prospective high school teachers to work with Dayton area students during the freshman and junior years. Half of the senior year is devoted to student teaching in a local school.

A student following the program in secondary education is required to have at least two teaching fields with a minimum of 36 semester hours in the principal teaching field (i.e. the field in which the special methods course is taken) and ordinarily a minimum of 24 semester hours for the second teaching field; or, instead of two teaching fields, he may take a single comprehensive field totalling 51 to 60 semester hours. To facilitate placement, students are advised to select fields which are related, e.g., Speech and English, or Science and Mathematics.

In order to be recommended for student teaching and certification, the student must earn a quality point average of at least 2.5 in the principal field for which he seeks certification. Certification is valid for teaching in grades seven through twelve.

(For detailed course requirements in the following, students should obtain a copy of the checklist for each teaching field in the Education Office, Room C-104.)

Teaching Fields

Art	Home Economics	Physics
Biological Science	Language:	Political Science
Bookkeeping — Basic Business	Latin	Sales Communication
Chemistry	French	Social Psychology
Earth Science	German	Sociology
Economics	Italian	Speech
English	Spanish	Stenography-Typing
General Science	Mathematics	Theology
Health Education	Physical Education	(Religious Studies)
History		

Comprehensive Fields

In lieu of two separate teaching fields, a single comprehensive field (with a minimum of 51 to 60 semester hours) may be chosen from the following:

Art	Home Economics (Vocational)
Basic Business Sales Communication	Music
Business Education	Physical Science
English	Social Studies
History	Speech

PROGRAM – E2: SECONDARY EDUCATION

Dept.	No.	Course	1st Term ¹	2nd Term
Freshman Year				
EDP	130	Physical Education Activity	0-2-1 ¹	
EDS	109-10	Personal and Professional Development	2-0-2	2-0-2
EDF	206	EDF I: Adolescent in Educative Process		3-0-3
ENG	111-12	College Composition I ² , II	4-0-4	3-0-3
HST	—	100-level elective	3-0-3	
PHL	103	Introduction to Philosophy	3-0-3	
REL	—	Elective		3-0-3
—	—	Science ³	3-2-4	
MTH	—	Mathematics course ⁴		3-0-3
—	—	Teaching field elective		3-0-3
			17	17
Sophomore Year				
EDP	101	Sport in the Culture		1-0-1
EDH	102	Personal and Community Health	2-0-2	
EDF	208	EDF II: Teaching-Learning Process	3-0-3	
—	—	Electives in Religious Studies or Philosophy	3-0-3	3-0-3
—	—	Teaching Field electives	9-0-9	9-0-9
SOC	—	Elective ⁵		3-0-3
			17	16
Junior Year				
EDS	351	The Secondary School, Self and Society ⁶	3-0-3	
EDS	—	Special Methods in Teaching Field ⁶		3-0-3
—	—	Teaching Field or Humanities electives	3-0-3	3-0-3
—	—	Teaching Field electives	9-0-9	9-0-9
			15	15
Senior Year				
EDS	414	Student Teaching ⁷	x-x-12	
EDF	419	EDF III: Philosophy of Educative Process		3-0-3
—	—	Teaching Field electives	3-0-3	12-0-12
			15	15

¹ For example, 3-0-3 means 3 class hrs., 0 lab. hrs., 3 sem. hrs. of credit.² If ENG 111 is waived, take ENG 118 or a 200-level ENG course to replace it.³ Students may choose from the following: PHY 105 or 151 and lab., GEO 109 and lab., CHM 110 and lab., BIO 114 and lab.⁴ Students may choose MTH 101, 107, 111, or 207.⁵ Students may elect any 200-level course in SOC or ANT.⁶ Students should leave one half day free for teacher aide activities.⁷ Students will have seminar on campus once a week.PROGRAM – E11A: B.A. or B.S. DEGREE WITH
TEACHER CERTIFICATIONPROGRAM – E11B: B.S. in BUSINESS ADMINISTRATION
WITH TEACHER CERTIFICATION

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

Enrollment in these programs (E11A for students matriculating in the College of Arts and Sciences; E11B for students matriculating in the School of Business Administration) 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. These include the maintenance of at least at 2.50 average in the principal teaching field and in professional education courses, and taking the comprehensive National Teacher Examination (NTE). During the semester prior to 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 or the School of Business Administration will need to process his application for admission to the teacher education program during his third semester. He will need to begin his professional education sequence in his fourth semester. Failure to enroll on time may necessitate his going beyond the normal four years in order to qualify for teacher certification and graduation. The requirements for the College of Arts and Sciences (Chapter VI) or the School of Business Administration (Chapter VII) and those of the School of Education must be completed before any degree is granted.

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

When the duly enrolled student has completed all the requirements for teacher certification, he should make application for the standard State Teaching Certificate through the official recommending officer of the School of Education.

FACULTY

Robert E. Kriegbaum, *Chairman*

Professor: Reichard

Associate Professors: Frye, Gay, Kriegbaum, Metzger, Taylor

Assistant Professors: Cambria, Zahner

Part-time Instructors: Corless, Rosser, Vandervander

COURSES OF INSTRUCTION

EDS 109. PERSONAL AND PROFESSIONAL DEVELOPMENT OF SECONDARY TEACHERS I: The first experience in the professional education sequence, designed to help the student define his professional goals and to assess his personal strengths and weaknesses in the light of competencies deemed essential for secondary school teaching. Practicum experiences on campus and in local area schools enable him to explore his interests and to test whether he is willing to commit himself to the teaching profession. Required of all first-year students in secondary education. Students should be prepared to devote one half day each week to practicum. First term. 2 sem. hrs.

EDS 110. PERSONAL AND PROFESSIONAL DEVELOPMENT OF SECONDARY TEACHERS II: A continuation of the emphases in EDS 109. Required of all first-year students in secondary education. Students should be prepared to devote one half day each week to practicum. Second term. 2 sem. hrs.

EDS 251. COMPUTER-AIDED INSTRUCTION: For those who need help in basic English skills or reading. The student will pick up the basic skills needed through regular work on a terminal. Grades will be based on the number of hours spent on the terminal. 3 sem. hrs.

EDS 327. BUSINESS EDUCATION IN THE SECONDARY SCHOOL: Principles and techniques of teaching business education subjects in high school, including social, business, and secretarial subjects. Students should be prepared to devote one half day each week to practicum. Prerequisite: EDF 208. First term, each year. *3 sem. hrs.*

EDS 331. RELIGION IN CCD (HIGH SCHOOL): Concentration on the principles and techniques of religious instruction for high school students, following the program of the Confraternity of Christian Doctrine. Prerequisite: 8 semester hours of Religious Studies. *2 sem. hrs.*

EDS 333. RELIGIOUS INSTRUCTION IN CCD PROGRAM: Preparation of the student to teach Catholic pupils from the public secondary schools. Prerequisite: 8 semester hours of Religious Studies. *2 sem. hrs.*

EDS 351. THE SECONDARY SCHOOL, SELF, AND SOCIETY: An examination of the interrelationships between school, self, and society, utilizing group procedures when possible. Prerequisite: EDF 208. *3 sem. hrs.*

EDS 404. LATIN IN THE SECONDARY SCHOOL: The functions and values of the study of Latin, courses of study, organization of materials, conventional and progressive methods. Students should be prepared to devote one half day each week to practicum. Prerequisite: EDF 208. *3 sem. hrs.*

EDS 405. ENGLISH AND SPEECH IN THE SECONDARY SCHOOL: Ways and means whereby the teacher can make his teaching more functional in the lives of students. Students should be prepared to devote one half day each week to practicum. First and second term each year. *3 sem. hrs.*

EDS 406. SOCIAL STUDIES IN SECONDARY SCHOOL: Aims and values of social studies in high school. General method and special techniques in the social studies field. Students should be prepared to devote one half day each week to practicum. Prerequisite: EDF 208. First and second term, each year. *3 sem. hrs.*

EDS 408. MODERN LANGUAGE IN THE SECONDARY SCHOOL: The functions and values of language study, courses of study, organization of materials, conventional and progressive methods. Students should be prepared to devote one half day each week to practicum. Prerequisite: EDF 208. First term, each year. *3 sem. hrs.*

EDS 409. MATHEMATICS IN THE SECONDARY SCHOOL: The goals of junior and senior high school mathematics; methods and materials; individualizing instruction. Students should be prepared to devote one half day each week to practicum. Prerequisite: EDF 208. Second term. *3 sem. hrs.*

EDS 410. RELIGION IN THE SECONDARY SCHOOL: Modern methods of instruction with a view to the practical needs of adolescents. Prerequisite: EDF 208. *2 sem. hrs.*

EDS 411. SCIENCE IN THE SECONDARY SCHOOL: Instructional methods and materials with an emphasis on inquiry; individualizing instruction. Students should be prepared to devote one half day each week to practicum experiences. Prerequisite: EDF 208. Second term. *3 sem. hrs.*

EDS 412. STUDENT TEACHING—SUMMER: Supervised teaching in actual classroom situations during the summer period. Seminar on campus twice a week. Restricted to postgraduate students who have had previous full-time teaching experience. Prerequisites: Special permission of the Dean; EDS 351. *6 sem. hrs.*

EDS 414. STUDENT TEACHING (SECONDARY): Teaching for a full semester in actual classroom situations in junior and senior high schools under close supervision. A seminar concerned primarily with the human relations aspects of secondary teaching will be held weekly. Prerequisite: Formal admission to student teaching a full semester in advance; EDS 351. *14 sem. hrs.*

EDS 415. STUDENT TEACHING (SPECIAL): Teaching under close supervision in the specialized subject area in both elementary and high school grades for a minimum of 14 weeks. A seminar concerned primarily with the human relations aspects of secondary teaching will be held weekly. Prerequisite: Formal admission to student teaching a full semester in advance; EDS 351. *14 sem. hrs.*

EDS 451. PREPARING COMPUTER-AIDED INSTRUCTION: This course is divided into two parts. The first part introduces both administrators and teachers to the uses of computers in education. Included are such topics as time sharing, introductory programming, and the use of various types of applications. The second part for administrators permits the examination of the concept of data management by utilizing a demonstration system constructed for a model school. Units in this part range from routine (preparation of report cards) to the imaginative (a program-planning budgeting system). The second part for teachers is composed of applications in various subject areas. These units include a description of the computer program rationale for the unit, and ways to integrate the unit with the ongoing curriculum, performance objectives, and suggestions for a sequence of class activities during the use of the unit. *3 sem. hrs.*

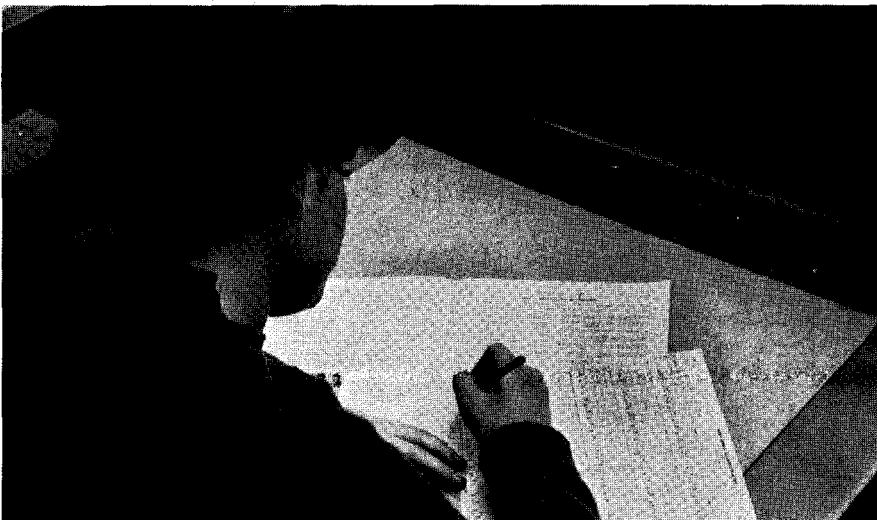
EDS 455. SECONDARY SCHOOL READING IMPROVEMENT: Diagnosis and cause of reading disabilities. Study of techniques applicable to delayed readers. Implementing the high school developmental reading program and reading in the content areas. English and Speech teaching fields, 3 hours; other Secondary teaching fields, 2 hours. *2-3 sem. hrs.*

EDS 456. INDEPENDENT STUDY: An opportunity for students to pursue (in groups or individually) various interests in education through self-appropriated learning. Prerequisite: Permission of the chairman. *3 sem. hrs.*

INTERDISCIPLINARY

EDI 481. THE TEACHER IN THE INDIVIDUALIZED CLASSROOM: An examination of the various roles a teacher in the individualized classroom is called on to model. The course presents not only a theoretical model for teacher role but also laboratory experience in which the student can try out various behaviors called for. First term. *3 sem. hrs.*

EDI 482. THE STUDENT IN THE INDIVIDUALIZED CLASSROOM: Focus on ways in which the structure of the classroom can be used to enhance the learning capacities of the individual student. As part of the course, students are required to keep a log on certain students regarding the impact of various educational strategies on the learner. Second term. *3 sem. hrs.*





IX School of Engineering

David C. Kraft, Dean

James L. McGraw, Associate Dean for Engineering Technology

Jay D. Pinson, Associate Dean for Graduate Studies and Research

The School of Engineering has as its purpose the preparation of men and women for professional careers in engineering in order that they may assume responsible positions of a technical or semi-technical nature in business, industry, education, and government. Of primary concern is the development of professional competencies and philosophies within the various engineering disciplines as well as a broad outlook on the technical and social problems that confront society. Additionally, the engineering programs provide excellent background and training for other career areas.

The engineering program in each of the fields of Chemical, Civil, Electrical, Industrial and Systems (upper-level program), and Mechanical Engineering is designed to lead to a Bachelor's degree in a four-year period. While each student pursues a curriculum he has chosen according to his field of interest, all students take certain common core courses in mathematics, chemistry, physics, English, computer science, and engineering fundamentals. Each engineering program permits additional concentrations of study in such areas as industrial engineering, environmental engineering, aerospace engineering, and materials science. Although emphasis is on fundamental theory, continued attention is paid to the solution of practical problems which the student will encounter in the practice of engineering. As an educational unit within a private University, the School of Engineering places strong emphasis on the individualized engineering faculty / engineering student counseling program which begins prior to the student's formal course work at the University. Emphasis in the counseling program is placed on assisting each student to be challenged and to meet his educational objectives within the engineering programs.

The broader responsibilities of the engineering profession demand that the professional training of an engineer include a significant component of humanities and social science studies in order that the student will become aware of the urgent problems of society and develop a deeper appreciation of the cultural achievements of man. Additionally such humanistic-social studies provide the proper framework to insure that scientific discoveries and developments by engineers may result in the real advancement of man.

TRANSFER STUDENTS

The School of Engineering welcomes transfer students from both community and senior colleges and works closely with many schools to facilitate transfers from pre-engineering programs. Students may complete the first two years of

study in other accredited institutions and transfer to the University of Dayton with little or no loss of credit provided they have followed programs similar to those prescribed by the University of Dayton School of Engineering.

OPTIONAL COOPERATIVE EDUCATION PROGRAM

Students majoring in Mechanical Engineering and Electrical Engineering may participate in the Cooperative Education Program. Beginning with the sophomore year, work periods (full semesters) alternate with semesters of study. Students applying for the program will be accepted on the basis of grade-point average, motivation, and attitude. The number of students placed depends on the availability of jobs. The Cooperative Education Program offers the student the opportunity to place classroom work into practical use while in school, resulting in early career identification and greater motivation as well as providing a source of funds. See also Chapter X.

MINORS IN ENGINEERING

The student majoring in Chemical, Electrical, or Mechanical Engineering may choose a minor concentration area of technical study. The minors program in the School of Engineering provides an opportunity to specialize in a particular technical subarea while still pursuing a major program of study in one of the traditional and well recognized engineering disciplines. The minors program was designed in response to the needs of industry and government and to the educational needs and career objectives of students. Election of the minor is optional; it does not add extra courses or degree requirements for graduation.

The minor concentration is defined as 12 semester hours of work. It can be composed of any number of 1- to 3-semester hour courses selected from the approved list of minor areas of study, which currently includes the following:

Aerospace Engineering	Energy Conversion
Automatic Control Systems	Environmental Engineering
Chemical Processing	Magnetics
Circuit Analysis	Materials Engineering
Digital Systems	Structures
Dynamic Analysis of Mechanical Systems	Systems Engineering
Electromagnetics	Thermal Engineering

Students, in conjunction with their faculty advisors, normally select the minor concentration in the second semester of the sophomore year. The minor concentration is designated on the student's transcript.

ENGINEERING FRESHMAN REQUIREMENTS

Students who are recent high school graduates or who have earned fewer than 15 semester hours of collegiate credit are classified as new freshmen and must meet the common engineering program requirements as detailed below. Such credit requirements may be met in a number of ways, including (1) advanced college-level course work at the University of Dayton or other collegiate institutions; (2) CLEP, CEEB, or other advanced standing testing services; (3) departmental examination or work experience equivalent; or (4) taking the prescribed courses as part of the freshman year. Each request for advanced standing by credit must be initiated by the student in consultation with his engineering faculty counselor to the Office of the Dean of Engineering.

REQUIRED FIRST-YEAR PROGRAM

Dept.	No.	Course	Semester Hours
CPS	144	EGR 144 – Fortran for Engineers ¹	2
CHM	123	General Chemistry	4
EGM	101	Mechanics I	3
EGR	103	Introduction to Engineering	2
ENG	111	College Composition I ²	4
MTH	118-119	Analytical Geometry and Calculus	8
MEE	106L	Engineering Design Graphics	2
PHL	103	Introduction to Philosophy	3
PHY	196	General Physics I	3
—	—	Humanistic-Social Studies elective ³	3
Total First-year Credit Requirements			34

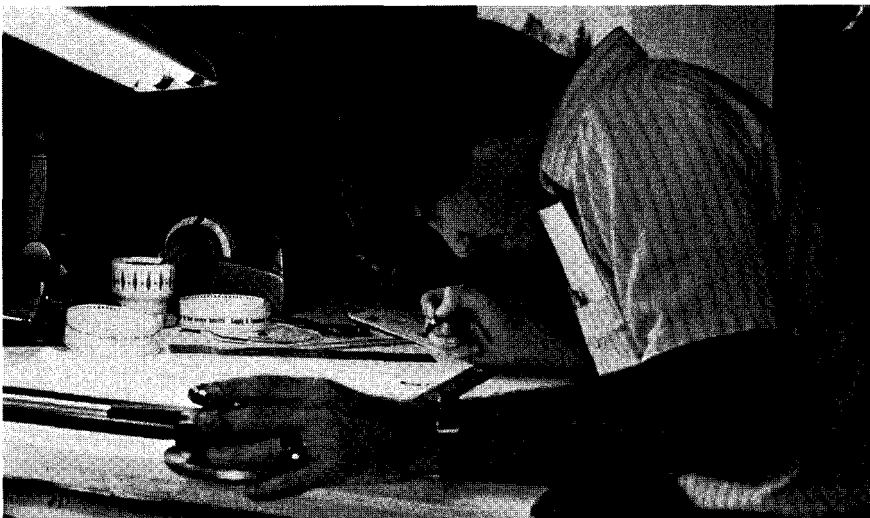
¹ An engineering / computer science team-taught course for engineering students.
² All students entering the University for the first time must take an English placement test. Those students who pass the test are granted 3 semester hour credits for English 111 and take English 112 in their freshman year.
³ Humanistic-social studies electives include economics (see ECO, Chapter VII) and any approved course offerings from the College of Arts and Sciences with the exception of mathematics, physics, chemistry, biology, and computer science. See Chapter VI.

COURSES OF INSTRUCTION – ENGINEERING (EGR)

The courses below provide a broad, uniform basis for subsequent, more specialized courses. For other course descriptions, see departmental designations – for example, MEE (Mechanical Engineering).

EGR 103. INTRODUCTION TO ENGINEERING: An introduction to the School of Engineering, the profession of engineering, and related topics. *2 sem. hrs.*

EGR 144. FORTRAN FOR ENGINEERS (CPS 144): An engineering / computer science team-taught course for engineering students emphasizing basic programming theory and application to engineering problems. *2 sem. hrs.*



DEGREE REQUIREMENTS

A student enrolls in the curriculum prescribed for the academic year in which he is registered as a freshman at the University of Dayton or elsewhere. If for any reason it is necessary or desirable to change to a subsequently established curriculum, a student must meet all of the requirements of the new curriculum.

The degrees — Bachelor of Chemical Engineering, Civil Engineering, Electrical Engineering, Industrial and Systems Engineering, Mechanical Engineering, and Bachelor of 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 of D or better). Although courses may be scheduled in terms other than as listed, all prerequisites and corequisites must be met;
2. The cumulative quality point average in the student's engineering curriculum must be at least 2.0 (C average);
3. The student must have attended the School of Engineering at the University of Dayton during his senior year, carrying at least 30 semester hours.

The semester hours of credit required for graduation in each engineering curriculum administered by the School of Engineering are as follows:

Bachelor of Engineering.....	120
Chemical Engineering	135
Civil Engineering	133
Electrical Engineering.....	127
Industrial and Systems Engineering.....	66 at upper level
Mechanical Engineering.....	132



CHEMICAL ENGINEERING (CME)

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. Courses include inorganic, organic, and physical chemistry. The second part of the curriculum stresses chemical engineering topics such as transport phenomena, thermodynamics, kinetics, unit operations and processes, process control, materials of construction, and design.

The Chemical Engineering department is 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 on the second floor. In addition to the instructional laboratories, the department has a woodworking shop, pipe-fitting shop, analytical laboratory, and darkroom.

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>
Sophomore Year				
CHM	124	General Chemistry	3-3-4 ¹	
CME	203	Material and Energy Balances	3-0-3	
CHM	313	Organic Chemistry		3-3-4
ENG	112	College Composition II	3-0-3	
MTH	218	Analytic Geometry and Calculus III	4-0-4	
MTH	219	Applied Differential Equations		3-0-3
PHL	—	Philosophy elective		3-0-3
PHY	207-8	General Physics	3-0-3	3-0-3
SPE	101	Fundamentals of Effective Speaking		3-0-3
			17	16
Junior Year				
CME	305	Thermodynamics		
CME	324-5	Transport Phenomena		3-0-3
CME	326L	Transport Phenomena Laboratory	3-0-3	3-0-3
CME	381	Applied Mathematics for Chemical Engineers		0-3-1
CHM	303-4	Physical Chemistry	3-0-3	
CHM	314	Organic Chemistry	3-3-4	3-3-4
ELE	321	Basic Electric Theory	3-3-4	
—	—	Humanistic-Social Studies elective		3-0-3
REL	—	Religious Studies elective ²	3-0-3	
			17	17

		Senior Year		
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	0-5-2
CME	430	Chemical Engineering Design		3-0-3
CME	452	Process Control	3-0-3	
CME	453L	Process Control Laboratory		0-3-1
CME	—	Technical electives	3-0-3	6-0-6
—	—	Humanistic-Social Studies elective	3-0-3	
REL	—	Religious Studies elective ²		3-0-3
			17	18

¹ For example: 3-0-3 means 3 class hrs., 0 lab. hrs., 3 sem. hrs. credit.

² Non-Catholic students may substitute Humanistic-Social Studies elective.

FACULTY

Michael A. Bobal, *Chairman*

Professor: Bobal

Associate Professor: Servais

Assistant Professor: Sandy

Adjunct Associate Professors: Hanley, Moon, Rolinski

COURSES OF INSTRUCTION

CME 203. MATERIAL AND ENERGY BALANCES: An introduction to chemical engineering with lectures and problems on material and energy balances as applied to industrial processes. Prerequisites: CHM 123, MTH 118. First term, each year. 3 sem. hrs.

CME 305. THERMODYNAMICS: Development of the fundamental principles of thermodynamics, particularly with respect to chemical engineering processes. Prerequisite: MTH 218. Second term, each year. 3 sem. hrs.

CME 306. KINETICS: Reaction kinetics, catalysis, and adsorption. Prerequisite: CME 305. First term, each year. 3 sem. hrs.

CME 324. TRANSPORT PHENOMENA I: Viscosity, shell momentum balances, isothermal equations of change, thermal conductivity, shell energy balances, nonisothermal equations of change, diffusivity, concentration profiles. Prerequisite: MTH 219. Corequisite: CME 381. First term, each year. 3 sem. hrs.

CME 325. TRANSPORT PHENOMENA II: Friction factor, dimensionless correlations, isothermal macroscopic balances, Bernoulli's Equation, heat transfer coefficients, heat transfer correlations, heat exchangers, nonisothermal macroscopic balances. Prerequisite: CME 324. Second term, each year. 3 sem. hrs.

CME 326L. TRANSPORT PHENOMENA LABORATORY: Viscosity, velocity profiles, temperature profiles, heat transfer coefficients, diffusivity, compressibility factors for gases. Prerequisite: CME 324. Corequisite: CME 325. Second term, each year. 1 sem. hr.

CME 381. APPLIED MATHEMATICS FOR CHEMICAL ENGINEERS: A course supplying the mathematics to support transport phenomena and process control. Topics include vector calculus, solution of partial differential equations and Laplace transforms. Prerequisite: MTH 219. First term, each year. 3 sem. hrs.

CME 411. UNIT OPERATIONS I: Fluid mechanics, transportation of fluids, flow of heat, evaporation, filtration and mixing. Prerequisites: CME 324-325. First term, each year. 3 sem. hrs.

CME 412. UNIT OPERATIONS II; Continuation of CME 411. Distillation, extraction, gas phase mass transfer, gas absorption, drying, and crystallization. Prerequisite: CME 411. Second term, each year. *3 sem. hrs.*

CME 413L. UNIT OPERATIONS LABORATORY: Unit operations equipment and its utilization. Prerequisite: CME 324. First term, each year. *2 sem. hrs.*

CME 414L. UNIT OPERATIONS LABORATORY: Continuation of CME 413L. Prerequisite: CME 325. Second term, each year. *2 sem. hrs.*

CME 430. CHEMICAL ENGINEERING DESIGN: Study of the principles of process development, plant design, and economics. Prerequisite: CME 411. Second term, each year. *3 sem. hrs.*

CME 452. PROCESS CONTROL: 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. *3 sem. hrs.*

CME 453L. PROCESS CONTROL LABORATORY: 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. *1 sem. hr.*

CHEMICAL ENGINEERING ELECTIVES

CME 499. SPECIAL PROBLEMS IN CHEMICAL ENGINEERING: Particular assignments to be arranged and approved by chairman of the department. Credit hours to be determined. *2-6 sem. hrs.*



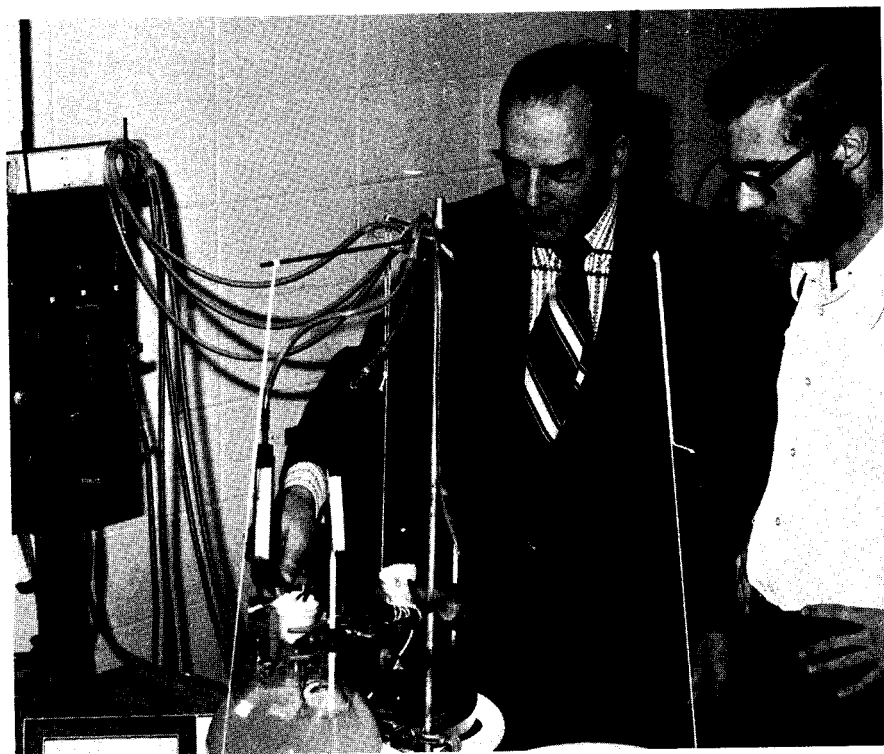
CIVIL ENGINEERING (CIE)

The Department of Civil Engineering and Engineering Mechanics has designed a curriculum to provide a thorough education in the principles fundamental to the civil engineering profession, so that the graduate is prepared for professional practice or advanced study.

During the first two years, emphasis is on those subjects underlying all engineering – English, mathematics, chemistry, physics, graphics, surveying, and mechanics. The third and fourth years are devoted principally to technical subjects relative to environmental, highway, hydraulic, sanitary, soils, structural, and traffic engineering.

Engineering projects, completed or under construction, are visited under the guidance of the instructors. The Student Chapter of the American Society of Civil Engineers is very active, and close association is maintained with the Dayton Section of the American Society of Civil Engineers.

At the end of the junior year, students who appear to be qualified for graduate study may elect to plan their programs so as to complete certain prerequisite courses during their senior year for graduate credit. Thus it is possible to complete the requirements for the bachelor's degree and the master's degree in a total of five years.



PROGRAM – EN2: BACHELOR OF CIVIL ENGINEERING

Dept.	No.	Course	1st Term ¹	2nd Term
Sophomore Year				
			<i>Summer</i>	
			3-0-3	
CIE	205L	Surveying Field Practice ²		
CIE	207-208	Surveying I, II	4-0-4 ¹	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	112	College Composition II	3-0-3	
GEO	218	Engineering Geology		3-0-3
MTH	218	Analytic Geometry and Calculus III	4-0-4	
MTH	219	Applied Differential Equations		3-0-3
PHY	207-208	General Physics	3-0-3	3-0-3
MEE	227L	Engineering Graphics II		0-3-1
			3	17
			17	
Junior Year				
CHM	124	General Chemistry	3-3-4	
CIE	312	Soil Mechanics		3-3-4
CIE	313	Hydraulics	3-3-4	
CIE	315	Theory of Structures		2-3-3
CIE	408B	Seminar	1-0-0	1-0-0
EGM	304	Advanced Strength of Materials	3-0-3	
—	—	Free electives ³		3-0-3
—	—	Humanistic-Social Studies electives	2-0-2	3-0-3
PHL	—	Philosophy elective	3-0-3	
REL	—	Religious Studies elective		3-0-3
			16	16
Senior Year				
CIE	405	Highway Engineering	3-0-3	
CIE	406	Indeterminate Structures		3-0-3
CIE	408B-A	Seminar	1-0-0	1-0-1
CIE	415	Structural Design I	3-0-3	
CIE	417	Reinforced Concrete	3-0-3	
CIE	418	Structural Design II		1-6-3
CIE	433-434	Sanitary Engineering	3-0-3	3-0-3
CIE	—	Technical electives ⁴	3-0-3	3-0-3
REL	—	Religious Studies elective ⁵		3-0-3
			15	16

¹ For example, 3-0-3 means 3 class hrs., 0 lab. hrs., 3 sem. hrs. credit.² Three weeks' special summer schedule which does not conflict with regular third term.³ Non-Catholic students may substitute humanistic-social studies elective.⁴ May select from list of elective courses or, with departmental approval, from courses listed in the Graduate Catalog. A senior student may apply to take additional 500-level courses for graduate credit toward a Master of Science in Civil Engineering degree at the University of Dayton.⁵ To be selected by student.

FACULTY

Seymour J. Ryckman, *Chairman of the Department of Civil Engineering and Engineering Mechanics*

Professors: Kraft, Ryckman, Thomson

Associate Professors: Payne, Weiss

Assistant Professors: Phillips, Shaw

COURSES OF INSTRUCTION

CIE 205L. SURVEYING FIELD PRACTICE: 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. 3 sem. hrs.

CIE 207. SURVEYING I: Theory of Measurements, computation and instrumentation. Boundary and construction surveys, celestial observations, triangulation and level net adjustments, elementary geodesy, and state coordinate systems. Corequisite: MTH 118. First term, each year. 4 sem. hrs.

CIE 208. SURVEYING II: 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. 3 sem. hrs.

CIE 310L. CIVIL ENGINEERING LABORATORY: Experiments and studies relating the engineering properties of certain building materials to their fundamental nature and composition. Prerequisite: EGM 303. Second term, each year. 1 sem. hr.

CIE 312. SOIL MECHANICS: Principles of soil structures, classification, capillarity, permeability, flow nets, shear strength, consolidation, stress analysis, slope stability, lateral pressure, bearing capacity, and piles. Corequisites: CIE 312L, EGM 304. Second term, each year. 3 sem. hrs.

CIE 312L. SOIL MECHANICS LABORATORY: Laboratory test to evaluate and identify soil properties for engineering purposes. Design problems are included. Corequisite: CIE 312. Second term, each year. 1 sem. hr.

CIE 313. HYDRAULICS: Principles of liquid statics and fluid flow including similitude, measuring devices, channel and pipe flow, turbines, and pumps. Corequisites: CIE 313L, EGM 301. 3 sem. hrs.

CIE 313L. HYDRAULICS LABORATORY: Laboratory experiments and problems associated with CIE 313. Corequisite: CIE 313. 1 sem. hr.

CIE 315. THEORY OF STRUCTURES: Analysis of statically determinate trusses, beams, and frames subjected to fixed and moving loads. Prerequisite: EGM 303. 3 sem. hrs.

CIE 390. ENVIRONMENTAL POLLUTION CONTROL I: A study of environmental pollution problems relating to air, water, and land resources. Includes pollution causes and effects as well as technology for solving the problems. Legal and political considerations. For junior and senior students other than Civil Engineering. Credit may not be applied for Civil Engineering degree. Prerequisite: some chemistry knowledge. 3 sem. hrs.

CIE 402. STRUCTURAL DESIGN II: Concentrated loads on slabs, beams; composite construction, rigid frames, flat slabs as rigid frames, plastic design of rectangular and tee beams. Prerequisites: CIE 407, CIE 415. Corequisite: CIE 402L. Second term, each year. 2 sem. hrs.

CIE 402L. STRUCTURAL DESIGN LABORATORY II: Assigned problems illustrating and affording practice in the design covered in CIE 402. Corequisite: CIE 402. Second term, each year. 2 sem. hrs.

CIE 405. HIGHWAY ENGINEERING: Fundamentals of highway design, construction maintenance, and economics with illustrative practical problems. Prerequisites: CIE 208, CIE 310L. First term, each year. *3 sem. hrs.*

CIE 406. INDETERMINATE STRUCTURES: Analysis of statically indeterminate trusses, beams, and frames subjected to fixed and moving loads. Prerequisite: CIE 315. *3 sem. hrs.*

CIE 408A. SEMINAR: Practice in the presentation and discussion of papers; lectures by staff and prominent engineers. Attendance required of Civil Engineering second-term seniors only. *1 sem. hr.*

CIE 408B. SEMINAR: Practice in the presentation and discussion of papers; lectures by staff and prominent engineers. Attendance required of Civil Engineering sophomores, juniors, and first-term seniors. *no credit*

CIE 415. STRUCTURAL DESIGN I: Design and behavior of structural steel connections, columns, beams, plate girders subjected to tension, compression, bending, shear, torsion, and composite action. Prerequisite: EGM 304. *3 sem. hrs.*

CIE 417. REINFORCED CONCRETE: Design and behavior of reinforced concrete slabs, beams, columns, walls, and footings subjected to tension, compression, bending, shear, and torsion. Prerequisite: CIE 315. *3 sem. hrs.*

CIE 418. STRUCTURAL DESIGN II: A continuation of CIE 415 and CIE 417 where the student puts his acquired knowledge of reinforced concrete and structural steel to work in designing and studying the behavior of complete structures. Prerequisite: CIE 415, 417; Corequisite: CIE 406. Second term, each year. *3 sem. hrs.*

CIE 433. SANITARY ENGINEERING I: An integrated study of the principles of water sanitation, water supply, stream pollution abatement, and waste water disposal systems. Prerequisites: CIE 307, 307L; or 313, 313L. First term, each year. *3 sem. hrs.*

CIE 434. SANITARY ENGINEERING II: A continuation of CIE 433 with brief considerations of municipal and rural sanitation. Prerequisite: CIE 433. Second term, each year. *3 sem. hrs.*

CIVIL ENGINEERING ELECTIVES

In addition to courses listed below, students may select with departmental approval Civil Engineering and Engineering Mechanics courses in the 500 series listed in the Graduate Catalog including such courses as experimental stress analysis, advanced soil mechanics, advanced structural analysis, traffic engineering, prestressed concrete, and foundation design.

CIE 421. CONSTRUCTION ENGINEERING: Organization, planning, and control of construction projects. Includes a study of the use of machinery, economics of equipment, methods, materials, estimates, cost controls, and fundamentals of CPM and PERT. *3 sem. hrs.*

CIE 499. SPECIAL PROBLEMS IN CIVIL ENGINEERING: Particular assignments to be arranged and approved by chairman of the department. Semester hours to be determined. *1-6 sem. hrs.*

ELECTRICAL ENGINEERING (ELE)

The curriculum of the Department of Electrical Engineering is planned with the primary objective of providing a thorough knowledge of the fundamental laws of electricity and the application of these laws in electrical engineering.

Courses are arranged to give the student an understanding of basic principles and practices common to the various fields of electrical engineering so that he is prepared to begin specialization in the field he chooses or to pursue advanced study.

Proper attention is directed to an appreciation of the practical economic factors in the electrical world and to the cultural and social qualities necessary for a successful career in the engineering profession.

PROGRAM – EN3: BACHELOR OF ELECTRICAL ENGINEERING

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term</i> ¹	<i>2nd Term</i>
Sophomore Year				
ENG	112	College Composition II		3-0-3
ELE	231-2	Circuit Theory I & II	3-0-3 ¹	3-0-3
ELE	233	Field Theory I		3-0-3
MTH	218	Analytic Geometry and Calculus III	4-0-4	
MTH	219	Applied Differential Equations		3-0-3
PHL	—	Philosophy elective	3-0-3	
PHY	207-8	General Physics	3-0-3	3-0-3
SPE	101	Fundamentals of Effective Speaking	3-0-3	
			16	15
Junior Year				
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
—	—	Humanistic Social Studies elective	3-0-3	
MTH	—	Mathematics elective ²		3-0-3
REL	—	Religious Studies elective ³		3-0-3
			16	17
Senior Year				
CME	305	Thermodynamics	3-0-3	
ELE	410B-A	Seminar	1-0-0	1-0-1
ELE	413	Communication Engineering	3-0-3	
ELE	431	Energy Conversion	3-0-3	
ELE	432	Automatic Control Systems		3-0-3
ELE	435L-6L	Electrical Engineering Laboratory IV & V	0-2-1	0-2-1
ELE	437L	Electrical Engineering Laboratory VI		0-2-1
ELE	—	Technical electives	3-0-3	3-0-3
—	—	Humanistic Social Studies elective		3-0-3
ISE	313	Engineering Law		2-0-2
REL	—	Religious Studies elective ³	3-0-3	
			16	14

¹ For example, 3-0-3 means 3 class hrs., 0 lab. hrs., and 3 sem. hrs. of credit.

² Selected from list approved by the Department of Electrical Engineering.

³ Non-Catholics may substitute humanistic-social studies elective.

FACULTY

Bernhard M. Schmidt, *Chairman*

Professors: Morgan, Rose, Schmidt, Strnat

Associate Professors: Evers, Fitz, Kubach, Lewis

COURSES OF INSTRUCTION

ELE 231. CIRCUIT THEORY I: Principles of linear circuit theory. Analysis of resistive circuits having constant or time varying sources. Analysis of transient and steady state behavior of simple circuits containing R, L, and C. Introduction to ECAP. Corequisite: MTH 119. 3 sem. hrs.

ELE 232. CIRCUIT THEORY II: Sinusoidal analysis: sinusoidal forcing function, phasor concept, steady-state response, resonance, average power and rms values, magnetically coupled circuits, polyphase circuits. Prerequisite: ELE 231. 3 sem. hrs.

ELE 233. FIELD THEORY I: Vector calculus, static electric fields, conductors, dielectric materials, boundary conditions, field mapping, steady electric currents and their magnetic fields, motion of charged particles. Prerequisite: MTH 218. 3 sem. hrs.

ELE 312. ENGINEERING ELECTRONICS I: A first course on the terminal behavior of electron devices. Topics include qualitative physical description, volt ampere curves, graphical solutions. Formulation of incremental and piecewise linear models. Analysis of simple amplifier circuits. Prerequisite: ELE 232. 3 sem. hrs.

ELE 313. ENGINEERING ELECTRONICS II: Cascaded amplifiers, feedback amplifiers, linear integrated circuits; including steady state and transient response. Oscillators. Digital and switching circuits. Prerequisite: ELE 312. Corequisite: ELE 331. 3 sem. hrs.

ELE 321. BASIC ELECTRIC THEORY: For Chemical, Civil, Mechanical, and Industrial and Systems Engineering students. Fundamental methods of analysis in DC and AC circuits. Prerequisites: PHY 207, MTH 218. 3 sem. hrs.

ELE 322. FUNDAMENTAL ENGINEERING ELECTRONICS: An introduction to electron devices and electronic circuits leading to applications that emphasize instrumentation and control. For students not majoring in electrical engineering. Prerequisite: ELE 321 or equivalent background in DC and AC circuit theory. 2 sem. hrs.

ELE 322L. FUNDAMENTAL ENGINEERING ELECTRONICS LABORATORY: Experiments dealing with electronics, instrumentation, transducers, and automatic control. Corequisite: ELE 322. 1 sem. hr.

ELE 331. CIRCUIT THEORY III: Analysis of transient and steady-state behavior of circuits containing R, L, and C. Use of Laplace transform techniques in circuit theory. Introduction to periodic phenomena and Fourier series analysis. Prerequisites: ELE 232, MTH 219. 3 sem. hrs.

ELE 332. CIRCUIT THEORY IV: A study of techniques for analyzing electrical circuits and systems excited by nonsinusoidal sources. Numerical solution of state equations using the computer. ECAP. Orthogonal functions and singularity functions. Impulse response and convolution integral. Fourier integral and transforms. Prerequisite: ELE 331. 3 sem. hrs.

ELE 333. FIELD THEORY II: Magnetic fields, forces, energy storage; theory of magnetic materials, engineering materials, magnetic circuits; inductance, practical inductors; time varying fields; Maxwell's equations. Prerequisite: ELE 233. 3 sem. hrs.

ELE 334. FIELD THEORY III: Maxwell's equation as an axiomatic foundation of electromagnetics. Plane wave theory, field and energy propagation in unbounded media of various types. Reflection and transmission, stratified media. Guided wave propagation. Resonators. Two-conductor transmission lines. Radiation theory with introduction to antennas. Prerequisite: ELE 333. *3 sem. hrs.*

ELE 335L. ELECTRICAL ENGINEERING LABORATORY I: Experimental situations stressing familiarization with electrical engineering concepts, hardware, devices, instrumentation, and techniques. Corequisite: ELE 232. *1 sem. hr.*

ELE 336L. ELECTRICAL ENGINEERING LABORATORY II: Quantitative experiments dealing with resonance, coupled circuits, magnetic circuits, instrumentation, and measurements. Prerequisite: ELE 335L. *1 sem. hr.*

ELE 338L. ELECTRICAL ENGINEERING LABORATORY III: Electron devices, amplifiers, feedback circuits, switching circuits, power electronics. Prerequisite: ELE 312. *1 sem. hr.*

ELE 343. ENGINEERING ELECTROMAGNETICS: Device and design related electromagnetics for non-Electrical Engineering majors who wish to develop significant electrical engineering design competence. Electric and magnetic forces. Energy storage. Magnetic circuits. Transmission lines. Radiation. Charged particle dynamics. Electro-optic, magneto-optic, and acousto-electric devices. Prerequisite: MTH 219. *3 sem. hrs.*

ELE 410A. SEMINAR: Presentation of papers on contemporary electrical engineering by the students and lectures by engineers in active practice. Required for second-term seniors. *1 sem. hr.*

ELE 410B. SEMINAR: Presentation of papers on contemporary electrical engineering by the students and lectures by engineers in active practice. Required for juniors and first-term seniors. *no credit.*

ELE 413. COMMUNICATION ENGINEERING: Amplitude, angle, and pulse modulation systems. Generation, deletion, and analysis of modulated signals. Power and bandwidth considerations. Introduction to information theory. Prerequisite: ELE 332. *3 sem. hrs.*

ELE 431. ENERGY CONVERSION: Properties and theory of magnetic circuits as applied to electro-mechanical energy conversion. Nonlinear magnetic devices. Introduction to rotating machine analysis. Field and circuit concepts of rotating machines. Rotating fields. Direct current, synchronous, and induction machines. Prerequisites: ELE 331, 333. *3 sem. hrs.*

ELE 432. AUTOMATIC CONTROL SYSTEMS: Open and closed-loop systems, mathematical models for control systems, representation of feedback control systems, servomechanism characteristics, stability analysis. Prerequisite: ELE 332; corequisite: ELE 431. *3 sem. hrs.*

ELE 435L. ELECTRICAL ENGINEERING LABORATORY IV: Digital logic, passive and active filters, networks transmission lines. Prerequisites: ELE 313, 338L. *1 sem. hr.*

ELE 436L. ELECTRICAL ENGINEERING LABORATORY V: Modulation, detection, communication electronics, communication subsystems. Prerequisite: ELE 435L. *1 sem. hr.*

ELE 437L. ELECTRICAL ENGINEERING LABORATORY VI: Experiments dealing with operating and performance characteristics of electromechanical energy converters, application of electronic control to power machinery, and operating and performance characteristics of automatic control systems. Corequisite: ELE 431. *1 sem. hr.*

ELECTRICAL ENGINEERING ELECTIVES

ELE 415. MICROWAVE ENGINEERING: A design-oriented course in microwave engineering. Communication, radar, industrial, scientific, and measurement applications are described. Operating principles and specifications of current building-block subsystems are

investigated in sufficient depth to enable engineering design of microwave systems. Prerequisites: ELE 334, 413. *3 sem. hrs.*

ELE 440. PHYSICAL ELECTRONICS: Introduction to wave mechanics; electron ballistics; theory of metals and semiconductors; electron emission, space charge flow; modern electron devices. Prerequisite: MTH 219. *3 sem. hrs.*

ELE 441. PULSE AND DIGITAL CIRCUITS: Transmission networks, differentiating circuits, clippers, comparators, clammers, the transistor as a switch, logic circuits, multivibrators, time base generators, and pulse amplification. Emphasis on application of modern semiconductor devices. Prerequisite: ELE 313. *3 sem. hrs.*

ELE 499. SPECIAL PROBLEMS IN ELECTRICAL ENGINEERING: Particular assignments to be arranged and approved by chairman of the department. *1-6 sem. hrs.*



ENGINEERING LATE ENTRY (BEN)

Program EN6, the "late entry into engineering program," which leads to the degree of Bachelor of Engineering, was designed especially for those people working in engineering-related fields who wish to complete the baccalaureate degree. The program is interdisciplinary, including appropriate course work in the areas and fields of mechanical, electrical, and industrial and systems engineering. It is adequately supported by courses in mathematics, English, business and philosophy.

In planning courses for this program, the University worked closely with local industry to determine and forecast their requirements for various engineering specialties. A need became apparent for engineers with generalized backgrounds, capable of adapting easily to changing conditions of business and to technological developments. The Bachelor of Engineering Program was designed to meet this need.

Students entering the Bachelor of Engineering Program will be considered for advanced placement through the following:

1. Transfer of credits received from other institutions,
2. Life experience,
3. Acceptable scores from the College Level Examination Program (CLEP).

It is expected that the average student will have considerable advanced standing and finish the program in perhaps four years, taking approximately six semester hours each term. It would be possible for a student to enter the program with no advanced standing, take ten semester hours a term, three terms a year, and finish the program in four years.

The Bachelor of Engineering (late entry) Program is specifically designed for the mature person who is working full time in an engineering-related job. No one less than age 22 may be admitted to this program without special permission. Most students are between 25 and 35 years old, although it is expected that some persons over 50 will register for, and complete, the program.

Classes are held in the evenings and on Saturdays. Laboratory sessions, in the form of Institutes, are held one day a week, usually Saturday, for five successive weeks. All courses are taught by regular departmental faculty and are identical in content with the same numbered courses in the regular day sessions.

Although much course material initially will be presented in the conventional lecture-discussion format, as the program develops, audio video methods of instruction will be increasingly used. These include video tape, motion pictures, slides, audio tapes, and printed material in programmed format. As rapidly as possible, courses will be converted from the lecture format to self-paced, self-directed courses, reinforced by counseling and testing services.

PROGRAM — EN6: BACHELOR OF ENGINEERING

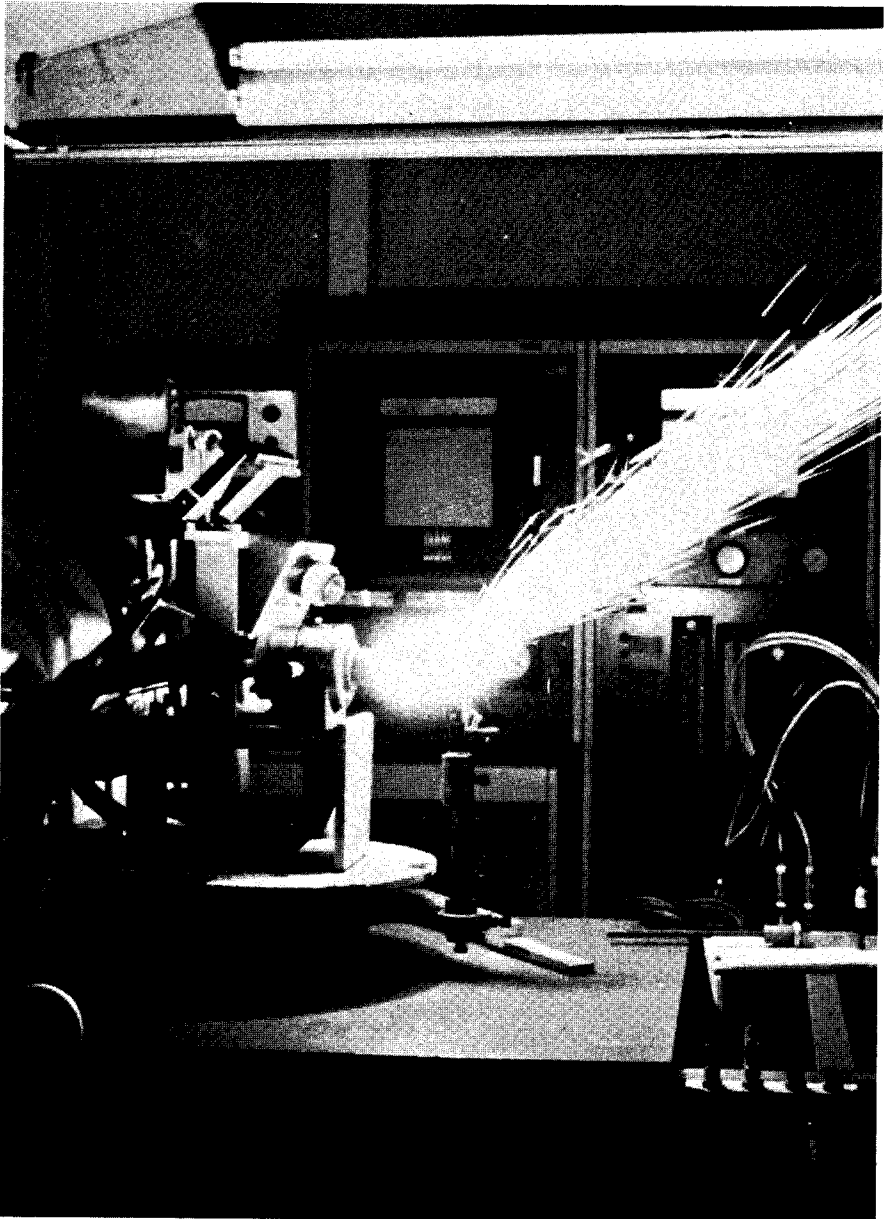
1. Basic Science			<i>Semester Hours</i>
CHM	123	General Chemistry	3
PHY	208	General Physics, Mechanics of Waves	3
			6

2. <i>Communication Skills</i>			
CPS/EGR	144	Fortran for Engineers	2
ENG	112	Industry	3
ENG	118	Composition Reporting in Industry	3
MEE	106L	Engineering Design Graphics	2
			<hr/> 10
3. <i>Mathematics</i>			
MTH	118-19	Analytical Geometry and Calculus I, II	8
MTH	218	Analytical Geometry and Calculus III	4
MTH	219	Applied Differential Equations	3
			<hr/> 15
4. <i>Applied Mathematics</i>			
ISE	302	Engineering Economy	1
ISE	369	Probability and Statistics for Engineers	3
ISE	423	Quality Assurance	3
MEE	316	Mechanical Engineering Analysis	3
			<hr/> 10
5. <i>Engineering Mechanics</i>			
EGM	101	Mechanics I	3
EGM	301	Dynamics	3
EGM	303	Strength of Materials	3
			<hr/> 9
6. <i>Electrical Engineering</i>			
ELE	231-32	Circuit Theory I, II	6
ELE	312	Electronics I	3
ELE	343	Engineering Electromagnetics	3
ELE	431	Electro-Mechanical Energy Conversion	3
			<hr/> 15
7. <i>Mechanical Engineering</i>			
MEE	301	Thermodynamics I	3
MEE	306	Materials and Processes	3
MEE	308	Fluid Mechanics	3
MEE	319	Mechanical Vibrations	3
MEE	410	Heat Transfer	3
MEE	427	Mechanical Design	3
			<hr/> 18
8. <i>Five Institutes (Each 5 days, 7 hours per day)</i>			
ELE	2321	Circuit and Systems Institute	1
ELE	3121	Electronic Systems Institute	1
MEE	3061	Materials Institute	1
MEE	3081	Instrumentation Institute	1
MEE	4101	Power Institute	1
			<hr/> 5
9. <i>Engineering Technical Electives</i>			
Minimum of 6 semester hours selected from one of the following groups (A, B, or C):			
A. MEE	431	Energy Conversion Systems	3
MEE	435	Feedback Control Systems	3
B. ELE	313	Electronics II	3
ELE	331	Circuit Theory III	3
C. ISE	452	Operations Research I	3
ISE	453	Operations Research II	3
			<hr/> 6
10. <i>General electives</i>			
Approved courses			4
			<hr/> 4
11. <i>Business electives</i>			
Any four approved 1-semester-hour courses			4
			<hr/> 4

12. Humanistic-Social Studies

Philosophy and / or Religious Studies	6
Humanistic-Social Studies electives ¹	12
	<hr/>
	18

¹ Humanistic-social studies electives include Economics (see ECO, Chapter VII) and any approved course offerings from the College of Arts and Sciences with the exception of mathematics, physics, chemistry, biology, and computer science. See Chapter VI.



ENGINEERING MECHANICS (EGM)

Engineering Mechanics courses are service courses taught and administered by the Department of Civil Engineering and Engineering Mechanics.

FACULTY

Seymour J. Ryckman, *Chairman of the Department of Civil Engineering and Engineering Mechanics*

Professors: Kraft, Ryckman, Thomson

Associate Professors: Payne, Weiss

Assistant Professors: Phillips, Shaw

COURSES OF INSTRUCTION

EGM 101. MECHANICS I: 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. Corequisite: MTH 119. 3 sem. hrs.

EGM 301. DYNAMICS: Kinematics, including translation, rotation, plane motion, and relative motion; kinetics of particles and bodies by the methods of force – mass – acceleration, work – energy, and impulse – momentum. Prerequisite: EGM 101. 3 sem. hrs.

EGM 303. STRENGTH OF MATERIALS The study of stresses and strains in tension, compression, shear, flexure, and torsion; riveted and welded joints; shear and moment diagrams; stresses and deflections of beams and analysis of columns. Prerequisite: EGM 101. 3 sem. hrs.

EGM 303L. STRENGTH OF MATERIALS LABORATORY: Action of metals, timber, and concrete under load, verification of theories of mechanics. Prerequisite: EGM 303. 1 sem. hr.

EGM 304. ADVANCED STRENGTH OF MATERIALS: Stresses and strains at a point; shear center; unsymmetrical bending; curved beams; approximate analysis of flat plates; torsion of noncircular bars; thick-walled cylinders. Prerequisite: EGM 303. 3 sem. hrs.

INDUSTRIAL AND SYSTEMS ENGINEERING (ISE) UPPER LEVEL

The American Institute of Industrial Engineers recently adopted the following definition: Industrial and Systems Engineering is concerned with the design, improvement, and installation of integrated systems of people, material, equipment, and energy. It draws upon specialized knowledge and skills in the mathematical, physical and social sciences together with the principles and methods of engineering analysis and design to specify, predict, and evaluate the results to be obtained from such systems. It is apparent from this definition that Industrial and Systems Engineering differs from other branches of engineering in two fundamental ways. First, it is the only major branch of engineering that is as concerned with people as it is with things. Second, it is applicable to all types of commercial and individual activities.

Management now looks upon the industrial and systems engineer as one concerned not only with his traditional role in work measurement, cost studies, wage administration, etc., but also with

1. Analyzing, developing, and implementing entirely new systems consistent with modern decision methods and computer technology;
2. Improving the performance and output of existing information systems and systems of men, machines, and materials;
3. Designing new systems and improving the design of existing systems.

Many students major in Industrial and Systems Engineering because they are management oriented but still desire an engineering background and degree. Others do so because they are interested in computer utilization. Whatever the reason, the student should be reminded that Industrial and Systems Engineering is a rigorous engineering discipline.



The major is a 66-semester-hour upper-level program leading to the degree and requires a minimum of 6 semester hours of course work including the following:

Mathematics (including Differential Equations)	15
Physics and / or Chemistry	12
English	6
Basic Engineering (including Dynamics and Thermodynamics)	12
Electric and Electronic Theory	6

In addition the program requires, either as transfer credit or as courses taken in the junior and senior years, the following semester hours:

Religious Studies and / or Philosophy	12
Humanistic-Social Studies electives	9

Students who follow either the Electrical or the Mechanical Engineering programs for the first two years (freshman-sophomore) will not lose credit in transferring to Industrial and Systems Engineering.

PROGRAM – EN5: BACHELOR OF INDUSTRIAL AND SYSTEMS
ENGINEERING

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term</i> ¹	<i>2nd Term</i>
Junior Year ²				
BUS	—	Two 1-semester-hour Business course electives	2-0-2 ¹	
—	—	General electives	3-0-3	6-0-6
—	—	Humanistic-Social Studies elective		3-0-3
ISE	302	Engineering Economy	3-0-3	
ISE	334	Machine Computing Elements		2-2-3
ISE	369	Probability and Statistics for Engineers	3-0-3	
ISE	—	Technical electives	6-0-6	5-0-5
			17	17
Senior Year ²				
BUS	—	Two 1-semester-hour Business course electives	1-0-1	1-0-1
—	—	Humanistic-Social Studies electives	3-0-3	3-0-3
ISE	421	Reliability and Maintainability ³	(3-0-3)	
ISE	423	Quality Assurance ³		(2-2-3)
ISE	428	Design of Experiments ³	(2-2-3)	
ISE	451	Production and Inventory Control ³	(2-2-3)	
ISE	452-3	Operations Research	3-0-3	3-0-3
ISE	454	Cybernetics and Control Theory ³		(3-0-3)
ISE	455	Principles of Systems ³		(3-0-3)
ISE	456	Discrete Time Series ³		(2-2-3)
REL	—	Religious Studies elective ⁴	3-0-3	
			16	16

¹ For example, 3-0-3 means 3 class hrs., 0 lab. hrs., 3 sem. hrs. credit.

² An honors course may be added each term for students designated by director.

³ Elect five out of these seven ISE courses.

⁴ Non-Catholic students may substitute humanistic-social studies elective.

Industrial and Systems Engineering courses also provide the concentration for a Bachelor of Science degree offered by the College of Arts and Sciences. See Systems Science (ISE), Chapter VI.

FACULTY

Merle D. Schmid, *Director of the Technical Studies and Services Division*

Professor: Schmid

Associate Professors: Engler, Kovacs

Adjunct Associate Professor: Nagle

COURSES OF INSTRUCTION

- ISE 302. ENGINEERING ECONOMY: Emphasis on rational scientific methods of economic analysis for engineering and management decision making. Prerequisite: MTH 118.
1-3 sem. hrs.
- ISE 313. ENGINEERING LAW: Legal principles applied to engineering. 2 sem. hrs.
- ISE 334. MACHINE COMPUTING ELEMENTS IN ENGINEERING SYSTEMS: The basic principles underlying the operation of digital analog computing machines presented with emphasis on the functions computers play in the overall design of engineering systems. Prerequisites: MTH 219, MTH 368. 2 sem. hrs.
- ISE 334L. MACHINE COMPUTING ELEMENTS IN ENGINEERING SYSTEMS LABORATORY: Laboratory to accompany ISE 334. One two-hour period each week with hands-on operation of analog, digital, and hybrid computer. 1 sem. hrs.
- ISE 369. PROBABILITY & STATISTICS FOR ENGINEERS: A conceptual development of probability and statistics with engineering applications. Includes probability, Bayes formula, random variables, binomial and normal distributions, population and sample mean and variance, central limit theorem, point and interval estimates of mean, t distribution, hypothesis testing, confidence intervals, regression analysis, and one-way analysis of variance. 3 sem. hrs.
- ISE 381. MANAGEMENT SYSTEMS: Basic concepts and their applications involved in defining objectives, planning, organizing, and controlling man-machine systems in business, industrial, and service organizations. Provides an appreciation of the nature of the problems in managing an organized effort and the applications of engineering techniques used to solve these problems. 1 sem. hr.
- ISE 399. SPECIAL PROBLEMS IN SYSTEMS (JUNIOR): Particular assignments to be arranged and approved by Director of the Division. 1-6 sem. hrs.
- ISE 421. RELIABILITY AND MAINTAINABILITY: Applications of statistical theory to engineering reliability design. Testing methods for determining reliability. Design of components and assemblies for reliability. Prerequisites: CPS 144, MTH 368. 3 sem. hrs.
- ISE 423. QUALITY ASSURANCE: Principles of statistical quality control. Application of p-charts, \bar{x} and R charts, and attribute and variable acceptance sampling plans. Design of quality control systems and procedures. Prerequisites: CPS 144, MTH 368. 2-3 sem. hrs.
- ISE 423L. QUALITY ASSURANCE LABORATORY: Mechanical, electronic, and computer simulations of quality control process. One 2-hour laboratory period each week. Corequisite: ISE 423. 1 sem. hr.
- ISE 428. DESIGN AND ANALYSIS OF ENGINEERING EXPERIMENTS: Emphasis on establishment of test conditions for a complex engineering experiment designed to answer predetermined specific objectives and to analyze the random response through statistical methods. Prerequisites: CPS 144, MTH 368. 2-3 sem. hrs.
- ISE 428L. DESIGN AND ANALYSIS OF ENGINEERING EXPERIMENTS LABORATORY: Laboratory to accompany ISE 428. One 2-hour period each week. Real-world and simulated experiments used as source of data for experimental designs. 1 sem. hr.

ISE 451. PRODUCTION AND INVENTORY PLANNING AND CONTROL: Analysis and design of systems of men and machines for production process; forecaster and feedback adjustments of product demand and labor staffing, scheduling, and control of production and inventory levels. Prerequisites: CPS 144, MTH 368. *2-3 sem. hrs.*

ISE 451L. PRODUCTION AND INVENTORY PLANNING AND CONTROL LABORATORY: Laboratory to accompany ISE 451. One 2-hour period per week. Simulated real-world data are presented to the class, or to each student independently, through interaction digital, analog, or hybrid computer read-outs or through a multi-station visual simulator. *1 sem. hr.*

ISE 452-453. OPERATIONS RESEARCH I AND II: A two-term sequence presenting the fundamental ideas of operations research. Its purpose is to provide the student with the understanding and competence to appreciate the strength as well as the inherent limitations of operations research. No advanced training in business administration or industrial engineering is necessary; however, a mathematical sophistication that is acquired in college-level introductory calculus and infinite mathematics is assumed. Prerequisites: CPS 144, MTH 368. *6 sem. hrs.*

ISE 454. CYBERNETICS AND CONTROL THEORY: Emphasis on total systems concept for solving design problems. An introduction to the theory of control with emphasis on general principles as contrasted with a detailed study of specific control systems. Commonplace and well understood concepts of control such as feed-back, stability, regulation, ultra-stability, information coding, noise. Prerequisites: CPS 144, MTH 368. *3 sem. hrs.*

ISE 455. PRINCIPLES OF SYSTEMS: Basic concepts of structure in dynamic systems course as a starting point for invoking a systems approach to dynamic systems in multidisciplinary courses on urban, ecological, corporate, or other social systems. Prerequisites: CPS 144, MTH 368. *3 sem. hrs.*

ISE 456. DISCRETE TIME SERIES: Emphasis on industrial application of open loop statistical forecasts. Techniques of describing a time series by very general classes of functions. These include but are not limited to trigonometric functions that make it possible to describe any cyclical process accurately and easily. Prerequisites: CPS 144, MTH 368. *2-3 sem. hrs.*

ISE 456L. DISCRETE TIME SERIES LABORATORY: Laboratory to accompany ISE 456. One 2-hour period per week. Simulated real-world discrete time series data are presented for solution to the class, or each student independently, through interactive digital, analog, or hybrid computer read-outs. *1 sem. hr.*

ISE 499. SPECIAL PROBLEMS IN SYSTEMS (SENIOR): Particular assignments to be arranged and approved by Director of the Division. *1-6 sem. hrs.*

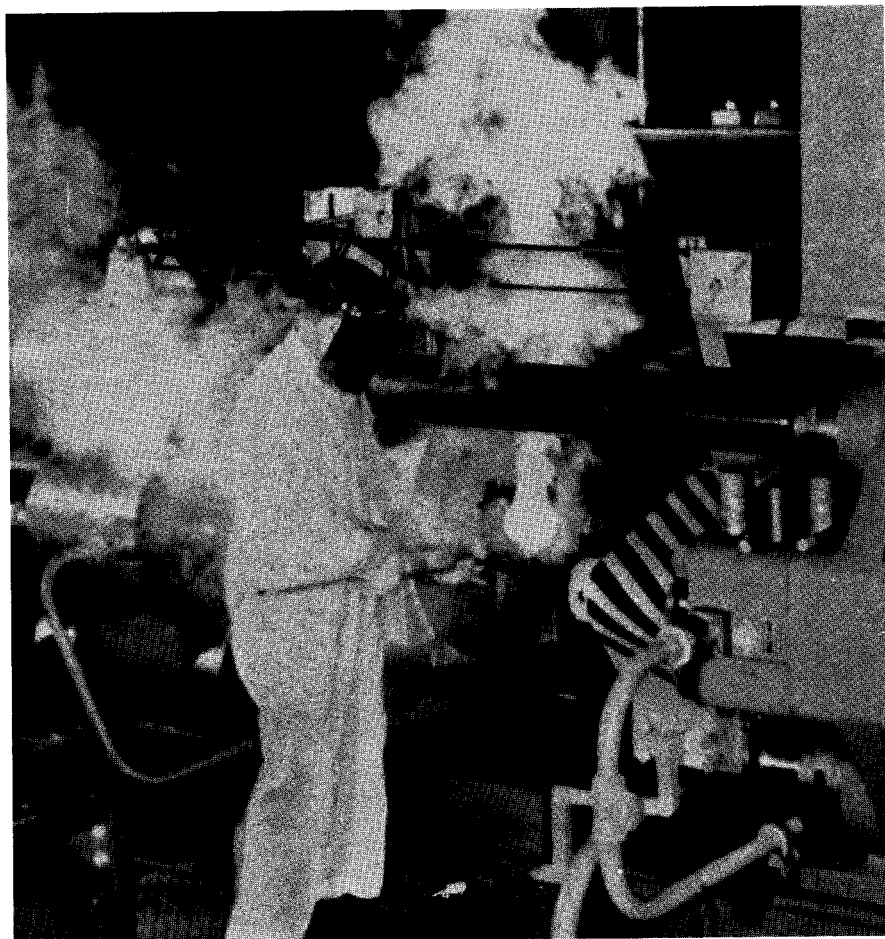
INTERDISCIPLINARY (ENI)

Students should consult with the Director of the Technical Studies and Services Division.

COURSES OF INSTRUCTION

ENI 110-111. SOCIETY AND TECHNOLOGY: Primarily for nonengineering students. A study of significant, current problems in which concepts provide understanding. Interaction of science, technology, and society; matching technology to people, society and the environment; use of technological concepts for analyzing and making decisions about complex problems. No prerequisites. *6 sem. hrs.*

ENI 110L-111L. SOCIETY AND TECHNOLOGY LABORATORY: Laboratory to accompany ENI 110-111. *2 sem. hrs.*

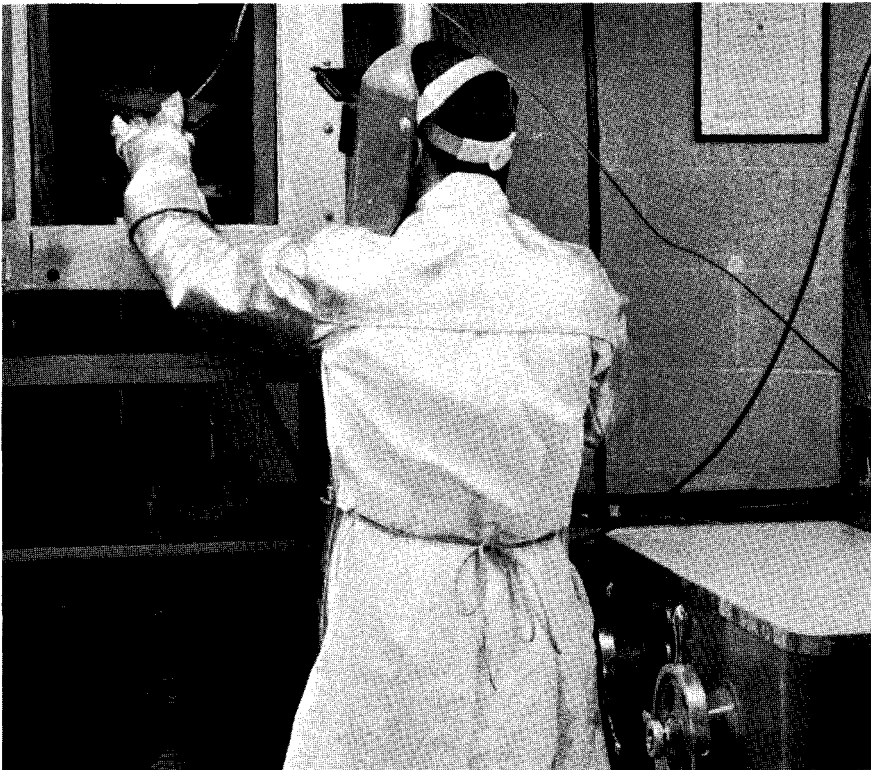


MECHANICAL ENGINEERING (MEE)

The Department of Mechanical Engineering is broadly concerned with energy, including its transformation from one form to another, its transmission, its utilization, and its conversion into useful work. Mechanical engineers conceive, plan, design, and direct the manufacture, distribution, and operation of a wide variety of devices, machines, and systems, including complex man-machine systems for energy conversion, environmental control, transportation, materials handling and processing, and other purposes.

Mechanical engineers are engaged in all the engineering functions, including creative design, applied research, development, application and sales engineering, and management. No other field of engineering provides a better professional base for interdisciplinary activities.

The curriculum offered by the Department of Mechanical Engineering is designed to introduce the student to fundamental scientific and engineering theories, to the use of these theories in solving practical problems, and to the humanities in order that the graduate engineer can better understand the nature of his fellow man and can apply his knowledge to solve problems in the social-economic world. The curriculum also provides the opportunity to continue study at the graduate level and complete the requirement for a Master's degree at the University of Dayton in one additional year.



PROGRAM – EN4: BACHELOR OF MECHANICAL ENGINEERING

Dept.	No.	Course	1st Term ¹	2nd Term
Sophomore Year				
EGM	301	Dynamics	3-0-3 ¹	
ELE	321	Basic Electric Theory		3-0-3
ENG	112	College Composition II	3-0-3	
MTH	218	Analytic Geometry and Calculus III	4-0-4	
MTH	219	Applied Differential Equations		3-0-3
MEE	211	Materials and Processes	2-3-3	
MEE	227L	Engineering Graphics II	0-3-1	
MEE	301	Thermodynamics I		3-0-3
MEE	304	Theory of Engineering Experimentation		1-0-1
MEE	321	Theory of Machines		2-3-3
PHY	207-8	General Physics	3-0-3	3-0-3
			17	16
Junior Year				
EGM	303	Strength of Materials	3-0-3	
ELE	322	Fundamentals of Engineering Electronics	2-2-3	
REL	—	Religious Studies elective ²		3-0-3
MEE	302	Thermodynamics II	3-0-3	
MEE	303	Metallurgy		2-3-3
MEE	308	Fluid Mechanics	3-0-3	
MEE	316	Mechanical Engineering Analysis	3-0-3	
MEE	319	Mechanical Vibrations		3-0-3
MEE	341L	Instrumentation Laboratory		0-3-1
MEE	410	Heat Transfer		3-0-3
MEE	414B	Seminar	1-0-0	1-0-0
MEE	427	Mechanical Design I		3-3-4
			15	17
Senior Year				
MEE	330	Engineering Economics	1-0-1	
MEE	402	Energy Conversion Systems	3-0-3	
MEE	414B-A	Seminar	1-0-0	1-0-1
MEE	418	Advanced Fluid Mechanics	3-0-3	
MEE	424L	Mechanical Engineering Laboratory	0-3-1	
MEE	435	Feedback Control Systems	3-0-3	
MEE	450L	Mechanical Engineering Laboratory Project		0-3-1
MEE	—	Technical electives	3-0-3	3-0-3
PHL	—	Philosophy elective		3-0-3
—	—	Free elective	3-0-3	
REL	—	Religious Studies elective ²		3-0-3
—	—	Science elective		3-0-3
—	—	Humanistic-Social Studies elective		3-0-3
			17	17

¹ For example, 3-0-3 means 3 class hrs., 0 lab hrs., and 3 sem. hrs. credit.² Non-Catholic students may substitute humanistic-social studies elective.

FACULTY

Howard E. Smith, *Chairman**Professors:* Minardi, Pinson, Ray, Smith*Associate Professors:* Bauer, Boehman, Bogner, Chuang, Crisp, Schauer, Wurst278 *Assistant Professors:* Eimermacher, Harmer, Scott

COURSES OF INSTRUCTION

MEE 106L. ENGINEERING DESIGN GRAPHICS: Fundamentals of engineering graphics and the part that graphical communication plays in engineering. Two hours lecture, four hours lab. *2 sem. hrs.*

MEE 211. MATERIALS AND PROCESSES: Introduction to the structure and properties of materials and the metallurgy of steel and cast iron, casting processes, powder metallurgy, and welding. Prerequisite: CHM 123, MEE 106L, PHY 196. Corequisite: MEE 211L. *2 sem. hrs.*

MEE211L. MATERIALS AND PROCESSES LABORATORY: Mechanics of metal cutting, study of machining processes and machine tools. Basic experiments in metal cutting, experiments in workshop metrology, industrial trips. One lecture hour and two laboratory hours per week. Corequisite: MEE 211. *1 sem. hr.*

MEE 227L. ENGINEERING GRAPHICS II: Training in the analysis and graphical solution of fundamental problems involving three dimensions and the applications of these solutions to engineering problems. Prerequisite: MEE 106L. *1 sem. hr.*

MEE 301. THERMODYNAMICS I: The zeroth, first and second laws of thermodynamics for both closed systems and control volumes; properties and processes of gasses and vapors. Prerequisite: MTH 218. *3 sem. hrs.*

MEE 302. THERMODYNAMICS II: Review of second law and entropy. Treatment of irreversibility and availability; mixtures and solutions; chemical reactions; vapor and gas power cycles. Prerequisite: MEE 301. *3 sem. hrs.*

MEE 303. METALLURGY: Electronic structure, bonding, crystal structure, imperfections in crystals, strengthening mechanisms, phase transformations, equilibrium diagrams, heat treatment, mechanical behavior and corrosion. Prerequisite: MEE 211, or permission of instructor. *2 sem. hrs.*

MEE 303L. METALLURGY LABORATORY: Heat treatment of ferrous and aluminum alloys, hardness testing, preparation and examination of metallographic specimens, interpretation of metallurgical microstructures, thermal analysis. Corequisite: MEE 303. *1 sem. hr.*

MEE 304. THEORY OF ENGINEERING EXPERIMENTATION: Conceptual approach toward engineering experimentation; design of experimentation; instrumentation terminology and theory; error analysis; data acquisition and processing; technical report writing. Prerequisite: MTH 218. *1 sem. hr.*

MEE 306. MATERIALS AND PROCESSES: Crystalline nature of solids, mechanical properties of metals, phase transformations, equilibrium diagrams, heat treatment, corrosion. Study of industrial processes, metal cutting and machining. Prerequisites: CHM 123, MEE 106L. Registration restricted to Bachelor of Engineering students only. *3 sem. hrs.*

MEE 306L. MATERIALS AND PROCESSES INSTITUTE: Mechanics of metal cutting, study of machining processes and machine tools; workshop metrology; heat treatment; hardness testing; metallographic examination of materials. Prerequisite: ENG 112 or 118, MEE 306. This Institute will meet 7 clock hours per day for 5 days. Registration restricted to Bachelor of Engineering students only. *1 sem. hr.*

MEE 308. FLUID MECHANICS: Laws and theory relative to incompressible fluids; continuity, momentum and energy relations in flow situations; internal and external flow in laminar and turbulent regimes. Prerequisite: MEE 301. *3 sem. hrs.*

MEE 308I. INSTRUMENTATION INSTITUTE: Theory of basic instrumentation; sensing devices, measurement of various quantities including strain, displacement, pressure, force, speed, flow, rate, temperature, torque, power, sound level. Analysis of experimental data. Prerequisite: ENG 112 or 118, MEE 308. This Institute will meet 7 clock hours per day for 5 days. Registration restricted to Bachelor of Engineering students only. *1 sem. hr.*

MEE 316. MECHANICAL ENGINEERING ANALYSIS: Mathematical modeling and simulation of engineering systems. Solutions and evaluation by digital and analog methods. Prerequisite: MTH 219. *3 sem. hrs.*

MEE 319. MECHANICAL VIBRATIONS: Undamped free vibration; damped free vibration; forced vibration; vibration isolation and absorption; vibrations of systems with several degrees of freedom; transient vibration, Ragleigh method. Prerequisites: EGM 301, 303, MEE 316. *3 sem. hrs.*

MEE 321. THEORY OF MACHINES: Kinematic and dynamic analysis of mechanisms and machines; study of machine elements such as linkages, cams, gears, gear trains, and differentials. Prerequisite: EGM 301. Corequisite: MEE 321L. *2 sem. hrs.*

MEE 321L. THEORY OF MACHINES LABORATORY: Laboratory exercises based on the principles covered in MEE 321. Prerequisite: EGM 301. Corequisite: MEE 321. *1 sem. hr.*

MEE 330. ENGINEERING ECONOMICS: Basic techniques of cost analysis applied to the economic selection of engineering systems. Prerequisite: MTH 218. *1 sem. hr.*

MEE 341L. INSTRUMENTATION LABORATORY: Measurements of basic engineering properties: pressure, speed, frequency, flow rate, torque, power, stress, and strain. Prerequisites: EGM 303, MEE 302, 304. *1 sem. hr.*

MEE 402. ENERGY CONVERSION SYSTEMS: Introduction to direct energy conversion systems; advanced steam power plants; fossil and nuclear fuels; power reactors; aviation and industrial gas turbines; total energy concept; thermoelectric cooling. Prerequisite: MEE 302. Corequisite: MEE 410. *3 sem. hrs.*

MEE 410. HEAT TRANSFER: Laws of conduction, radiation and convection; heat transfer to boiling liquids and condensing vapors; steady state and variable flow heat transfer. Application of digital computer to thermal analysis. Prerequisite: MEE 308. Corequisite: MEE 316. *3 sem. hrs.*

MEE 410L. POWER INSTITUTE: Analysis and testing of selected power generation and heat transfer devices, such as turbo-generators, internal combustion engines, pumps, fans, direct energy conversion devices. Prerequisites: ENG 112 or 118, MEE 410. This Institute will meet 7 clock hours per day for 5 days. Registration restricted to Bachelor of Engineering students only. *1 sem. hr.*

MEE 414A. SEMINAR: Presentation of papers by students and lectures by engineers in active practice. Registration required of all students in their last term prior to graduation. *1 sem. hr.*

MEE 414B. SEMINAR: Presentation of papers by the students and lectures by engineers in active practice. Registration required of all junior and senior students not registered in MEE 414A. *No credit.*

MEE 417. THERMAL ENGINEERING: A study of combustion and energy release processes. Applications to spark and compression ignition, thermal jet, rocket, and gas turbine engines. Special emphasis given to understanding of air pollution problems caused by internal combustion engines. Idealized and actual cycles are studied in preparation for laboratory testing of I. C. engines. Prerequisite: MEE 301, or permission of instructor. *3 sem. hrs.*

MEE 418. ADVANCED FLUID MECHANICS: Application of fundamental fluid mechanics and thermodynamic laws and auxiliary equations to compressible flows. Isentropic flows; normal and oblique shock waves; convection heat transfer. Prerequisites: MEE 308, MTH 219. Corequisite: MEE 410. *3 sem. hrs.*

MEE 420. ENVIRONMENTAL CONTROL: Topics dealing with thermal environments and methods of control. Included are: psychrometrics, solar radiation, heat transmission through solid boundaries, industrial-residential environments, air conditioning load calcu-

lations and systems design, refrigeration principles. Prerequisite: MEE 301, or permission of instructor. *3 sem. hrs.*

MEE 424L. MECHANICAL ENGINEERING LABORATORY: Analysis and testing of selected power generation devices and turbo-machinery, such as turbines, internal combustion engines, pumps, fans, fuel cells, solar cells, thermoelectric power generators. Prerequisite: MEE 341L. Corequisite: MEE 410. *1 sem. hr.*

MEE 425L. MECHANICAL ENGINEERING LABORATORY IV: Analysis and testing of heat transfer devices involving principles of conduction, convection, radiation and condensation. Special heat transfer projects arranged by instructor. Prerequisites: MEE 341L, 410, 424L. *1 sem. hr.*

MEE 427. MECHANICAL DESIGN I: Stress and deflection analysis of machine components, analysis and design of mechanical elements such as gears, bearings, springs, fasteners, and friction devices. Prerequisites: EGM 303, MEE 321. Corequisites: MEE 303, 427L. *3 sem. hrs.*

MEE 427L. MECHANICAL DESIGN LABORATORY I: Design projects involving the application of principles covered in MEE 427. Solution of complex problems with emphasis on synthesis and creative design of mechanical systems. Corequisite: MEE 427. *1 sem. hr.*

MEE 428. MECHANICAL DESIGN II: Advanced topics in stress analysis and deflection analysis, introduction to optimization of mechanical designs. Prerequisite: MEE 427. Corequisite: MEE 428L. *2 sem. hrs.*

MEE 428L. MECHANICAL DESIGN LABORATORY II: Design projects related to the principles covered in MEE 427 and 428, encompassing all aspects of a typical design project from the development of a proposal to the evaluation of the design. Corequisite: MEE 428. *1 sem. hr.*

MEE 431. ENERGY CONVERSION SYSTEMS: Irreversibility and availability; chemical reactions and equilibrium. Energy demands and resources; power cycles; power generation; direct energy conversion. Prerequisite: MEE 301. Registration restricted to Bachelor of Engineering students only. *3 sem. hrs.*

MEE 435. FEEDBACK CONTROL SYSTEMS: Introduction to analysis and design of automatic control systems. Component analysis. Time domain analysis and frequency domain analysis. Stability of complex feedback control systems. Prerequisites: MEE 308, 316, 319, ELE 321. *3 sem. hrs.*

MEE 436. VEHICLE PERFORMANCE ANALYSIS: Ground, air, water, space vehicles. Development of force, moment, and kinematic equations. Advanced applications including stability, control, performance evaluations for selected vehicles. Vehicle simulation including man as an operator. Analog computation. Prerequisite: MTH 218. *3 sem. hrs.*

MEE 450L. MECHANICAL ENGINEERING LABORATORY PROJECT: Laboratory project in thermal engineering, vibrations, controls, material sciences, or aerospace engineering area. Individual or group projects to be arranged by students and the instructor before the term starts. Prerequisite: MEE 424L. *1 sem. hr.*

MEE 499. SPECIAL PROBLEMS IN MECHANICAL ENGINEERING: Particular assignments to be arranged and approved by chairman of the department. *1-6 sem. hrs.*

TECHNICAL STUDIES AND SERVICES DIVISION

Merle D. Schmid, Director

The Technical Studies and Services Division of the School of Engineering is designed to address itself to the broad need of technical education and related support services to individuals and groups both within the engineering profession and from other segments of society. The Division accomplishes this purpose in the following manner:

1. Development and offering of upper-level Industrial and Systems Engineering courses to support Program EN-5: Bachelor of Industrial and Systems Engineering.
2. Development and offering of minor areas of technical study for engineering and science majors.
3. Development and offering of courses and concentrations of study with engineering and technical content for nonengineering majors. These include all Industrial and Systems Engineering upper-level courses necessary to support Program S-15: Bachelor of Science with a Major in Systems Science. (See Chapter VI.)
4. Coordination with and aid in the further development of Program EN6: Bachelor of Engineering.
5. Development and implementation of innovative techniques, procedures, and materials for teaching engineering and technological subject matter.
6. Educational services to business, industry, and government for technically related materials and subject matter. These include coordination and further development of the Management Productivity Round Tables, jointly sponsored by the School of Engineering and the School of Business Administration.

ENGINEERING TECHNOLOGY DIVISION

James L. McGraw, Associate Dean of Engineering

The engineering technologist is concerned with the application of established scientific and engineering knowledge and methods. Therefore, Engineering Technology programs consist of courses especially designed to emphasize the use of engineering knowledge. The engineering technologist is usually involved in the design, testing, and sales of products and equipment; the design management of manufacturing systems; or the supervision of other technologists.

The Engineering Technology Division of the School of Engineering has as its objective the collegiate education of young men and women to be competent engineering and scientific technologists.

It is the philosophy of the Engineering Technology Division that this objective is best accomplished by

1. Providing specialized technical courses which emphasize the use of rational thinking and the application of scientific principles to the practical solution of technological problems,
2. Providing courses in mathematics and basic science sufficient to support the technical courses and to prepare the student for future growth, and
3. Providing education to prepare the student to communicate intelligently and to take his place in society as a responsible, humane citizen.

TRANSFER STUDENTS

The Engineering Technology Division welcomes transfer students from Associate Degree programs in Engineering Technology who wish to pursue the Bachelor of Technology degree. Graduates of two-year Associate Degree programs in Engineering Technology should normally expect to undertake at least two additional years of work for the Bachelor of Technology degree.

OPTIONAL COOPERATIVE EDUCATION PROGRAM

Students majoring in Electronic Engineering Technology, Industrial Engineering Technology, and Mechanical Engineering Technology have the option of participating in the Cooperative Education Program. Work periods (semesters) commence in the sophomore year with work and study alternating on a semester basis. Students applying for the programs will be accepted on a basis of grade point average, motivation, and attitude. The number of students placed in Co-op positions depends on the availability of jobs. See Chapter X.

ACADEMIC PROGRAMS

The Engineering Technology Division offers a unique two-step educational program. All freshmen entering the Engineering Technology Division enroll in one of the 2½ year Associate Degree programs. Upon satisfactory completion of one of these programs they are graduated with an Associate Degree in a specific field of technology.

Any student wishing to continue for the Bachelor of Technology degree must take an additional 1½ years as outlined under the heading Bachelor of Technology.

BACHELOR OF TECHNOLOGY

The curriculum is designed to provide the opportunity for those who hold the Associate in Technology degree to continue their education. Associate in Technology programs are described on the following pages, and a student satisfactorily completing any of these programs is eligible to enroll in the Bachelor of Technology program. Emphasis in the Bachelor of Technology curriculum is placed upon broadening the student's technical knowledge to include areas other than his Associate Degree specialization. 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. This is an E.C.P.D. accredited Engineering Technology curriculum.

PROGRAM – T1: BACHELOR OF TECHNOLOGY

Degree requirements for the Bachelor of Technology:

- A. Completion of the requirements for the Associate in Technology degree.
 B. Completion of a minimum 46 additional semester hours distributed as follows:

Dept.	No.	Course	Semester Hours
ENG	—	English elective	3
STI	306	Engineering Technology Mathematics IV	3
—	—	General elective	3
PHL	—	Philosophy elective	3
REL	—	Religious Studies elective ¹	3
—	—	Humanistic-Social Studies electives ²	6
—	—	Approved Technical electives (minimum of 6 sem. hrs. in major)	24
STI	499	Seminar	1
			46

¹ Non-Catholic students may substitute a humanistic-social studies elective.

² Humanistic-social studies electives include economics (see ECO, Chapter VII), and any approved course offerings from the College of Arts and Sciences with the exception of mathematics, physics, chemistry, biology, and computer science. See Chapter VI.

ASSOCIATE DEGREE PROGRAMS

Programs leading to the degree of Associate in Technology are described in the following pages under departmental and interdepartmental designations (for example, ITI, Industrial Engineering Technology).

BIO-ENGINEERING TECHNOLOGY (BEI)

Students from the Bio-Engineering Technology program could assist in the design and selection of medical instrumentation, medical hardware, and devices for human safety or welfare. A graduate might also be involved in the maintenance supervision, operation, and calibration of existing medical equipment and in patient electrical safety. For further information, consult with the Chairman, Department of Chemical Technology.

PROGRAM – T2: ASSOCIATE IN TECHNOLOGY WITH A MAJOR IN
BIO-ENGINEERING TECHNOLOGY

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term</i> ¹	<i>2nd Term</i>
Freshman Year				
STI	134	Effective Speaking	2-0-2 ¹	
BIO	101	General Biology I	3-0-3	
CTI	122	General Chemistry	3-3-4	
ENG	111	College Composition I	4-0-4	
STI	107-108	Engineering Technology Mathematics I, II	5-0-4	5-0-4
BIO	102	General Biology III		3-3-4
PHL	103	Introduction to Philosophy		3-0-3
MTI	220	Statics and Dynamics		3-0-3
ETI	110	Electrical Circuits I		3-0-3
			17	17
Sophomore Year				
REL	—	Religious Studies elective ²	3-0-3	
CTI	208	Organic Chemistry I	3-0-3	
STI	207	Engineering Technology Mathematics III	5-0-4	
ETI	111	Electrical Circuits II	3-3-4	
STI	251	Economics of Industry	3-0-3	
BIO	207	Anatomy		1-0-1
ETI	206	Electron Devices I		3-3-4
CTI	209	Organic Chemistry II		3-0-3
STI	252	American Political Ideas		3-0-3
MTI	221	Strength of Materials*		
MTI	231	Fluid Mechanics		6-0-6
MTI	232	Thermodynamics		
			17	17
Junior Year				
PHY	203	Modern Technical Physics	3-0-3	
BIO	—	Physiology	3-0-3	
ITI	315	Organization and Management	3-0-3	
MTI	400	BioMechanics	3-0-3	
ETI	400	BioElectronics	3-0-3	
STI	334	Technical Writing	2-0-2	
CTI	300	Seminar	1-0-1	
			18	

¹ For example, 3-0-3 means 3 class hrs., 0 lab. hrs., 3 sem. hrs. of credit.

² Non-Catholic students may substitute a humanistic-social studies elective.

CHEMICAL TECHNOLOGY (CTI)

The Department of Chemical Technology curriculum is designed to develop the student into a responsible, humane citizen with a strong fundamental background in technical subjects. From the technical standpoint, emphasis is on understanding, analysis, and laboratory skills. Nonmajor technical subjects and humanistic-social courses complete the student's academic education. A close faculty-student relationship is maintained, and students are encouraged, through elective courses and special projects, to pursue their own technical interests. Graduates find rewarding careers in a variety of chemical and engineering industries ranging from research and development to manufacturing and including production, management, and sales.

 PROGRAM – T3: ASSOCIATE IN TECHNOLOGY WITH MAJOR IN CHEMICAL TECHNOLOGY

Dept.	No.	Course	1st Term ¹	2nd Term
Freshman Year				
STI	134	Effective Speaking	2-0-2 ¹	
CTI	122	General Chemistry	3-3-4	
STI	107-108	Engineering Technology Mathematics I, II	5-0-4	5-0-4
ENG	111	College Composition I	4-0-4	
PHL	103	Introduction to Philosophy	3-0-3	
MTI	220	Statics and Dynamics		3-0-3
CTI	212	Quantitative Analysis		2-6-4
REL	—	Religious Studies elective ²		3-0-3
MTI	103L	Technical Drawing		0-6-2
			17	16
Sophomore Year				
CTI	208	Organic Chemistry I	3-3-4	
STI	207	Engineering Technology Mathematics III	5-0-4	
STI	251	Economics of Industry	3-0-3	
ITI	315	Organization and Management	3-0-3	
—	—	Technical elective	3-0-3	
CTI	209	Organic Chemistry II		3-3-4
CTI	316	Analytical Instrumentation		3-3-4
CTI	305	Materials Science		3-0-3
ETI	110	Electrical Circuits I		3-0-3
STI	252	American Political Ideas		3-0-3
			17	17
Junior Year				
CTI	313	Topics in Physical Chemistry	3-0-3	
CTI	300	Seminar	1-0-1	
STI	334	Technical Writing	2-0-2	
ETI	111	Electrical Circuits III	3-3-4	
CTI	310	Chemical Engineering Fundamentals	3-3-4	
PHY	203	Modern Technical Physics	3-0-3	
			17	

¹ For example: 3-0-3 means 3 class hrs., 0 lab. hrs., and 3 sem. hrs. of credit.

² Non-Catholic students may substitute a humanistic-social studies elective.

FACULTY

G. William Lawless, *Chairman*

Associate Professor: Lawless

Assistant Professor: Shaw

COURSES OF INSTRUCTION

CTI 122. GENERAL CHEMISTRY: A survey of the general principles of chemistry including elements and their simpler compounds. Special emphasis on topics of importance in industrial activities. *3 sem. hrs.*

CTI 122L. GENERAL CHEMISTRY LABORATORY: To accompany CTI 122. Three hours of laboratory a week. *1 sem. hrs.*

CTI 125. INORGANIC CHEMISTRY: A comprehensive treatment of the fundamentals of general chemistry, with emphasis on their application to the essential groups of elements in the periodic table. Laboratory work is devoted to semi-micro qualitative analysis. Prerequisite: CTI 122. *3 sem. hrs.*

CTI 125L. INORGANIC CHEMISTRY LABORATORY: To accompany CTI 125. Three hours of laboratory a week. *1 sem. hr.*

CTI 208-209. ORGANIC CHEMISTRY: A study of aliphatic, aromatic, and heterocyclic compounds, including reactions, properties, and applications of organic substances. Prerequisite: CTI 125. *6 sem. hrs.*

CTI 208L-209L. ORGANIC CHEMISTRY LABORATORY: To accompany CTI 208-209. Three hours of laboratory per week. *2 sem. hrs.*

CTI 212. QUANTITATIVE ANALYSIS: The fundamental principles and techniques involved in exact analysis. Gravimetric, volumetric, and colorimetric analyses are stressed along with the techniques that accompany these operations such as weighings and separations. Prerequisite: CTI 125. *2 sem. hrs.*

CTI 212L. QUANTITATIVE ANALYSIS LABORATORY: To accompany CTI 202. Six hours of laboratory a week. *2 sem. hrs.*

CTI 300. SEMINAR: Use of technical handbooks, review of computer fundamentals and calculations, use of the library, discussions of employment and continued education, student papers, presentations, projects. *1 sem. hr.*

CTI 305. MATERIALS SCIENCE: An introduction to engineering materials and their properties and behavior. Covers such areas as metallurgy, corrosion, ferrous, nonferrous, and organic materials and composites. *3 sem. hrs.*

CTI 310. FUNDAMENTALS OF CHEMICAL ENGINEERING TECHNOLOGY: An introduction to process variables, materials and energy balance, equilibrium conditions and unit operations. *3 sem. hrs.*

CTI 310L. FUNDAMENTALS OF CHEMICAL ENGINEERING TECHNOLOGY LABORATORY: An introduction to unit operations, equipment and its utilizations. To accompany CTI 310. *1 sem. hr.*

CTI 313. TOPICS IN PHYSICAL CHEMISTRY: Consideration of several topics pertinent to the area of physical chemistry: thermodynamics, states of matter, solutions, electrochemistry, nuclear chemistry, absorption. Prerequisite: CTI 122 or equivalent. *3 sem. hrs.*

CTI 313L. TOPICS IN PHYSICAL CHEMISTRY LABORATORY: To accompany CTI 313. Three hours of laboratory per week. *1 sem. hr.*

CTI 316. ANALYTICAL INSTRUMENTATION: A full picture of the analytical instruments available to the research laboratory and to the manufacturing process. Insofar as possible the students will operate the instruments, or see them in operation, and interpret the resulting spectra and data. A tour of a neighboring laboratory is usually arranged with possible demonstrations of analytical equipment not currently available on campus. *3 sem. hrs.*

CTI 316L. ANALYTICAL INSTRUMENTATION LABORATORY: To accompany CTI 316. Three hours of laboratory per week. *1 sem. hr.*

CTI 400. SELECTED CHEMICAL TOPICS: Investigation and discussion of current technical topics in chemical technology. May be taken more than once. Prerequisite: Permission of the department chairman. *1-4 sem. hrs.*

CTI 451. POLLUTION: The range of environmental pollution problems: air and water, waste disposal, the automobile and alternatives to it, the energy crisis, noise, pesticides, other topics as appropriate. Lectures will attempt to develop an understanding, and thus an appreciation, of nature. Methods of control and the economics will also be considered. *3 sem. hrs.*



ELECTRONIC-CHEMICAL TECHNOLOGY (ECI)

A graduate of the Electronic-Chemical Technology program might design new instruments which would be used in chemical analysis. Other opportunities exist in such fields as micro-electronics, solid state device design, and operational maintenance supervision of the vast array of existing equipment used in chemical analysis. The combination of modern chemistry and electronics provides a wide variety of opportunities in instrumentation and control. For further information consult with the Chairman, Department of Chemical Technology.

PROGRAM – T4: ASSOCIATE IN TECHNOLOGY WITH A MAJOR IN ELECTRONIC-CHEMICAL TECHNOLOGY

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term</i> ¹	<i>2nd Term</i>
Freshman Year				
STI	134	Effective Speaking	2-0-2 ¹	
CTI	122	General Chemistry	3-3-4	
STI	107-108	Engineering Technology Mathematics I, II	5-0-4	5-0-4
ENG	111	College Composition I	4-0-4	
PHL	103	Introduction to Philosophy	3-0-3	
CTI	212	Quantitative Analysis		2-6-4
ETI	110	Electrical Circuits I		3-0-3
REL	—	Religious Studies elective ²		3-0-3
MTI	220	Statics and Dynamics		3-0-3
			17	17
Sophomore Year				
CTI	208	Organic Chemistry I	3-3-4	
ETI	111	Electrical Circuits II	3-3-4	
STI	207	Engineering Technology Mathematics III	5-0-4	
STI	251	Economics of Industry	3-0-3	
MTI	106L	Testing and Measurements	0-3-1	
CTI	209	Organic Chemistry II		3-3-4
CTI	316	Analytical Instrumentation		3-3-4
STI	252	American Political Ideas		3-0-3
CTI	305	Materials Science		3-0-3
ETI	—	Technical elective		3-0-3
			16	17
Junior Year				
CTI	300	Seminar	1-0-1	
ITI	315	Organization and Mangement	3-0-3	
PHY	203	Modern Technical Physics	3-0-3	
CTI	313	Topics in Physical Chemistry	3-0-3	
STI	334	Technical Writing	2-0-2	
ETI	—	Technical elective	5-0-4	
			16	

¹ For example, 3-0-3 means 3 class hrs., 0 lab. hrs., and 3 sem. hrs. credit.

² Non-Catholic students may substitute a humanistic-social studies elective.

ELECTRONIC ENGINEERING TECHNOLOGY (ETI)

The Department of Electronic Engineering Technology prepares students for service as engineering technicians in the industrial world. Emphasis is on the fundamentals of circuit-theory, electronics, and measurements in addition to related courses in mathematics, physics, and chemistry. The graduate is prepared to perform research and development and to serve with manufacturers of electronic equipment and with users of modern electrical and electronic devices. This is an E.C.P.D. accredited Engineering Technology curriculum.

PROGRAM – T5: ASSOCIATE IN TECHNOLOGY WITH A MAJOR IN
ELECTRONIC ENGINEERING TECHNOLOGY

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term</i> ¹	<i>2nd Term</i>
Freshman Year				
CTI	122	General Chemistry		3-3-4
ENG	111	College Composition I	4-0-4 ¹	
ETI	104	Introduction to Electronic Engineering Technology	3-0-3	
ETI	110	Electrical Circuits I		3-0-3
MTI	220	Statics and Dynamics		3-0-3
PHL	103	Introduction to Philosophy		3-0-3
STI	107-108	Engineering Technology Mathematics I, II	5-0-4	5-0-4
STI	151	Introduction to Engineering Technology	3-0-3	
REL	—	Religious Studies elective ²	3-0-3	
			17	17
Sophomore Year				
ETI	111	Electrical Circuits II	3-3-4	
ETI	204, 205	Electrical Measurements	2-3-3	3-3-4
ETI	206	Electron Devices I		3-3-4
ETI	223	Schematics and Diagrams	1-0-1	
ETI	300	Seminar	1-0-0	1-0-0
ETI	324	Digital Computer Fundamentals		3-0-3
ITI	315	Organization and Management		3-0-3
PHY	203	Modern Technical Physics	3-0-3	
STI	207	Engineering Technology Mathematics III	5-0-4	
STI	134	Effective Speaking	2-0-2	
STI	251	Economics of Industry		3-0-3
			17	17
Junior Year				
ETI	300	Seminar	1-0-0	
ETI	306	Electron Devices II	3-3-4	
ETI	327	Pulse Circuit Fundamentals	3-3-4	
ETI	328	Electronic Communications	3-3-4	
ETI	330	Special Electronic Projects	1-0-1	
STI	252	American Political Ideas	3-0-3	
STI	334	Technical Writing	2-0-2	
			18	

¹ For example, 3-0-3 means 3 class hrs., 0 lab. hrs., and 3 sem. hrs. of credit.

² Non-Catholic students may substitute a humanistic-social studies elective.

FACULTY

Richard R. Hazen, *Chairman*

Professor: Hazen

Associate Professors: Farren, Hanneman, Rooney

COURSES OF INSTRUCTION

ETI 104. INTRODUCTION TO ELECTRONIC ENGINEERING TECHNOLOGY: Selected topics in electronic engineering technology including circuits, electron devices, measurements, computers, power, and machinery. 3 sem. hrs.

ETI 110. ELECTRICAL CIRCUITS I: Practical concepts of D.C. circuits: resistance, resistivity, power, and magnetism. Circuit calculations using basic formulas. Prerequisite: STI 107, ETI 104. 3 sem. hrs.

ETI 111. ELECTRICAL CIRCUITS II: Practical concepts of A.C. circuits: inductance, capacitance, reactance, impedance, phase, power, and power factor. Circuit calculations utilizing vectors and complex quantities. Prerequisite: ETI 110, STI 108. 3 sem. hrs.

ETI 111L. ELECTRICAL CIRCUITS LABORATORY: To accompany ETI 111. Three hours of laboratory a week. 1 sem. hr.

ETI 201. FUNDAMENTALS OF ELECTRONIC TECHNOLOGY: Selected topics D.C.-A.C. circuits, measurements and electron devices for non-Electronic Technology students. Prerequisite: STI 108, 215. 3 sem. hrs.

EIT 204. ELECTRICAL MEASUREMENTS: Fundamentals of direct and alternating current measuring instruments and methods of measurement, with particular emphasis on industrial applications. Corequisites: ETI 111, STI 207. 2 sem. hrs.

ETI 204L. ELECTRICAL MEASUREMENTS LABORATORY: To accompany ETI 204. Three hours of laboratory a week. 1 sem. hr.

ETI 205. ELECTRONIC MEASUREMENTS: Study of modern electronic measuring instruments and systems including oscilloscopes, counters, and telemetry. Prerequisite: ETI 204. Corequisite: ETI 206. 3 sem. hrs.

ETI 205L. ELECTRONIC MEASUREMENTS LABORATORY: To accompany ETI 205. Three hours of laboratory a week. 1 sem. hr.

ETI 206. ELECTRON DEVICES I: Fundamentals of vacuum tubes, gas tubes, semiconductor diodes, and their associated circuits. Prerequisite: ETI 111, STI 207. 3 sem. hrs.

ETI 206L. ELECTRON DEVICES I LABORATORY: To accompany ETI 206. Three hours of laboratory a week. 1 sem. hr.

ETI 210. ELECTRICAL MACHINERY: Fundamentals of the construction and application of direct current and alternating current machines and apparatus to industrial uses. Prerequisite: ETI 111. Evening classes only. 3 sem. hrs.

ETI 210L. ELECTRICAL MACHINERY LABORATORY: To accompany ETI 210. Three hours of laboratory a week. Evening classes only. 1 sem. hr.

ETI 211. MOTOR CONTROL: Industrial uses of standard controllers for electric motors. Prerequisite: ETI 210. Evening classes only. 3 sem. hrs.

ETI 211L. MOTOR CONTROL LABORATORY: To accompany ETI 211. Three hours of laboratory a week. Evening classes only. 1 sem. hr.

- ETI 223. SCHEMATICS AND DIAGRAMS: Procedures, standards, and symbols used on electronic circuit diagrams. *1 sem. hr.*
- ETI 226. INTRODUCTION TO ANALOG COMPUTERS AND SERVOMECHANISMS: Fundamentals and design of synchros and related error detectors, rate generators, magnetic amplifiers and friction dampers. Prerequisite: ETI 206. *3 sem. hrs.*
- ETI 226L. ANALOG COMPUTER AND SERVOMECHANISM LABORATORY: To accompany ETI 226. Three hours of laboratory a week. *1 sem. hr.*
- EIT 300. SEMINAR: An exchange of ideas in the area of electronics which includes student lectures, guest lectures, and industrial visitations. Required of all ETI students enrolled in, or who have taken, ETI 111. *No credit.*
- ETI 306. ELECTRON DEVICES II: Fundamentals of transistors, photoelectric devices, silicon controlled rectifiers, and their associated circuits. Prerequisite: ETI 206. *3 sem. hrs.*
- ETI 306L. ELECTRON DEVICES II LABORATORY: To accompany ETI 306. Three hours of laboratory a week. *1 sem. hr.*
- ETI 324. DIGITAL COMPUTER FUNDAMENTALS: Fundamental theory and techniques of electronics data-processing to include binary arithmetic, switching theory (Boolean algebra), and basic circuitry (gates, adders, registers and memory). Prerequisite: ETI 201 or ETI 111. *3 sem. hrs.*
- ETI 327. PULSE CIRCUITS: Selected topics relating to radar, television, and computer circuits including integrators, differentiators, blocking oscillators, multivibrators and time-base generators. Prerequisite: ETI 206 and ETI 324. *3 sem. hrs.*
- ETI 327L PULSE CIRCUITS LABORATORY: To accompany ETI. Three hours of laboratory a week. *1 sem. hr.*
- ETI 328. ELECTRONIC COMMUNICATIONS: Principles of operation of filters, modulators, demodulators and converters. Prerequisite: ETI 206. *3 sem. hrs.*



ETI 328L ELECTRONIC COMMUNICATIONS LABORATORY: To accompany ETI 328. Three hours of laboratory a week. *1 sem. hr.*

ETI 330. SPECIAL ELECTRICAL PROJECTS: 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. *1 sem. hr.*

ETI 400. SELECTED ELECTRONIC TOPICS: Investigation and discussion of current technical topics in Electronic Engineering Technology. May be taken more than once. Prerequisite: Permission of department chairman. *1 sem. hr.*

ETI 450. MICROELECTRONICS: A study of the principles, design techniques, and fabrication processes utilized in the construction of thick film, thin film, and integrated circuits. *3 sem. hrs.*

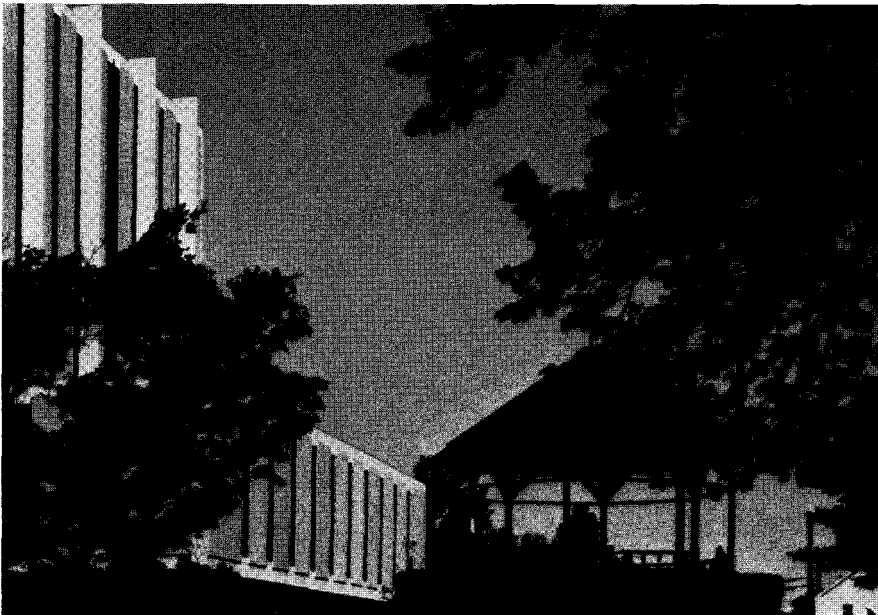
ETI 451. ADVANCED INSTRUMENTATION: A study of modern laboratory instrumentation utilizing the flexibility of an unstructured laboratory where independent projects including modern CRT system, integrating DVM, acoustical equipment, advanced standards, and other projects can be carried out. *2-3 sem. hrs.*

ETI 452. FEEDBACK CONTROLS: The study of signal flow, circuit stability, Nyquist criteria, Bode plots, oscillators, amplifiers, and electromechanical devices. *3 sem. hrs.*

ETI 453. ANTENNAS: The study of basic antenna types and their application to arrays and other systems. *3 sem. hrs.*

ETI 454. ENVIRONMENTAL NOISE CONTROL: Includes the study of noise, noise measurement, physiological effects of noise, Federal regulations and design criteria for noise reduction. *3 sem. hrs.*

ETI 455. BIOTECHNOLOGY I: An engineering technology approach to the medical field including resistance analogy, storage analogy, and biological systems analysis. Student participation at local hospitals is an essential part of the course. *3 sem. hrs.*



ENVIRONMENTAL ENGINEERING TECHNOLOGY (EEI)

The graduate emerging from the Environmental Engineering Technology program would be involved in solving practical problems facing man. The problems of energy, transportation, housing, and pollution await the attention of the technologically oriented. This program provides the graduate with a fundamental knowledge of the major areas of environmental pollution and their inter-relationships. The demands for this technology are found in both industry and government. For further information, consult with the Chairman, Department of Chemical Technology.

PROGRAM – T6: ASSOCIATE IN TECHNOLOGY WITH A MAJOR IN ENVIRONMENTAL ENGINEERING TECHNOLOGY

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term</i> ¹	<i>2nd Term</i>
Freshman Year				
CTI	122	General Chemistry I	3-3-4 ¹	
STI	107-108	Engineering Technology Mathematics I, II	5-0-4	5-0-4
STI	134	Effective Speaking	2-0-2	
ENG	111	College Composition I	4-0-4	
PHL	103	Introduction to Philosophy	3-0-3	
CTI	212	Quantitative Analysis		2-6-4
MTI	220	Statics and Dynamics		3-0-3
REL	—	Religious Studies elective ²		3-0-3
ITI	315	Organization and Management		3-0-3
			17	17
Sophomore Year				
CTI	208	Organic Chemistry I	3-3-4	
STI	207	Engineering Technology Mathematics III	5-0-4	
STI	251	Economics of Industry	3-0-3	
BIO	101	General Biology I	3-0-3	
STI	334	Technical Writing	2-0-2	
CTI	209	Organic Chemistry II		3-3-4
CTI	316	Analytical Instrumentation		3-3-4
CTI	451	Environmental Pollution		3-0-3
ETI	201	Fundamentals of Electronic Technology		3-0-3
BIO	102	General Biology II		3-0-3
			16	17
Junior Year				
CTI	300	Seminar	1-0-1	
GEO	208	Environmental Geology	3-3-4	
ETI	454	Environmental Noise Control	3-0-3	
CIE	390	Environmental Pollution Control	3-0-3	
STI	252	American Political Ideas	3-0-3	
PHY	203	Modern Technical Physics	3-0-3	
			17	

¹ For example, 3-0-3 means 3 class hrs., 0 lab. hours, and 3 sem. hrs. of credit.

² Non-Catholic students may substitute a humanistic-social studies elective.

GEOCHEMICAL TECHNOLOGY (GCI)

The Geochemical Technology curriculum is designed to prepare the student to be both field and laboratory oriented in such areas as outdoor exploration sampling and survey, and in-lab study and analysis. A graduate could gain employment with many state and federal agencies and with those industries requiring an outdoor supply of raw materials (oil, coal, minerals, ore, etc.). Such a background could also lead to employment in the field of oceanography. For further information, consult with the Chairman, Department of Chemical Technology.

PROGRAM – T7: ASSOCIATE IN TECHNOLOGY WITH A MAJOR IN GEOCHEMICAL TECHNOLOGY

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term</i> ¹	<i>2nd Term</i>
Freshman Year				
STI	134	Effective Speaking	2-0-2 ¹	
CTI	122	General Chemistry I	3-3-4	
STI	107-108	Engineering Technology Mathematics I, II	5-0-4	5-0-4
GEO	115	Physical Geology	3-3-4	
ENG	111	College Composition I	4-0-4	
CTI	212	Quantitative Analysis		2-6-4
MTI	220	Statics & Dynamics		3-0-3
GEO	116	Historical Geology		3-3-4
REL	—	Religious Studies elective ²		3-0-3
			18	18
Sophomore Year				
STI	334	Technical Writing	2-0-2	
GEO	201	Minerology	3-3-4	
STI	207	Engineering Technology Mathematics III	5-0-4	
CTI	313	Topics in Physical Chemistry	3-0-3	
STI	251	Economics of Industry	3-0-3	
CTI	316	Analytical Instrumentation		3-3-4
GEO	—	Geology elective		3-0-3
MTI	221	Strength of Materials		3-0-3
CTI	305	Materials Science		3-0-3
ETI	201	Fundamentals of Electronic Technology		3-0-3
			16	16
Junior Year				
GEO	—	Geology elective	5-0-4	
STI	252	American Political Ideas	3-0-3	
MTI	231	Fluid Mechanics	3-0-3	
CTI	300	Seminar	1-0-1	
PHY	203	Modern Technical Physics	3-0-3	
PHL	103	Introduction to Philosophy	3-0-3	
			17	

¹ For example, 3-0-3 means 3 class hrs., 0 lab. hrs., and 3 sem. hrs. of credit.

² Non-Catholic students may substitute a humanistic-social studies elective.

INDUSTRIAL-CHEMICAL TECHNOLOGY (ICI)

A graduate in Industrial-Chemical Technology would apply the combined principles of engineering management and chemistry to the production process. Such areas as quality control, facilities location, and methods and systems analysis would be possible areas of employment in an industrial chemical installation. The curriculum supplies both the fundamental chemical knowledge and the supervision and industrial academic backgrounds. For further information, consult with the Chairman, Department of Chemical Technology.

PROGRAM – T8: ASSOCIATE IN TECHNOLOGY WITH A MAJOR IN
INDUSTRIAL-CHEMICAL TECHNOLOGY

Dept.	No.	Course	1st Term ¹	2nd Term
Freshman Year				
CTI	122	General Chemistry I	3-3-4 ¹	
ENG	111	College Composition I	4-0-4	
PHL	103	Introduction to Philosophy	3-0-3	
STI	107-108	Engineering Technology Mathematics I, II	5-0-4	5-0-4
MTI	103L	Technical Drawing	2-4-2	
ITI	215	Elements of Cost Control		2-0-2
REL	—	Religious Studies elective ²		3-0-3
CTI	212	Quantitative Analysis		2-6-4
MTI	220	Statics and Dynamics		3-0-3
			17	16
Sophomore Year				
STI	207	Engineering Technology Mathematics III	5-0-4	
ITI	108	Production Methods and Control	3-0-3	
CTI	208	Organic Chemistry I	3-3-4	
STI	251	Economics of Industry	3-0-3	
STI	334	Technical Writing	2-0-2	
ITI	230	Motion and Time Study I		2-2-3
STI	252	American Political Ideas		3-0-3
CTI	305	Materials Science		3-0-3
CTI	209	Organic Chemistry II		3-3-4
ETI	201	Fundamentals of Electronic Technology		3-0-3
			16	16
Junior Year				
STI	134	Effective Speaking	2-0-2	
ITI	315	Organization and Management	3-0-3	
CTI	300	Seminar	1-0-1	
ITI	318	Statistical Quality Control	3-0-3	
ITI	332	Plant Layout	2-3-3	
MTI	213	Mechanisms	3-0-3	
PHY	203	Modern Technical Physics	3-0-3	
			18	

¹ For example: 3-0-3 means 3 class hrs., 0 lab. hrs., and 3 sem. hrs. of credit.

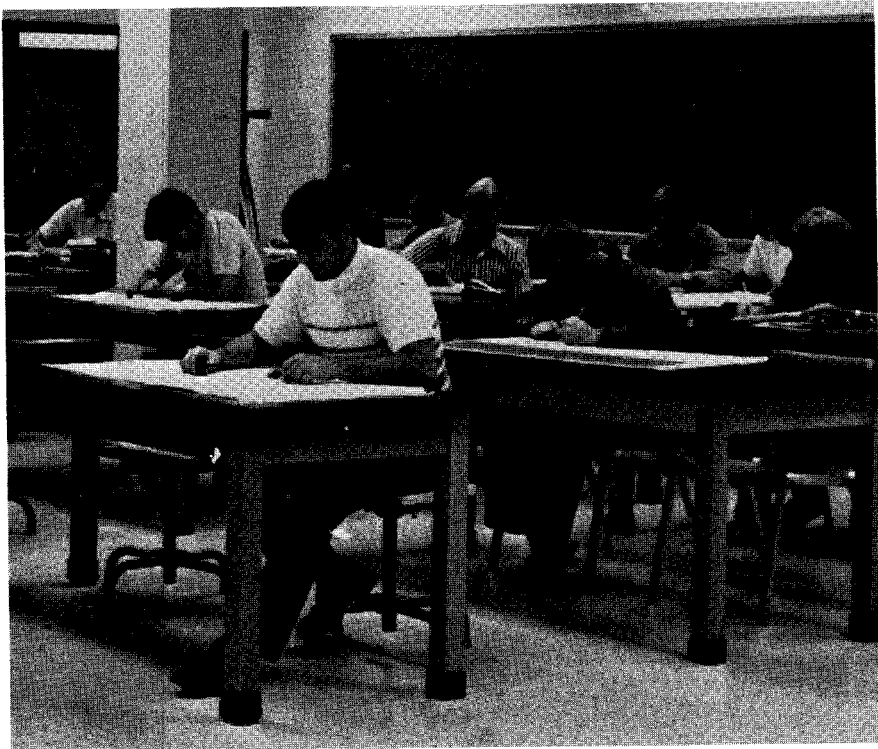
² Non-Catholic students may substitute a humanistic-social studies elective.

INDUSTRIAL ENGINEERING TECHNOLOGY (ITI)

The Department of 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 humane 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, and
3. Providing specialized education designed to prepare students primarily for technological services to management in such industrial engineering areas as production, operations, and control.

The curriculum 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. This is an E.C.P.D. accredited Engineering Technology curriculum.



**PROGRAM – T9: ASSOCIATE IN TECHNOLOGY WITH A MAJOR IN
INDUSTRIAL ENGINEERING TECHNOLOGY**

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term¹</i>	<i>2nd Term</i>
Freshman Year				
ITI	104	Industrial Material and Processes		3-0-3 ¹
MTI	103L	Technical Drawing		2-4-2
MTI	106L	Testing and Measurements		0-3-1
MTI	108L	Manufacturing Processes I Laboratory		0-3-1
STI	107-108	Engineering Technology Mathematics I, II	5-0-4	5-0-4
MTI	220	Statics and Dynamics		3-0-3
STI	134	Effective Speaking	2-0-2	
STI	151	Introduction to Engineering Technology	3-0-3	
ENG	111	College Composition I	4-0-4	
PHL	103	Introduction to Philosophy	3-0-3	
REL	—	Religious Studies elective ²		3-0-3
			16	17
Sophomore Year				
ITI	108	Production Methods and Control	3-0-3	
ITI	225	Elements of Cost Control		3-0-3
ITI	216	Quantitative Methods in Industrial Engineering Technology		3-0-3
ITI	217	Industrial Economics Analysis		3-0-3
ITI	230	Motion and Time Study I		2-3-3
CTI	122	General Chemistry	3-3-4	
MTI	213	Industrial Mechanisms	3-0-3	
ETI	201	Fundamentals of Electronic Technology		3-0-3
PHY	203	Modern Technical Physics	3-0-3	
STI	251	Economics of Industry		3-0-3
STI	252	American Political Ideas	3-0-3	
			16	18
Junior Year				
ITI	305	Labor and Wage Administration		
ITI	315	Organization and Management	3-0-3	
ITI	318	Statistical Quality Control	3-0-3	
ITI	331	Motion and Time Study II	3-0-3	
ITI	332	Plant Layout	2-3-3	
STI	334	Technical Writing	2-3-3	
			2-0-2	
			17	

¹ For example, 3-0-3 means 3 class hrs., 0 lab. hrs., and 3 sem. hrs. of credit.

² Non-Catholic students may substitute a humanistic-social studies elective.

FACULTY

Raymond B. Puckett, *Chairman*

Professor: Puckett

Assistant Professors: Iselin, Staudter

COURSES OF INSTRUCTION

ITI 104. INDUSTRIAL MATERIALS AND PROCESSES: A study of modern industrial materials with emphasis on their chemical and physical properties, and methods by which they may be processed. 3 sem. hrs.

ITI 108. PRODUCTION METHODS AND CONTROL: 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. Prerequisite: ITI 104. *3 sem. hrs.*

ITI 216. QUANTITATIVE METHODS IN INDUSTRIAL ENGINEERING TECHNOLOGY: An introduction to the application of mathematics to decision making in industry. Prerequisite: STI 108. *3 sem. hrs.*

ITI 217. INDUSTRIAL ECONOMIC ANALYSIS: An introduction to the economics of tools, equipment, and machinery, including an elementary study of compound interest and depreciation. Prerequisite: STI 108. *3 sem. hrs.*

ITI 225. ELEMENTS OF COST CONTROL: A survey of the methods of breakdown and cost analysis of labor, material, and overhead used in manufacturing organizations. *3 sem. hrs.*

ITI 230. MOTION AND TIME STUDY I: Fundamentals of work simplification and motion economy using the techniques of motion and time study for the development of effective methods of production. Prerequisite: STI 107. *2 sem. hrs.*

ITI 230L. MOTION AND TIME STUDY LABORATORY I: To accompany ITI 230. Three hours of laboratory a week. *1 sem. hr.*

ITI 305. LABOR AND WAGE ADMINISTRATION: Brief history of labor unionism and labor legislation. Survey of collective bargaining contracts, grievances and arbitration. Wage administration including job evaluation, wage structures, wage incentives and employee evaluation. *3 sem. hrs.*

ITI 315. ORGANIZATION AND MANAGEMENT: A study of the structure of industrial organizations and the responsibilities and duties of a supervisor in developing an effective production team. *3 sem. hrs.*

ITI 318. STATISTICAL QUALITY CONTROL: An introduction to the techniques of industrial process control using statistical methods. Prerequisite: STI 107. *3 sem. hrs.*

ITI 331. MOTION AND TIME STUDY II: A study of the techniques used in work measurement and in setting time standards; including stop watch time study, and work sampling. An introduction to predetermined time systems and to standard data. Prerequisite: ITI 230. *2 sem. hrs.*

ITI 331L. MOTION AND TIME STUDY LABORATORY II: To accompany ITI 331. Three hours of laboratory a week. *1 sem. hr.*

ITI 332. PLANT LAYOUT: A study of the economical arrangement of stocks, machines and layout of aisles for efficient material handling and production. Prerequisites: ITI 108 and MTI 103L. *2 sem. hrs.*

ITI 332L. PLANT LAYOUT LABORATORY: To accompany ITI 332. Three hours of laboratory a week. *1 sem. hr.*

ITI 400. SELECTED INDUSTRIAL TOPICS: Investigation and discussion of current technical topics in industrial engineering technology. May be taken more than once. Prerequisite: Permission of department chairman. *1-4 sem. hrs.*

ITI 415. INDUSTRIAL ENGINEERING TECHNOLOGY SEMINAR: A summary of the most commonly used problem solving tools needed to solve manufacturing production problems. *3 sem. hrs.*

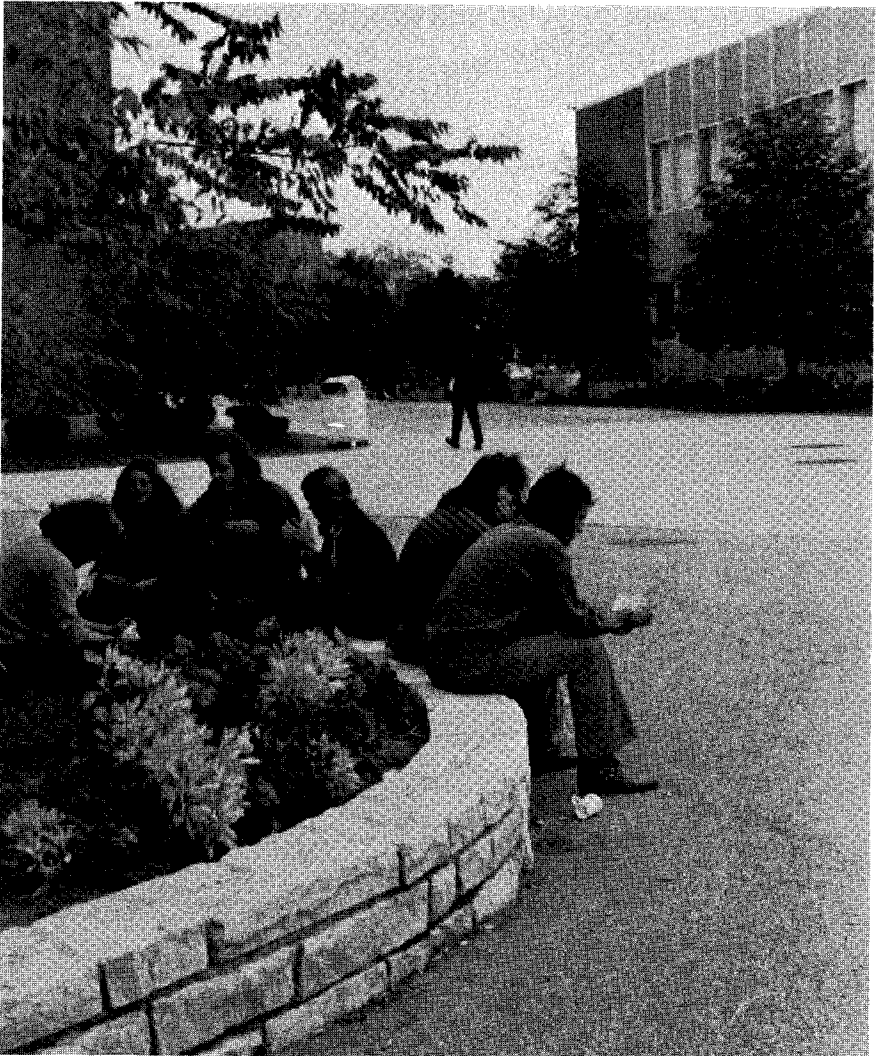
ITI 416. COMPUTER APPLICATIONS IN INDUSTRIAL ENGINEERING TECHNOLOGY: Extended application of existing computer programs to the solution of industrial engineering technology problems. *3 sem. hrs.*

INTERDISCIPLINARY (TII)

Students should consult with the Associate Dean for Engineering Technology.

COURSE OF INSTRUCTION

TII 401. DESIGN OF SYSTEMS: An interdisciplinary course in which a team of students solves a complex problem using a three-phased systems approach. Projects vary from term to term, but all are concerned with societal problems, such as transportation, energy, or environment.
3 sem. hrs.



MECHANICAL ENGINEERING TECHNOLOGY (MTI)

The Department of Mechanical Engineering Technology has designed its curriculum to give the student a practical knowledge of the fundamental principles of mechanical engineering technology as they are applied in industrial and scientific endeavor.

Emphasis is on courses in applied mechanics, strength of materials, mechanisms, thermodynamics, fluid mechanics, fluid power, machines design, and design for manufacturing, and on basic technical courses such as technical drawing, physics, mathematics, and chemistry.

The nontechnical courses (English, speech, and technical writing) are specially designed to teach a student how to formulate and deliver technical communications, both oral and written.

Career opportunities exist for young men and women as engineering technicians in research and development, design of machines, design of processes and systems, manufacturing engineering, technical sales, customer relations and field service, fluid power and controls, supervision, and management. This is an E.C.P.D. accredited Engineering Technology curriculum.

PROGRAM - T10: ASSOCIATE IN TECHNOLOGY WITH A MAJOR IN MECHANICAL ENGINEERING TECHNOLOGY

Dept.	No.	Course	1st Term ¹	2nd Term
Freshman Year				
STI	151	Introduction to Engineering Technology	3-0-3 ¹	
STI	107-108	Engineering Technology Mathematics I, II	5-0-4	5-0-4
ENG	111	College Composition I	4-0-4	
PHL	103	Introduction to Philosophy	3-0-3	
MTI	103L	Technical Drawing	2-4-2	
MTI	108L	Manufacturing Processes I Laboratory	0-3-1	
ITI	104	Industrial Materials and Processes		3-0-3
MTI	215	Statics		3-0-3
MTI	106L	Testing and Measurements		0-3-1
REL	—	Religious Studies elective ²		3-0-3
MTI	213	Industrial Mechanisms		3-0-3
			17	17
Sophomore Year				
STI	207	Engineering Technology Mathematics III	5-0-4	
MTI	104L	Graphical Computations	2-4-2	
MTI	217	Dynamics	3-0-3	
STI	334	Technical Writing	2-0-2	
MTI	221	Strength of Materials	3-0-3	
PHY	203	Modern Technical Physics	3-0-3	
MTI	332	Design for Manufacturing		2-0-2
MTI	232	Thermodynamics		3-0-3
MTI	231	Fluid Mechanics		3-0-3
MTI	330	Design of Machine Elements		3-0-3
STI	252	American Political Ideas		3-0-3
ETI	201	Fundamentals of Electronic Technology		3-0-3
			17	17

Junior Year

MTI	331	Fluid Power	2-3-3
STI	134	Effective Speaking	2-0-2
CTI	122	General Chemistry	3-3-4
ITI	315	Organization & Management	3-0-3
MTI	333L	Measurements II	0-3-1
MTI	335L	Mechanical Design	0-3-1
STI	251	Economics of Industry	3-0-3

17

¹ For example, 3-0-3 means 3 class hrs., 0 lab. hrs., and 3 sem. hrs. or credit.

² Non-Catholic students may substitute a humanistic-social studies elective.

FACULTY

Jesse H. Wilder, *Chairman*

Professor: Wilder

Associate Professors: Mott, Wolff

Assistant Professors: Rolle, Kretzler

COURSES OF INSTRUCTION

MTI 103L. TECHNICAL DRAWING: An introduction to technical drawing with emphasis on orthographic projection and conventional industrial practices in producing technical sketches and completed detail drawings. Four hours of laboratory a week. *2 sem. hrs.*

MTI 104L. GRAPHICAL COMPUTATIONS: Descriptive geometry drawing problems involving points, lines, planes, and geometric shapes presented and solved in orthographic projection form. Four hours of laboratory per week. Prerequisite: MTI 103L. *2 sem. hrs.*

MTI 106L. TESTING AND MEASUREMENTS: Theory and practice of precision dimensional metrology, and standard mechanical testing equipment. Three hours of laboratory a week. Corequisite: ITI 104. *1 sem. hr.*

MTI 108L. MANUFACTURING PROCESSES, I, LABORATORY: Basic concepts of cutting and noncutting metal removal processes, metal cutting theory, forming, joining, and production and general-purpose machines. *1 sem. hr.*

MTI 213. INDUSTRIAL MECHANISMS: Motions, displacements, velocities, cams, linkages, and gears with applications to selected machines or devices. Prerequisite: MTI 220 or 215. *3 sem. hrs.*

MTI 215. STATICS: Force systems, resultants and equilibrium, centroids of areas and centers of gravity of bodies, trusses, frames, beams, friction and moments of inertia of areas and bodies. Three hours of class per week. *3 sem. hrs.*

MTI 217. DYNAMICS: Principles of applied engineering dynamics. Includes kinematics, kinetics, conservation of energy, conservation of momentum, and introduction to mechanical vibrations. Three hours of class per week. Corequisite: MTI 215. *3 sem. hrs.*

MTI 220. STATICS AND DYNAMICS: Principles of applied engineering mechanics. Three hours of class per week. *3 sem. hrs.*

MTI 221. STRENGTH OF MATERIALS: Principles of applied strength of materials primarily with reference to mechanical design. Three hours of class per week. Prerequisites: MTI 220 or 215, STI 207. *3 sem. hrs.*

302 MTI 226L. MECHANISMS: 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 217.

2 sem. hrs.

MTI 231. FLUID MECHANICS: Property of fluids, hydrostatic and buoyant forces, Bernoulli's equation, energy equation, flow of real fluids in pipes, friction losses, measurement flow. Prerequisite: STI 207.

3 sem. hrs.

MIT 232. THERMODYNAMICS: General laws to 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. Prerequisite: STI 207.

3 sem. hrs.

MTI 330. DESIGN OF MACHINE ELEMENTS: Analytical design of springs, shafts, couplings, bearings, gears; applying laws governing simple, variable and combined stresses. Prerequisites: MTI 213, 221.

3 sem. hrs.

MTI 331. FLUID POWER: Study of hydraulic and pneumatic fluid power systems and components as used in industrial, mobile, and aero-space applications. Includes analytical design of circuits, components, and basic control devices. Prerequisite: MTI 231.

2 sem. hrs.

MTI 331L. FLUID POWER LABORATORY: A laboratory to be taken simultaneously with MTI 331. Evaluation of fluid power, components, circuits, and control devices accomplished from physical measurements and visual inspections. Graphical design and further analytical design of circuits and systems.

1 sem. hr.

MTI 332. DESIGN FOR MANUFACTURING: The basic principles of the design of tools for the materials removal, pressworking, casting, and joining processes. Includes material selection and torque, thrust, horsepower, and pressures required. Corequisite: MTI 221.

2 sem. hrs.

MTI 400. SELECTED MECHANICAL TOPICS: Investigations and discussion of current technical topics in mechanical engineering technology. May be taken more than once. Prerequisite: Permission of the department chairman.

1-4 sem. hrs.

MTI 423. DESIGN OF MECHANICAL SYSTEMS: Synthesis of mechanical devices and system. Emphasis on the integration of various machine elements into a single unit. Original individual design projects will be required. Prerequisite: MTI 330.

3 sem. hrs.

MTI 430. DESIGN OF FLUID POWER SYSTEMS: Design of fluid power systems using graphical and analytical optimizing techniques. Includes open and closed loop circuit studies. Original individual design projects will be required. Prerequisite: MTI 331.

3 sem. hrs.

MTI 432. HEAT POWER: Applications of the fundamentals of thermodynamics, emphasizing energy transfer systems such as internal combustion engines, gas turbines, steam power plants, and reversed cycle devices. An introduction to nuclear energy and direct conversion techniques is included. Prerequisite: MTI 232.

3 sem. hrs.

MTI 434. INTRODUCTION TO NUMERICAL CONTROL: Manual programming for basic N/C machines; introduction to computer programming using APT and small computer languages. Topics include geometric terms, N/C machines and applications, and economic justification.

3 sem. hrs.

METALLURGICAL TECHNOLOGY (MLI)

A graduate of the Metallurgical Technology program might develop and test new alloys, improve metals, analyze metallic failures, develop anti-corrosion techniques, and study material with specialized applications. This curriculum is designed to provide a thorough knowledge of modern metallurgical practices. For further information, consult with the Chairman, Department of Chemical Technology.

 PROGRAM – T11: ASSOCIATE IN TECHNOLOGY WITH A MAJOR IN
 METALLURGICAL TECHNOLOGY

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term</i> ¹	<i>2nd Term</i>
Freshman Year				
CTI	122	General Chemistry	3-3-4 ¹	
STI	107-108	Engineering Technology Mathematics I, II	5-0-4	5-0-4
ITI	104	Industrial Materials and Processes	3-0-3	
PHL	103	Introduction to Philosophy	3-0-3	
ENG	111	College Composition I	4-0-4	
MTI	220	Statics and Dynamics		3-0-3
MTI	103L	Technical Drawing		2-4-2
CTI	212	Quantitative Analysis		2-6-4
REL	—	Religious Studies elective ²		3-0-3
			18	16
Sophomore Year				
MTI	106L	Testing and Measurements	0-3-1	
MTI	108L	Manufacturing Processes I Laboratory	0-3-1	
STI	207	Engineering Technology Mathematics III	5-0-4	
—	—	Technical electives	6-0-6	
STI	251	Economics of Industry	3-0-3	
STI	134	Effective Speaking	2-0-2	
MEE	303	Metallurgy		2-2-3
MTI	221	Strength of Materials		3-0-3
CTI	305	Materials Science		3-0-3
STI	252	American Political Ideal		3-0-3
ETI	201	Fundamentals of Electronic Technology		3-0-3
			17	15
Junior Year				
CTI	300	Seminar	1-0-1	
CTI	313	Topics in Physical Chemistry	3-0-3	
ITI	315	Organization and Management	3-0-3	
STI	334	Technical Writing	2-0-2	
MTI	332	Design for Manufacturing	2-0-2	
—	—	Technical elective	3-0-3	
PHY	203	Modern Technical Physics	3-0-3	
			17	

¹ For example, 3-0-3 means 3 class hrs., 0 lab. hrs., and 3 sem. hrs. of credit.

² Non-Catholic students may substitute a humanistic-social studies elective.

PLASTICS TECHNOLOGY (PTI)

The Plastics Technology curriculum is designed to provide the graduate with a broad and fundamental knowledge of the ever-expanding plastics industry. The modern principles of chemistry are combined with polymer formulation, testing, and use. The graduate will be well equipped to seek employment from many industries and agencies. A multitude of new products and applications are waiting to be developed, tested, and marketed. For further information, consult with the Chairman, Department of Chemical Technology.

 PROGRAM – T12: ASSOCIATE IN TECHNOLOGY WITH A MAJOR IN
 PLASTICS TECHNOLOGY

<i>Dept.</i>	<i>No.</i>	<i>Course</i>	<i>1st Term</i> ¹	<i>2nd Term</i>
Freshman Year				
STI	134	Effective Speaking	2-0-2 ¹	
CTI	122	General Chemistry I	3-3-4	
ENG	111	College Composition I	4-0-4	
PHL	103	Introduction to Philosophy	3-0-3	
STI	107-108	Engineering Technology Mathematics I, II	5-0-4	5-0-4
CTI	212	Quantitative Analysis		2-6-4
STI	334	Technical Writing		2-0-2
MTI	106L	Testing and Measurements		0-3-1
REL	—	Religious Studies elective ²		3-0-3
MTI	220	Statics and Dynamics		3-0-3
			17	17
Sophomore Year				
STI	207	Engineering Technology Mathematics III	5-0-4	
CTI	208	Organic Chemistry I	3-3-4	
STI	251	Economics of Industry	3-0-3	
ETI	201	Fundamentals of Electronic Technology	3-0-3	
—	—	Polymers	3-0-3	
ITI	318	Statistical Quality Control		3-0-3
CTI	316	Analytical Instrumentation		3-3-4
—	—	Polymers II		3-0-3
CTI	305	Materials Science		3-0-3
CTI	209	Organic Chemistry II		3-3-4
			17	17
Junior Year				
MTI	221	Strength of Materials	3-0-3	
ITI	315	Organization and Management	3-0-3	
CTI	300	Seminar	1-0-1	
PHY	203	Modern Technical Physics	3-0-3	
STI	252	American Political Ideas	3-0-3	
CTI	313	Topics in Physical Chemistry	3-0-3	
MTI	108L	Manufacturing Processes I Laboratory	0-3-1	
			17	

¹ For example, 3-0-3 means 3 class hrs., 0 lab. hrs., and 3 sem. hrs. of credit.

² Non-Catholic students may substitute a humanistic-social studies elective.

SERVICE COURSES (STI) FOR ENGINEERING TECHNOLOGY

FACULTY

Associate Professor: Strange

Assistant Professors: Fehlmann, Staub

COURSES OF INSTRUCTION

- STI 101. INDUSTRIAL MATHEMATICS: A review of introductory algebra and other selected mathematical topics. Prerequisite for the Engineering Technology program. 3 sem. hrs.
- STI 105. TECHNICAL MATHEMATICS I: 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. 3 sem. hrs.
- STI 106. TECHNICAL MATHEMATICS II: 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. 3 sem. hrs.
- STI 107. ENGINEERING TECHNOLOGY MATHEMATICS I: 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. 4 sem. hrs.
- STI 108. ENGINEERING TECHNOLOGY MATHEMATICS II: Additional topics in trigonometry to include solution of right triangles, solution of oblique triangles, and functions of composite angles. Selected topics in analytic geometry and differential calculus. Prerequisite: STI 107. 4 sem. hrs.
- STI 134. EFFECTIVE SPEAKING: Organization and presentation of spoken materials with special emphasis on voice and physical delivery and audience reaction. 2 sem. hrs.
- STI 151. INTRODUCTION TO ENGINEERING TECHNOLOGY: The environment of engineering technology, an introduction to problem solving techniques and to the design process. 3 sem. hrs.
- STI 206. TECHNICAL MATHEMATICS III: Practical applications of selected topics in differential and integral calculus to Engineering Technology. Prerequisite: STI 106. 3 sem. hrs.
- STI 207. ENGINEERING TECHNOLOGY MATHEMATICS III: Applications of selected topics in differential and integral calculus to engineering technology. Prerequisite: STI 108. 4 sem. hrs.
- STI 251. ECONOMICS OF INDUSTRY: Basic economic principles as applied to major industrial problems. 3 sem. hrs.
- STI 252. AMERICAN POLITICAL IDEAS AND PRACTICES: Fundamentals of democratic processes in government and the practices in which they function. 3 sem. hrs.
- STI 306. ENGINEERING TECHNOLOGY MATHEMATICS IV: Selected topics from ordinary differential equations with an emphasis on operational methods of solution. Stresses problems encountered in engineering technology. Prerequisite: STI 207. 3 sem. hrs.

STI 334. **TECHNICAL WRITING:** A comprehensive treatment of the fundamentals of writing effective technical documentations for industry, which encompass the selection and use of technical illustrations and tables. *2 sem. hrs.*

STI 400. **SPECIAL TOPICS IN ENGINEERING TECHNOLOGY:** Investigation and discussion of current topics in engineering technology. May be taken more than once. Prerequisite: Permission of instructor. *1-4 sem. hrs.*

STI 451. **TECHNOLOGY: IMPACT AND IMPLICATIONS:** Study of the revolutionary impact of technology upon society; its implications for the future; criticism and defense of technology as a social force and identification of responsibility of technologists for social change. *3 sem. hrs.*

STI 499. **SEMINAR:** Selected technical and occupational topics. Required of all Bachelor of Technology students in the second term of the senior year. *1 sem. hr.*



X Interdisciplinary, Experimental, and Special Areas

AFRO-AMERICAN AFFAIRS

The Center for Afro-American Affairs concentrates its efforts on student activities, community action, research, and curriculum development. It meets a variety of the needs of students, especially minority students, with cultural programs, special service projects, and counseling. It works to increase the responsiveness of the University and the wider community to urban problems, using community organizations, public schools, urban leaders, and federally funded projects as resources. (For example, students may intern in various urban and educational agencies in the Dayton area.) The Center sponsors a newsletter, a high school seminar, and an urban and Afro-American collections room.

With the assistance of the Black Graduate Student Affairs Committee, the Center recruits students from predominantly black colleges and universities for graduate study at the University of Dayton. Through the Graduate Fellowship Program, financial aid is available to those who work on Center projects while they are attending the University.

Among the well established results of the Center's pioneering efforts at the University are a program leading to the associate degree in Urban Community Development (see UCD, Chapter VI) and a series of courses in Afro-American Studies (see AAS, this chapter).

Those who are interested in learning more about the Center for Afro-American Affairs should consult with James A. Stocks, director.



AFRO-AMERICAN STUDIES (AAS)

Originated by the Center for Afro-American Affairs and developed with the cooperation of the appropriate academic departments, courses in Afro-American Studies are open to all students of the University. They provide an Afro-American perspective on such disciplines as history, political science, sociology, English, education, and economics.

Students may obtain a minor in Afro-American Studies by successfully completing between 15 and 24 semester hours of course work. While there are not standard course requirements for a minor, each student must construct his program with the help of a faculty advisor. A student may apply Afro-American Studies to certain major concentrations with the approval of his advisor and dean. See also the Urban Life Program (ULP) and the Urban Community Development Program (UCD), Chapter VI.

FACULTY

James A. Stocks, *Director*

Associate Professor: Martin

Assistant Professor: Stocks

Instructors: Sithole, Young

COURSES OF INSTRUCTION

AAS 201. AFRO-AMERICAN LITERATURE I: An historical overview of black literature before 1900 and its relationship to the developmental history of the black man. 3 sem. hrs.

AAS 202. AFRO-AMERICAN LITERATURE II: An historical overview of black literature after 1900 and its relationship to the developmental history of the black man. 3 sem. hrs.

AAS 220. INTRODUCTION TO AFRICAN HISTORY AND POLITICS: Survey of the African continent and its peoples, history, and politics. 3 sem. hrs.

AAS 241. AFRO-AMERICAN HISTORY BEFORE 1900: The historical perspectives of Afro-American development before 1900 and current trends which are products of this experience. Emphasis on selected periods. 3 sem. hrs.

AAS 242. AFRO-AMERICAN HISTORY AFTER 1900: The historical perspectives of Afro-American development after 1900 and current trends which are products of this experience. 3 sem. hrs.

AAS 307. FOUR AFRICAN POLITICAL PHILOSOPHERS: The political ideologies of selected African leaders and their respective countries. Analysis of problems of development in Africa. 3 sem. hrs.

AAS 310. HISTORY OF THE BLACK WORKER: The story of the black worker whose heritage began with slave labor. Special emphasis on the relationship of the black worker to the organized labor movement. 3 sem. hrs.

AAS 312. INSTITUTIONAL RACISM: A study of all prominent theories of institutional racism; comparison of the American set of social institutions with those in societies experiencing more extreme racism and societies having mitigated or eliminated racism. 3 sem. hrs.

AAS 315. HISTORICAL DEVELOPMENT OF BLACK POLITICAL THOUGHT: A study of the historical contributions of selected black political activists and / or intellectuals to the development of black political thought. 3 sem. hrs.

AAS 316. CONTEMPORARY BLACK POLITICAL THOUGHT: Discussion of selected differing contemporary political philosophies which are germane to the continuous political development of Africans and Afro-Americans. *3 sem. hrs.*

AAS 325. WHITE SUPREMACY AND LIBERATION MOVEMENTS IN SOUTH AFRICA: A survey of current racial and political antagonisms between blacks and whites in southern Africa, the historic origins and development of the conflict, and the peculiar forms it has taken in each country. *3 sem. hrs.*

AAS 326. MARXISM AND AFRICAN SOCIALISM: A study of the predicament of the leaders of newly independent African countries in their quest for nation-building and economic development. *3 sem. hrs.*

AAS 334. PATTERNS OF MINORITY RELATIONSHIPS: Exploration of the relationships, positive and negative, between whites and nonwhites; the principles of the relationships as they pertain to social changes and provide methods used by minority groups in relation to one another and to the total white population. *3 sem. hrs.*

AAS 337. CLIENT INTERVENTION IN THE URBAN COMMUNITY: A study of the influence of social conditions on the need for social services. Emphasis on the factors to be considered in providing social services to black people. *3 sem. hrs.*

AAS 360. EDUCATIONAL SYSTEMS AND URBAN GHETTO: Discussion of the effects of "miseducation" and how various levels of schooling, and schools as institutions, define their roles when serving black communities. *3 sem. hrs.*

AAS 361. SEMINAR: STUDIES OF BLACK CHILDREN: Critical concentration on studies that have been made of the learning abilities and patterns and the intellectual capabilities of black children. *3 sem. hrs.*

AAS 493. INDIVIDUAL STUDY AND RESEARCH: Individual investigation of selected topics under the direction of the Center for Afro-American Affairs; meetings with instructor at prearranged intervals. Open to juniors or seniors. May be taken only once. Permission of Director required. *3 sem. hrs.*

AAS 494. RESEARCH - AFRO-AMERICAN STUDIES: Advanced research pertaining to the Afro-American. The methodology of research and the search for organizations and institutions which act as repositories for the kind of information and knowledge sought. *3 sem. hrs.*

COMPUTER CENTER

In the Computer Center, the University's Office for Computing Activities (OCA) operates a large time-sharing computer for the benefit of students, faculty, and staff as well as for academic support services, the registration process, and many other administrative functions.

Various academic departments offer courses in or involving programming and the use of the computer, for which students regularly come to OCA's Data Center to do assignments. In addition, students not enrolled in courses specifically requiring computer use may learn about it and gain experience on a first-come, first-served basis once they have received identifying numbers (applied for at the Office of Computing Activities). The open-shop terminals are in the Data Center, as are keypunch machines for those who need them. The Data Center distributes several manuals produced by the staff to explain the Computer Center's program library, equipment, and capabilities.

Student operators, consultants, and programmers are hired each year to assist the staff in providing computing service to the University community. Students interested in working as any of these are encouraged to visit the office of the

Manager of Operations, the Manager of Academic Services, or the Director of OCA.

COOPERATIVE EDUCATION

Cooperative Education is a program of alternating periods of on-campus study and off-campus work. Among the expected benefits to the student are professional development, on-the-job experience, career identification, increased academic motivation, and financial assistance. The work-training periods extend over fifteen to seventeen weeks in any of the three academic terms (semesters).

Students ordinarily begin their first work-training period with the April or September term following the freshman or the sophomore year. Thereafter, they alternate their terms of work training and study, with the final term before graduation one of study on campus. A student making a commitment to Cooperative Education after the freshman year ordinarily will spend five or six terms in work training and eight terms in study. Three terms of work training are considered the minimum. Transfer students, whether from two-year colleges or other institutions, spend the first term after acceptance at the University in on-campus study. Ordinarily, they will spend a total of three terms in work training off campus unless they have participated in Cooperative Education before transferring here.

The calendar at the end of this section is intended as a sample or planning model for one choosing to enter the Cooperative Education program at the University of Dayton. The Cooperative Education coordinators, however, will prepare an individual planning calendar to fit each student's needs.

Cooperative Education is optional in all participating departments. For the 1975-76 school year, undergraduate majors from the following departments may participate in the Cooperative Education program:

Accounting (ACC)	Finance (FIN)
Business Management (BUS)	Industrial Engineering Technology (ITI)
Computer Science (CPS)	Marketing (MKT)
Criminal Justice (CRJ)	Mathematics (MTH)
Economics (ECO)	Mechanical Engineering (MEE)
Electrical Engineering (ELE)	Mechanical Engineering
Electronic Engineering	Technology (MTI)
Technology (ETI)	Packaging Management (SCP)

Some additional departments in the School of Engineering can now accommodate their majors in a Cooperative Education program that operates in the summer term only. Write for information on these to the Coordinator, Cooperative Programs in Engineering, University of Dayton, Engineering Research Building, Dayton, OH 45469. When the Cooperative Education option becomes available in other departments, this information will be released through the Director of Cooperative Education and the Admissions counseling staff of the University.

A new policy allows optional credit for Cooperative Education work. A participating department may allow a maximum of 12 semester hours toward the total degree requirements, with no more than 3 semester hours for each term of work. Processing for academic credit for the Cooperative Education work experience begins with the Coordinator, who incorporates such planning into an

individual work calendar. Credit hours for work experience then must be approved by the chairman of the department in which the student has an academic major.

To qualify for Cooperative Education, a student must be admitted to the University, be a declared full-time undergraduate major in one of the departments participating in the program, and maintain good academic standing through the semester of study preceding the first work-training period. Maintenance of a cumulative point average of at least 2.0 is necessary to continue in any work-training period beyond the first. Applications from interested students are accepted a minimum of three to four months before the beginning of the first work-training term.

The University of Dayton is an Affirmative Action Equal Opportunity Employer. No person shall, on the basis of race, color, creed, religion, sex, age, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity at the University of Dayton.

Further information on the Cooperative Education programs may be obtained by writing or calling the Director, Cooperative Education, University of Dayton, 300 College Park Avenue, Dayton, OH 45469. Telephone (513)229-3129.

COOPERATIVE EDUCATION CALENDAR

		SEPTEMBER – DECEMBER 1st TERM	JANUARY – APRIL 2nd TERM	MAY – AUGUST 3rd TERM
<i>1st YEAR (Freshman)</i>	GROUP A	STUDY (1)	STUDY (2)	STUDY (3)
	GROUP B	STUDY (1)	STUDY (2)	WORK (1)
<i>2nd YEAR</i>	GROUP A	WORK (1)	STUDY (4)	WORK (2)
	GROUP B	STUDY (3)	WORK (2)	STUDY (4)
<i>3rd YEAR</i>	GROUP A	STUDY (5)	WORK (3)	STUDY (6)
	GROUP B	WORK (3)	STUDY (5)	WORK (4)
<i>4th YEAR</i>	GROUP A	WORK (4)	STUDY (7)	WORK (5)
	GROUP B	STUDY (6)	WORK (5)	STUDY (7)
<i>5th YEAR</i>	GROUP A	STUDY (8)	—	—
	GROUP B	WORK (6)	STUDY (8)	—

GENERAL STUDIES (GEN)

Students who find the traditional programs with departmental majors unsuitable to their purposes, needs, or interests may follow patterns of their own design in choosing courses under the General Studies Program, which leads to the degree of Bachelor of General Studies. See GEN, Chapter VI.

HOME-STUDY COURSES

Students who wish to accrue academic credit during the summer but find it inconvenient to be on campus for classroom courses during either session of the third term should consult the official third-term composite of courses and / or consult with their advisors for information about the home-study courses that several departments offer. These are conducted by mail on a tutorial or semi-tutorial basis for students who have proven their ability and / or their motivation to work alone.



HUMAN RELATIONS

The Human Relations Office serves students, faculty, staff, and administrators in several ways. It encourages and facilitates intergroup communication on campus. It serves as a primary conduit for two-way communication between the University of Dayton and the black community both on and off the campus. It offers to minority students and others personal and group counseling, academic and cultural program support, and a variety of informational and guideline services. Its director is the compliance officer for Affirmative Action / Equal Employment Opportunity (AA / EEO) at the University. For further information, consult with Curtis Hicks, Director of Human Relations.

INFORMATION CENTER

The Information Center, on the first floor of the John F. Kennedy Memorial Union, gives students and others easy access to important miscellaneous data such as the location and telephone numbers of faculty, staff, students, and organizations; the location of academic and other departments; the location of buildings and classrooms; bus schedules; the schedule of on-campus meetings and other events (academic, cultural, athletic, and recreational), listing specific times, places, admission prices if any, names of speakers or performers, etc.; and events in Dayton and the surrounding area that are of special interest or value to University students.

The Center maintains a lost-and-found department and a rack of useful pamphlets, flyers, maps, and University publications. Tickets for Music and Theatre Arts performances are available here, and RTA (city bus system) tickets are for sale.

INTERDEPARTMENTAL SUMMER STUDIES ABROAD

The Interdepartmental Summer Studies Abroad program is open to all students, including high school graduates who will matriculate in the fall. Conducted in England and on the Continent by University of Dayton faculty, it offers a full term of courses in at least six disciplines. The term, of three months' duration, is segmented, with usually three varying disciplines, each offering at least two courses, represented in the month spent at each of three geographical centers. The countries chosen vary from year to year, with the exception of England, which obviously offers so much so easily to Americans. A student may choose one or all of the disciplines and / or locations and earn up to eighteen semester hours of credit. Among the usually participating departments are Communication Arts, English, History, Languages, Performing and Visual Arts, Philosophy, Political Science, Religious Studies, and Secondary Education. The program is administered through the Office of the Dean of the College of Arts and Sciences, where detailed information for the following summer is available in early fall. See also International Education.

INTERDISCIPLINARY STUDIES

All interdisciplinary and experimental studies at the University of Dayton must involve University students and faculty, must be commensurate with University resources or resources accessible to the University, and must further the recognized goals and purposes of the University. When these studies involve disciplines within the College of Arts and Sciences or one of the Schools, they are administered by or through the offices of the respective deans. When they are University-wide, i.e., inter-school, they are usually administered by the Office of the Provost.

ARTS AND SCIENCES INTERDISCIPLINARY (ASI)

Courses offered under the ASI designation are authorized by the Academic Affairs Committee of the College of Arts and Sciences. See Interdisciplinary Studies (ASI), Chapter VI. Additional information is available in the Office of the Dean of the College of Arts and Sciences. The courses below which have been offered are listed as examples. See also SDL.

COURSES OF INSTRUCTION

ASI 210M. TO BE THE CHURCH: A course with the pastoral orientation of recognizing and identifying the faith-stance of a Catholic Christian in the modern world. *1 sem. hr.*

ASI 305. APPALACHIAN STUDIES: The study of the Appalachian culture in a manner involving the disciplines of history, political science, economics, psychology, sociology, education, and religion. Topics to be studied are Appalachian history and its influence on the present, problems and solutions of recent events in Appalachia, influence of local government and federal programs on the people, economic problems of underprivileged peoples and the future of industrial development in the region, ecology of the Appalachian region, literature, art, and music of the area, psychology of social change and community development in the underdeveloped regions, the area of health and mental health, and the problems of the Appalachian migrant. *3 sem. hrs.*

ASI 456. CIVILIZATION OF EARLY ENGLAND: A study of the political, intellectual, and artistic triumphs by which England developed into a great nation during the high Middle Ages and early Renaissance. May be taken for the Senior Synthesis requirement or for Political Science, Philosophy, or English credit. *3 sem. hrs.*

ASI 489. HISTORY OF BEAVERCREEK TOWNSHIP I: Research into primary and secondary sources concerning the history and prehistory of Beaver Creek Township in Greene County, Ohio. Materials will include but not be limited to County records, school records, interviews, back issues of newspapers, federal and state documents. The course will be independent study in format and the research developed will eventually result in a book. *3 sem. hrs.*

ASI 490. HISTORY OF BEAVERCREEK TOWNSHIP II: A continuation of ASI 489. *3 sem. hrs.*

BUSINESS ADMINISTRATION INTERDISCIPLINARY (BAI)

Information is available in the Office of the Dean of the School of Business Administration. See also Chapter VII.

COURSE OF INSTRUCTION

BAI 497. LABORATORY WORK EXPERIENCE: An off-campus laboratory work position carried out under the auspices of a participating industrial, commercial, educational, health care, or governmental organization located in the greater Dayton area under the ordinary supervisory authority of the participating organization. Positions offered to students are compensatory or noncompensatory. Noncompensatory positions are oriented toward a research project or a special project for the benefit of the participating organization. This offering is available to full-time undergraduate students pursuing a two-year or four-year program. *1-6 sem. hrs.*

EDUCATION INTERDISCIPLINARY (EDI)

Information is available in the Office of the Dean of the School of Education. See also Chapter VIII.

COURSES OF INSTRUCTION

EDI 481. THE TEACHER IN THE INDIVIDUALIZED CLASSROOM: An examination of the various roles a teacher in the individualized classroom is called on to model. The course presents not only a theoretical model for the teacher role but also laboratory experience in which the student can experiment with the various behaviors. First term. *3 sem. hrs. or 5 quarter hrs.*

EDI 482: THE STUDENT IN THE INDIVIDUALIZED CLASSROOM: Focus on ways in which the structure of the classroom can be used to enhance the learning capacities of the individual student. The impact of various educational strategies on the learner is logged. Second term. *3 sem. hrs. or 5 quarter hrs.*

EDI 496. THE USE OF MEDIA – THE NEWSPAPER IN THE CLASSROOM: A course designed to teach pre-service and in-service teachers how a newspaper can be used as a living textbook to teach "media literacy" and academic skills to elementary, junior high and senior high school students. Students will also learn the tasks various personnel perform in publishing a newspaper. The course is co-sponsored by the Dayton Journal Herald. *2 sem. hrs.*

ENGINEERING INTERDISCIPLINARY (ENI)

Information is available in the Office of the Dean of the School of Engineering. See also Chapter IX, ENI and ISE.

COURSES OF INSTRUCTION

ENI 110-111. SOCIETY AND TECHNOLOGY: Primarily for nonengineering students. A study of significant current problems in which concepts provide understanding. Interaction of science, technology, and society; matching technology to people, society, and the environment; use of technological concepts for analyzing and making decisions about complex problems. No prerequisite. *6 sem. hrs.*

110L-111L. SOCIETY AND TECHNOLOGY LABORATORY: Laboratory to accompany ENI 110-111. *2 sem. hrs.*

ENGINEERING TECHNOLOGY INTERDISCIPLINARY (TII)

Information is available in the Office of the Associate Dean for Engineering Technology. See also Chapter IX.

COURSE OF INSTRUCTION

TII 401. DESIGN OF SYSTEMS: An interdisciplinary course in which a team of students solves a complex problem using a three-phased systems approach. Projects vary from term to term, but all are concerned with societal problems, such as transportation, energy, or environment. 3 sem. hrs.

UNIVERSITY-WIDE INTERDISCIPLINARY (UDI)

Courses considered suitable for the UDI designation are submitted for approval to the Committee on Review of Experimentation, which is responsible to the Vice President for Academic Affairs and Provost. See also AAS.

COURSES OF INSTRUCTION

UDI 101. COMPUTER LITERACY: Computers and their uses, taught primarily by the computer. 1 sem. hr.

UDI 130M. BACKPACKING: Introduction and practical exposure to skills and knowledge necessary for the enjoyment of backpacking. 1 sem. hr.

UDI 130M. RECREATIONAL BOATING: Beginning skills in small water craft operation and water safety. Students successfully completing the course receive Natural Resources Small Craft Instructors Certification. 2 sem. hrs.

UDI 143M. NONVIOLENCE: A comparative study. Violence studied as cultural adaptation or inherited tendency and as learned behavior. Nonviolence from the perspectives of tactics, history, and practicality. ½ sem. hr.

UDI 223M. WOMEN AND HEALTH CARE: Course to help women come to a greater understanding of the physical aspects and functions of their bodies. Includes self-defense. 1 sem. hr.

UDI 245M. BOTANY MADE SIMPLE: General information on how plants grow and function, including basic terminology, identification and function of plant organs, use of a plant key, and methods of propagation. 1 sem. hr.

UDI 262M. ECONOMICS OF PERSONAL TRANSPORTATION: A significant part of one's real income is expended on transportation. This course surveys not only the economic but also the legal, social, environmental, and recreational aspects of modern transportation, particularly those associated with owning and operating an automobile. 1 sem. hr.

UDI 264M. SHORT HISTORY OF TRANSPORTATION IN THE U.S.: A study of transportation by water, land, and air, with emphasis on Ohio and on Dayton's regional transportation problem. 1 sem. hr.

UDI 268M. URBAN TRANSPORTATION TECHNOLOGY: A survey of the state of the technology of urban transportation systems, with emphasis on propulsion-system and vehicle-design innovations and on the effect of environmental and social concerns on the development of future systems. 1 sem. hr.

UDI 290M. LOVE AND FRIENDSHIP: A short survey of the writings on love and friendship from classical times to the present, presented from the perspectives of theology, philosophy, and psychology. 1 sem. hr.

UDI 298M. MUSIC AND THE AMERICAN APOCALYPSE: An examination of the turmoil of the late '60's to '70's through the music of that period — how it reflected, sometimes led, and polarized the revolution of the counterculture. Reading and listening assignments and a student project. *1 sem. hr.*

UDI 322M. PHILOSOPHY OF WOMEN: The issue of Women's Rights in relation to the philosophical issue of what it means to be a human being, specifically, a woman human being. Various schools of philosophy surveyed, with major emphasis on Simone de Beauvoir's development of the issue. *1 sem. hr.*

UDI 323M. WOMEN: EXPLORATION AND CELEBRATION: A course offered in conjunction with a week-long workshop on women. Speakers focus on the feminist movement, the arts, education, health care, etc. *1 sem. hr.*

UDI 344. PARAMETERS OF PEACE: Developing competencies in "peacemaking," Concentration specifically on peace studies. *3 sem. hrs.*

UDI 346M. POLITICS AND THE PRESS: The impact of the press on selected aspects of the political-governmental system: the relationship between government and the press in a democratic society, the role of political journalists and reporters in the presidential selection process, investigative reporting at the national and local level. *½ sem. hr.*

UDI 348M. CONGRESSIONAL CONTROL OF MILITARY: An examination of the means available to the members of the Congress to influence and control the behavior of the American military. *½ sem. hr.*

UDI 349M. DEFENSE SPENDING AND NATIONAL SECURITY: An examination of defense spending, its relation to the American security and overseas commitments. *½ sem. hr.*

UDI 354M. CONSUMERS PRICE INDEX AND INFLATION: The construction of the index number and how it is used to measure inflation or deflation. Analysis of the inflation problem. *1 sem. hr.*

UDI 355M. ECONOMIC AND BUSINESS RESEARCH: Exploration of sources of data, analysis of data, and formulation of conclusions. Application to an independent research project. *2 sem. hrs.*

UDI 361. EUROPEAN UNIVERSITY STUDENT VALUES: Opportunity to meet with students and faculty from several European universities. Formal lectures, discussions, and readings will focus on values and education. *1, 2, or 3 sem. hrs.*

UDI 370M. RESPONSIBLE NUTRITION IN A HUNGRY WORLD: A research course with the goal of constructing and publishing a practical program of dietary practices based on sound nutrition and a balance of food distribution. *1 or 2 sem. hrs.*

UDI 371M. MANAGEMENT SYSTEMS: Basic concepts and their applications in defining objectives, planning, organizing, and controlling man-machine systems in business, industrial, and service organizations. The nature of the problems in managing an organized effort and the application of engineering techniques to solve these problems. *1 sem. hr.*

UDI 390. LOVE AND FRIENDSHIP: The dynamics of love of self, love of others, and love of God from the perspectives of theology, philosophy, and psychology. Readings in Plato, Aristotle, Cicero, Old Testament prophets, New Testament evangelists, St. Paul, early Church Fathers, St. Augustine, and St. Thomas Aquinas; and in Freud, Kierkegaard, Sartre, Schopenhauer, Buber, C. S. Lewis, Maslow, Kennedy, Greeley, and Fromm. *2 or 3 sem. hrs.*

UDI 412M. SPECIAL PROBLEMS IN COLLEGE HISTORY INSTRUCTION: Practical experience in working with freshmen who are having academic difficulty in the introductory history sections. Evaluation and strategy seminars held periodically throughout the semester. *1 sem. hr.*

UDI 454. BUSINESS ETHICS AND POLITICS: The Christian's conduct in the world of commerce, the world of politics, and the world where the Christian has an added responsibility because he is a Christian. Ethical, political, and sociological issues discussed in the context of Christianity. *1-3 sem. hrs.*

INTERNATIONAL EDUCATION

The Office of International Education was established to serve three vital functions at the University: coordinate, guide, and counsel programs for studies abroad; advise and service international students at the University of Dayton; and provide leadership in all other aspects of international education such as exchange programs, sister-school relationships, and recruitment of students from other countries. To complement these functions a resources center is maintained with materials dealing with study abroad, work and exchange programs, travel, special international topics, and foreign cultural reviews as well as American material of interest to international students on this campus.

MARIAN LIBRARY

The Marian Library, on the seventh floor of the University library, houses the world's largest collection of works on the Virgin Mary and welcomes from all over the world the scholars who use it in their research. The collection includes 43,000 books and pamphlets in over fifty languages, runs of 125 periodicals, a clipping file of 33,000 items, growing microfilm offerings, and numerous medals and photographs.

The Marian resources are supplemented by national and regional bibliographies; a significant depository of early printing, with 4,000 works dated before 1800; and reference works on the Bible, ecclesiastical and dogmatic history, Christian art (especially of the Eastern Churches and Medieval Europe), and the history of printing.

METRO DIVISION

The Metro Division office combines the operations of Special Sessions and evening and summer (third-term) sessions under one director without severing credited course connections from the traditional academic structure. This division especially serves adults of the Dayton community who are not full-time students. It introduces to them, and facilitates their entry into, courses and programs the University offers that they may find useful to any number of their own purposes. It counsels them in such perhaps seemingly technical matters as arranging proficiency examinations for advanced placement, transferring credits, and selecting courses and / or concentrations that best suit their needs. It helps them adapt the University's broad range of academic offerings to their personal schedules, aptitudes, and interests.

MINICOURSES

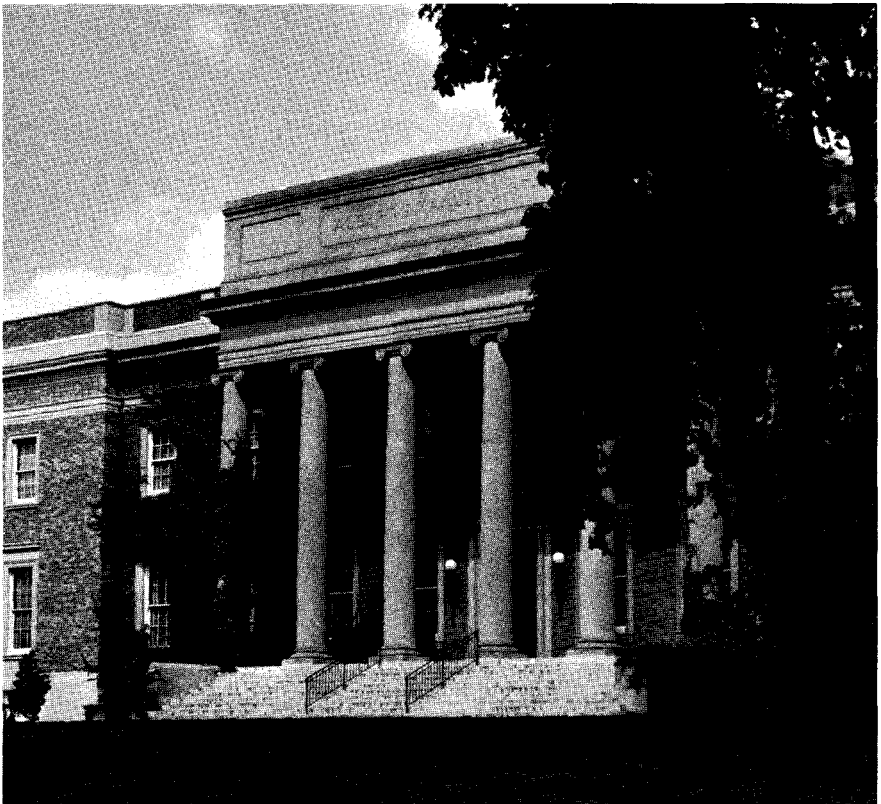
Minicourses are special, short-term, credited courses developed by students and / or faculty to meet specific, sometimes highly current needs or interests not provided for in the regular curriculum. They are offered to all students by

departments or through the Office of the Provost. The typical minicourse carries one semester hour of credit, which implies fifteen class hours. Classes can be in various sequences, extending over several weeks or concentrated within a few days. (Some minicourses take the form of workshops.) Occurring at various times in the year, minicourses are well publicized on campus. They can be added to students' schedules during the term.

PRE-LAW

At the University of Dayton, Pre-Law, as such, is not a major. There is no given major that serves as a prerequisite to any law school. Moreover, the entering freshman at the University need not immediately select a major. Instead, he may simply declare his interests in pre-law. Pre-Law counseling at the University will aid him in selecting courses. His choice of a specific major may come later.

Law schools generally recommend that the student planning a career in law select an undergraduate major according to his interests and abilities. They suggest that his undergraduate program provide him with courses that will assist him in developing certain skills or abilities necessary to success in law school and pertinent to a career in the law. They are virtually unanimous in recommending that undergraduate course work focus on four general areas of concentration.



Disciplines providing courses that allow for this concentration may be found across the University, both within and without the student's major field of study. The skills and abilities that are most recommended are the following:

1. *An analytic, conceptual facility* (e.g., philosophy, literature, mathematics, languages, scientific methodology),
2. *Proficiency in writing and communication skills* (e.g., composition, report writing, argumentation, research papers),
3. *A familiarity with the American legal and political system* (e.g., political science, history),
4. *A familiarity with basic business concepts and principles of economics* (e.g., accounting, management, marketing, economics).

The function of the Pre-Law Committee at the University is to aid the student in his search across the University for the opportunity to develop in these four areas. In addition, members of the Committee can provide the student with current information pertaining to the LSAT, law-school recruitment, and requirements of the law schools in general and in particular. Committee members can offer individual and intensive counseling according to each student's needs. The following professors are members of the Pre-Law Committee: Roberta Alexander (Department of History), John Geiger (School of Education), Gerald Kerns (Department of Political Science), Patricia Labadie (Department of English), John Quinn (Department of Philosophy), and John Weiler (Department of Economics and Finance). For further information concerning Pre-Law at U.D., contact the committee chairman, Professor Gerald E. Kerns, Department of Political Science, University of Dayton, Dayton, Ohio 45469.

PROJECT ADVANCEMENT

Through Project Advancement, selected high school juniors and seniors from the Dayton area may attend classes at the University. The project has the threefold purpose of introducing these students to the college atmosphere, allowing them to pursue subjects of their special interest beyond the levels available in high school, and providing them a means of earning college credit that can later be applied to degree programs.

Applicants are evaluated individually, and those found eligible are referred to departmental chairmen for final approval and assignment to courses (usually at the freshman level). Interested students should call or write the Director of Admissions.

PROJECT AHEAD

Project Ahead is an education program of the U.S. Army in cooperation with the University of Dayton that permits an enlisted man or woman to accrue college credit here while serving a tour of duty elsewhere. This credit may come through the College Level Examination Program (CLEP), special military academic training (with the approval of the student's dean), and / or courses taken at colleges near the military bases where the student is stationed. When the tour of duty is over, the student returns to the University to complete the degree requirements.

Anyone who is enlisting in or is already an enlisted member of the U.S. Army and who meets the entrance requirements of the University is eligible. For full information, call or write the Director of Admissions.

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 are in such broad and diverse areas as ecological studies, bone implants, blood flow, heart and muscle investigation, aerodynamics and structural mechanics, archaeological investigations, systems analysis, and the development of new high-strength magnetic materials.

Projects concerning a single discipline are conducted by the appropriate department of instruction, and multidisciplinary projects are normally conducted in research facilities under the direct jurisdiction of the Research Institute. There is strong emphasis 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 training and experience in research.

RESERVE OFFICERS TRAINING CORPS (ROTC)

The Department of Military Science offers the Army ROTC training program on campus, leading to a commission as a second lieutenant in the U.S. Army at the time of graduation. See MIL, Chapter VI.

SELF-DIRECTED LEARNING (SDL)

Self-Directed Learning offers students a learning experience outside the regular selection of course offerings. It gives students an opportunity to earn credits toward graduation while working at learning projects of their own choice centering around their own needs and interests. Open to all full-time and part-time students for 6 to 17 semester hours per term – normally on a Satisfactory / No Credit basis – SDL provides an opportunity for students to determine their own goals and to work out, in consultation with the faculty, the methods for reaching them. Work done in SDL earns ASI (Arts and Sciences Interdisciplinary) credits, which can be applicable to a student's general electives, breadth requirements, senior synthesis requirement, or, with permission of the department chairman of the student's major field, to departmental requirements. See SDL and ASI, Chapter VI.

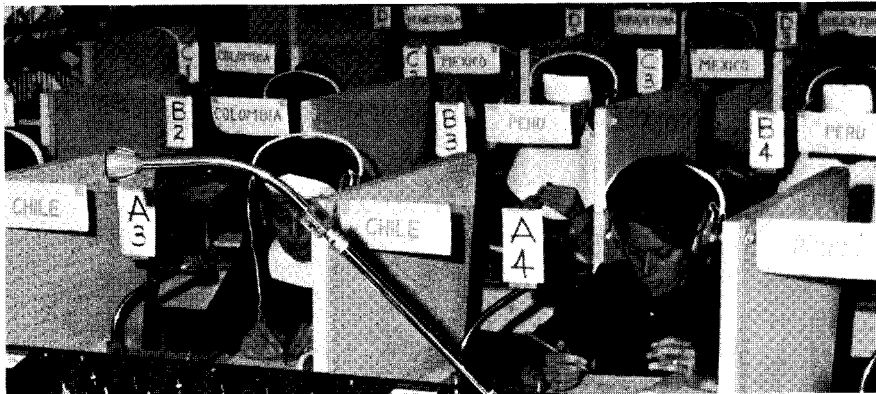
COURSES OF INSTRUCTION

ASI-SDL. SELF-DIRECTED LEARNING: Upon acceptance into the program, the SDL student registers for a block of ASI-SDL credit. At the end of the term, this block of credit is subdivided into the principal areas of learning. Appropriate titles are then listed on the student's transcript with the number of semester hours of credit awarded in each area. Student rationales, which describe the work of the semester and justify the credits awarded, are kept on file.

6-17 sem. hrs., each term

SPECIAL SESSIONS

The Office of Special Sessions originates, administers, and coordinates specialized noncredit courses serving the entire Dayton area besides interested students at the University. These courses are in great variety. They include continuing education for the adult community that may take the form of sequentially scheduled evening or Saturday classes or of workshops, lectures, seminars,



institutes, or informal discussion groups. They include also courses with such special purposes as management development for particular businesses, industries, schools, and professions as well as for the general public.

Among the services of the Office of Special Sessions most valued by academic departments is its sponsoring of preterm courses in American English usage, taken by both graduate and undergraduate students for whom English is a second language.

WOMEN'S CENTER

The University of Dayton Women's Center aims to provide an atmosphere in which women are concerned with one another's welfare. It is for all women on campus — full- and part-time students, faculty, and staff — and for any men interested in helping improve the status of women in society. To that end, the Center sponsors speakers, films, discussions, workshops, and minicourses on such subjects as the feminist movement, careers for women, health care, and self defense. It has encouraged and continues to encourage the development of and enrollment in courses in women's studies, numerous of which the University now offers under departmental, interdisciplinary, and other designations. It has a library for research or browsing — books, periodicals, and files of clippings and brochures. It provides current information on agencies, resource people, and events in the Dayton area that are helpful or interesting to women. It publishes a newsletter to publicize its services. The staff (all volunteer) welcome all who want to give or get help, or only visit.

WOMEN'S STUDIES

The University offers numerous courses, under departmental, interdisciplinary, or special designations, that fall under the descriptive category of women's studies. Consult the volunteer staff at the Women's Center for a current list of regular and minicourse offerings.

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, UD-CCTV. Both facilities are housed in the John F. Kennedy Memorial Union.

XI Directories

GOVERNING AND ADVISORY BODIES

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Ex-Officio: Richard L. Braun; Robert E. Donovan; William J. Hoben; Ellis A. Joseph; David C. Kraft; Leonard A. Mann, S.M.; Raymond H. Nartker.

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Senator Representatives: Rocco M. Donatelli, Leroy V. Eid, Albert V. Fratini, Gordon E. Fuchs, Nicoletta C. Hary, Raymond M. Herbenick, Joseph C. Kunkel, J. Michael O'Hare, Carol M. Shaw, Dennis J. Turner, John E. Weiler, Roger F. Weiss.

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Vice President for Student Development and Dean of Students	Margaret M. Holland
Vice President for University Relations	Thomas J. Frericks
Vice President for Financial Affairs and Treasurer	Gerald W. VonderBrink
Vice President for Services and Business Manager	Joseph J. Mervar, S.M.
Special Assistant to the President	Elmer C. Lackner, S.M.
Administrative Assistant to the President	Wilbur E. Showalter
Secretary to the President	Mary Ann Krapf

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Director of African & Afro-American Studies	James A. Stocks
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Director of Research Institute	John R. Westerheide
Director of Office for Computing Activities	Martell J. Gee
Dean, College of Arts and Sciences	Leonard A. Mann, S.M.
Associate Dean for Humanities	Rocco M. Donatelli
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Assistant Dean	Richard E. Peterson
Assistant Dean	Ann Franklin
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Assistant Dean, Director of MBA Program	Walter L. Wilson
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Dean, School of Education	Ellis A. Joseph
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Associate Dean for Engineering Technology	James L. McGraw
Dean, School of Law	Richard L. Braun
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Director, Special Sessions	Nora Duffy
Registrar	Robert E. Donovan
Assistant Registrar	Paul B. Boeckerman, S.M.
Assistant to the Registrar — Records	Gladys M. Clement
Assistant to the Registrar — Registration	Irene Criggall
Director of the University Library	Raymond H. Nartker
Director, Marian Library	Rev. Theodore Koehler, S.M.
Director, Communications Center TV & FM	George C. Biersack
Academic Scholarships	James W. Hoover
Arts Series	Nora Duffy
Eleanor A. Kurtz	
Institute for Christian Renewal	Raymond L. Fitz, S.M.

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Associate Dean of Students: Student Services	Clyde R. Wisch
Assistant Dean of Students: Residence Life	Ted Kohan
Assistant Dean of Students: University Activities	Eleanor A. Kurtz
Assistant Dean of Students: Discipline and Judiciaries	Mary Sue Thomas
Assistant Dean of Students: Administrative and Special Services	Thomas W. Anderson
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Director of Psychological Services..... John F. Riley
 Director of Campus Security..... Timothy P. Fenlon
 Medical Director..... John H. Dirckx, M.D.
 Director: International Students..... Marie Milord
 Coordinator: Orientation..... Charlene VanHecke

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 Assistant to the Director..... Dorothy Gannon
 Chaplains
 Bro. Giancarlo Bonutti, S.M., Stuart Hall
 Rev. Joseph McDonald, S.M., Campus South
 Rev. Cyril Middendorf, S.M., Religious Activities
 Rev. James Russell, S.M., Founders Hall
 Rev. Urban Rupp, S.M., Main Chapel and Marycrest
 Counselor-Confessor..... Rev. James Hickey, S.M.
 Faculty Representative..... Rev. Bernard Horst, S.M.
 Music and Liturgy..... Sr. Christine Hucik, F.M.I.

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 Administrative Assistant..... Delores McAnespie Ponikvar
 Administrative Director of Admissions and Financial Aid..... James W. Hoover
 Assistant to the Administrative Director..... Joyce Wilkins
 Director of Admissions..... Myron Achbach
 Assistant to the Director..... Jean M. Huart
 Assistant to the Director..... Joan Patterman Brown
 Director of Athletics..... Dale W. Foster
 Director of Development..... Cletus E. Oberst
 Associate Director..... Elwood E. Zimmer
 Assistant Director..... James E. Uttermohlen
 Acting Alumni Director..... Joseph J. McLaughlin
 Alumni Secretary..... Mary M. Shay
 Director, Information Services..... Mark F. Pomerleau
 Coordinator of Publications..... James J. Pflaum
 Publications Editor..... Thomas Columbus
 Director of Intramural Athletics..... Billy R. Mayo
 Arena-Stadium Operations..... Herbert J. Dintaman
 Thomas G. Dowling
 George F. McCans

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 Comptroller..... Thomas J. Weckesser
 Director of Budgets..... Joseph M. Garcia
 Payroll Supervisor..... Harvey R. Reilich
 Staff Accountant..... Thomas E. Homan
 Bursar..... Byron D. Shiner
 Assistant Bursar..... Vincent J. Wottle, S.M.
 Assistant Bursar..... Joseph P. McHale
 Credit Manager..... Nancy V. Graft
 Office Supervisor..... F. Sue Geesen
 Director of Purchases..... Gerald E. Busch

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Director, Physical Plant	Thomas A. Brennan, S.M.
Assistant Director	William Richeson
Supervisor of Custodial Service	Thomas A. Brennan, S.M.
Supervisor of Grounds and Trucking	Paul E. Gordon
Supervisor of Maintenance and Utilities	Eugene W. Clark
Manager, University Bookstore	Paul L. Braddon
Assistant Manager	Theodore Warning Ralph Mason
Postmaster	Edward C. Adkins
Assistant Postmaster	Thomas E. Seifert
Director, Food Services	Thomas E. Madigan
Purchaser	Shirley J. Davis
Marycrest Cafeteria / Snack Bar, Stuart Snack Bar, Founders Snack Bar	Robert W. Schlaerth
Assistant Manager	Aubrey Stephens
Kennedy Union Cafeteria / Dining Rooms / Snack Bar	Charles Quackenbush
U.D. Arena Concessions / Special Events	Steven R. Deisher
Assistant Manager	Eugene Bertke
Manager, Laundry and Dry Cleaning	Joseph F. McEvoy
Manager, University Press	Henry A. DeMarey
Assistant Manager	Eugene A. Schwieterman
Vending	Robert V. Rotterman, Jr.

RESEARCH

Chairman, Research Council	Joseph W. Stander, S.M.
Director, Research Institute	John R. Westerheide
Associate Director	C. Robert Andrews
Assistant to Director	Sigmund W. Brzezicki
Assistant to Director	Robert E. Artman
Assistant to Director	Joseph Militello
Assistant to Director	Dart G. Peterson, Jr.
Assistant to Director	John U. Weckesser

GENERAL SERVICES

Director, Institutional Studies and Planning	Wilfred J. Steiner
Director, Office of Human Relations	
Assistant to the Vice President for Affirmative Action	Curtis Hicks
Director, Personnel Services	Theodore J. Woloson
Assistant Personnel Director	Bernard A. Minnehan
Personnel Assistant	Crystal Hemker
Director, Student and Graduate Placement	Raymond Martin, S.M.

ACADEMIC DEPARTMENTS

	<i>Chairmen</i>
Accounting.....	Willard C. Clark, Jr.*
Biology.....	George B. Noland
Business Management.....	Stanley J. Stough*
Chemical Engineering.....	Michael A. Bobal
Chemical Technology.....	G. William Lawless
Chemistry.....	John J. Lucier, S.M.
Civil Engineering and Engineering Mechanics.....	Seymour J. Ryckman
Communication Arts.....	George C. Biersack
Computer Science.....	Thomas A. Schoen, S.M.
Counselor Education and Human Services.....	Eugene K. Moulin
Economics and Finance.....	John E. Rapp
Educational Administration.....	John R. O'Donnell
Electrical Engineering.....	Bernhard M. Schmidt
Electronic Engineering Technology.....	Richard R. Hazen
Elementary Education.....	Simon J. Chavez
English.....	Bernard J. Bedard
Executive Secretarial Studies.....	Mary C. Civile
Foundations of Education.....	M. Audrey Grob
Geology.....	George H. Springer
Physical and Health Education.....	James B. LaVanche
History.....	Leroy V. Eid
Home Economics.....	Elizabeth L. Schroeder
Industrial Engineering Technology.....	Raymond B. Puckett
Languages.....	Gordon A. Neufang
Marketing.....	Harry C. Murphy
Mathematics.....	Harold G. Mushenheim, S.M.
Mechanical Engineering.....	Howard E. Smith
Mechanical Engineering Technology.....	Jesse H. Wilder
Military Science.....	Lt. Col. Billy R. Smith
Performing and Visual Arts.....	Patrick S. Gilvary
Philosophy.....	Raymond M. Herbenick
Physics.....	James R. Schneider
Political Science.....	Antonio E. Lapitan
Psychology.....	Richard J. Popp
Religious Studies.....	Rev. Matthew F. Kohmescher, S.M.
Secondary Education.....	Robert E. Kriegbaum
Sociology, Anthropology, and Social Work.....	Rev. John G. Dickson, S.M. (*Acting Chairman)

FACULTY

EMERITI

- Chamberlain, Joseph J., Jr. (1937), *Civil Engineering*, Distinguished Lecturer with Rank of Professor – C.E., Cornell University, 1911; M.C.E., Harvard University, 1912; Reg. Prof. Engr.
- Csaky, Thaddeus G. (1955), *Mechanical Engineering*, Professor – B.S., Humanistic State Gymnasium, Poland, 1921; DIPL. ING., Technical University of Warsaw, 1928; A.M.I. Mech. E. Chartered Mechanical Engineer, Institution of Mechanical Engineers, London, 1946.
- Driscoll, George F. (1958), *Civil Engineering*, Professor – B.S.C.E., University of Notre Dame, 1925; C.E., University of Notre Dame, 1929; Reg. Prof. Engr. and Surveyor.
- Geisler, J. George, S.M., *Chemistry*, Professor – B.S., University of Dayton, 1921; Lic. Sc., University of Fribourg, 1924.
- Joly, Russell A., S.M. (1941), *Biology*, Professor – B.S., University of Dayton, 1930; M.S., Institutum Divi Thomae, 1940.
- Hagenhoff, Sister Mary Pelagia, M.S.C., *Education*, Associate Professor – A.B., Villanova University, 1927; M.A., Villanova University, 1935; Ph.D., Catholic University of America, 1946.
- Ruhlman, Francis, S.M., *Library*, Associate Professor – B.A., University of Dayton, 1924; M.A., Our Lady of the Lake, 1936.

RANKED FACULTY

- Abramson, William (1970), *Medical Technology*, Clinical Professor – B.A., Temple University, 1933; M.D., Hahnemann Medical School, 1937.
- Achbach, Myron H. (1969), *Director of Admissions*, Assistant Professor (Administrative) – B.A., University of Dayton, 1958; M.A., Western Reserve University, 1966.
- Adamitis, James A. (1970), *Criminal Justice*, Assistant Professor – B.A., Kent State University, 1965; M.A., Kent State University, 1967.
- Albers, F. Gerard (1973), *Aerospace Engineering*, Assistant Professor – B.E.E., University of Detroit, 1967; M.E., University of Detroit, 1967; D.E., University of Detroit, 1969.
- Alexander, Roberta S. (1969), *History*, Assistant Professor – B.A., University of California at Los Angeles, 1964; M.A., University of Chicago, 1966; Ph.D., University of Chicago, 1974.
- Anderson, Gladys M. (1960), *Education*, Associate Professor – B.S., Ball State Teachers College, 1945; M.A., Indiana University, 1946; Ph.D., Ohio State University, 1970.
- Anderson, Gordon S. (1969), *Elementary Education*, Associate Professor – B.A., Bethany College, 1953; M.S., State University of New York, 1959; Ed.D., Case Western Reserve University, 1969.
- Anderson, Thomas W. (1970), *Assistant Dean of Students*, Assistant Professor (Administrative) – B.A., Iowa Wesleyan College, 1967; M.A., Michigan State University, 1970.
- Anderson, Rev. William P. (1968), *Religious Studies*, Associate Professor – A.B., Bloomfield College, 1961; B.D., Princeton Theological Seminary, 1964; Th.D., Princeton Theological Seminary, 1968.
- Andrews, C. Robert (1952), *Research*, Assistant Professor (Administrative) – B.M.E., University of Dayton, 1951; M.B.A., Xavier University, 1963; Reg. Prof. Engr.
- Anna, Henry J. (1975), *Political Science*, Associate Professor – B.A., St. Francis College, 1963; M.A., University of Notre Dame, 1965; Ph.D., Syracuse University, 1971.
- Arons, Peter L. (1965), *English*, Associate Professor – A.B., New York University, 1957; M.A., Yale University, 1958; Ph.D., Yale University, 1964.

- Artz, Theodora S. (1974), *Law Library*, Assistant Professor (Administrative) – B.Ed., University of Toledo, 1962; M.S.L.S., University of Toledo, 1974.
- August, Eugene R. (1966), *English*, Associate Professor – B.A., Rutgers University, 1958; M.A., University of Connecticut, 1960; Ph.D., University of Pittsburgh, 1965.
- Back, Stanley J. (1959), *Mathematics*, Associate Professor – B.S., University of Dayton, 1957; M.S., Purdue University, 1959.
- Bajpai, Praphulla K. (1964), *Biology*, Associate Professor – B.V.Sc. & A.H., Agra University, 1958; M.V.Sc., Agra University, 1960; M.Sc., Ohio State University, 1963; Ph.D., Ohio State University, 1965.
- Baker, Richard R. (1947), *Philosophy*, Distinguished Service Professor – A.B., University of Notre Dame, 1931; M.A., University of Notre Dame, 1934; Ph.D., University of Notre Dame, 1941.
- Baldwin, Matthew S., Jr. (1973), *Sociology*, Instructor – B.S., Loyola University, 1965; M.A., Ohio State University, 1969.
- Bannan, Alfred J. (1962), *History*, Assistant Professor – B.A., Manhattan College, 1958; M.A., University of Notre Dame, 1961.
- Barnes, Michael H. (1968), *Religious Studies*, Assistant Professor – A.B., St. Louis University, 1961; Ph.L., St. Louis University, 1962.
- Barrish, A. Joseph, S.M. (1968), *Performing and Visual Arts – Fine Arts*, Assistant Professor – B.S. in Ed., University of Dayton, 1950; M.A., Ohio State University, 1957.
- Basilotto, John P., Captain, U.S. Army (1974), *Military Science*, Assistant Professor – EN Officer Advanced Course, 1969; B.S., University of Dayton, 1968; M.B.A., University of Dayton, 1974.
- Bauer, Paul T. (1967), *Mechanical Engineering*, Associate Professor – B.S., Parks College of St. Louis University, 1963; M.S. in M.E., Oklahoma State University, 1965; Ph.D., Oklahoma State University, 1968. Reg. Prof. Engr.
- Baxter, Carol J. (1970), *Performing and Visual Arts – Music*, Assistant Professor – B.M. and B.M.E., Wichita State University, 1957; M.M., Miami University, 1970.
- Beauregard, Erving E. (1947), *History*, Professor – A.B., University of Chicago, 1942; M.A., University of Massachusetts, 1944.
- Bedard, Bernard J. (1962), *English*, Professor – A.B., University of Notre Dame, 1949; M.A., University of Michigan, 1950; Ph.D., University of Michigan, 1959.
- Beitzel, William A. (1973), *Elementary Education*, Assistant Professor – B.S., Kent State University, 1946; M.A., Kent State University, 1949.
- Bench, Douglas W. (1975), *Criminal Justice*, Assistant Professor – B.S., Kent State University, 1968; M.Ed., University of Toledo, 1969; J.D., Capital University, 1975.
- Benedum, Richard P. (1973), *Performing and Visual Arts – Music*, Assistant Professor – B.A., Concordia Teachers College, 1966; D.M.A., University of Oregon, 1972.
- Berg, Berthold (1974), *Psychology*, Assistant Professor – B.A., University of Michigan, 1969; M.S., Purdue University, 1971; Ph.D., Purdue University, 1974.
- Berger, Robert M. (1964), *Business Management*, Assistant Professor – B.S., University of Dayton, 1960; M.A., Ohio University, 1963; J.D., Chase School of Law, 1970.
- Berk, Betty J. Thomas (1942), *Performing and Visual Arts – Music*, Professor – B.Mus., University of Dayton, 1944; M.Mus., Eastman School of Music, 1950; Ph.D., Eastman School of Music, 1963.
- Biersack, George C. (1952), *Communication Arts*, Professor – B.S., University of Dayton, 1952; M.A., Miami University, 1956.
- Blatt, Stephen J. (1971), *Communication Arts*, Assistant Professor – B.A., Morehead State University, 1964; M.A., Ohio University, 1967; Ph.D., Ohio University, 1969.
- Bobal, Michael A. (1962), *Chemical Engineering*, Professor – B.S., University of Dayton, 1934; M.S., Ohio State University, 1945; Ph.D., Ohio State University, 1947; Reg. Prof. Engr.

Faculty

- Boehman, Louis I. (1967), *Mechanical Engineering*, Associate Professor – B.S.M.E., University of Dayton, 1960; M.S.T.E., Illinois Institute of Technology, 1963; Ph.D., Illinois Institute of Technology, 1967; Reg. Prof. Engr.
- Bogner, Fred K. (1969), *Mechanical Engineering*, Associate Professor – B.S.C.E., Case Institute of Technology, 1961; M.S.E. Mech., Case Institute of Technology, 1964; Ph.D., Case Institute of Technology, 1967.
- Boulet, Richard A. (1968), *Religious Studies*, Associate Professor – A.B., Providence College, 1954; S.T.B., S.T.L., S.T.Lr., Immaculate Conception College, 1956-1958; S.T.D., University of Montreal, 1965.
- Bower, Samuel M. (1966), *Psychology*, Associate Professor – B.A., Mexico City College, 1957; Ph.D., Vanderbilt University, 1963.
- Boyce, Robert W. (1975), *Physical and Health Education*, Assistant Professor – B.A., Erskine College, 1968; M.A., Appalachian State, 1972; Ph.D., Florida State, 1975.
- Brady, Rev. Charles J., S.M. (1962), *Religious Studies*, Associate Professor – B.S.Ed., University of Dayton, 1950; S.T.L., University of Fribourg, 1959.
- Braun, Richard L. (1974), *Law*, Professor – B.A., Stanford University, 1941; J.D., Georgetown University, 1951; LL.M., Georgetown University, 1953.
- Bregenzler, John M. (1968), *Sociology*, Assistant Professor – B.A., Carleton College, 1961; M.A., University of Minnesota, 1967.
- Britt, John F. (1966), *Education*, Professor – B.A., St. Paul Seminary, 1950; M.A., St. Louis University, 1954; Ph.D., St. Louis University, 1962.
- Brown, Thomas V. (1970), *Psychology*, Assistant Professor – B.S., Massachusetts Institute of Technology, 1960.
- Bruce, Essie L. (1966), *Library*, Assistant Professor – B.A., Philander Smith College, 1943; B.S.L.S., University of Illinois Library School, 1945.
- Buckley, David M. (1968), *Library*, Assistant Professor – B.A., Miami University, 1966; M.A.L.S., Western Michigan University, 1968.
- Bueche, Frederick J. (1961), *Physics*, Professor (on leave) – B.S., University of Michigan, 1944; Ph.D., Cornell University, 1948.
- Burky, Albert J. (1973), *Biology*, Assistant Professor – B.A., Hartwick College, 1964; Ph.D., Syracuse University, 1969.
- Burns, Rev. Norbert C., S.M. (1959), *Religious Studies*, Professor – B.A., University of Dayton, 1945; S.T.L., University of Fribourg, 1954; S.T.D., The Angelicum, 1955.
- Butter, Eliot J. (1971), *Psychology*, Assistant Professor – B.A., Brooklyn College 1965; M.A., Brooklyn College, 1969; Ph.D., University of Massachusetts, 1971.
- Bylsma, Glenn W. (1975), *Medical Technology*, Clinical Professor – B.A., LaSierra College, 1950; M.D., Loma Linda University, 1954.
- Cambria, Rosario V. (1975), *Languages*, Assistant Professor – B.A., Queens College, City University of New York, 1964; M.A., Middlebury College, Madrid, 1967; Ph.D., City University of New York, 1972.
- Cameron, Alex J. (1964), *English*, Assistant Professor – A.B., University of Notre Dame, 1959; Ph.D., University of Notre Dame, 1973.
- Capella, Louis M. (1974), *Marketing*, Assistant Professor – B.S., B.A., Xavier University, 1965; M.S., Xavier University, 1967.
- Carey, George J. (1975), *Law*, Associate Professor – B.A., University of Houston, 1965; J.D., Catholic University, 1969; LL.M., Harvard University, 1974.
- Carroll, Margaret R. (1972), *Medical Technology*, Clinical Assistant Professor – B.S., University of Dayton, 1945; M.T. (ASCP) Registry of Medical Technologists, 1946.
- Casey, Anthony L. (1969), *Business Management*, Assistant Professor – Ph.D., Havana University, 1955.

- Cassell, Charles R., Captain, U.S. Army (1973), *Military Science*, Assistant Professor — F.A. Officer Advanced Course, 1968; B.A. in Ed., Marshall University 1968; M.S. in Ed., University of Dayton, 1972.
- Castello-Lamas, Maria J. (1964), *Languages*, Assistant Professor — A.B., Hogar de Estudios Femenino, Spain, 1956; M.A., Tulane University, 1960.
- Chantell, Charles J. (1965), *Biology*, Associate Professor — B.S., University of Illinois, 1961; M.S., University of Notre Dame, 1963; Ph.D., University of Notre Dame, 1965.
- Chavez, Simon J. (1954), *Education*, Professor — A.B., Adams State College, 1938; M.Ed., University of Colorado, 1947; D.Ed., University of Colorado, 1952.
- Chiodo, Andria J. (1968), *Languages*, Instructor — B.A., University of Oregon, 1966; M.A., University of Oregon, 1968.
- Chuang, Henry N. (1965), *Mechanical Engineering*, Associate Professor — B.S., National Taiwan University, 1958; M.S., University of Maryland, 1962; Ph.D., Carnegie Institute of Technology, 1966.
- Chudd, Cletus C., S.M. (1974), *Chemistry*, Distinguished Service Professor — B.S., University of Dayton, 1935; M.S., Western Reserve University, 1948; Ph.D., Western Reserve University, 1952.
- Civille, Mary C. (1947), *Executive Secretarial Studies*, Associate Professor — B.S., Ohio University, 1934; M.Ed., University of Cincinnati, 1952.
- Clark, Willard C., Jr. (1963), *Accounting*, Associate Professor — B.S., University of Dayton, 1959; M.B.A., Miami University, 1960; C.P.A., Ohio, 1962.
- Cochran, Bud T. (1958), *English*, Associate Professor — B.A., College of Steubenville, 1955; M.A., Ohio State University, 1957; Ph.D., Ohio State University, 1967.
- Cole, Rev. William J., S.M. (1956), *Religious Studies*, Professor — B.S., University of Dayton, 1947; S.T.B., University of Fribourg, 1952; S.T.L., University of Fribourg, 1954; S.T.D., University of Fribourg, 1955.
- Collins, J. Markham (1975), *Economics and Finance*, Assistant Professor — B.A., University of Houston, 1970; M.A., University of Houston, 1972.
- Comer, Orville L. (1950), *Marketing*, Associate Professor — B.S., Washington University, 1948; M.S., Washington University, 1949.
- Conard, Robert C. (1967), *Languages*, Professor — B.B.A., University of Cincinnati, 1956; M.A., University of Cincinnati, 1962; Ph.D., University of Cincinnati, 1969.
- Cooney, Joseph J. (1965), *Biology*, Professor — B.S., Lemoyne College, 1956; M.S., Syracuse University, 1958; Ph.D., Syracuse University, 1961.
- Cornett, Marianne, M.T. (1974), *Medical Technology*, Clinical Assistant Professor — B.S., University of Dayton, 1958; M.S., Wright State University, 1973.
- Cothorn, Charles R. (1965), *Physics*, Associate Professor — B.A., Miami University, 1959; M.S. Yale University, 1960; Ph.D., University of Manitoba, 1965.
- Crisp, John N. (1973), *Mechanical Engineering*, Associate Professor — B.M.E., Georgia Institute of Technology, 1958; M.S.E., University of Akron, 1964; Ph.D., Carnegie-Mellon University, 1968. Reg. Prof. Engr.
- Crivello, Mariano P. (1956), *Physics*, Assistant Professor — Laurea, University of Palermo, 1945.
- DaPolito, Frank J. (1970), *Psychology*, Associate Professor — B.A., Bowling Green State University, 1959; Ph.D., Indiana University, 1966.
- Darr, John Walker (1969), *Business Management*, Professor — B.S., Indiana University, 1949; M.B.A., Indiana University, 1950; Ph.D., University of Alabama, 1957.
- De Luca, Barbara Ann (1975), *Home Economics*, Instructor — B.S., University of Dayton, 1971; M.S., Miami University, 1975.
- DeWire, Marian, I. (1973), *Sociology*, Assistant Professor — A.B., Albright College, 1938; M.Sc., Case Western Reserve University, 1940.

Faculty

- Dickson, Rev. John G., S.M. (1957), *Sociology*, Professor – B.A., University of Dayton, 1937; M.A., University of Dayton, 1947; Ph.D., St. John's University, 1956.
- Dieska, Joseph L. (1960), *Philosophy*, Professor – B.A., State Gymnasium, 1931; M.A., Slovak University, 1939; Ph.D., Slovak University, 1940.
- Diethorn, Bernard C., S.M. (1966), *Counselor Education and Human Services*, Associate Professor – B.A., University of Dayton, 1942; M.A., Western Reserve University, 1952; D.Ed., Western Reserve University, 1966.
- Donatelli, Rocco M. (1954), *History*, Professor – B.S., St. John's University, 1949; M.A., Rutgers University, 1952; Ph.D., Western Reserve University, 1965.
- Donnellan, Rev. Michael T., S.V.D. (1973), *Religious Studies*, Assistant Professor – Diploma, National University of Ireland, 1954; M.A., Catholic University of America, 1964; Ph.D., Catholic University of America, 1972.
- Donoher, Donald J. (1964), *Physical and Health Education*, Assistant Professor – B.S., University of Dayton, 1954.
- Donovan, Robert E. (1946), *Registrar*, Assistant Professor (Administrative) – B.S., University of Dayton, 1932.
- Downey, Ethel A. (1973), *Home Economics*, Clinical Assistant Professor – B.Sc., Catawba College, 1944; Internship – University Hospital, Ohio State University, 1946; M.Sc., Ohio State University, 1955.
- Drees, Doris A. (1956), *Physical and Health Education*, Associate Professor – B.S., University of Dayton, 1954; M.A., Ohio State University, 1959; Ph.D., University of Iowa, 1968.
- Dreidame, R. Elaine (1970), *Athletics*, Assistant Professor (Administrative) – B.S. in Ed., University of Cincinnati, 1964; M.Ed., University of Cincinnati, 1966; Ph.D., Ohio State University, 1974.
- Duffy, Nora (1961), *Director, Special Sessions*, Associate Professor (Administrative).
- Durham, Orin A., Captain, U.S. Army (1974), *Military Science*, Assistant Professor – F.A. Officer Advanced Course, 1972; B.S., U.S. Military Academy, 1968; M.B.A., Ohio State University, 1974.
- Edelenyi, Rev. Achilles (1964), *Philosophy*, Assistant Professor (on leave) – A.B., Franz Leopold Universitaet, Austria, 1932; M.A., Franz Leopold Universitaet, 1934; S.T.D., Franz Leopold Universitaet, 1936.
- Eid, Leroy V. (1961), *History*, Associate Professor – B.S. in Ed., University of Dayton, 1953; M.A., St. John's University, 1958; M.A., University of Toronto, 1968; Ph.D., St. John's University, 1961.
- Eimermacher, John P. (1975), *Mechanical Engineering*, Assistant Professor – B.S., University of Cincinnati, 1963; M.S., University of Cincinnati, 1967; Ph.D., University of Cincinnati, 1973.
- Eley, Marion J. (1961), *Accounting*, Associate Professor – B.S., University of Dayton, 1959; M.B.A., Xavier University, 1964; C.P.A., Ohio, 1966.
- Ellis, John E., Jr. (1966), *Accounting*, Associate Professor – B.C.S., Bowling Green College of Commerce, 1934; M.B.A., University of Michigan, 1951; C.P.A., Ohio, 1971.
- Emling, John F., S.M. (1958), *Education*, Associate Professor (on leave) – B.S., University of Dayton, 1940; M.A., Western Reserve University, 1944; Ed.D., Western Reserve University, 1949.
- Engler, Nicholas A. (1971), *Technical Studies and Services*, Associate Professor – B.S., University of Dayton, 1947; M.S., University of Cincinnati, 1949.
- Evers, Anthony J. (1966), *Electrical Engineering*, Associate Professor – B.E.E., University of Dayton, 1953; M.S.E.E., University of Notre Dame, 1955. Reg. Prof. Eng.
- Eveslage, Sylvester L. (1948), *Chemistry*, Professor – B.S., University of Notre Dame, 1944; M.S., University of Notre Dame, 1945; Ph.D., University of Notre Dame, 1953.
- Faerber, Louis J., S.M. (1948), *Education*, Distinguished Service Professor – B.A., University of Dayton, 1930; M.A., Catholic University of America, 1938; Ph.D., Catholic University of America, 1948.

- Fackovec, William M., S.M. (1960), *Library*, Assistant Professor – B.S. in Ed., University of Dayton, 1949; M.S.L.S., Western Reserve University, 1959.
- Farrelly, James P. (1967), *Communication Arts*, Assistant Professor – B.A., Providence College, 1964; M.A., University of Dayton, 1966; Ph.D., Boston University, 1974.
- Farren, Joseph M. (1966), *Electronic Engineering Technology*, Associate Professor – B.S., Bluffton College, 1959; B.E.E., University of Dayton, 1961; M.S., University of Dayton, 1966. Reg. Prof. Engr.
- Faso, Peter J. (1946), *Biology*, Professor – B.S., Villanova College, 1936; M.S., Villanova College, 1941; Sc.D. (H.C.), Des Moines College of Osteopathic Medicine and Surgery, 1965.
- Fehlmann, Alfred B., Jr. (1956), *Engineering Technology*, Assistant Professor – B.A., Cedarville College, 1946; M.A., Ohio State University, 1948.
- Fiehler, Joann E. (1969), *Performing and Visual Arts – Fine Arts*, Instructor – B.A., Indiana University, 1965.
- Fioriti, Andrew A. (1965), *Accounting*, Associate Professor – B.S., University of Scranton, 1956; M.B.A., University of Detroit, 1958; C.P.A., New Jersey, 1964.
- Fitz, Raymond L., S.M. (1969), *Electrical Engineering and Engineering Management*, Associate Professor – B.E.E., University of Dayton, 1964; M.S., Polytechnic Institute of Brooklyn, 1967; Ph.D., Polytechnic Institute of Brooklyn, 1970.
- Fogel, Norman L. (1971), *Political Science*, Assistant Professor – B.S., Millersville State College, 1960; M.A., University of Delaware, 1968; Ph.D., Ohio State University, 1975.
- Fornwalt, Jack M. (1974), *Accounting*, Instructor – B.S., West Virginia University, 1970; M.B.A., West Virginia University, 1971.
- Forschner, Brian E. (1974), *Criminal Justice*, Assistant Professor – B.A., University of San Diego, 1967; M.Ed., Xavier University, 1971; M.S., Xavier University, 1974.
- Forthofer, Nancy K. (1974), *Executive Secretarial Studies*, Instructor – A.B., University of Dayton, 1970; B.S., University of Dayton, 1972; M.S., University of Dayton, 1974.
- Foster, Dale W. (1974), *Athletics*, Associate Professor (Administrative) – B.S., University of Illinois, 1956; M.Ed., University of Illinois, 1960; Ed.D., University of Illinois, 1969.
- Fox, B. Lawrence (1966), *Chemistry*, Associate Professor – B.S., John Carroll University, 1962; Ph.D., Ohio State University, 1966.
- Fraker, John R. (1975), *Engineering Management*, Associate Professor – B.S., University of Tennessee, 1956; M.S., University of Tennessee, 1965; Ph.D., Clemson University, 1971.
- Franklin, Ann (1958), *Assistant Dean*, Associate Professor (Administrative) – R.N., Buffalo General Hospital School of Nursing, 1940; B.S., Washington University, 1949; M.S., St. Louis University, 1952.
- Frasca, Ralph R. (1972), *Economics and Finance*, Assistant Professor – B.A., C.W., Post College, 1967; M.A., Indiana University, 1971.
- Fratini, Albert V. (1967), *Chemistry*, Associate Professor – B.S., University of Rhode Island, 1960; Ph.D., Yale University, 1966.
- Frericks, Thomas J. (1964), *Vice President for University Relations*, Associate Professor (Administrative) – B.S., University of Dayton, 1953.
- Fresina, Anthony J. (1972), *Sociology*, Instructor – B.A., LeMoyne College, 1971; M.S., Florida State University, 1972.
- Friel, J. William (1963), *Mathematics*, Assistant Professor – B.S., Loras College, 1959; M.A., Duquesne University, 1962.
- Frost, Rev. William P. (1967), *Religious Studies*, Associate Professor – Drs. Th., Carolus Magnus University (Netherlands), 1961; M.A., Loyola University, 1966.
- Frye, Helen B. (1967), *Secondary Education*, Associate Professor – B.A., Ohio Wesleyan University, 1944; M.Ed., Wittenberg University, 1962; Ph.D., Ohio State University, 1967.

Faculty

- Fuchs, Gordon E. (1967), *Elementary Education*, Associate Professor – B.S., University of Wisconsin, 1958; M.S., University of Wisconsin, 1961; Ph.D., Ohio State University, 1974.
- Fuchs, Walter P. (1971), *Management Science*, Assistant Professor – B.S., University of Dayton, 1962; M.S., Case Institute of Technology, 1965; Ph.D., University of Pennsylvania, 1970.
- Funkhouser, James W. (1972), *Medical Technology*, Clinical Professor – B.S., University of Dayton, 1951; M.T. (ASCP) Registry of Medical Technologists, 1951; M.S., Ohio State University, 1953; M.D., Ohio State University, 1957.
- Fuszara, Lester T. (1961), *Business Management*, Assistant Professor – B.S., Alfred University, 1948.
- Galeano, Carlos E. (1965), *Languages*, Assistant Professor – Licenciado, University de Antioquia, 1948; Diploma, Instituto Caro y Cuervo, 1960; M.A., Ohio State University, 1965.
- Gantner, Thomas E. (1966), *Mathematics*, Associate Professor – B.S., University of Dayton, 1962; M.S., Purdue University, 1964; Ph.D., Purdue University, 1966.
- Gay, James E. (1968), *Secondary Education*, Associate Professor – B.A., Ohio University, 1951; M.A., University of Wisconsin, 1956; D.Ed., University of Maryland, 1972.
- Gee, Martell J. (1969), *Director of Computing Activities*, Assistant Professor (Administrative) – B.S., Brigham Young University, 1961; Ph.D., Brigham Young University, 1967.
- Geiger, Donald R., S.M. (1964), *Biology*, Professor – B.S., University of Dayton, 1955; M.S., Ohio State University, 1960; Ph.D., Ohio State University, 1963.
- Geiger, John O. (1970), *Foundations of Education*, Associate Professor – B.A., Marquette University, 1966; Ph.D., Marquette University, 1972.
- George, Norman (1962), *Law*, Professor – B.A., Ohio State University, 1950; M.B.A., University of Pittsburgh, 1954; Ph.D., Ohio State University, 1962; J.D., Salmon Chase College, 1967.
- Gephart, Landis S. (1967), *Management Science*, Professor – B.S., University of Dayton, 1940; M.A., University of Dayton, 1948; M.S., Miami University, 1949; Ph.D., University of Florida, 1955.
- Gillespie, George F. (1972), *Business Management*, Assistant Professor – B.S.M.E., Air Force Institute of Technology, 1950; M.S.I.M., Purdue University, 1958.
- Gilvary, Patrick S. (1955), *Performing and Visual Arts*, Associate Professor – B.S., University of Dayton, 1950; M.A., Xavier University, 1963; Ph.D., Ohio State University, 1975.
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- Gorton, Robert B. (1969), *Mathematics*, Associate Professor – B.S., Illinois Institute of Technology, 1964; M.S., Illinois Institute of Technology, 1966; Ph.D., Illinois Institute of Technology, 1970.
- Graham, Thomas P. (1964), *Physics*, Associate Professor – B.S., Providence College, 1956; Ph.D., Iowa State University, 1967.
- Gray, Kathryn H. (1953), *Geology*, Assistant Professor – A.B., Wooster College, 1947.
- Gray, William M. (1969), *Foundations of Education*, Associate Professor – B.A., State University of New York at Albany, 1965; M.A., SUNY at Albany, 1966; Ed.D., SUNY at Albany, 1970.
- Greely, J. Michael (1967), *Languages*, Assistant Professor – B.A., University of Detroit, 1959; M.A., Wayne State University, 1963.
- Greguras, Fred M. (1975), *Law*, Assistant Professor – B.A., University of Omaha, 1966; M.S., University of Nebraska, 1968; J.D., University of Nebraska, 1975.
- Grob, M. Audrey (1961), *Foundations of Education*, Associate Professor – B.S., University of Dayton, 1942; M.A., University of Dayton, 1948; Ph.D., Catholic University of America, 1961.

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- Groves, Harry E. (1974), *Law*, Professor – B.A., University of Colorado, 1943; J.D., University of Chicago, 1949; LL.M., Harvard University, 1959.
- Halverson, Richard F. (1972), *Political Science*, Assistant Professor – B.S., University of Wisconsin, 1964; M.A., Columbia University, 1966; Ph.D., Columbia University, 1975.
- Hanley, Thomas R. (1975), *Chemical Engineering*, Adjunct Assistant Professor – B.S., Virginia Polytechnic Institute, 1967; M.S., Virginia Polytechnic Institute, 1971; Ph.D., Virginia Polytechnic Institute, 1972.
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- Hazen, Richard R. (1953), *Electronic Engineering Technology*, Professor – B.E.E., University of Dayton, 1953; M.S., University of Cincinnati, 1962. Reg. Prof. Engr.
- Hecht, Norman L. (1974), *Materials Engineering*, Adjunct Professor – B.S., Alfred University, 1960; M.S., Alfred University, 1968; Ph.D., Alfred University, 1972.
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- Huth, Mary Jo (1962), *Sociology*, Professor — B.S., University of Dayton, 1950; M.A., Indiana University, 1951; Ph.D., St. Louis University, 1955.
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- Jaffee, Oscar C. (1966), *Biology*, Professor — B.A., New York University, 1946; M.S., New York University, 1948; Ph.D., Indiana University, 1952.
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- Kimbrough, R. Alan (1969), *English*, Assistant Professor — B.A., Carthage College, 1965; A.M., Brown University, 1966; Ph.D., Brown University, 1974.
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- Kovacs, Arthur Z. (1968), *Technical Studies and Services*, Associate Professor — A.B., Wabash College, 1957; Ph.D., Duke University, 1963.
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- Krall, Edward J. (1967), *Computer Science*, Assistant Professor — B.S., University of Dayton, 1966; M.S., Pennsylvania State University, 1970; Ph.D., University of Texas, 1971.
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- Kunkel, Joseph C. (1964), *Philosophy*, Associate Professor — A.B., Loyola University, 1958; A.M., Loyola University, 1962; Ph.D., St. Bonaventure University, 1968.
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- Leonard, Thomas J. (1969), *Library*, Associate Professor – B.A., St. John's University, 1951; M.S., Kansas State Teachers College, 1956.
- Lewis, Donald E. (1965), *Electrical Engineering*, Associate Professor – E.E., University of Cincinnati, 1954; M.S., Ohio State University, 1957; Ph.D., Ohio State University, 1964.
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- Lucier, John J., S.M. (1945), *Chemistry*, Professor – B.S., University of Dayton, 1937; M.S., Western Reserve University, 1950; Ph.D., Western Reserve University, 1951.
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- McDonald, Jack P. (1969), *Sociology*, Assistant Professor – B.S., University of Dayton, 1956; M.A., Indiana University, 1958.
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- McGraw, James L. (1952), *Engineering Technology*, Professor – B.S.I.E., Lafayette College, 1951; M.B.A., Xavier University, 1960.
- McIntyre, Sharon R. (1974), *Law Library*, Assistant Professor (Administrative) – B.A., Ohio State University, 1973; M.S.L.S., Case Western Reserve University, 1974.
- McKenzie, George J., S.M. (1959), *Languages*, Associate Professor – B.A., University of Dayton, 1933; M.A., Ohio State University, 1948; Ph.D., Western Reserve University, 1961.
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- Marre, Kitayun E. (1966), *English*, Associate Professor – B.A., University of Bombay, 1958; M.A., University of Bombay, 1960; Ph.D., State University of New York at Buffalo, 1966.
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- Marrinan, Edward L., Jr. (1965), *Business Management*, Associate Professor – B.A., University of Dayton, 1948; M.S. in Ed., University of Dayton, 1963; M.B.A., University of Dayton, 1967.
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- Minardi, John E. (1964), *Mechanical Engineering*, Professor – B.M.E., University of Dayton, 1955; M.S.M.E., University of Southern California, 1957; Ph.D., University of Cincinnati, 1973.
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- Murphy, Harry C. (1950), *Marketing*, Professor – B.B.A., University of Minnesota, 1948; B.S., University of Minnesota, 1949; M.A., University of Minnesota, 1951.
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- Murray, Leo J., S.M. (1966), *Religious Studies*, Assistant Professor – B.S. in Ed., University of Dayton, 1939; M.A., Catholic University, 1947; L.R.S., St. John Lateran University, Rome, 1962.
- Mushenheim, Harold G., S.M. (1965), *Mathematics*, Associate Professor – B.S., University of Dayton, 1955; M.A., University of Cincinnati, 1960; Ph.D., University of Cincinnati, 1963.
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- Pohl, Shirley A. (1972), *Medical Technology*, Clinical Assistant Professor – B.S., University of Dayton, 1957; M.T. (ASCP) Registry of Medical Technologists, 1957.
- Polzella, Donald J. (1972), *Psychology*, Assistant Professor – B.A., University of Rochester, 1967; M.A., Bucknell University, 1969; Ph.D., University of Michigan, 1974.
- Popp, Richard J. (1973), *Psychology*, Associate Professor – B.S., University of Maryland, 1972; M.A., Hollins College, 1964; Ph.D., University of Pittsburgh, 1969.
- Potoczny, Henry B. (1969), *Mathematics*, Assistant Professor – B.A., LaSalle College, 1965; M.A., University of Kentucky, 1967; Ph.D., University of Kentucky, 1969.
- Puckett, Raymond B. (1957), *Industrial Engineering Technology*, Professor – B.I.E., General Motors Institute, 1950; M.B.A., Xavier, 1961. Reg. Prof. Engr.
- Quam, David L. (1975), *Aerospace Engineering*, Assistant Professor – B.A.E., University of Minnesota, 1965; M.S.A.A., University of Washington, 1970; Ph.D., University of Washington, 1975.
- Quinn, John F. (1970), *Philosophy*, Assistant Professor – B.A., Gonzaga University, 1965; Ph.L., Mount St. Michael's, 1965; M.A., Gonzaga University, 1966; M.A., University of Washington, 1968.
- Ramsey, James M. (1964), *Biology*, Associate Professor – B.S., Wilmington College, 1948; M.S., Miami University, 1951.
- Raney, Russell R. (1969), *Economics and Finance*, Associate Professor – B.S.M.E., University of Michigan, 1934; M.B.A., University of Chicago, 1949; Ph.D., Ohio State University, 1970.
- Rapp, Ann D. (1973), *Elementary Education*, Assistant Professor – B.S., University of Missouri at Columbia, 1960; M.S., Indiana University, 1972.
- Rapp, John E. (1972), *Economics and Finance*, Professor – B.A., University of Missouri, 1959; M.A., University of Missouri, 1960; Ph.D., University of Missouri, 1964.
- Ray, Alden E. (1961), *Mechanical Engineering*, Professor of Materials Engineering – B.A., Southern Illinois University, 1953; Ph.D., Iowa State University, 1959.
- Reichard, Maurice R. (1929), *Performing and Visual Arts – Music*, Professor – A.B., University of Dayton, 1935; M.A., Ohio State University, 1945.

Faculty

- Reynolds, John K. (1972), *Sociology*, Instructor – B.A., University of Michigan, 1969; M.A., Pennsylvania State University, 1971.
- Rhee, Tong-Chin (1967), *History*, Associate Professor – B.A., Seoul National University, 1959; M.P.A., School of Public Administration, Seoul National University, 1961; M.A., Lehigh University, 1962; Ph.D., Clark University, 1967.
- Rhodes, Rev. Edmund L., S.M. (1947), *Philosophy*, Associate Professor – A.B., University of Dayton, 1934; S.T.L., Catholic University of America, 1942.
- Rice, Bernard J. (1960), *Mathematics*, Associate Professor – B.S., St. Louis University, 1955; M.S., Ohio State University, 1961.
- Richards, William M. (1970), *Philosophy*, Assistant Professor – B.A., LeMoyné College, 1966; Ph.D., Georgetown University, 1970.
- Richardson, Gordon R., S.M. (1970), *Performing and Visual Arts – Fine Arts*, Assistant Professor – B.S. in Ed., University of Dayton, 1964; M.F.A., Pratt Institute, 1970.
- Riegel, Bernard G. (1974), *Sociology*, Assistant Professor – A.B., St. Meinrad College, 1954; M.S. in Ed., Indiana University, 1961; Ph.D., United States International University, 1973.
- Riemer, Rabbi Jack (1974), *Judaic Studies*, Adjunct Professor – B.A., University of Pittsburgh, 1950; M.H.L., Jewish Theological Seminary, 1954.
- Rinderly, Allen V. (1966), *Philosophy*, Assistant Professor – A.B., Xavier University, 1950; A.M., Xavier University, 1952.
- Ritter, Charles J. (1967), *Geology*, Associate Professor – B.S., University of Dayton, 1959; M.S., Massachusetts Institute of Technology, 1962; Ph.D., University of Michigan, 1971.
- Roberts, Carole L. (1968), *Physical and Health Education*, Assistant Professor – B.S. in Ed., Ohio State University, 1964; M.A., Ohio State University, 1968.
- Rodgers, Edward W. (1963), *Accounting*, Professor – B.B.A., Northwestern University, 1945; C.P.A., Illinois, 1944; M.B.A., University of Dayton, 1967.
- Roesch, Rev. Raymond A., S.M. (1951), *Psychology*, Professor – A.B., University of Dayton, 1936; M.A., Catholic University of America, 1945; Ph.D., Fordham University, 1954.
- Rolinski, Edmund J. (1974), *Chemical Engineering*, Adjunct Associate Professor – B.S., City College of New York, 1958; M.S., Ohio State University, 1966; Ph.D., University of Cincinnati, 1970.
- Rolle, Kurt C. (1966), *Mechanical Engineering Technology*, Assistant Professor – B.S.M.E., Purdue University, 1960; M.S.E., University of Dayton, 1968; Reg. Prof. Eng.
- Romaguera, Enrique (1969), *Languages*, Assistant Professor – B.A., University of Dayton, 1965; M.A., Ohio University, 1966.
- Rooney, Victor M. (1966), *Electronic Engineering Technology*, Associate Professor – A.E.E., University of Dayton, 1959; B.E.E., University of Dayton, 1965; M.S.E.E., Ohio State University, 1970; Reg. Prof. Eng.
- Rotton, James G. (1973), *Psychology*, Assistant Professor – B.S., Purdue University, 1967; M.S., Purdue University, 1971; Ph.D., Purdue University, 1973.
- Rougier, Harry J. (1939), *English*, Associate Professor – B.S., University of Minnesota, 1933; M.A., University of Minnesota, 1939.
- Royse, David C. (1975), *Sociology*, Assistant Professor – B.A., University of Kentucky, 1970; M.S., University of Louisville, 1972.
- Rudolph, Sister Catherine., O.S.F. (1966), *Library*, Assistant Professor – B.S. in E.D., Marian College, 1946; M.S. in E.D., Butler University, 1954.
- Ruff, Lawrence A. (1960), *English*, Associate Professor – B.S., University of Dayton, 1958; M.A., Catholic University of America, 1959; Ph.D., Ohio State University, 1968.
- Rupp, Rev. Urban., S.M. (1966), *Foundations of Education*, Associate Professor – B.A., University of Dayton, 1943; M.A., Western Reserve University, 1956.
- Ruppel, George J., S.M. (1956), *History*, Professor – B.A., University of Dayton, 1934; M.A., Catholic University of America, 1947; Ph.D., University of Pittsburgh, 1955.

- Ryan, John D. (1968), *Religious Studies*, Assistant Professor — B.A., Loyola University, 1957; Ph.L., West Baden College, 1959; M.A., Loyola University, 1960.
- Ryckman, Seymour J. (1959), *Civil Engineering*, Professor — B.S., Michigan State University, 1939; M.S., University of Missouri 1942; Reg. Prof. Eng.
- Sandness, Marilyn I. (1974), *Performing and Visual Arts — Music*, Instructor — B.Mus., Eastman School of Music, 1958; M.Mus., New England Conservatory of Music, 1960. Registered Music Therapist.
- Sandy, Charles W. (1975), *Chemical Engineering*, Assistant Professor — B.S., Pennsylvania State University, 1964; M.S., Pennsylvania State University, 1968; Ph.D., Pennsylvania State University, 1974.
- Sanford, Robert G. (1970), *Accounting*, Associate Professor — Ph.B., University of Notre Dame, 1940; C.P.A., Wisconsin, 1948, Illinois, 1962; M.B.A., DePaul University, 1968.
- Schauer, John J. (1968), *Mechanical Engineering*, Associate Professor — B.M.E., University of Dayton, 1958; M.S., Carnegie Institute of Technology, 1959; Ph.D., Stanford University, 1964.
- Scheidler, Charles H. (1953), *Business Management*, Professor — A.B., Washington University, 1949; Ph.D., Washington University, 1953.
- Schleppi, John R. (1963), *Health and Physical Education*, Associate Professor — B.S., Ohio State University, 1961; M.A., Ohio State University, 1963; Ph.D., Ohio State University, 1972.
- Schmid, Merle D. (1960), *Technical Studies and Services*, Professor — B.S., University of Washington, 1935; M.S., University of Arizona, 1936; Ph.D., Illinois Institute of Technology, 1959.
- Schmidt, Bernhard M. (1949), *Electrical Engineering*, Professor — B.E.E., University of Dayton, 1942; M.Sc., Ohio State University, 1957; Ph.D., Ohio State University, 1963; Reg. Prof. Eng.
- Schneider, James R. (1964), *Physics*, Professor — A.B., Villa Madonna College, 1956; M.S., University of Cincinnati, 1959; Ph.D., University of Cincinnati, 1965.
- Schoen, Thomas A., S.M. (1959), *Computer Science*, Associate Professor — B.S., University of Dayton, 1954; M.A., University of Cincinnati, 1959.
- Schraut, Kenneth C. (1940), *Mathematics*, Distinguished Service Professor — A.B. University of Illinois, 1936; M.A., University of Cincinnati, 1938; Ph.D., University of Cincinnati, 1940.
- Schroeder, Elizabeth (1950), *Home Economics*, Associate Professor — B.S., Mount St. Joseph-on-the-Ohio, 1942; M.S., Ohio State University, 1958.
- Schultz, Charles A. (1974), *Performing and Visual Arts — Theatre*, Associate Professor — B.S., Bowling Green State University, 1963; M.A., University of Illinois, 1964; Ph.D., Bowling Green State University, 1970.
- Schwelitz, Faye D. (1971), *Biology*, Assistant Professor — B.A., Alverno College, 1953; M.S., Purdue University, 1967; Ph.D., Purdue University, 1971.
- Scott, Alfred E., Jr. (1967), *Mechanical Engineering*, Assistant Professor — B.M.E., University of Dayton, 1965; M.M.E., University of Dayton, 1972.
- Selka, Lawrence L. (1968), *Performing and Visual Arts — Theatre*, Assistant Professor — B.S., Bowling Green State University, 1954; M.A., Bowling Green State University, 1963.
- Sens, Thelma J. (1971), *Sociology*, Assistant Professor — B.A., University of Dayton, 1966; M.S.W., Ohio State University, 1968.
- Servais, Ronald A. (1974), *Chemical Engineering*, Associate Professor — B.S. in A.E., Parks College of St. Louis University, 1963; M.S., St. Louis University, 1966; D.Sc., Washington University, 1969.
- Shaughnessy, Gerald J. (1967), *Mathematics*, Assistant Professor — B.S., University of Dayton, 1963; M.S., Florida State University, 1964.

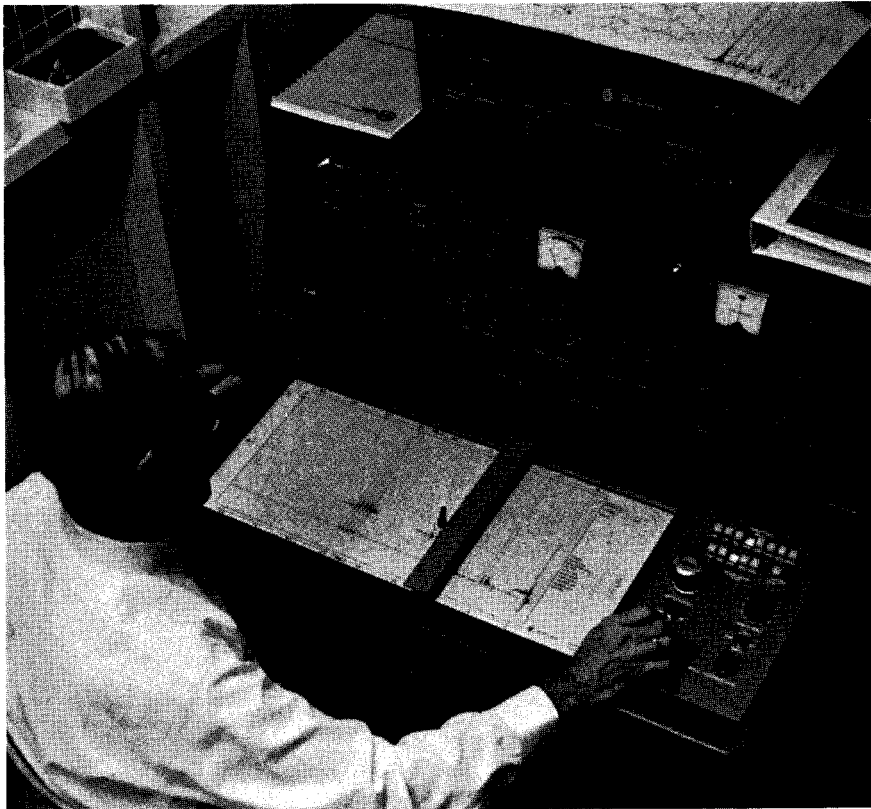
Faculty

- Shaw, Carol M. (1968), *Chemical Technology*, Assistant Professor – B.S., Ohio University, 1963; M.S. in Ed., University of Dayton, 1968; M.S. in Chemistry, University of Dayton, 1973.
- Shaw, George B. (1967), *Civil Engineering*, Assistant Professor – A.M.E.T., University of Dayton, 1963; B.C.E., University of Dayton, 1967; M.S.C.E., University of Dayton, 1971. Reg. Prof. Engr. and Surveyor.
- Shay, Gertrude D. (1949), *Biology*, Associate Professor – B.S., Mary Manse College, 1945; M.S., University of Detroit, 1948.
- Sherrer, Johannah J. (1970), *Library*, Assistant Professor – B.A., University of Portland, 1969; M.S.L.S., University of Kentucky, 1970; M.A., University of Dayton, 1972.
- Siciliano, Carol J. (1964), *Physical and Health Education*, Assistant Professor – B.S.Ed., Bowling Green State University, 1959; M.A.Ed., Western Reserve University, 1962.
- Singer, Sanford S. (1972), *Chemistry*, Assistant Professor – B.S., Brooklyn College, 1962; M.S., University of Michigan, 1964; Ph.D., University of Michigan, 1967.
- Sithole, Masipula (1974), *Afro-American Studies*, Instructor – B.A., Muskingum College, 1970; M.A., University of Cincinnati, 1972.
- Skerrl, John A., S.M. (1975), *Sociology*, Instructor – B.A., University of Dayton, 1968; M.S., Purdue University, 1972.
- Smith, Billy R., Lt.Col., U.S. Army (1973), *Military Science*, Professor – Command and General Staff School, 1967; B.S., University of Tennessee, 1952; M.Ed., West Texas State University, 1969.
- Smith, Howard E. (1957), *Mechanical Engineering*, Professor – B.M.E., University of Dayton, 1951; M.S., University of Cincinnati, 1961; Ph.D., University of Cincinnati, 1969. Reg. Prof. Engr.
- Snide, James A. (1974), *Materials Engineering*, Adjunct Professor – B.S., Ohio University, 1959; M.S., Air Force Institute of Technology, 1965.
- Snyder, Barth J. (1935), *Law*, Distinguished Service Professor – A.B., University of Dayton, 1931; J.D., University of Dayton, 1934; M.A., Ohio State University, 1942.
- Soffer, Gad (1966), *History*, Associate Professor – B.S., Georgetown University, 1963; M.A., American University, 1964; Ph.D., American University, 1968.
- Sonstein, Stephen A. (1974), *Biology*, Assistant Professor – B.A., Rutgers University, 1964; M.S., Hahnemann Medical College, 1968; Ph.D., Hahnemann Medical College, 1970.
- Springer, George H. (1946), *Geology*, Professor – A.B., Brown University, 1938; ScM., Brown University, 1940.
- Stahl, William B. (1974), *Performing and Visual Arts – Music*, Instructor – B.S. in Music Ed., Mansfield State College, 1972; M.Music, University of Notre Dame, 1974.
- Stander, Joseph W., S.M. (1960), *Mathematics*, Professor – B.S., University of Dayton, 1949; M.S., Catholic University of America, 1957; Ph.D., Catholic University of America, 1959.
- Staub, Albert E. (1956), *Engineering Technology*, Assistant Professor – A.B., University of Missouri, 1951; M.A., Miami University, 1963.
- Staudter, Donald V. (1966), *Industrial Engineering Technology*, Assistant Professor – B.S.I.E., University of Dayton, 1959; M.B.A., Xavier University, 1964. Reg. Prof. Engr. Arbitrator.
- Steiner, Wilfred J. (1946), *History*, Professor – A.B., Loras College, 1936; M.A., Harvard University, 1938; Ph.D., Ohio State University, 1957.
- Steinlage, Ralph C. (1966), *Mathematics*, Associate Professor – B.S., University of Dayton, 1962; M.S., Ohio State University, 1963; Ph.D., Ohio State University, 1966.
- Stick, Henry H. (1975), *Economics and Finance*, Associate Professor – B.S., United States Military Academy, 1945; M.B.A., University of Pennsylvania, 1951; Ph.D., Ohio State University, 1957.
- Stocks, James A. (1972), *Director Afro-American Affairs*, Assistant Professor (Administrative) – B.S. in Ed., Central State University, 1965; M.S. in Ed., Xavier University, 1968.

- Stockum, Eleanore K. (1957), *English*, Associate Professor – B.A., College of St. Teresa, 1950; M.A., Marquette University, 1953.
- Stough, Stanley J. (1969), *Business Management*, Assistant Professor – B.S.B.A., Findlay College, 1964; M.B.A., Ohio University, 1966; Ph.D., University of Arkansas, 1975.
- Strange, Jerry D. (1958), *Engineering Technology*, Associate Professor – A.E., University of Dayton, 1955; B.S., Otterbein College, 1958; M.S., Xavier University, 1964.
- Strnat, Karl J. (1968), *Electrical Engineering*, Tait Professor – Ing. f. Maschinenbau, Technolog. Gewerbemuseum, Vienna, 1948; Dipl. Ing., Techn. Hochschule Wien, Vienna, 1953; Dr. Techn., Techn. Hochschule Wien, 1956.
- Stull, Paul A. (1974), *Biology*, Clinical Assistant Professor – D.V.M., Ohio State University, 1966.
- Sturm, Norbert A., S.M. (1959), *English*, Associate Professor (on leave) – B.S., University of Dayton, 1940; M.A., Ohio State University, 1951; M.A., Western Reserve University, 1955; Ph.D., Western Reserve University, 1961.
- Szeremet, Joseph B. (1974), *Law*, Assistant Professor – B.S.S., John Carroll University, 1961; J.D., University of Detroit, 1972.
- Tagg, Lawrence E. (1953), *Performing and Visual Arts – Music*, Associate Professor – B.Mus., University of Nebraska, 1947; M.Mus., University of Nebraska, 1948.
- Taylor, Bruce M. (1967), *History*, Assistant Professor – B.A., Dartmouth College, 1957; M.A., Columbia University, 1962; Ph.D., Fordham University, 1973.
- Taylor, David L. (1971), *Biology*, Clinical Associate Professor – B.A., Wittenberg University, 1963; M.S., West Virginia University, 1965; Ph.D., West Virginia University, 1968.
- Tewari, Harish C. (1975), *Business Management*, Assistant Professor – B.B.A., Delhi University, 1963; M.B.A., Central Michigan University, 1969; M.A., University of Cincinnati, 1974; Ph.D., University of Cincinnati, 1975.
- Thomas, Mary Sue (1969), *Assistant Dean of Students*, Assistant Professor (Administrative) – B.A., Nazareth College, 1960; M.A., Michigan State University, 1964.
- Thompson, John G. (1967), *Philosophy*, Assistant Professor – B.A., Terrebonne College (Montreal), 1935; M.A., Montreal University, 1937.
- Thomson, Robert A. (1952), *Engineering Mechanics*, Professor – B.S. in Ed., University of Dayton, 1950; B.M.E., University of Dayton, 1954; Ph.D., Illinois Institute of Technology, 1958; Reg. Prof. Eng.
- Tibbetts, Paul E., Jr. (1969), *Philosophy*, Associate Professor – A.E., Worcester Junior College, 1959; B.A., Clark University, 1964; M.A., Boston University, 1965; Ph.D., Purdue University, 1973.
- Trelles, Oscar M. (1974), *Law Library*, Associate Professor – Bachiller en Letras, Instituto de Segunda Ensenanza, Cuba, 1957; Lic. in Diplomatic Law, University of Havana, 1962; M.S.L.S., University of Toledo, 1974.
- Trent, Judith S. (1971), *Communication Arts*, Associate Professor – B.A., Western Michigan University, 1962; M.A., University of Michigan, 1968; Ph.D., University of Michigan, 1970.
- Tsui, Susan L. (1965), *Library*, Assistant Professor – B.A., National Taiwan University, 1961; M.S.L.S., University of Illinois, 1964.
- Turbok, James M., Major, U.S. Army (1973), *Military Science*, Assistant Professor – QM Officer Advanced Course, 1968; B.S., Ohio University, 1962; M.B.A., University of Dayton, 1973.
- Turner, Dennis J. (1974), *Law*, Assistant Professor – B.A., Georgetown University, 1967; J.D., Georgetown University, 1970.
- Ullrich, C. William, Jr. (1975), *Criminal Justice*, Assistant Professor – B.A., University of Dayton, 1967; J.D., Georgetown University, 1973.
- Ulrich, Lawrence P. (1964), *Philosophy*, Associate Professor – A.B., Catholic University of America, 1961; M.A., Catholic University of America, 1962; M.Ed., Xavier University, 1964; Ph.D., University of Toronto, 1972.

Faculty

- Van Der Hoeven, Ludolph H. (1972), *Medical Technology*, Clinical Professor – M.D., University of Utrecht, Netherlands, 1942.
- Vincze, Mary (1962), *Library*, Instructor – B.S., Hungarian Royal Academy, 1933.
- Vines, Alice G. (1969), *History*, Assistant Professor – B.A., B.S. in Ed., University of Cincinnati, 1960; M.A., University of Cincinnati, 1961; Ph.D., University of Cincinnati, 1975.
- VonderBrink, Gerald W. (1961), *Vice President for Financial Affairs and Treasurer*, Associate Professor (Administrative) – B.S., Xavier University, 1950; M.B.A., University of Dayton, 1966.
- Walker, Mary Ann (1970), *Library*, Assistant Professor – B.S. in Ed., Kent State University, 1966; M.L.S., Kent State University, 1968.
- Wanke, Elmer R. (1969), *Physical and Health Education*, Assistant Professor – B.S. in Ed., Ohio University, 1969; M.Ed., Ohio University, 1969.
- Washing, Harry A. (1975), *Business Management*, Assistant Professor – B.S., Miami University, 1965; M.S., Xavier University, 1966.
- Walters, Sister Elizabeth M., S.N.D. (1963), *Education*, Associate Professor – B.S. in Ed. Athenaeum of Ohio, 1946; M.A. in Ed., Xavier University, 1962; Ph.D., Ohio State University, 1974.
- Weatherly, Michael (1968), *Communication Arts*, Assistant Professor – B.A., Stephen F. Austin State College, 1958; M.A., Bowling Green State University, 1961; Ph.D., Ohio State University, 1972.
- Weber, Louis A. (1954), *Performing and Visual Arts – Fine Arts*, Associate Professor – B.S., University of Dayton, 1941; M.A., Ohio State University, 1947.



- Weiler, John E. (1967), *Economics and Finance*, Associate Professor — B.A., University of Cincinnati, 1960; M.A., University of Cincinnati, 1961; Ph.D., University of Cincinnati, 1973.
- Weiss, Roger F. (1965), *Civil Engineering*, Associate Professor — B.S.C.E., University of Dayton, 1965; M.S.E., University of Dayton, 1969. Reg. Prof. Engr.
- Wening, Gerald G. (1964), *Philosophy*, Associate Professor — A.B., Athenaeum of Ohio, 1960; M.A., University of Dayton, 1964.
- Westerheide, John R. (1965), *Research*, Assistant Professor (Administrative) — B.M.E., University of Dayton, 1947.
- Whalen, Charles W., Jr. (1952), *Economics*, Professor (on leave) — B.S., University of Dayton, 1942; M.B.A., Harvard University, 1946.
- White, Joan I. (1970), *Business Management*, Assistant Professor — B.S., University of Tulsa, 1961; M.A., University of Oklahoma, 1967.
- White, Joseph E. (1956), *Education*, Assistant Professor — B.S.Ed., University of Dayton, 1950; M.Ed., Marquette University, 1956.
- Wilder, Jesse H. (1953), *Mechanical Engineering Technology*, Professor — B.S.M.E., Duke University, 1947; M.S., State University of Iowa, 1949; Reg. Prof. Eng.
- Wilkinson, Sean D. (1973), *Performing and Visual Arts — Photography*, Instructor — B.A., Antioch College, 1970; M.A., Rhode Island School of Design, 1972.
- Williams, Patrick K. (1973), *Biology*, Assistant Professor — B.A., University of Texas, 1966; M.S., University of Minnesota, 1969; Ph.D., Indiana University, 1973.
- Willis, Gerald L. (1962), *Biology*, Assistant Professor — B.S., University of Dayton, 1959; M.S.T., Miami University, 1963.
- Wilson, Walter L. (1974), *Economics and Finance*, Professor — B.S., University of Illinois, 1949; M.S., University of Illinois, 1952; Ph.D., University of Illinois, 1959.
- Winger, Bernard J. (1966), *Economics and Finance*, Associate Professor — B.S., Xavier University, 1959; M.A., University of Cincinnati, 1960; C.P.A., Ohio, 1965.
- Wisch, Clyde R. (1964), *Associate Dean of Students*, Assistant Professor (Administrative) — B.A., University of Minnesota, 1952; M.A., University of Minnesota, 1954.
- Wolff, Florence I. (1969), *Communication Arts*, Associate Professor — B.S., Temple University, 1941; M.Ed., Duquesne University, 1967; Ph.D., University of Pittsburgh, 1969.
- Wolff, Robert L. (1958), *Mechanical Engineering Technology*, Associate Professor — A.E., University of Dayton, 1956; B.S., University of Dayton, 1959; M.B.A., Xavier University, 1967.
- Wurst, John C. (1971), *Mechanical Engineering*, Associate Professor — B.M.E., University of Dayton, 1957; M.S.E., University of Dayton, 1968; Ph.D., University of Illinois, 1971. Reg. Prof. Engr.
- Yaney, Perry P. (1965), *Physics*, Associate Professor — B.S.E.E., University of Cincinnati, 1954; M.S., University of Cincinnati, 1957; Ph.D., University of Cincinnati, 1963.
- Young, John L. (1974), *Afro-American Studies*, Instructor — A.B., Morgan State College, 1972.
- Zahner, Mary A. (1971), *Performing and Visual Arts — Fine Arts*, Assistant Professor — B.F.A., Ohio University, 1960; M.A., Ohio University, 1969.
- Zamierowski, Edward E., S.M. (1974), *Biology*, Visiting Professor — B.Sc.Ed., University of Dayton, 1955; M.Sc., Ohio State University, 1960; Ph.D., University of Nairobi, 1973.
- Zembaty, Jane S. (1975), *Philosophy*, Instructor — B.A., State University of New York at Buffalo, 1971; M.A., Georgetown University, 1975.
- Zeinz, Rev. Joseph H., S.M. (1964), *Languages*, Associate Professor — A.B., Holy Cross College, 1938; M.A., Catholic University of America, 1941; Ph.D., Ohio State University, 1965.
- Zimmerman, John D. (1974), *Law Library*, Assistant Professor (Administrative) — B.A., Wright State University, 1969; M.S.L.S., Case Western Reserve, 1973.

RESEARCH INSTITUTE

- Andrews, C. Robert (1952), *Associate Director, Research Institute* — B.M.E., University of Dayton, 1951; M.B.A., Xavier University, 1963; Registered Professional Engineer.
- Andrews, Robert J. (1969), *Assistant Research Engineer* — B.S.M.E., University of Dayton, 1973.
- Artman, Robert E. (1973), *Assistant to the Director, Research Institute* — B.S., University of Cincinnati, 1954.
- Askins, Donald R. (1964), *Associate Research Engineer* — B.Ch.E., University of Dayton, 1963.
- Barber, John P. (1974), *Associate Research Physicist* — B.S., University of Saskatchewan, 1967; Ph.D., Australian National University, 1972.
- Benner, Charles L. (1963), *Associate Research Chemist* — B.S., Findlay College, 1963.
- Berens, Alan P. (1969), *Research Statistician* — B.S., University of Dayton, 1955; M.S., Purdue University, 1957; Ph.D., Purdue University, 1963.
- Berner, William E. (1966), *Associate Research Engineer* — B.S.M.E., University of Dayton, 1965.
- Bertke, Robert S. (1964), *Associate Research Engineer* — B.M.E., University of Dayton, 1963; M.S.E., University of Dayton, 1968.
- Boehman, Louis I. (1960), *Research Engineer* — B.S.M.E., University of Dayton, 1960; M.S.M.E., Illinois Institute of Technology, 1963; Ph.D., Illinois Institute of Technology, 1967.
- Boehmer, Robert P. (1962), *Associate Research Physicist* — B.S., University of Dayton, 1962; M.S., University of Dayton, 1972.
- Bogner, Frederick K. (1969), *Research Engineer* — B.S.C.E., Case Institute of Technology, 1961; M.S.E.M., Case Institute of Technology, 1964; Ph.D., Case Institute of Technology, 1967.
- Boner, Gerald L. (1967), *Research Engineer* — B.S.M.E., Ohio State University, 1959; B.S.E.E., University of Dayton, 1964.
- Broderick, Lynne S. (1974), *Postdoctoral Research Fellow* — B.A., Ohio Wesleyan, 1963; M.S., University of Wisconsin, 1965; Ph.D., Ohio State University, 1969.
- Brzezicki, Sigmund W. (1961), *Assistant to the Director, Research Institute* — B.S., University of Dayton, 1970.
- Cannon, Charles M. (1966), *Associate Research Engineer* — B.M.E., University of Dayton, 1966.
- Cashin, John L., Jr. (1961), *Associate Research Biologist* — B.S., University of Dayton, 1961.
- Cervay, Russell R. (1970), *Associate Research Engineer* — B.M.E., University of Dayton, 1967.
- Cherry, John A. (1958), *Research Engineer* — B.M.E., University of Dayton, 1951.
- Collins, George T. (1966), *Associate Research Engineer* — B.S.E.E., University of Dayton, 1966.
- Conner, Robert L. (1960), *Project Supervisor* — B.S.M.E., University of New Mexico, 1950.
- Coy, Richard G. (1954), *Research Engineer* — B.S.M.E., University of Dayton, 1954.
- Davison, Joseph E. (1966), *Research Metallurgist* — B.S., St. Louis University, 1960; M.S., Iowa State University, 1964; Ph.D., Iowa State University, 1966.
- Detrio, John A. (1966), *Research Physicist* — B.S., Spring Hill College, 1959; M.S., University of Alabama, 1961.
- Dominic, Robert A. (1960), *Research Engineer* — B.E.E., University of Dayton, 1955.
- Drake, Michael L. (1973), *Associate Research Engineer* — B.S., University of Cincinnati, 1972; M.S., University of Cincinnati, 1973.
- Dueweke, Paul W. (1968), *Associate Research Physicist* — B.S., Wayne State University, 1966; M.S., University of Dayton, 1968.
- Duvall, Donovan S. (1964), *Research Chemist* — B.S., Ohio University, 1951; M.S., University of Dayton, 1971.
- Emmons, George H. (1975), *Associate Research Physicist* — B.S., University of Wisconsin; M.S., University of Illinois, 1967; Ph.D., University of Illinois, 1972.

- Engler, Nicholas A. (1952), *Project Supervisor* – B.S., University of Dayton, 1947; M.S., University of Cincinnati, 1949.
- Evans, Susan M. (1973), *Assistant Research Programmer* – B.S., University of Dayton, 1973.
- Faile, Samuel P. (1973), *Associate Research Scientist* – B.S., Lehigh University, 1961; M.S., University of Rochester, 1963; Ph.D., Pennsylvania State University, 1973.
- Feilman, John W. (1962), *Associate Research Mathematician* – B.S., University of Cincinnati, 1958.
- Fiscus, Ira B. (1961), *Research Engineer* – B.M.E., University of Dayton, 1963.
- Fraser, John W. (1973), *Assistant Research Physicist* – B.S., University of Wisconsin, 1970.
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- Wilt, Benjamin H. (1971), *Associate Research Engineer* – B.M.E., Villanova University, 1965.
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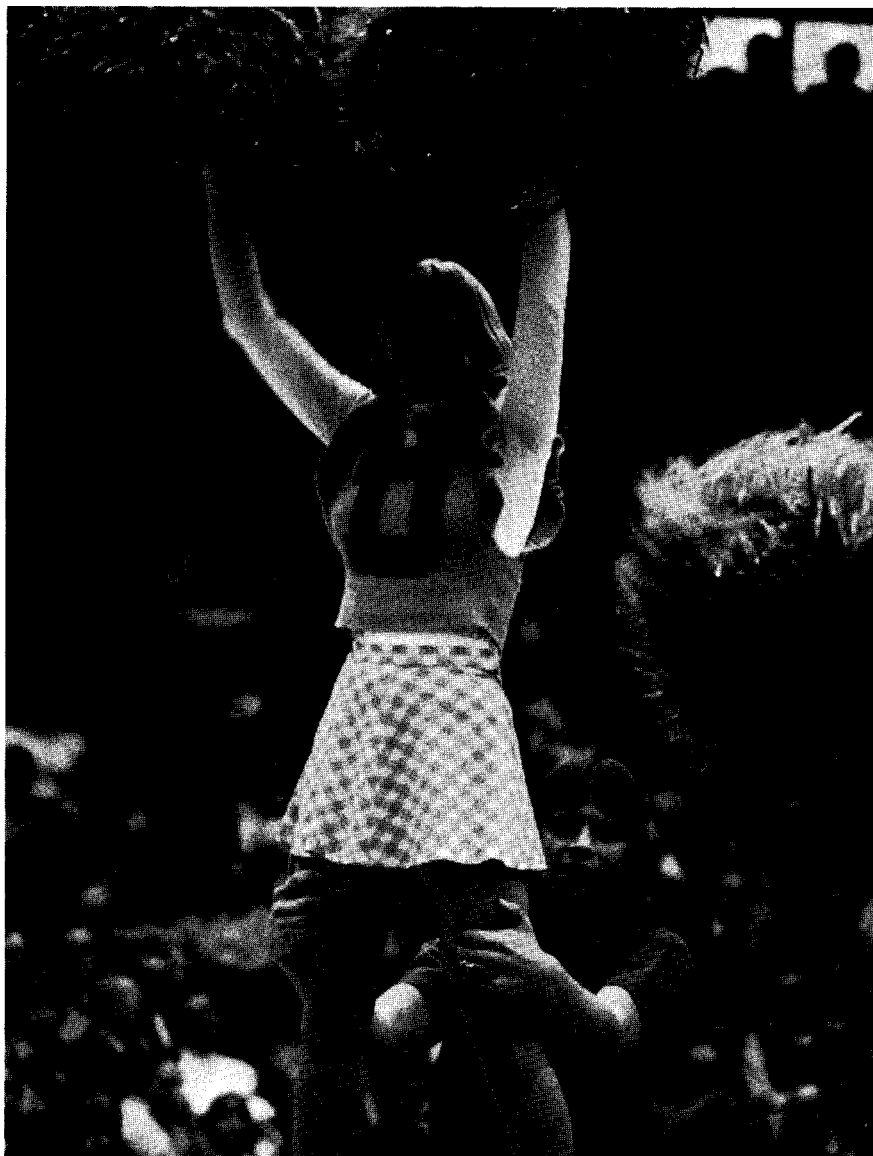


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INDEX

- AA / EEO 314
- ACT (American College Test) 22, 79
- Academic Regulations 39
- Academic Standing 42
- Accounting 194
- Accreditation, University 15
- Achievement Tests 23
- Activities, University 19
- Administration, Officers of 325
- Administrative Management 197
- Admission, Requirements for 22
- Advanced Placement 23
- Advanced Standing 23
- Advertising 209
- Aerospace Engineering 254
- Affirmative Action 313
- Afro-American Affairs, Center for 16, 308
- Afro-American Studies 16, 309
- Alumni Placement 21, 221
- American Studies 54
- Anthropology 56
- Application for Admission 22
- Application for Financial Aid 34
- Application for Scholarships 30
- Applied Mathematics 119
- Art (see Fine Arts)
- Art Education 87, 230
- Arts and Sciences, College of 14, 49
- Associate Degrees 13, 188, 192, 204, 284
- Athletic Coaching Certification 222, 240
- Athletics 20, 353
- Attendance Policy 45
- Automatic Control Systems 254
- Awards and Honors 42
- Biblical Studies (see Religious Studies)
- Bio-Engineering Technology 285
- Biology 58
- Black Studies (See Afro-American Studies)
- Breadth Requirement, Arts and Sciences 52
- Broadcasting 183
- Buildings 358
- Business Administration, School of 14, 191
- Business Management 197
- Calendar, Academic 2
- Calendar Year, Academic 17
- Campus, map of 358
- Campus Ministry 19, 326
- Cancellation and Refunds 27
- Certification, Coaching 222, 240
- Certification, Corrective Therapy 222
- Certification, Home Economics 103, 234
- Certification, Teacher 221
- Chaplains 19
- Chemical Engineering 257
- Chemical Technology 286
- Chemistry 64
- CHERS (Consortium for Higher Education Religious Studies) 16
- Cinematography 144
- Circuit Analysis 254
- Civil Engineering 260
- Classics 114
- CLEP (College Level Examination Program) 23, 268
- Coaching Certification 222, 240
- Commercial Design 87
- Communication Arts 68
- Computer Center 310, 353
- Computer Science 71
- Consortia 16
- Cooperative Education 37, 254, 283, 311
- Corrective Therapy Certification 222
- Counselor Education and Human Services 225
- Credit Cards 28
- Credits 39, 40
- Criminal Justice 74
- Data Processing 71
- Dayton-Miami Valley Consortium 16
- Degree Requirements, General 39
- Degree Requirements, Specific (see appropriate School or College)
- Degrees Granted 13
- Departments, Academic (& Chairmen) 328
- Dietetics 105
- Digital Systems 254
- Dining Facilities 18
- Directories 324
- Distribution Table, Arts & Sciences 52
- Dormitories 18, 28
- Dynamic Analysis 254
- Economics 78, 201
- Education, Elementary 226
- Education, Foundations of 232
- Education of Mentally Retarded 227
- Education, Physical and Health 238
- Education, Retraining 223, 227
- Education, School of 14, 219
- Education, Secondary 247
- Educational Administration 225
- E-11A — 87, 103, 132, 248
- E-11B — 248
- Electrical Engineering 264
- Electromagnetics 254
- Electronic-Chemical Technology 289
- Electronic Engineering Technology 290
- Elementary Education 226
- Em Credit 41
- Employment, student 37
- Energy Conversion 254
- Engineering, Chemical 257
- Engineering, Civil 260
- Engineering, Electrical 264
- Engineering, Industrial & Systems 272
- Engineering, Late Entry 268
- Engineering, Mechanical 277

- Engineering Mechanics 271
- Engineering, School of 14, 253
- Engineering Technology 283
- Engineering Technology Service Courses 306
- English 79
- Environmental Engineering 254
- Environmental Engineering Technology 294
- Equal Employment Opportunity 314
- Executive Secretarial Studies 204
- Experimental & Interdisciplinary Studies 308
- Faculty 329
- Fees 25
- Finance 207
- Financial Aid Policy 30
- Financial Aid, Application for 34
- Financial Information 25
- Fine Arts 85, 230
- Food Service 18, 28
- Foreign languages (see Languages)
- Foreign students 24, 79, 319, 323
- Foreign study 314, 319
- Foundations of Education 232
- French 114
- General Studies 93, 313
- Geo-Chemical Technology 295
- Geology 94
- German 115
- GI Bill 24, 38
- Grades & grade-point averages 40
- Graduate & Alumni Placement 21
- Graduate Programs (see Graduate issue of Bulletin)
- Grants 34
- Greek 116
- Guests over 60, 37
- Handbook, Student 21
- Health Education 239
- Health Service 19, 353
- High school credits 22
- High school teaching (see Secondary Education)
- High school teaching fields 247
- History 97
- Home Economics 103, 234
- Home Study 313
- Honors & Awards 42
- Honors courses (see departmental listings)
- Housing Office 18
- Human Relations Office 314
- Humanities Studies 109
- Identification cards, student 21
- Independent Study 40
- Industrial & Systems Engineering 272
- Industrial-Chemical Technology 296
- Industrial Engineering Technology 297
- Industrial Management 197
- Industrial Marketing 209
- Information Center 314
- Insurance, student 19
- Interdepartmental Study Abroad 314
- Intercollegiate athletics 20
- Interdisciplinary Studies 110, 173, 229, 276, 300, 315, 322
- International Affairs 155
- International Education, Office of 16, 319
- Intramural Sports 20
- Italian 116
- Journalism 111
- Judaic Studies 112
- Junior GA Bill 38
- Languages 113
- Late Entry Engineering 268
- Latin 117
- Law, School of 15
- Library 353
- Library, Marian 319
- Loans, student 36
- Magnetics 254
- Management, Business 197
- Maps 358, 360
- Marian Library 319
- Marianists 11
- Marketing 209
- Marketing Management 210
- Marketing Research 210
- Materials Engineering 254
- Mathematical Statistics 119
- Mathematics 119
- Mathematics, Applied 119
- Meal Tickets 28
- Mechanical Engineering 277
- Mechanical Engineering Technology 301
- Mechanics, Engineering 277
- Medical Technology 124
- Metallurgical Technology 304
- Metro Division 16, 319
- Military Science 17, 38, 128, 322
- Minicourses 319
- Ministry, Campus 19
- Multinational Marketing 210
- Music 130, 236
- Music Education 132, 236
- Music Therapy 132
- Packaging Management 213
- Parking 20
- Part-time Students 26, 27
- Performing & Visual Arts (see Fine Arts, Music, Photography-Cinematography, Theatre)
- Philosophy 139
- Photography-Cinematography 144
- Physical & Health Education 238
- Physical Science 146
- Physics 148
- Placement Service 21
- Plastics Technology 305
- Police administration transfers 75
- Police, Campus 20
- Political Science 154
- Post-Graduate Certification 223
- Post-Graduate Retraining 223, 227

Practice teaching (see student teaching)
 Pre dental Studies 159
 Pre-Law 320
 Pre-Law for POL majors 155
 Premedical Studies 159
 Privacy rights 47
 Probation policy 42
 Project Advancement 321
 Project Ahead 38, 321
 Provost 13, 16
 Psychological Services 20, 353
 Psychology 162
 Public Administration 155
 Radio (see Broadcasting: UD-CCTV)
 Refunds 27
 Registration 22
 Religious Education 168
 Religious Services 19
 Religious Studies 167
 Research Institute 16, 322, 325, 349
 Residence facilities 18, 27, 28
 Residence life 18
 Residence, requirement (academic) 39
 Retailing 210
 Retraining (Post-Graduate) 223
 Room & board 28
 ROTC (Reserve Officers Training Corps)
 17, 38, 128, 322
 Russian 117
 Salesmanship 210
 SAT (Scholastic Aptitude Test) 22, 79
 Scholarships 30
 Secondary Education 172, 216, 247
 Secretarial Studies, Executive 204
 Security, Campus 20
 Self-Directed Learning 173, 322
 Semester hour (see Credits)
 Senior Citizens (see Guests over 60)
 Senior Synthesis 52
 Social Security educational benefits 38
 Social Work 174
 Society of Mary 11
 Sociology 178
 Spanish 117
 Special Sessions 322
 Speech 182
 Sports 20
 Structures (Engineering) 254
 Student Handbook 21
 Student teaching 221
 Summer sessions 3, 4, 16, 17
 Systems Engineering, Industrial & 254
 Systems Science 184
 Teacher certification 221
 Teacher placement 221
 Teaching field requirements 247
 Technical Studies & Services 282
 Technology, Engineering 283
 Television 16, 323
 Tests 22, 23, 24, 42
 Theatre 185
 Theology (see Religious Studies)
 Therapy, Corrective 222
 Therapy, Music 132
 Thermal Engineering 254
 TOEFL 24, 79
 Transcripts 46
 Transfer students 23, 75, 253, 283, 268
 Transient status 40
 Trustees, Board of 324
 Tuition 25
 Tuition reduction 37
 UD-CCTV 16, 323
 University Activities 19
 Urban Affairs 155
 Urban Community Development 188
 Urban Life 188
 Veterans 24, 38
 Vocational Home Economics 235
 Vocational Rehabilitation 38
 Women's Center 323
 Women's Studies 323
 Work-Study 37
 WVUD-FM 16, 323

UNIVERSITY OF DAYTON
ACADEMIC CODES

AAS	Afro-American Studies	ICI	Industrial-Chemical Technology
ACC	Accounting	ISE	Technical Studies and Services
ADM	Administrative Science	ITA	Italian
AEE	Aerospace Engineering	ITI	Industrial Engineering Technology
AMS	American Studies		
ANT	Anthropology	JRN	Journalism
ART	Fine Arts	JUD	Judaic Studies
ASI	Interdisciplinary – Arts and Sciences		
		LAT	Latin
BAI	Interdisciplinary – Business Administration	LAW	Law
BEI	Bio-Engineering Technology	LNG	Languages
BEN	Engineering Late Entry		
BIO	Biology	MAT	Materials Engineering
BUS	Business Management	MBA	Business Administration
		MED	Premedical
CHM	Chemistry	MEE	Mechanical Engineering
CIE	Civil Engineering	MET	Medical Technology
CLA	Classics (Languages)	MIL	Military Science
CME	Chemical Engineering	MKT	Marketing
COM	Communication Arts	MLI	Metallurgical Technology
COP	Cooperative Education	MPA	Public Administration
CPS	Computer Science	MSC	Management Science
CRJ	Criminal Justice	MTH	Mathematics
CTI	Chemical Technology	MTI	Mechanical Engineering Technology
		MUS	Music
DAP	Data Processing		
DEN	Predental	PHL	Philosophy
		PHO	Photography-Cinematography
ECI	Electronic-Chemical Technology	PHY	Physics
ECO	Economics	POL	Political Science
EDA	Educational Administration	PSC	Physical Sciences
EDC	Counselor Education and Human Services	PSY	Psychology
EDD	Physical and Health Education	PTI	Plastics Technology
EDE	Elementary Education	PVA	Performing and Visual Arts
EDF	Foundations of Education		
EDH	Health Education	REL	Religious Studies
EDI	Interdisciplinary – Education	RUS	Russian
EDP	Physical Education		
EDS	Secondary Education	SCP	Packaging Management
EEL	Environmental Engineering Technology	SDL	Self-Directed Learning
EGM	Engineering Mechanics	SEC	Executive Secretarial Studies
EGR	Engineering	SOC	Sociology
ELE	Electrical Engineering	SPE	Speech
ENG	English	SPN	Spanish
ENI	Interdisciplinary – Engineering	STI	Engineering Technology Service Courses
ENM	Engineering Management	SWK	Social Work
ETI	Electronic Engineering Technology	SYS	Systems Science
FIN	Finance	THL	Theology
FRN	French	THR	Theatre
		TII	Interdisciplinary – Engineering Technology
GCI	Geo-Chemical Technology		
GEN	General Studies	UCD	Urban Community Development
GEO	Geology	UDI	Interdisciplinary – University-wide
GER	German	ULP	Urban Life Program
GRK	Greek		
HEC	Home Economics		
HMS	Humanities Studies		
HST	History		